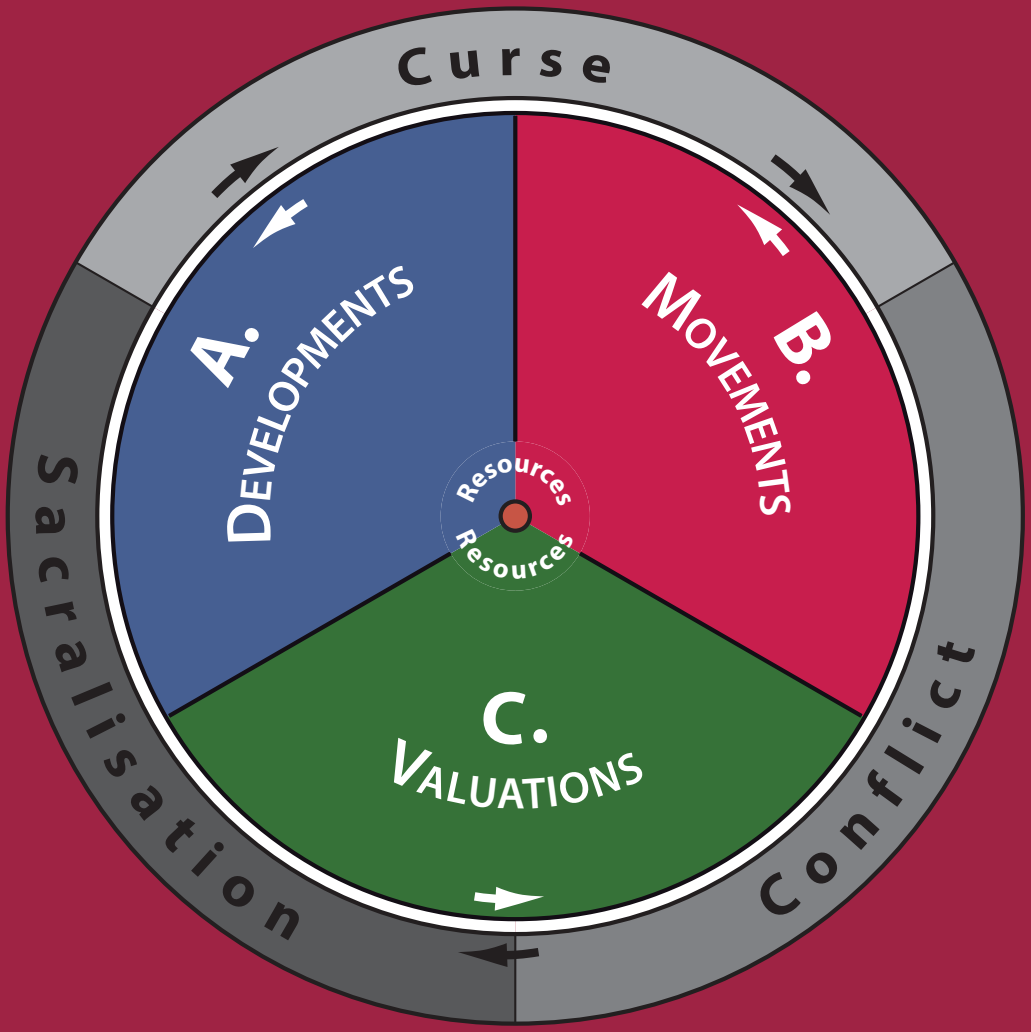
Anke K. Scholz, Martin Bartelheim,
Roland Hardenberg and Jörn Staecker (Eds.)

ResourceCultures

Sociocultural Dynamics and the Use of Resources – Theories, Methods, Perspectives



RessourcenKulturen Band 5

ResourceCultures

RessourcenKulturen
Band 5

Anke K. Scholz, Martin Bartelheim, Roland Hardenberg,
and Jörn Staecker (Eds.)

ResourceCultures

Sociocultural Dynamics and the Use of Resources – Theories, Methods, Perspectives

Tübingen 2017

Peer Review:
The papers published in this volume were subject to an anonymous international peer review.

Cover Picture:
The structure of SFB 1070 using a rotary model (Graphic: SFB 1070).

Bibliografische Information der Deutschen Nationalbibliothek

Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über http://dnb.d-nb.de abrufbar.

ISBN 978-3-946552-08-6

http://hdl.handle.net/10900/74124
http://nbn-resolving.de/urn:nbn:de:bsz:21-dspace-741243
http://dx.doi.org/10.15496/publikation-15530

Redaktion: Uwe Müller, Marion Etzel, Henrike Michelau, Jadranka Verdonkschot
Layout: Büro für Design, Martin Emrich, Lemgo
Gestaltung und Druckvorstufe: Henrike Michelau
Druck: Pro BUSINESS digital printing Deutschland GmbH

Printed in Germany

Contents

Editors' Preface

This volume represents the contributions of the international and interdisciplinary Conferences 'Developments – Movements – Valuations' from November 6th to 9th 2014 and 'ResourceCultures – Theories, Methods, Perspectives' from November 16th to 19th 2015 at the Eberhard Karls University Tübingen organised by the collaborative research centre 'SFB 1070 ResourceCultures – Sociocultural Dynamics in the Use of Resources' sponsored by the German Research Foundation (DFG).

The focus of SFB 1070 is on sociocultural dynamics in connection with the use of resources. Resources are defined as the tangible and intangible means by which actors create, sustain or alter social relations, units or identities. This definition abolishes the opposition between 'natural' and 'cultural' resources because even raw materials extracted from natural environments are subject to cultural constructions. Further, it is assumed that resources in general are part of 'ResourceComplexes', which often are combinations of things and representations, individuals or social groups, knowledge and practices. Based on this approach, 'resource use' not only refers to the exploitation and processing, distribution and utilisation of socially relevant resources or resource complexes. Instead, it leads to certain dynamics, i.e. multidimensional processes of change, which may affect parts of or even entire societies.

Examining the role of resources within sociocultural contexts from an intercultural and diachronic point of view it is important to consider three different major dynamics: developments, movements and valuations. This is reflected in the structure of the collaborative research centre with its three project divisions A. Developments: Resources and Processes of Social Change, B. Movements: Resources and Spatial Development, C. Valuations: Resources and the Symbolic Dimensions of Cultures. Under certain conditions resources may turn into a curse, they may play significant roles in internal

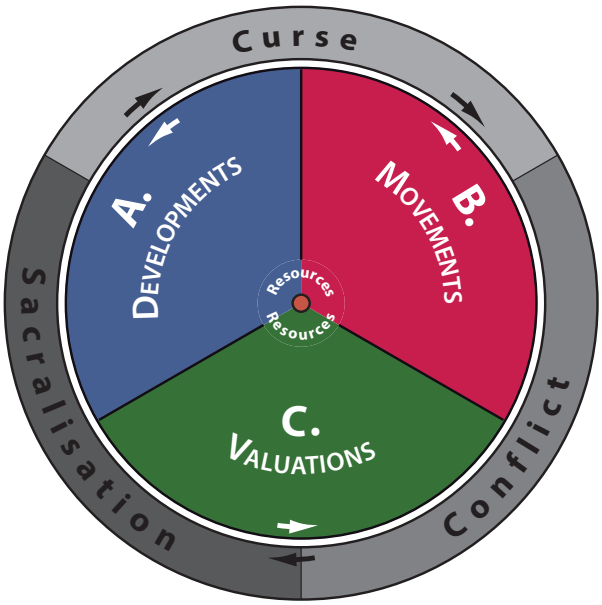


Fig. 1. The structure of SFB 1070 using a rotary disc model.

or external conflicts of societies, or, if related to processes of sacralisation, may produce or reproduce social inequalities or hierarchies. These phenomena are subject of analysis within the sector divisions of the SFB. According to its structure, the collaborative research centre can be represented as a rotary disc (Cover picture/*fig. 1*). It symbolises that the assignments between project divisions and sector divisions are not rigid and irreversible, but instead may be combined in a multitude of ways (Bartelheim et al. 2015).

The aim of the first international and interdisciplinary Conference 'Developments – Movements – Valuations' was to highlight the thematic aspects that provide close substantial links between the individual projects of SFB 1070. Furthermore, new research approaches, hypotheses and perspectives have been discussed with the international advisory board to stimulate interdisciplinary exchange of ideas and to facilitate information flow between Archaeologists, Social and Cultural Anthropologists, Historians, Philologists and Geographers.

Fig. 2. The participants of the conference in November 2015.

The second international and interdisciplinary Conference 'ResourceCultures – Theories, Methods, Perspectives' (*fig. 2*) focused on discussing and advancing the essential concepts and theories of the SFB. In collaboration with respected national and international scientific experts future perspectives for the collaborative research centre were identified and explored. Correspondingly, the lecture programme was structured into six sessions, covering the wide spectrum of interdisciplinary research within the collaborative research centre SFB 1070 (Fehlings et al. 2016).

The chapters of this volume are oriented on the session topics of the conferences:

Section I. Theories, Methods, Concepts deals with the contrast between the public understanding of 'resources' as natural raw-materials – mainly based on economic perceptions – and the differentiated views and assumptions from varying perspectives in different scientific disciplines. This leads to divers, unequal definitions, concepts and theories, investigated by specific data bases, methods and approaches according to the particular discipline. Correspondingly, it is a challenge within interdisciplinary networks like the collaborative research centre SFB 1070 to join different views, strategies and potential to investigate resources by the use of a common concept. The contributions are focussing on the approaches, perspectives and limits of interdisciplinary cooperation for the analysis of resources as a basis for social relations, units and identities within the framework of culturally affected beliefs and practices, or as a means to create, sustain and change them.

Section II. Resources and Processes of Social Change according to project division A. Developments concentrates on diachronic studies about the role of resources in processes of social and cultural change. The focus is on historical situations in which access to raw-materials and natural products was granted locally, regionally or continuously through established ways of distribution.

Section III. Resources and Spatial Development according to project division B. Movements examines resources within the context of processes of spatial development and settlement, discussing resources as an initial point of central importance for these processes. There is a focus on resource

related preconditions for spatial development, but courses of event, further sociocultural developments within a newly acquired region, as well as symbolic dimensions of the relevant resources are included.

Section IV. Resources and the Symbolic Dimensions of Cultures according to project division C. Valuations is treating the aspect of value creation by resources. The central topic is valuation, meaning and use of resources in different contexts. The different kinds, media and contents of cultural representations of resources and resource dynamics are addressed and the social effectiveness of the symbolic dimension of resources is discussed.

This conference volume not only offers an overview on the current state of research about major questions and connected topics with the concept of ResourceCultures but also allows a diachronic comparison of case studies, covering all ages of human history.

Anke K. Scholz
University of Tübingen
Institut für Ur- und Frühgeschichte und Archäologie des Mittelalters
Schloss Hohentübingen, Burgsteige 11
D-72070 Tübingen
anke.scholz@uni-tuebingen.de

Martin Bartelheim
University of Tübingen
Institut für Ur- und Frühgeschichte und Archäologie des Mittelalters
Schloss Hohentübingen, Burgsteige 11
D-72070 Tübingen
martin.bartelheim@uni-tuebingen.de

Roland Hardenberg
Institut für Ethnologie
Norbert-Wollheim-Platz 1
Goethe Universität Frankfurt
D-60629 Frankfurt am Main
Hardenberg@em.uni-frankfurt.de

Jörn Staecker
University of Tübingen
Institut für Ur- und Frühgeschichte und Archäologie des Mittelalters
Schloss Hohentübingen, Burgsteige 11
D-72070 Tübingen
joern.staecker@uni-tuebingen.de

Acknowledgments

The realisation of the conferences and publication of this volume were made possible by the financial support of the German Research Foundation (DFG). We would like to thank all the contributors and participants for their stimulating lectures and fruitful discussions during the conferences and the authors for providing the manuscripts for this volume. Our special thanks go to Marion Etzel, Henrike Michelau, Uwe Müller and Jadranka Verdonkschot for their excellent work with the editorial revision of the single articles and typesetting of the whole volume.

Bibliography

Fehlings et al. 2016: S. Fehlings/R. Kunze/N. Nordström/K. Schmidt/F. Schön/A. K. Scholz/B. Schweizer/P. Sconzo/V. Sossau/J. Widmaier, Tagungsbericht. ResourceCultures – Theories, Methods, Perspectives. International and Interdisciplinary Conference of the Collaborative Research Centre ResourceCultures (SFB 1070), 16.11.2015–19.11.2015 Tübingen, in: H-Soz-Kult, last updated 11.04.2016, <www.hsozkult.de/conferencereport/id/tagungsberichte-6479> (last access: 27.01.2017).

Bartelheim et al. 2015: M. Bartelheim/R. Hardenberg/Th. Knopf/A. K. Scholz/J. Staecker, ResourceCultures – A Concept for Investigating the Use of Resources in Different Societies. In: A. Danielisová/M. Fernández-Götz (Hrsg.), Persistent Economic Ways of Living. Production, Distribution and Consumption in Late Prehistory and Early History. Archaeolingua 35 (Budapest 2015) 33–43.

I. Theories, Methods, Concepts

ROLAND HARDENBERG, MARTIN BARTELHEIM AND JÖRN STAECKER

The ‘Resource Turn’
A Sociocultural Perspective on Resources[1]

Keywords: resources, cultural turn, cultures, materiality

Abstract

Cultural studies have so far not developed a concept of resources that can be used in the analysis of cultural dimensions of life across time and space. When used, the word ‘resource’ remains firmly rooted in economic approaches. Resources are identified as natural products, means of production, signs of wealth or forms of subsistence. We argue for a resource turn in cultural studies to be achieved by widening the concept of resources as an analytical category to cover intangible dimensions, by replacing an essentialist with a constructivist perspective; by shifting analysis from individual actors to wider relationships, networks, institutions and systems; and by highlighting historical contingencies and cultural meanings in the identification of resources.

1. Introduction

What are resources? In everyday discourse resources are usually understood as raw materials, necessary for industrial production or for satisfying human needs. This point of view, rooted in economic reasoning, is also the base for common definitions of the term ‘resource’ in dictionaries like the Collins English Dictionary: ‘1. Capability, ingenuity, and initiative, [...] 2. (often pl.) a source of economic wealth, esp. of a country (mineral, land, labour, etc.) or business enterprise. 3. A supply or source of aid and support; something resorted to in time of need’ (Sinclaire 1995, 1319).

Economists have developed more differentiated approaches and study resources from a variety of perspectives. Müller-Christ distinguishes definitions of ‘resources’ based on *Produktionstheorie* (input-transformation-output theory), on *Wettbewerbstheorie* (resource-based view) and on *Systemtheorie* (means-end continuum). According to the first definition resources are factors of production; according to the second they are organisational requirements for economic success; according to the third they comprise different means used to maintain systems (Müller-Christ 2011, 167–170). In this approach the distinction between tangible (land, tools, capital) and intangible (knowledge, relations, structures) resources is fundamental (Storberg 2002, 469). In recent years economic studies focussed on intangible resources (e.g. Mohldaschl 2007) and show a tendency to expand the definition. In sociology as well, Giddens distinguishes between authoritative and allocative resources, as means and abilities to dominate and control others on the one hand, and the access to tangible aspects of human existence on the other (Giddens 1984, 258). Bourdieu understands resources in a more comprehensive way. Besides economic capital he includes cultural capital, such as incorporated abilities, titles or aspects based on social capital, defining them as: ‘the sum of resources that accrue to an individual or group by virtue of possessing a durable network of more or less institutionalised

1 This paper is based on the conceptual work of several researchers participating in the collaborative research centre SFB 1070 RessourcenKulturen, funded by the Deutsche Forschungsgemeinschaft (DFG) since October 2013. Parts of the paper are taken from the application for funding, to which, amongst others, especially Thomas Knopf and Beat Schweizer made valuable contributions.

relationships of mutual acquaintance and recognition' (Bourdieu/Waquant 1992, 119).

Some anthropologists define resources as means to facilitate activities that are necessary for social practices including processes of inclusion and exclusion (e.g. Schlee 2006). Psychologists have expanded the definition of resources beyond economic contexts as well. Psychology of work distinguishes among temporal resources, financial resources and control, all of which are embedded in social contexts (Greenblatt 2002, 179).

The concept has been little discussed in the humanities, although there has been a growing interest in 'cultural resources' recently, especially stimulated by the UNESCO conventions on 'World Heritage' and 'Intangible Cultural Heritage.' These ideas are mainly routed in concepts of Western modernity (Bendix et al. 2007, 9). Discourses about the concept of 'resources' from a sociocultural perspective are hardly to be found in this literature. In the comprehensive study 'Cultural Theory – The Key Concepts' (Edgar/Sedgwick 2002) no separate paragraph about resources can be found, just as in the 'Handbuch der Kulturwissenschaften' (Jaeger/Liebsch 2004) of more than 1500 pages or in the widely-used handbook 'Archaeology – An Introduction' (Green/Moore 2010) currently published in fifth print. Collections such as Barnard and Spencer's all-encompassing 'Encyclopedia of Social and Cultural Anthropology' (Barnard/Spencer 1996), the 'Reallexikon der Assyriologie und Vorderasiatischen Archäologie' of up to now thirteen volumes, or the recently completed 35 volume 'Reallexikon der Germanischen Altertumskunde' have no entry covering resources. Textbooks, like the 'DTV-Atlas zur Ethnologie', explain resources in a conventional way under the headings 'environment and adaption' and 'economy' (Haller 2005, 135, 156). In 'Cultural Turns – Neuorientierungen in den Kulturwissenschaften' by Bachmann-Medick (2006) a variety of 'turns' or changes concerning different topics are documented, but none about 'resources'.

2. Resource Turn

What conceptual shifts are necessary to induce a 'resource turn'?

First, we should consider developments in economic and social sciences and expand the idea of resources to cover the intangible dimension.

Second, the essentialising perspective of resources has to be replaced by a constructivist one, which means that something cannot be considered to be a resource 'by nature' but through its place or meaning in a specific context. A resource is not a thing or matter but a means related to certain cultural ideas and practices.

Third, resources are important not only for the survival of individuals, but for the emergence, continuity and transformation of actors (individuals and groups) as well as their relations, networks, institutions and systems.

Fourth, contingency and variability of sociocultural phenomena, should be taken into account. Culture cannot be reduced to certain necessities but has to be seen as a spectrum of potentials, a diversity of beliefs, and forms of organisation and practices. Resources and their social surroundings are affected by cultural complexity, which includes raw-materials and natural products (e.g. water, timber, land, food) that are essential for human survival, yet always culturally defined.

Given these four points we offer a working-definition of resources: **'Resources are the means to create, sustain and alter social relations, units and identities within the framework of cultural ideas and practices.'**

1) Resources are an Analytical Category

Examining different times and regions, we ask how others are or were perceiving and categorising resources. Given this question, resources are not a fixed object of research, but a category of analysis, applicable to phenomena formerly not included in this semantic field. This 'transformation from a matter into an analytic category', according to Bachmann-Medick, 'is accompanied by a decisive change of the categorical level or even a conceptual leap' (Bachmann-Medick 2006, 26). The question now is: What cultural and social practices turn something into a resource?

2) The Transformation of Resources

Resources are based on a cultural interest. Thus, the question 'what is a resource' depends strongly on the cultural context, including practices and

interpretations of the social actors. This context shifts not only because ideas and values change but also because new technologies, new practices and new social contacts emerge. As Niemann states, the notion of a 'resource' is 'variable in time as well because of continual social, cultural, technological and economic changes, also the individual actor constantly has to redefine resources' (Niemann 2006, 9).

3) ResourceComplexes

Resources do not exist as isolates but in combination with other resources as a ResourceComplex, which consists of a combination of objects, persons, knowledge and practices. A specific resource requires other resources for its preservation, distribution or use. ResourceComplexes have a specific history of appearance and dispersion, affect each other and are evaluated or hierarchized in relation to each other. Our notion of ResourceComplexes approximately corresponds with the concept of 'Base' used by Gudeman: 'Consisting of entities that people appropriate, make, allocate and use in relation to one another, the base is locally and historically formed. In the Latin American countryside, a farmer considers as base his house, land and crops; a university's base includes its library, laboratories, offices, communication systems and concepts linking researchers […]', (Gudeman 2005, 97).

4) Resources and Reserves

The word resource is derived from the Latin *surgere* (to pour out from something). It describes something, unrelated to its use, that is fed from a natural source, which may run dry (Niemann 2006, 7). In geo-sciences and economics this notion led to a focus on issues related to 'exhaustible natural resources' (such as oil or coal). The terms 'potential of nature' or 'potential of physical region' are used to describe the totality of the potential of a geographic region (Barsch/Bürger 1996). To express that the potential of a region is proven and can be exploited with the given technical facilities the term 'reserve' is used (Wacker/Blank 1999, 3 f.). In this sense resources are 'the totality of existing raw-materials on earth, in which human society has an interest' (Niemann 2006, 11). For an approach in cultural studies, these definitions are of rather limited use, since from a sociocultural point of view resources not necessarily have to be taken from nature and cannot be reduced to their economic function. In contrast to their definition in geosciences or economics, for cultural studies resources are not only a naturally existent potential, but defined by cultural concepts and accompanied by culture-specific actions. The focus of study therefore has to be on resources or ResourceComplexes that are of central importance for essential social relations, units and identities. By this, the term 'reserve' as well obtains new meaning within the context of cultural studies. It no longer describes just resources that are not (yet) economically exploited, but instead elements of a local culture, for example specific networks or religious practices, that can be put into use during emergencies or ambiguous circumstances. Or in Preissing's words: 'Die Reserventheorie wendet sich gegen die allgemeine Richtung der Globalisierungsforschung, die die Regression lokaler Kulturen im Zusammenhang mit dem ‚Kampf der (Groß-) Kulturen' proklamiert. Vielmehr stellt sie fest, dass trotz aller realen Auswirkungen der Globalisierung und der Einbindung in globale Zusammenhänge auf lokale, materielle und immaterielle Kulturgüter zurückgegriffen wird.' (The theory of reserves objects to the general tendency of globalisation-research, proclaiming the regression of local cultures in relation to the 'clash of (major-) cultures'. Instead, it detects that in spite of all the effects of globalisation and the integration into a global context, there is a fall back on local tangible and intangible cultural assets) (Preissing 2009, 69). Phenomena of globalisation aside, this definition of reserves can generally be applied by the collaborative research centre on situations of foreign rule, such as colonisation and others.

5) Social Relations and Actors

From a biological point of view, resources provide the basis for human life. They 'are needed by organisms, to sustain their vital functions, their growing and their reproduction' (Hertler/Karl 2006, 21). Our study instead, focuses on resources that are not primarily relevant for the organic, but for all social aspects of life. Anthropologists for example frequently describe societies, in which social actors may be both, human or non-human. Latour (2008) pointed out that the separation between nature

and culture is artificial and often maintained on an ideological level, while neglected in practice. He stressed the point that objects as well are 'vocal' and possess their own agency and representation, thus advocating a 'symmetric anthropology'. Based on ethnographical studies, Ingold also argues against an ontological separation between man and nature. According to him, the field of social issues does not only cover the relations between human actors, but also between humans and animals, plants, ancestors, gods and other beings, to whom a social agency is assigned (Ingold 2000, 46).

6) Social Units

Following Gudeman (2001, 25; 2012, 63 f.) we may understand the social units, within which these relations are acted out and imagined, in the broadest sense. Taking the differences between the source material and the epistemological traditions of different scientific disciplines into account, a distinct conceptual separation between community and society does not seem feasible for interdisciplinary studies. To facilitate interdisciplinary comparison the terms 'community' and 'society' are used in a polythetic way. They stand for a number of possible social distinctions that may have relevance for the comparison. This includes for example distinctions between homogenous and heterogeneous, real and imagined, predetermined and acquired status, territorial limitations and trans-local networks, as well as distinct group-identity and conceptually ambiguous individual identities.

In conclusion, taking a 'resource turn' into account, the working definition for resources given above can be expanded as follows: **'Resources' may be understood as a category for analysis, serving to expand the semantic horizon of the term by the use of a comparative perspective. Resources generally are seen as means to create, sustain and alter social relations, units and identities within the framework of cultural ideas and practices. It is assumed that resources are variable not only culturally, but chronologically as well, and are affected by historical change. Resources often occur in ResourceComplexes, each having its own specific history of origin and distribution. They are bearing reference to other ResourceComplexes and are evaluated or hierarchized in their relation to each other. Acting on the fundamental assumption that resources (and ResourceComplexes) based on a culturally constructed interest, go along with learnt practices and do have social relevance, resources (and ResourceComplexes) that are used and are of practical significance can be studied. The use of resources implies the actions of social actors, taking into account that a number of societies also see non-human beings, such as animals, plants, ancestors or gods, as actors with social relevance. These actors can be assigned to very different social units, distinguishable by categories, such as homogenous or heterogeneous, real or imagined, predetermined or acquired, territorially and socially limited or un-limited.**

3. Cultures

'Culture' is amongst the most central, as well as controversial concepts in cultural studies. Used in a very broad sense by public as well as academia it can refer to the arts, just as to consistent characteristics of people of common origin, or to shared customs, traditions and beliefs of specific societies (Beer 2012, 54 f.). With a particular focus on the 'resource turn' another definition of culture is most relevant: Culture seen as a scientific concept (Beer 2012, 55), allowing certain perspectives and ways of interpretation related to resources.

Recently a number of papers and books appeared, trying to provide an overview over the different definitions and the critical discussion about the concepts of culture (e.g. Beer 2012; Bernbeck 1997; Brather 2001; Edgar/Sedwick 2002; Fröhlich 2000; Hammel 2007; Reckwitz 2004).

Attempts to classify different concepts of culture are especially helpful. Reckwitz for instance, distinguishes between culture concepts that are 'normative, totality-oriented, based on differentiation theory, or significance oriented' (Reckwitz 2004, 3). Approaches are divided into those that focus on either structures, subjects, discourses or practices as central for the concept of culture (Reckwitz, 2004, 14–19). Bettina Beer as well points out the different concepts and perspectives within the debate about culture and distinguishes between ideational (or mentalistical) and materialistic concepts. She also refers to combinations of

these approaches (Beer 2012, 60–62). Even more comprehensive is the classification of approaches by Haller (2005, 31–37), identifying nine different opposing pairs or 'ideal types'. It is essential to respect the plurality of perspectives, in order to facilitate the input of differing points of view into the interdisciplinary discourse. On the other hand, a specification seems necessary, because assumptions about culture are fundamental for our definition of resources explained above.

What are the basic assumptions, underlying these concepts? For an analysis of the cultural aspects of resources the interpretative or meaning oriented discourse about the definition of culture seems to be of special relevance. According to this point of view human beings during all their history existed within a world of meanings (Geertz 1973) expressed through language, knowledge, objects, bodies, symbols, as well as through a wide variety of practices and performances (Reckwitz 2004, 7). Meanings consist of ideas and practices. They are learnt and in various ways shared or put into action. This world of meaning is not chaotic, but ordered and regulated or systematically interconnected, to result in a 'more or less structured whole' (Beer 2012, 56) or a 'meaningful whole' (Reckwitz 2004, 7), which in turn is affected by changes and processes, caused by the interaction of actors (Haller 2005, 31). Of special significance is the assumption that these structured worlds of meaning are contingent, or as pointed out by Reckwitz: 'Entscheidend ist nun die Einsicht, dass sämtliche Komplexe von Praktiken der Vergangenheit und Gegenwart […] erst vor dem Hintergrund der jeweiligen, sehr spezifischen Sinnhorizonte und Bedeutungscodes möglich sind, ‚normal' und ‚rational' werden oder gar als ‚notwendig' und ‚natürlich' erscheinen.' (The significant insight is that all complexes of practices in past and present […] become contingent only by their respective, very specific horizons of reason and codes of meanings, thus becoming 'normal' or 'rational', or even appearing as 'essential' or 'natural') (Reckwitz 2004, 8). Acting on the basic assumption of cultural contingency the term 'culture' should always be used in plural.

Based on these considerations the following tentative working definition may be used: **Cultures are contested systems of meaning, learnt, shared and negotiated in various ways, and are expressed empirically for example by language, writing, texts, knowledge, objects, bodies, institutions, symbols and a wide variety of actions.**

In order to apply this definition within an interdisciplinary environment of cultural sciences, this definition requires a number of additions.

1) Materiality

Many resources studied by classical and ancient studies and cultural anthropology are of a material character. Analyses of materiality used to address physical characteristics of different artefacts (Ingold 2007, Fowler 2010, DeMarrais et al. 2004). During recent decades, the symbolic and social meanings of objects, artefacts or consumer products found more and more attention (Miller 1987; Hahn 1996; 2005; Tilley 2007). In analyses of material culture tangible objects are put into relation with other objects, landscapes or individuals and their actions. In this respect in classical and ancient studies, as well as in anthropology, a tendency towards materiality seems visible, to contextually changing meanings of tangible objects, to their similarities and differences, to their places of origin, production processes and sedimentation areas (Tilley 2007, 18). In particular the writings of Latour (2008) and Ingold (2000; 2007) influenced a discussion (e.g. in Tilley 2007) about the relationships between the characteristics of tangible objects, human representations and social relations. It has been argued that ideas and meanings are not only assigned to objects, but originate only through the contact with tangible objects (Renfrew 2001, 127). Ingold points out the necessity to include practical know-how in dealings with the tangible world (such as the cutting of trees) into the analysis of tangible culture. Conceptually he questions the separation between tangible world and social relations, because human beings themselves are part of the tangible, animate world and in constant interaction, i.e. in social relation, to other objects (Ingold 2007, 7). A crucial point in this discussion is the question, to what extend the tangible characteristics of objects have their own agency. This leads to further questions, such as which options or limitations tangible things have for human beings or why only certain characteristics of objects

influence their lives, while others do not (Tilley 2007, 20).

2) Basic Functions of Existence

The cultural dimension of resources does not exclude the fact that resources of social relevance can possess a basic function for the survival of human organisms as well. But the hypothesis of contingency stresses the point that the resource use is not determined in a predictable or inevitable way by this existence related function, as was highlighted especially by studies of the cultural variability of food and drink (e.g. Douglas 1987; Germov/Williams 2008; Macbeth 1997). On the other hand especially by anthropological studies (Leach 2003) it became clear, that both, functions essential for survival and practices, necessary for exploitation, distribution and consumption, are of enormous social relevance. Thus, nutrition can be used to express social hierarchies, to construct kinship or cosmology related connections, to assign moral codes or to exchange messages. In short: Nutrition can be used to construct 'personae' (e.g. Carsten 2004). Subsistence related activities, just as practices of distribution and consumption, are frequently the cause to shape, renew or change social relations between genders, generations, age or ethnic groups and many others. For a cultural studies approach this means that there is no contradiction between the subsistence related functions of resources and their cultural construction, since frequently the resources relevant for subsistence and the practices related to them, are the ones to which cultural meaning is particularly assigned.

3) Comparability

Amongst other things, the interpretative turn in cultural studies caused a fundamental questioning of methods and categories for comparison (Hardenberg 2008; Holy 1987; Osterhammel 2004). According to Holy, most important was the understanding that social matters cannot be viewed in the same way as objects, because they do not exist except through human action and are inseparably connected to the process of assigning meaning. Due to this interpretative turn, all the monothetic categories of comparison became questionable that were formerly thought to be 'airtight' and used to compile complex typologies of societies (e.g. the Human relation Area Files by Murdock) or to establish controlled 'cross-cultural' comparisons (see Mace/Pagel 1994). They had to be replaced by Needham's (1975) concept of 'polythetic classes', loosely based on Wittgenstein. Also, the singular concept of culture was increasingly replaced by a less rigidly defined concept, placing diversity, differences and contestation into the focus of analysis. As Holy (1987) states, following the interpretative turn the method of comparison in anthropology nowadays serves to formulate and illustrate differences by contrasting case examples. Thus, comparisons are mainly of heuristic value and refer to aspects, undetectable when studying single cases. On the other hand, comparisons can serve to point out formal similarities, such as analogical courses of action or repetitive principles of composition and structure.

What is the focus of such comparisons in cultural studies? Generally it will be on phenomena and processes, some of which may be connected in terms of place and time, while others occur completely independent from each other. According to Osterhammel 'transkulturelle, über Kulturgrenzen hinausreichende Vergleiche [sind] erforderlich und möglich, wenn man die Vergleichseinheiten nicht als unbewegt gegeben voraussetzt, sondern sie selbst als historisch veränderlich und ‚verhandelbar' betrachtet' (transcultural comparisons, extending over cultural borders […] are reasonable and feasible, if the units used to compare are not regarded as fixed constants, but instead as historically changeable and negotiable) (Osterhammel 2004, 62).

For cultural studies especially the comparison of transcultural processes will be of relevance. Specific processes, relevant in relation to resources, such as social development, spatial development, value creation, conflict, sacralisation or 'resource-curse' are compared, in order to elaborate differences as well as formal similarities.

4) 'The Social' and 'The Cultural'

A number of approaches in cultural studies, especially those influenced by Talcott Parson's AGIL paradigm (Parsons 1970), make a clear distinction between the social system of integration on the one hand, and the cultural system of assigning meaning on the other. This approach tends to systematically separate political, economic, social

and cultural aspects, and subsequently to use these aspects as causes or effects in the explanation of certain phenomena (e.g. of change). 'The Social', especially observable social relations, here is understood as real, 'the Cultural' on the other hand, as an ideological means to sustain the social system. This view may be contrasted with a more holistic perspective, such as developed notably by Sahlins who argues: 'In all its dimensions, including the social and the material, human existence is symbolically constituted, which is to say, culturally ordered' (Sahlins 1999, 400). The term 'sociocultural' as used by the SFB expresses this assumption, i.e. the idea that resources as well as the social relations, units and identities affected by a specific use of resources are symbolical constructs in contested cultural orders.

According to these considerations, the working definition of 'cultures' can be specified as follows: **Cultures are contested systems of meaning, learnt, shared and negotiated in various ways, and are expressed empirically for example by language, writing, texts, knowledge, objects, bodies, institutions, symbols and a wide variety of actions. The aspects of these systems of meaning are interrelated and result in a more or less meaningful whole. These systems of meaning are assigned to the tangible world, but a strict dichotomy between tangible and intangible has to be avoided, because human beings themselves are part of the tangible world. The fact that the contextually changing characteristics of objects and matters (including resources) affect the emergence of systems of meaning and their related practices has to be kept in mind. Cultures are contingent, their respective ideas and practices, and the ways these change, cannot be reduced to general or natural conditions, but instead are a result of specific horizons of meaning. Presupposing cultural contingency, comparisons in cultural studies use polythetic categories and are focused on the understanding of cultural difference as well as on the investigation of formal similarities, such as analogical courses of action or repetitive principles of composition and structure. The assumption of contingency does not imply that the importance of resources for basic human needs is denied. Instead, it stresses the point that the perception and resource use is not determined by general or natural principles. Still it is assumed that especially resources needed for human subsistence and survival as well as practices related to them, are those to which cultural meaning is assigned. The perception and use of resources leads to dynamics referring to social relations, units and identities that are always constructed symbolically beforehand.**

4. ResourceCultures

The elaborations above lead to the following assumptions: First, resources are always defined within cultural systems of meanings, in other words they are shaped by ideas, values and practices that are learnt, shared and contested in various ways and are often subject to change in the course of time. Second, the use of resources, their exploitation, production, distribution, consumption and representation, is specific and unique for every cultural context as well. Third, resources are used by socially interrelated people for specific, culturally constituted interests. Fourth, resources affect the organisation and constitution of social life. They are a means for creating, sustaining or altering of social interactions.

To coin a term encompassing all these issues, connections and interdependencies we suggest ResourceCultures. ResourceCultures are models consisting of a number of variables: the resources, the social determined ways to use them (ideas, values, practices), and the social relations, orders and identities. ResourceCultures are not static, but affected by specific sociocultural dynamics. These dynamics are not deterministic or inevitable instead they are multidimensional and open.

This view takes into account two mutually related dynamics: that societies change because of their specific kinds of using resources and that social processes effect the ways to use resources. The interest in resources, culturally constructed, leads to processes of spatial development and resource acquirement, which in turn influence the existing social orders and units. Symbolic representations of resources have an effect on the identification of resources and the way to use them, but also have the potential to turn into resources themselves.

In summary: **ResourceCultures may be understood as specific, dynamic models connecting certain resources, social forms of use, social relations, units and identities in a contingent, yet meaningful way.**

5. The Collaborative Research Centre SFB 1070 ResourceCultures

The considerations elaborated above are the fundament for the work of a collaborative research centre that started its work in the fall of 2013 and is funded by the DFG (German Research Foundation). This centre unites a variety of cultural sciences, working both in ancient and in present times, and includes methods and expertise of natural sciences as well. Collectively the researchers participating in SFB 1070 ResourceCultures are working to reach four major objectives:

- A new conceptualisation of the term 'resources' from a cultural studies perspective.
- The realisation of diachronic sociocultural and political developments.
- An understanding of processes of spatial development and identity-creation.
- Insight into the symbolic dimensions of resources.

These four objectives will be targeted by a close cooperation of different archaeological disciplines (Prehistory, Medieval Archaeology, Scientific Archaeology, Classical Archaeology. Near Eastern Archaeology, Biblical Archaeology), philological disciplines (Classical Philology, Near Eastern Philology), historical sciences (Classical Studies, Medieval History, History of Economy), geosciences (Anthropo-Geography, Physical Geography and Pedology), and Cultural Anthropology. The shared concept of ResourceCultures is meant to be applied and improved, in order to facilitate a better understanding of diachronic changes and conflicts of societies, processes of migration and expansion, and complex phenomena of symbolisation.

The further development of the concept will be based on the work of researchers from a wide variety of academic disciplines to ensure a general relevance for cultural studies. It has to cope with cultural diversities, but also has to be specific enough to allow clear definitions and classifications. In the long run, the concept will help to identify and integrate new interdisciplinary topics for research. The concept of resources together with the related hypotheses, approaches, models and objectives is designed to facilitate the understanding of related processes occurring in different times of history in a meaningful way. In particular, a better comprehension of the interrelations between resources and the emergence, maintaining and transformation of different political or public orders over longer periods is in the focus of our interest. With special reference to resource related questions, this concept will help to understand a variety of processes of spatial movement, development and appropriation, such as migration or colonisation.

In order to reach these goals, a scientific approach has to:

a) Identify resources in natural as well as in cultural landscapes.
b) Consider different ways of exchange of tangible and intangible resources.
c) Analyse the potential as well as the limitations of different spaces.

To comprehend the symbolic dimensions of resources, the concept has to take the multidimensionality of cultural systems of meaning (e.g. Kertzer 1988) into account. This includes condensation, when individual resources simultaneously unite several interacting meanings; multivocality, for example when resources are interpreted in different ways within a society; and ambiguity, which may be used politically to reach consensus in spite of difference in the meaning of resources.

With these considerations the collaborative research centre SFB 1070 ResourceCultures contributes to current discussions about resources in public and academia, opening new perspectives and insights.

Roland Hardenberg
Institut für Ethnologie
Norbert-Wollheim-Platz 1
Goethe Universität Frankfurt
D-60629 Frankfurt am Main
Hardenberg@em.uni-frankfurt.de

Martin Bartelheim
University of Tübingen
Institut für Ur- und Frühgeschichte und Archäologie des Mittelalters
Schloss Hohentübingen, Burgsteige 11
D-72070 Tübingen
martin.bartelheim@uni-tuebingen.de

Jörn Staecker
University of Tübingen
Institut für Ur- und Frühgeschichte und Archäologie des Mittelalters
Schloss Hohentübingen, Burgsteige 11
D-72070 Tübingen
joern.staecker@uni-tuebingen.de

Bibliography

Bachmann-Medick 2006: D. Bachmann-Medick, Cultural Turns. Neuorientierungen in den Kulturwissenschaften (Hamburg 2006).

Barnard/Spencers 1996: A. Barnard/J. Spencers, Encyclopedia of Social and Cultural Anthropology (London 1996).

Barsch/Bürger 1996: H. Barsch/K. Bürger, Naturressourcen der Erde und ihre Nutzung (Gotha 1996).

Bendix et al. 2007: R. Bendix/D. Hemme/M. Tauschek, Vorwort. In: R. Bendix/D. Hemme/M. Tauschek (eds.), Prädikat Heritage. Wertschöpfungen aus kulturellen Ressourcen (Berlin 2007) 7–17.

Beer 2012: B. Beer, Kultur und Ethnizität. In: B. Beer/H. Fischer (eds.), Ethnologie. Einführung und Überblick (Berlin 2012) 53–74.

Bernbeck 1997: R. Bernbeck, Theorien in der Archäologie. UTB 1964 (Tübingen 1997).

Bourdieu/Waquant 1992: P. Bourdieu/L. J. D. Waquant, An Invitation to Reflexive Sociology (Chicago 1992).

Brather 2001: S. Brather, Kulturgruppe und Kulturkreis. In: H. Beck/D. Geuenich/H. Steuer (eds.), Reallexikon der Germanischen Altertumskunde 17, 2001, 442–452.

Carsten, 2004: J. Carsten, After Kinship (Cambridge 2004).

DeMarrais et al. 2004: E. DeMarrais/C. Gosden/C. Renfrew (eds.), Rethinking Materiality. The Engagement of Mind with the Material World (Cambridge 2004).

Douglas 1987: M. Douglas (eds.), Constructive Drinking. Perspectives on Drink from Anthropology (Cambridge 1987).

Edgar/Sedgwick 2002: A. Edgar/P. Sedgwick, Cultural Theory. The Key Concepts (London 2002).

Fowler 2010: C. Fowler, From Identity and Material Culture to Personhood and Materiality. In: D. Hicks/M. Beaudry (eds.), The Oxford Handbook of Material Culture Studies (Oxford 2010) 352–385.

Fröhlich 2000: S. Fröhlich (ed.), Kultur. Ein Interdisziplinäres Kolloquium zur Begrifflichkeit. Halle (Saale), 18.–21. Februar 1999 (Halle 2000).

Geertz 1973: C. Geertz, The Interpretation of Cultures. Selected Essays (New York 1973).

Germov/Williams 2008: J. Germov/L. Williams, A Sociology of Food & Nutrition. The Social Appetite (Oxford 2008).

Giddens 1984: A. Giddens, The Constitution of Society. Outline of the Theory of Structuration (Oxford 1984).

Greenblatt 2002: E. Greenblatt, Work/Life Balance. Wisdom or Whining. Organizational Dynamics 31.2, 2002, 177–193.

Greene/Moore 2010: K. Greene/T. Moore, Archaeology. An Introduction (London 2010).

Gudeman 2001: S. Gudeman, The Anthropology of Economy. Community, Market and Culture (Oxford 2001).

Gudeman 2005: S. Gudeman, Community and Economy. Economy’s Base. In: J. Carrier (ed.), A Handbook of Economic Anthropology (Cheltenham 2005) 94–106.

Gudeman 2012: S. Gudeman, The Persuasions of Economics. In: S. Gudeman (ed.), Economic Persuasions (New York 2012) 62–80.

Hahn 1996: H. P. Hahn, Materielle Kultur und Ethnoarchäologie. Zur Dokumentation materieller Kultur anhand von Untersuchungen in Nord-Togo. Ethnographisch-Archäologische Zeitschrift 38, 1996, 459–478.

Hahn 2005: H. P. Hahn, Materielle Kultur. Eine Einführung (Berlin 2005).

Haller 2005: D. Haller, Dtv-Atlas. Ethnologie (München 2005).

Hammel 2007: L. Hammel, Der Kulturbegriff im wissenschaftlichen Diskurs und seine Bedeutung für die Musikpädagogik. Versuch eines Literaturberichts. Zeitschrift für kritische Musikpädagogik, 2007, 1–27, <http://home.arcor.de/zfkm/07-hammel1.pdf> (last access 29.05.2016).

Hardenberg 2008: R. Hardenberg, Die Moso (China) im interkulturellen Vergleich. Grenzen und Möglichkeiten des komparativen Ansatzes in der Ethnologie. Paideuma. Mitteilungen zur Kulturkunde 54, 2008, 109–127.

Hertler/Karl 2006: C. Hertler/S. Karl, Ressourcen, Ressourcennutzung, Konkurrenz und die Folgen – Ressourcenkonzepte in der Biologie. In: D. Hummel/C. Hertler/C. Janowicz/A. Lux/S. Niemann (eds.), Ressourcen und Bevölkerungsdynamiken – Ausgewählte Konzepte und sozial-ökologische Perspektiven. Demons working papers 6 (Frankfurt am Main 2006) 21–44, last updated 2006, <http://www.demons-project.de/material/demons_wp6.pdf#page=9> (last access 29.05.2016).

Holy 1987: L. Holy, Introduction. Description, Generalization and Comparison. Two Paradigms. In: L. Holy (ed.), Comparative Anthropology (Oxford 1987) 1–21.

Ingold 2000: T. Ingold, The Perception of the Environment. Essays on Livelihood, Dwelling and Skill (London 2000).

Ingold 2007: T. Ingold, Materials against Materiality. Archaeological Dialogues 14.1, 2007, 1–16.

Jaeger/Liebsch 2004: F. Jaeger/B. Liebsch (eds.), Handbuch der Kulturwissenschaften, I. Grundlagen und Schlüsselbegriffe; II. Paradigmen und Disziplinen, III. Themen und Tendenzen (Stuttgart 2004).

Kertzer 1988: D. Kertzer, Ritual, Politics and Power (New Haven 1988).

Latour 2008: B. Latour. Wir sind nie modern gewesen. Versuch einer symmetrischen Anthropologie (Frankfurt am Main 2008 [1991]).

Leach 2003: J. Leach, Creative Land. Place and Procreation on the Rai Coast of Papua New Guinea (Oxford 2003).

Macbeth 1997: H. Macbeth, Food Preferences and Taste. Continuity and Change (Oxford 1997).

Mace/Pagel 1994: R. Mace/M. Pagel, The Comparative Method in Anthropology. Current Anthropology 35.5, 1994, 549–557.

Miller 1987: D. Miller, Material Culture and Mass Consumption (New York 1987).

Mohldaschl 2007: M. Mohldaschl (ed.), Nachhaltigkeit von Unternehmensführung und Arbeit, I. Immaterielle Ressourcen. Arbeit, Innovation und Nachhaltigkeit 3 (München 2007).

Müller-Christ 2011: G. Müller-Christ, Sustainable Management. Coping with the Dilemmas of Resource-Oriented Management (Heidelberg 2011).

Needham 1975: R. Needham, Polythetic Classification. Convergences and Consequences. Man 10.3, 1975, 349–369.

Niemann 2006: S. Niemann, Kontext und Relativität von ‚Ressourcen'. In: D. Hummel/C. Hertler/A. Lux/S. Niemann/C. Janowicz (eds) , Ressourcen und Bevölkerungsdynamiken. Ausgewählte Konzepte und sozial-ökologische Perspektiven (Frankfurt am Main 2006), 7–19.

Osterhammel 2004: J. Osterhammel, Die Vielfalt der Kulturen und die Methoden des Kulturvergleichs. In: F. Jaeger/B. Liebsch (eds.), Handbuch der Kulturwissenschaften, II. Paradigmen und Disziplinen (Stuttgart 2004) 50–65.

Parsons 1970: T. Parsons, The Social System (London 1970).

Preissing 2009: S. Preissing, Tauschen – Schenken – Geld? Ökonomische und gesellschaftliche Gegenentwürfe (Berlin 2009).

Reckwitz 2004: A. Reckwitz, Die Kontingenzperspektive der ‚Kultur‘. Kulturbegriffe, Kulturtheorien und das kulturwissenschaftliche Forschungsprogramm. In: F. Jaeger/B. Liebsch (eds.), Handbuch der Kulturwissenschaften, III. Themen und Tendenzen (Stuttgart 2004) 1–20.

Renfrew 2001: C. Renfrew, Symbol before Concept. Material Engagement and the Early Development of Society. In: I. Hodder (ed.), Archaeological Theory Today (Cambridge 2001) 122–140.

Sahlins 1999: M. Sahlins, Two or Three Things That I Know about Culture. Journal of the Royal Anthropological Institute 5.3, 1999, 399–421.

Schlee 2006: G. Schlee, Wie Feindbilder entstehen. Eine Theorie religiöser und ethnischer Konflikte (München 2006).

Sinclaire 1995: J. Sinclaire, Collins English Dictionary (London 1995).

Storberg 2002: J. Storberg, The Evolution of Capital Theory. A Critique of a Theory of Social Capital and Implications for HRD. Human Resource Development Review 1.4, 2002, 468–499.

Tilley 2007: C. Tilley, Materiality in Materials. Archaeological Dialogues 14, 2007, 16–20.

Wacker/Blank 1999: H. Wacker/J. E. Blank, Ressourcenökonomik, II. Einführung in die Theorie erschöpfbarer natürlicher Ressourcen (München 1999).

ROLAND HARDENBERG

Dynamic Correspondences
ResourceCultures

Keywords: interdisciplinarity, anthropology, archaeology, resources, ResourceCultures

Abstract

This paper addresses the challenges and chances of interdisciplinary cooperation between anthropology and archaeology. It questions the widespread idea that anthropologists have a privileged access to values and meanings and are the sole experts for abstract theories. To the contrary, it is here argued that archaeologists can offer an approach to the study of values which has only partly been used by anthropologists and that the superior position of anthropologists as 'givers' of meaning has been shaken due to post-modernist theories of discourse and subjectivity. Focusing more on commonalities and symmetries than on differences and hierarchies the paper stresses the joint efforts of archaeologists and anthropologists in understanding social and cultural systems as well as processes through time. This commonality lies at the heart of the new collaborative research centre 1070 on ResourceCultures at the University of Tübingen, which brings together anthropologists and archaeologists with the common aim of understanding the dynamics deriving from the use of culturally defined resources.

Introduction

What are the challenges for interdisciplinary cooperation between archaeology and social and cultural anthropology?[1] There are relatively view institutes in Germany in which these two disciplines successfully cooperate, notable exceptions are for example 'The International Max Planck Research School for the Anthropology, Archaeology and History of Eurasia' (IMPRS ANARCHIE) in Halle[2] or the Graduate School 'Value and Equivalence: 'The Genesis and Transformation of Values from an archaeological and anthropological perspective' at the Johann-Wolfgang-Goethe University of Frankfurt.[3] There are various reasons for this lack of cooperation and in this paper I want to address some of the challenges and possible pathways for interdisciplinary work. These suggestions are inspired by my experiences as a social and cultural anthropologist working within the collaborative research centre SFB 1070 ResourceCultures at the University of Tübingen.[4] This collaborative research centre, which started in October 2013 with a funding from the German Research Council (DFG), brings together anthropologists, archaeologists, geographers, historians and philologists in a joint project focusing on the cultural dimensions and dynamics of resources throughout human history. In the course of this ongoing project, representatives of these various disciplines experience the differences of their research questions, data, methods as well as theoretical framework. Concentrating on anthropology and archaeology, I here come to the same conclusion as Duncan Garrow and Thomas Yarrow (2010b, 3): these disciplines can learn from each other by recognising these differences.

1 This paper is a revised version of a presentation given at the SFB 1070 Conference 'Theories, Methods, Perspectives' (University of Tübingen) 16.11.2016.

2 See http://www.eth.mpg.de/anarchie (last access 4.3.2016).

3 See http://www.value-and-equivalence.de/en/home/ (last access 4.3.2016).

4 See <https://www.uni-tuebingen.de/en/research/core-research/collaborative-research-centers/sfb-1070.html> (last access 4.3.2016).

Identifying Values

The first challenge derives from the nature of data itself. Gavin Lucas for example thinks that the perceived asymmetry between archaeology and anthropology derives from 'ignoring the empirical differences' and from the fact that 'the archaeological record is encouraged to do work it is not up to' (Lucas 2010, 29). In the collaborative research centre, for example, resources are defined as a means for creating, maintaining or changing social relationships or identities, in other words, as something that is valuable and quite essential in people's lives (Bartelheim et al. 2015, 39 f.). But how can archaeologists know that something is valuable for the members of a society? Anthropologists can directly ask people in interviews and questionnaires or read their texts. On the basis of this information they identify hierarchies of value and thus distinguish between more and less valuable resources. Archaeologists, on the other hand, derive social value more indirectly from the relationships between material objects in terms of context, time, quantity, quality, spatial distribution, etc. Indications for the social value of an object may be its use on an important occasion such as a funeral, the long period of its usage despite various changes, the sheer number of its production, the durability of its material or the density of distribution in a certain region.

Archaeologists may not know if other resources than those represented in a particular site were perhaps more valuable to the people of the past. Yet, archaeologists clearly have means to establish value even without access to conscious expressions such as the spoken or written word. Therefore, anthropologists should ask themselves, if they do not rely too much on the conscious evaluation of their informants when searching for resources. What about those everyday things such as a special design, a local costume or a yurt for example, that is widespread throughout a certain community and seems to have a long history of use? Usually, such things only come to the attention of anthropologists when people consciously turn them into national emblems or objects of their cultural heritage. How can anthropologists identify resources that are not in the focus of conscious, cultural elaboration by elites? Can they use above mentioned archaeological methods of establishing value for identifying such less valued, but equally important resources?

Take for example the use of plastic. In Germany, many people consider plastic as a very useful, but rather cheap substance. Plastic toys from China are the classic example for products of low value. Yet, in several hundred years, these plastic things from the past may still be everywhere on our planet and future archaeologists may argue that plastic in the past derived its importance from the complexities of earlier societies that developed highly differentiated fields of social action – from play to sports and leisure – for which people constantly needed new toys, tools, and gadgets. Due to its mouldability, plastic became one of the most essential resources for social life. In other words, for identifying the multiple values of things, anthropology has to go beyond individual consciousness, and archaeology offers perhaps some methods to anthropology for achieving this.

Search for Meaning

This leads me to the second issue, the challenge of understanding the meaning of things. Compared to archaeologists, anthropologists feel advantaged when it comes to the study of meanings. This is partly the result of a common practice among archaeologists, especially from Departments of Pre-history, who often ask anthropologists to provide them with ethnographic analogies or possible meanings for their 'raw data'. This practice lies at the basis of a widely perceived asymmetry between the disciplines: anthropologists are the givers, archaeologists the receivers of meaning, a highly appreciated good in the humanities. Yet, when it comes to meaning, the secure grounds of anthropologists have been shaken in recent decades due to postmodern deconstructions. Meanings are not longer given, collectively shared and transmitted, but produced in a discursive manner, negotiated in practices and contested among power holders (see Spiro 1996). Suddenly, anthropologists find themselves in the same position as their archaeological colleagues because like them they are confronted with a multiplicity of possible meanings and no way to establish the 'real' meaning.

On the other hand, with their turn towards subjectivity and interpretation (Trigger 2007, 444–477), archaeologists began to strip off their incertitude when talking about meaning. No longer depending on anthropologists, they derive meaning from the contextual arrangement of artefacts, the dialectic between people and things or the relationship between material qualities and usages of objects. In recent decades, various approaches have been developed that approach the question of how material things may have their own effects and store information about the past (Miller 2005). Bruno Latour (1993; 1999) shows in his works that things have consequences for the people who use them, and this is called the agency of things. Not only do people have information about things, so Latour, but things also store information about people. Thus, all things always contain 'traces' of the past actions of man and are thus 'assemblages of human and non-human' (Joyce 2015). Ian Hodder, too, emphasises the mutual interaction of people and things which he calls 'entanglement' (Hodder 2012). In this context, James Gibson (1977) speaks of 'affordances', referring to the possibilities of action that are latent in an environment. For archaeologists as well, the production of objects implies the interplay of human intention and material affordances: 'It is as if the potter's intentions inhabit the clay and the affordances of clay bring forth the potter's intentions' (Gosden/Malafouris 2015, 706). The agency of things is also the focus of the work of Tim Ingold (2010), who shows how our engagements with the environment influence our knowledge, abilities and perceptions. Recent approaches in archaeology and anthropology emphasise the processes or 'inclinations' (Soentgen 2014) that material things go through because their physical or chemical properties change over time. The focus of the investigation thus shifts from the consideration of changes induced by man to material processes occurring independently of man: matter becomes, instead of matter is. Especially in the context of approaches summarised under the term 'new materialism' (Coole/Frost 2010), processes are now thought more complex: one considers the many connected (material) systems that produce effects.

These developments in theories about materiality may transform the relationship between givers and receivers. On the one hand, the gift itself has changed, because anthropologists do not necessarily give meaning as such but insights into the ways meaning is constructed and contested. On the other hand, archaeologists become givers, as they are able to show to anthropologists how one can derive social meaning from material arrangements and the study of material entanglement. As Lesley McFadyen (2010, 42) says: 'Archaeology focuses on knowing people through their relationship with things.' In order to capture the essence of the SFB and its advance towards interdisciplinary symmetry, one may modify McFadyen's definition in the following way: 'SFB 1070 focuses on knowing people through their relationships with resources.'

Different Time Scales

A third challenge for interdisciplinary cooperation between anthropologists and archaeologists derives from their division of labour in relation to time: archaeologists are specialists for past events, anthropology for present times. Among anthropologists, especially in Germany, the tendency to neglect history and to focus on what is going on today – if possible even tomorrow –, has again gained immense popularity. There was a time when scholars followed Edward E. Evans-Pritchard's (1950) protest against the purely synchronic studies of the British structural-functionalists and considered themselves to be ethno-historians or, like Bernard S. Cohn (1987), 'An Anthropologist among the Historians'. Some cultural anthropologists continued this historical approach, for example Janice Boddy (1989) and Michael Lambek (2002). Yet, another attitude has again gained ground: if one wants to reach public and scholarly attention, one needs to address the urgent problems of our contemporaries, their catastrophes, diseases, economic struggles, political conflicts and environmental problems. This trend is often accompanied by a tendency to reduce culture to an instrument of survival, opposition or domination in such a contested hyper-presence. At the basis of such reasoning lies what Marshall Sahlins (2002, 21) has termed the 'neo-functionalism of power', i.e. the idea that culture in its material and immaterial forms is the outcome of and a means to sustain power relations: 'Now, however, 'power,' is the intellectual black hole into which all kinds

of cultural contents get sucked, if before it was 'social solidarity' or 'material advantage'.' (Sahlins 2002, 20).

What are the alternatives? Long back Evans-Pritchard (1950) argued in his famous Marett Lecture that anthropologists like historians – and I here may add archaeologists – study history in the sense of cultural representations and sequence of events and that they basically share the same aims and methods: they provide cultural translations, describe and thereby interpret developments, make statements about social systems and engage in comparison. If there are indeed such common grounds, then the division of time into pre-, ancient, middle or modern history continues to be a useful tool for specialisation within disciplines, but no longer poses a barrier for interdisciplinary cooperation.

Similarly, the disciplinary divisions of the world into specific societies and cultures – past or present – which often obstruct academic exchange between archaeologists, historians and anthropologists, may be overcome if we focus on another common ground: the study of socioculturel dynamics. For example, in a paper entitled 'No more ancient; no more human: the future past of archaeology and anthropology', Tim Ingold (2010) imagines a meeting of the Association of Social Anthropologists in the year 2053. At this meeting, anthropologists find the name of their association awkward because their discipline has changed and is no longer simply studying the social life of particular human beings, but 'the conditions and potentials of life in a world peopled by beings whose identities are established not by species membership but by relational accomplishments' (Ingold 2010, 160). By this he means that the specific forms of on-going interaction between humans, animals, things etc. turn out to be the major focus of anthropology, which for him is a historical subject. In my view, our collaborative research centre paves the road towards this future, as we have developed a wide concept of agents including human beings, gods, ancestors, spirits, animals for studying their engagement with material and immaterial resources as these define the 'conditions and potentials of life'.

Ingold also imagines how archaeologists in about 40 years find the term 'archaeology' awkward because of its association with the study of past events. For these future archaeologists, Ingold claims, it has become evident that every past event is a condition for subsequent events. The subjects of archaeology are no longer fixed periods of the past, but movements and dynamics through time. Again, our collaborative research centre can be seen as contributing to this shift within archaeology as our interest lies in the sociocultural dynamics of engaging with resources through time. As Ingold says, we all 'follow what is going on' (Ingold 2010, 160).

New Perspectives on Resources

Lucas argues that archaeology as the 'science of absence' clearly differs from anthropology (or 'ethnography') with its focus on present people. Yet, in his view both disciplines have in common that archaeologists as well as anthropologists seek abstract systems (e.g., 'culture', 'society') and make generalisations about processes (e.g., 'developments', 'movements'): 'In this sense, both archaeology and ethnography are chasing abstract subjects, entities that occupy a different ontological plane to their empirical field of people and things' (Lucas 2010, 30). In other words, terms such as 'cultures' or 'resources' are abstract concepts which help to engage in generalisations, model building and interdisciplinary comparisons. In an attempt to reach this 'different ontological plane' the collaborative research centre is studying various dynamics and is developing a number of new concepts. First, the word resource has been given a special meaning. It no longer refers to useful things as such but to a particular perspective on tangible and intangible means for creating social relationships or identities. One could argue that this definition is so broad that basically anything can be included in this category and that this fuzziness reduces the analytical value of the concept. Confronted with this argument the initial proposal for the collaborative research centre included a passage, in which we argued that only those things are considered resources, which are the most essential for particular people at a certain time.[5] This argument however, does not solve the problem but rather in-

5 Conceptual Introdcution, 18, <http://www.uni-tuebingen.de/forschung/forschungsschwerpunkte/sonderfor-schungsbereiche/sfb-1070.html> (last acces 4.3.2016).

troduces another fuzzy aspect: the question of value, scale or hierarchy of resources, which is often highly contested, both among scholars and people using resources. In my view, the resource concept of the research centre receives its analytical value from its anti-essentialism. Indeed, anything may be considered a resource, yet the collaborative research centre offers particular perspectives for studying the procedural dimensions of resources.

Processes of Valuation

Concretely, the SFB 1070 focuses on three dynamics: first, the process of valuation, which raises question like 'what are the values and symbolic meanings ascribed to resources'? 'Who ascribes these values and meanings'? 'Are they contested, negotiated, changed'? Second, the process of value production, which involves various cultural practices such as digging for gold, refining oil, cooking food or learning scriptures, i.e. any action meant to provide access to a resource. Third, processes of value extraction, i.e. the concrete use – and often transformation – of resources for various purposes related to their ascribed values and meanings. Each of these three dynamics has a social dimension because these processes require social communication and interaction. For studying this social dimension one can raise questions like 'Who can define the value of the resource'?, 'Who produces the value of the resource'? or 'Who uses the resource and how?'.

ResourceComplexes

A second concept developed by the collaborative research centre is that of ResourceComplexes. In the initial proposal to the German Research Council a ResourceComplex was defined as a particular 'combination of objects, persons, knowledge and practices' necessary for the 'preservation, distribution or use' of a particular resource.[6] This definition profited from Stephen Gudeman's concept of a base, which according to him is 'locally and historically formed' and consists of 'entities that people appropriate, make, allocate and use in relation to one another' (Gudeman 2005, 97). The difference is, that Gudeman defines base in relation to a certain community or institution, while the term ResourceComplex refers to everything – material and immaterial – people need when engaging in the above mentioned processes of valuation, value production and value extraction of a certain resource, may this be silver, knowledge or divine power.

ResourceCultures

The third new concept, ResourceCultures, is of particular importance as the whole collaborative research centre derives its name from it. However, given the centrality of the concept for the overall project, so far the notion of ResourceCultures lacks theoretical elaboration. In the original application, one finds the following definition: 'ResourceCultures can be seen as specific, dynamic models connecting certain resources, social forms of use, social relations, units and identities in a contingent, meaningful way'.[7] This definition includes two main presuppositions. First, a ResourceCulture is a model. The term 'model' raises perhaps more problems than it solves because it may refer to mechanical or statistical models created for various purposes (see Lévi-Strauss 1963, 287) and bearing different relations to observable, 'real' life (Frigg/Hartmann 2012). However, the original intention in defining ResourceCultures as models was to draw attention to the interconnections between the various phenomena studied. Such interconnections are in my view not simply observable but emerge in the analytic process when comparing or generalising data. Second, the definition is based on the idea that these interconnections do not derive from natural laws or predictable cause-effect relations but are the products of historical processes and cultural evaluations, in other words, they are contingent.

The original definition of ResourceCultures in the collaborative research centre highlights the interconnections between three aspects: resources,

6 Conceptual Introdcution, 18, <http://www.uni-tuebingen.de/forschung/forschungsschwerpunkte/sonderfor-schungsbereiche/sfb-1070.html> (last acces 4.3.2016).

7 Conceptual Introdcution, 23, <http://www.uni-tuebingen.de/forschung/forschungsschwerpunkte/sonderfor-schungsbereiche/sfb-1070.html> (last acces 4.3.2016).

use of resources and social effects. However, since these three aspects are already part of the definition of resources, nothing new is introduced when talking about ResourceCultures. Therefore, I think these aspects should be replaced by a focus on the three major resource dynamics identified by the research centre: 'valuations', 'movements' and 'developments'. Thus modified, the study of ResourceCultures makes visible the interconnections between these three dynamics by answering questions like 'How do new valuations affect the movement of people and things?', 'In how far does movement lead to social developments?', and 'In which way do social developments lead to new valuations?'.

Correspondences

Such interconnections may be conceived of as open-ended lines or 'correspondences' in the sense given to the term by Ingold (2013, 105–108).[8] To Ingold, lines represent processes or movements that correspond or 'answer' to each other. When we represent the elements of an environment as bounded entities, we miss the point that they exist through time and react upon each other. This fluidity may better be captured by representing things, animals and people as lines. Similarly, ResourceCultures, as defined above, are not essences or bounded entities, but processes related to tangible and intangible things reacting upon each other. On a more abstract level, and thus going beyond Ingold, the three dynamics within a ResourceCulture – valuations, movements and developments – may also be represented as overlapping, open-ended lines (Ingold 2007, 169 f.): the lines indicate the procedural dimensions of resources through time, the overlapping points the correspondences between these processes.

8 I am grateful to Tobias Marschall for making me aware of Tim Ingold's concept of lines and correspondences.

Fig. 1. New Mosque: 'Central Mosque of Tüp (Yssykköl Oblast, Kyrgyzstan) and the Memorial for the victims in the Afghan War' (Photo by Yanti Martina Hölzchen).

Case Studies from Anthropology and Archaeology

Let me illustrate these ideas with examples from both anthropology and archaeology. The following case studies show that the above mentioned theoretical framework can be applied to different times and spaces and can be used for comparisons across disciplines. In her recent fieldwork for the research centre Yanti Hölzchen has identified Islamic religious knowledge as a new and increasingly important resource in present-day Kyrgyzstan. Islam came relatively late to Kyrgyzstan, especially to the mountainous northern areas and was strongly suppressed during the 70 years of Soviet rule. With the collapse of the Soviet Union and the official declaration of Independence in 1991, the country opened up and attracted religious institutions from various creeds. In the last five to ten years, the number of Islamic organisations and funds from Turkey and Saudi Arabia has steadily increased. They are spreading various forms of religious knowledge in Kyrgyzstan and have been successful in stimulating discourses about the Koran, good and bad life and the right faith. According to Hölzchen (2017), a ResourceComplex for getting access to Islamic knowledge is massively expanding. Everywhere in the country religious schools (madrassas), prayer and meeting halls (mosques) as well as pilgrimage networks (darvat) offer local people an access to religious knowledge (*fig. 1*). The result is the formation of a new ResourceCulture: institutions are

Fig. 2. Pilgrims in Puri: 'Pilgrims sharing holy food in Puri, Odisha' (Photo by Roland Hardenberg).

newly established, yet the resource itself as well as the attached ResourceComplex are highly contested. As Hölzchen discovered, Kyrgyz people discuss the value of Islamic knowledge by comparing it with what they consider their traditional way of life. What is new, what is old? What is local, what is foreign Islam? What is the proper relation between religious and secular knowledge? These valuation processes become intensified with the spread of mosques and madrassas throughout the country enabled by the transnational flows of knowledge, money and personnel. This spatial mobility is not unidirectional: more and more Kyrgyz seek Islamic knowledge outside the country. This double movement leads to a diversification of the ResourceComplex: the number of books, religious paraphernalia and institutions increases, the organisational set-up becomes diversified with different schools of Islamic thought which correspond with various social differences: Islam for students and intellectuals, Islam for business people, Islam for village folk.

Compared to this evolving ResourceCulture in Kyrgyzstan, the situation studied by Katharina Müller (2017) in Iran and Lisa Züfle (2017) in India is quite different. Both deal with long-established religious institutions, the Shia shrine of Imam Reza in Mashhad and the Hindu Temple of Jagannatha in Puri. The resource in both contexts is a means of mediation: in Mashhad, the holy Imam Reza mediates between the believers and Allah, while in Puri the holy food mahaprasad is the medium of exchange between the devotees and God Jagannatha. To have access to this resource, different ResourceComplexes developed over centuries. Thus, Müller in her work focuses on the importance of making donations (*waqf*), participating in rituals and doing voluntary work in the shrine as means for getting access to the highly valued resource, Imam Reza. In the Indian case, Züfle investigates the production, distribution and consumption of mahaprasad, the food containing the divine essence, as a ResourceComplex (*fig. 2*). On the one hand, in both cases resource and ResourceComplex have a long history of institutionalisation and are protected by various rules and practices reaffirming tradition. On the other hand, in Iran and in India, the systems are subject to increasing expansion, promotion and commercialisation. The ResourceCultures in Mashhad and Puri thus seem to share certain similarities. In both cases, an established corpus of texts and oral traditions are determining the value of the resource and demand continuity without change. Unlike in Kyrgyzstan, the value of the resource is not contested, only the access to the resource. However, in contexts where change is allowed, commercial values and practices are used to increase the value of the resource. For example, elaborate forms of advertisement for the religious resource attract pilgrims and tourists who contribute to the fame of Imam Reza and mahaprasad. This increases not only spatial mobility, but also leads to development in the sense of institutional growth and increased differentiation: the number of personnel in both institutions, especially in the administration, is constantly rising, large investments are made in sacred buildings, new technologies, such as digital media and the internet are quickly introduced, and the influence of the religious institutions is expanding into politics and economy. While in Kyrgyzstan demands for Islamic knowledge produce a diversity of competing institutions, the long established ResourceCultures in Iran and India are marked by a high degree of centralisation.

My last example derives from the work of Silviane Scharl from Cologne University, who investigated and analysed the form and distribution of silex in northwest Bavaria during the early and middle Neolithic. Using various theories from archaeology and anthropology, Scharl (forthcoming) develops her own interpretation of the data,

however I here use her findings to illustrate the conceptual framework of the collaborative research centre. Given the wide distribution and use of silex as knifes, she clearly investigates a valued resource as defined by the research centre. In her work, she describes a ResourceComplex that lasted for a long time and consisted of practices for extracting silex, for making knifes from the raw material, for improving or recycling tools and for distributing or exchanging raw as well as transformed materials. In northwest Bavaria, this ResourceComplex underwent a certain change from the early to the middle Neolithic because one type of silex, the so-called *Plattenhornstein* from Abensberg-Arnhofen, became the favourite resource while other materials, which were used in earlier times, lost significance. One could say a new ResourceCulture emerged. First, in terms of valuation, the silex has probably changed from a good produced casually and mostly for subsistence into a commodity, i.e. a product of organised work meant for exchange. Second, this new valuation appears to go along with new forms of mobility. Scharl suggests that perhaps in the middle Neolithic people from particular settlements were sent to the Franconian Alb in order to acquire raw silex through exchange. Maybe, these people took more raw material than needed for subsistence in order to have an exchange commodity to be traded in their place of origin. Third, these new movement patterns may be related to social developments at that time. Trade becomes the dominant mode of exchange, because a larger population has to be supplied with silex. Furthermore, the settlement patterns change from early to middle Neolithic: Settlements become larger and denser and villages as social units of solidarity rise in importance. Additionally, the quickly changing fashions of ever more complex ceramics may be taken as an indication for increasing communication, and taking into account the construction of circular earthworks throughout middle Europe one may even speak of interregional communication (Scharl forthcoming). Such places probably allowed people to exchange experiences, knowledge and material culture such as silex tools. Taking these social changes into consideration, Scharl expresses an interesting hypothesis: The prominence of one particular type of silex in this area shows that the *Plattenhornstein* has perhaps become a symbolic resource for creating identity. This ResourceCulture does not produce diversification as in Kyrgyzstan, but rather unification. However, in all three case studies, the existence of central places for production, distribution and consumption of resources as well as intensified communication about the value of resources appear to be decisive factors in the expansion of ResourceCultures.

Conclusions

In this paper I have argued that the interdisciplinary cooperation between anthropology and archaeology faces certain challenges but also offers chances to overcome biases and asymmetries. In particular, I argue against the widespread opinion that anthropologists have a privileged access to values and meanings and are the sole experts for abstract theories and far-reaching generalisations. In my view, archaeologists offer an approach to the study of values, which has only partly been used by anthropologists due to their focus on conscious values expressed by the people they study. When it comes to meanings, I argue that on the one hand anthropologists have lost their superior position as 'givers' due to post-modernist theories of discourse and subjectivity. On the other hand, post-processual archaeologists have found new ways of talking about the meanings of things. I follow Lucas when arguing that both disciplines share – despite all differences of data – one important commonality: archaeologists and anthropologists strive to go beyond their empirical data and make statements about social and cultural systems as well as certain dynamics through time. This insight lies at the basis of the new SFB 1070, which combines members of these disciplines in the joint effort of generalising the dynamics deriving from the use of culturally defined resources. For this common aim, new concepts are introduced, which allow the involved scientists to find a common plane for comparing their various studies. Central to the new corpus of concepts is the notion of ResourceCultures which brings to the fore the 'correspondences' between three interrelated dynamics: developments, movements and valuations. This is illustrated with three anthropological field studies from Kyrgyzstan, Iran

and India and one archaeological investigation into the pre-history of northwest Bavaria, Germany. A comparison of these three ResourceCultures shows that the existence of central places for production, distribution and consumption of resources as well as intensified communication about the value of resources seem to be decisive factors in the expansion and unification of ResourceCultures. This proves that the approach of the collaborative research centre has the potential to identify correspondences between processes of valuation, spatial movement and social development so that in the end we may be able to better understand the internal mechanisms of ResourceCultures.

Roland Hardenberg
Institut für Ethnologie
Norbert-Wollheim-Platz 1
Goethe Universität Frankfurt
D-60629 Frankfurt am Main
Hardenberg@em.uni-frankfurt.de

Bibliography

Bartelheim et al. 2015: M. Bartelheim/R. Hardenberg/T. Knopf/A. K. Scholz/J. Staecker, 'ResourceCultures' – A Concept for Investigating the Use of Resources in Different Societies. In: A. Danielisová/M. Fernández-Götz/K. Kowarik (eds.), Persistent Economic Ways of Living – Production, Distribution, and Consumption in Iron Age and Early Medieval Period (Budapest 2015) 33–43.

Boddy 1989: J. Boddy, Wombs and Alien Spirits. Women, Men, and the Zar Cult in Northern Sudan (Madison 1989).

Cohn 1987: B. S. Cohn, An Anthropologist among the Historians and other Essays (Delhi 1987).

Coole/Frost 2010: D. Coole/S. Frost, Introducing the New Materialisms. In: D. Coole/S. Frost (eds.), New Materialisms. Ontology, Agency, and Politics (Durham 2010) 1–43.

Evans-Pritchard 1950: E. E. Evans-Pritchard, Social Anthropology. Past and Present the Marett Lecture. Man 50, 118–124.

McFadyen 2010: L. Mc Fadyen, Spaces that were not Densely Occupied – Questioning ‚Ephemeral' Evidence. In: Garrow/Yarrow 2010a, 40–52.

Frigg/Hartmann 2012: R. Frigg/ S. Hartmann, Models in Science. In: E. N. Zalta (ed.), The Stanford Encyclopedia of Philosophy (Fall 2012 Edition), <http://plato.stanford.edu/archives/fall2012/entries/models-science/> (last access 4.3.2016).

Garrow/Yarrow 2010a: D. Garrow/Th. Yarrow (eds.), Archaeology and Anthropology. Understanding Similarity, Exploring Difference (Oxford 2010).

Garrow/Yarrow 2010b: D. Garrow/Th. Yarrow, Introduction. Archaeological Anthropology. In: Garrow/Yarrow 2010a, 1–12.

Gibson 1977: J. J. Gibson, The Theory of Affordances. In: R. Shaw/J. Bransford (eds.), Perceiving, Acting, and Knowing (Hoboken 1977) 127–143.

Gosden/Malafouris 2015: C. Gosden/L. Malafouris, Process Archaeology (P-Arch). World Archaeology 47.5, 2015, 701–717.

Gudeman 2005: S. Gudeman, Community and Economy. Economy's Base. In: J. Carrier (ed.), A Handbook of Economic Anthropology (Cheltenham 2005) 94–106.

Hardenberg 2017: R. Hardenberg (ed.), Approaching Ritual Economies. Socio-Cosmic Fields in Globalized Contexts (Tübingen 2017).

Hodder 2012: I. Hodder, Entangled. An Archaeology of the Relationships between Humans and Things (Hoboken 2012).

Hölzchen 2017: Y. Hölzchen, Religious Education and Cultural Change. The Case of Madrasas in Northern Kyrgyzstan. In: Hardenberg 2017, 105–134.

Ingold 2007: T. Ingold, Lines. A Brief History (Abingdon 2007).

Ingold 2010: T. Ingold, No more Ancient. No more Human. The Future Past of Archaeology and Anthropology. In: Garrow/Yarrow 2010a, 160–170.

Ingold 2013: T. Ingold, Making: Anthropology, Archaeology, Art and, Architecture (Abingdon 2013).

Joyce 2015: R. A. Joyce, Transforming Archaeology, Transforming Materiality. Archaeological Papers of the American Anthropological Association 26.1, 181–191.

Lambek 2002: M. Lambek, The Weight of the Past. Living with History in Mahajanga, Madagaskar (New York 2002).

Latour 1993: B. Latour, We Have Never Been Modern (Harvard 1993).

Latour 1999: B. Latour, Pandora's Hope. An Essay on the Reality of Science Studies (Cambridge 1999).

Lévi-Strauss 1963: C. Lévi-Strauss, Social Structure. In: C. Lévi-Strauss, Structural Anthropology (New York 1963) 277–324.

Lucas 2010: G. Lucas, Triangulating Absence. Exploring the Fault-Lines between Archaeology and Anthropology. In: Garrow/Yarrow 2010a, 28–39.

Miller 2005: D. Miller, Materiality. An Introduction. In: D. Miller (ed.), Materiality (Politics, History, Culture) (Durham 2005) 1–50.

Müller 2017: K. Müller, 'Write Vaqf, Read Paradise'. Emām Rezā's Religious Endowment in the Socio-Cosmic Field of Mashhad, Iran. In: Hardenberg 2017, 135–158.

Sahlins 2002: M. Sahlins, Waiting for Foucault, Still (Chicago 2002).

Scharl forthcoming: S. Scharl, Organisationsformen von Tausch im Neolithikum – Eine Fallstudie aus Nordwestbayern. In: A. Windler (ed.), Perspektiven einer ökonomischen Archäologie (Bochum forthcoming).

Soentgen 2014: J. Soentgen, Materialität. In: S. Samida/M. K. H. Eggert/H.-P. Hahn (eds.), Handbuch Materielle Kultur. Bedeutungen, Konzepte, Disziplinen (Stuttgart 2014) 226–229.

Spiro 1996: M. E. Spiro, Postmodernist Anthropology, Subjectivity, and Science: A Modernist Critique. Comparative Studies in Society and History 38.4, 1996, 759–780.

Trigger 2007: B. Trigger, A History of Archaeological Thought (Cambridge 2007).

Züfle 2017: L. Züfle, The two Faces of Mahaprasada. Ritual and Business in the Kitchen of Sri Jagannatha. In: Hardenberg 2017, 281–308.

HANS PETER HAHN

Kinds of Resources and Ways of Perceiving
Anthropological Reflections on a Contested Category

Keywords: materiality, contexts of things, ethnography, affordance, needs

Abstract

Resources have a massive impact on societies. However, the question who defines a resource's value, i.e. recognises it, and the way it is approved, i.e. socially confirmed, depends on many factors. Starting with Sahlins' statement about 'original affluence', we have to reverse our understanding of 'scarcity' (Sahlins 1968). Consequently, any given resource requires a definition of its value and particularity. The necessity to define a resource's value and productivity is always culturally specific. The best way to study these specific ways of assessing a resource's productivity is to consider its career or obsolescence. Is novelty in terms of material or technology appreciated? What about available resources that are of no interest for anyone?

Negotiations about a resource's value result in a conundrum of properties defined on different but often inseparable levels. What about holy water for instance? Obviously, it is a highly appreciated resource for health, well-being or simply the material manifestation of religious belief. It is almost impossible to identify the relevant properties by which water becomes 'holy water'. However, the existence of such properties cannot be denied. Apart from the material properties it is obviously the stories connected to objects, materials and places that turn these items into distinguished resources. According to Munn attaching stories is the principal practice to identify and affirm the value of whatever is considered as desirable in a society (Munn 1968).

Parallel to the appreciation and the societal consensus about the value of a resource we also have to consider the dissolution of value and the disappearance of resources. A prominent historical example is the fate of relics during the 15th cent. AD. These valuable objects became worthless – rubbish, so to say – within a short period of time. Public opinion tended to reject their value and to disbelieve the related stories of origin. At first glance, Munn's definition seems to be verified. However, closer historical and ethnographic examination might highlight internal tension and different (religious) fractions, each addressing the value (and its 'resource character') differently.

This contribution focuses on the multilevel character of resources and the power of negotiations, simultaneously defining and obfuscating properties of potential resources.

Introduction: Resources as Configurations

In the following, I shall approach 'resources' as a relational term: It contains a description of an actor's relation to a material or immaterial phenomenon. This seemingly obvious or even banal statement is probably the best point of departure in order to tackle the issue of resources on an anthropological level, i.e. from a cross-cultural perspective. Therefore, the first section of this contribution deals with the concepts of resources in societies worldwide, related for instance with ideas of scarcity and abundance. Secondly, I shall narrow down the conception of resources by focusing on material resources and, more precisely, by asking for the perception of a particular

resource in the context of its materiality. This question is also related to phenomena of the social and cultural production of resources through interpretation. Thirdly, I shall deal with the emergence, diffusion, and disappearance of resources. Doing so, I will address the historical changes that inevitably affect the resources' appreciation or dismissal.

In a common-sense framework, the term 'resource' appears to be a crucial concept to explain the current configuration of a society as well as its history and future. This holds true even more in the context of material culture studies: Every material object is associated with a resource, at least in the sense of 'being made out of a substance'. The experiences of melting down bronze and brass objects in times in which this alloy was considered a critical resource, reminds us of the fact that the character of 'being a substance' is a permanent condition of most objects of material culture (Hahn/Soentgen 2010). However, in accordance with our initial definition of resources given at the beginning of this contribution we also have to consider the discursive dimension of resources. Equating an object or a substance with a resource is an expression of a certain attitude of a group or an individual towards a particular configuration of the environment in the first instance. Doubtlessly, this includes the positive evaluation of such a configuration. A resource may include objects or substances or a culturally ascribed feature. Resources are not always 'objectively' identifiable because they are constructed in historical processes. This concept certainly is a challenge in the broader interdisciplinary context of this book and it cannot be adopted easily by all participating disciplines. Still, I will stick to it here, because it is always useful to choose a broader concept at the beginning in order to provide space for a certain level of complexity, instead of avoiding complexity by making the concept too narrow and specific.

In the following section, I shall frame my remarks with references to ethnographic research, both from classical authors like Richard B. Lee and Marshall Sahlins and from my own fieldwork. The latter refers to my work on material culture in particular. A society's materiality is unintelligible if we do not deal with the problems caused by the access or the lack of access to resources first. Shape and form of crafted things, and more generally speaking material culture are not just expressions of whatever imaginable designs objects might have, but more importantly demonstrate, which material resources are available.

My own research is based on long term ethnographic studies in West Africa and deals with material culture of different cultures within the sub-region. My observations are less historically oriented, but rather focuses on current day issues about access to and valuations of materials. Drawing on these data, I intend to make statements that are valid in the context of current anthropological research. In a broader sense this contribution I wish to support a constructive dialogue between anthropology and archaeology. As a matter of principle such a dialogue should focus on the modelling of social and cultural phenomena, rather than being misled by the interests of certain archaeologists who aim at appropriating ethnographic findings and constructing analogic parallels to the archaeological record.

Anthropology and archaeology share a considerable amount of interests and scientific premises (Hahn 2012b). However, if both disciplines are perceived as part of the more complex framework of humanities, the limited use of the results of one discipline for answering the questions of another proves to be a quite problematic practice. To say the least, it would result in a biased game of finding answers, based on dubious assumptions about the history of mankind. Instead, I suggest, a fruitful anthropological-archaeological cooperation should strive to delimit shared questions, resulting from overlapping concepts and a joint basic understanding of the concept of 'cultural phenomena'. Questions such as how to think about technologies and, more specific about 'resources' are good examples in this context (Hahn 2009). This may concern the relationship between humans and their physical environment, the social regulations of access to substances and things (= social structure), and emic concepts of a resource as such.

Scarcity and Abundance: How Resources Are Conceptualised

We are used to understand contemporary Western nations as societies of affluence (Galbraith 1958).

Never before in the history of mankind people have owned so many things nor have they ever had access to such a wide range of different material resources available as in Western societies of the 20th cent. AD. The availability of things seems limitless. In this context, currently relevant questions are restricted to issues of fair distribution and the appropriate equivalents that we are willing to invest in order to obtain certain goods and commodities.

However, anthropology has shown that other societies know quite different concepts of the relation between individuals and their environment. Marshall Sahlins has summarised some related investigations in a polemical text entitled 'The original affluent society' (Sahlins 1968; 1978, 1–40). In this provocative essay, Sahlins turns the usual perspective upside down. By presenting some good reasons for doing so, he describes consumer societies as 'societies of scarcity', whereas that type of society, which we habitually regard as impaired by extraordinary scarcity, is characterised by him as 'affluent society'.

The empirical basis of his studies is the lifestyle of so-called 'hunter-gatherer societies'. At first glance, it seems that these groups, which today account only for a tiny fraction of humanity, lack almost everything: They only have minimal material equipment, their tools are extremely simple, and their diet depends on what is offered by nature, entirely. In addition, their current habitats, e.g. semi-deserts and rainforests, are often associated with extreme scarcity of resources (Lee 1968; Köhler 1991). According to a widely unquestioned Western assumption the everyday life of such people in these climatically marginal regions with their particular habitats and lifestyles is marked by hardship and the struggle for survival. But Sahlins shows that the opposite proves to be true. Members of hunter-gatherer societies eat very well; their nutrition is rich in vitamins and protein and, most of the year, there is more food available than can be consumed. Furthermore, Sahlins refers to earlier observations about the total carelessness of these people regarding their resources: Men and women only use what they need for the day; everything else is left behind (Testart 1982). If any member of society intents to intensify the exploitation of resources in order to store a considerable amount of foodstuff, he will encounter social disapproval. In such societies each individual is supposed to limit his personal possessions to what he can carry himself; nobody is to hunt or collect more food than he himself can consume within a few days. Sahlins emphasises that the ideal in these societies is the contempt of accumulation.

Whoever has hunted a large head of game is not supposed to dry the meat and keep it for himself, but to share it with his community. Further norms in these societies regard the depreciation of work. Sahlins assumes that they follow the social rule of maximising idleness.

Empirical studies have shown that the weekly working time among hunter-gatherers amounts to less than 20 hours. Sitting at the campfire, spending time in the grass huts, or relaxing in the shade of a large tree is much more important than working to them (Widlok 1999). Someone who avoids social time or lounging collectively is considered malicious. Sahlins calls this system of norms the 'Zen way of prosperity'. Saturation and affluence are not obtained by making full use of the available resources, but rather by focusing on the essentials and a contempt for everything else.

At the time of publication, about 40 years ago, Sahlins' study received an overwhelming response. It was discussed intensely and translated into several languages, including German (Sahlins 1978). However, it also drew criticism that has to be addressed. Certainly, some of the data that Sahlins has used need to be re-assessed carefully. Nevertheless, the relevant aspect for this paper is his fundamental statement, which includes a general explanation about the concept of resources and is worth to be considered again from the angle of our current interest: As Sahlins points out there are quite different ideas about how to access the environment. Notions like, for instance, the 'exploitation' of what nature offers or the 'optimal use' of what is available at reasonable cost, dominate Western thinking about resources. It is precisely these ideas that need to be relativised.

Sahlins calls such perceptions elsewhere a 'cosmology of capitalism' (Sahlins 1988; 1996). Following Sahlins, it is a fundamental mistake of the West to consider its own 'cosmology' (including the idea of a scarcity of resources) as universal.

It is worth to take a closer look at the history of economics to find other relevant case studies that provide alternative concepts of the distribution of resources. For instance, the Russian historian of agriculture, Alexander Tschajanow has published a remarkable study, dealing with the principles of income generation among Russian peasants, in the late 19th cent. AD. He found out that the peasants were neither oriented towards available or called-for work nor towards the wages offered (Tschajanow 1987). Instead, they only worked as much as necessary to earn a limited amount of money. They just wanted to satisfy the nutritional needs of themselves and their families for a few days; they were not interested to generate more income, even if there was an opportunity. When the wage rises were implemented to stimulate a higher willingness to work, the farmers did not react as expected: They simply did not work longer. On the contrary, they reduced their working hours in order to obtain the same wage they would have earned for longer working hours at the previous hourly rate.

Tschajanow's work, originally published in 1923, is still appreciated by the experts as a valuable lesson in development policy. It shows, through its comprehensive empirical basis, that the resource 'pecuniary income' is not utilised according to its availability. The appeal of 'income' as a resource is rather limited to short-term goals of survival.

Although Tschajanow's work has not been quoted by Sahlins, the contributions, one from Southern Africa, the other from Russia, are closely related: Both of them contextualise the idea of a resource. In both cases, the 'availability' is outweighed by social limitations. Furthermore, one and the other give low priority to the optimal exploitation in their hierarchy of values. It is easy to relate these findings to current challenges of the agricultural production in West Africa (Krings 1991; Okike et al. 2001; Stamm 2001). In West Africa, there is a longstanding problem of chronic underproduction. Currently, several countries in the region have to import staple foods to nourish their rapidly growing populations. Farmers in these countries would certainly be able to produce more crops than they need for themselves. The expectation of development economists to stimulate production through higher market prices, e.g. for various types of cereals, has turned out not to have any major effect. If prices for agricultural products increase, farmers reduce their production. They only produce the minimal amount of cash-crops sufficient to obtain their goal (e.g. to pay school fees). If the harvest exceeds the expectations, the surplus is used for social activities. This can be done directly by organising big festivals or indirectly by conserving surpluses that are distributed in times of scarcity.

The key arguments of Sahlins and Tschajanow are parallel to the described agricultural phenomena in West Africa. In all situations, available resources (game for hunting, money, cereals, and other cash-crops) are considered as something that is not available in infinite quantities. Limitations are defined culturally and apply in specific regional and historical contexts. A resource, one might conclude, is not what someone needs, or what appears to be available, but rather what appears to be a reasonable offer from the material environment to specific actors. A resource is regarded as such only when the cultural setting renders its appropriation relevant.

Perception of Resources

The above statement about the perceived relevance of a resource links the previous section with the following one. How a 'resource' is perceived is not only a matter of relevance, but also one of competence and knowledge. Ethnographic research teaches the careful observer that perceived properties of things and substances have a major impact on its categorisation as a resource. Whereas the previous section dealt with hierarchies of values and consequently practices the following passage focuses on this very aspect. Yet, there is of course no sharp distinction between these two approaches to resources and the differentiation suggested here only serves heuristic purposes.

From of the many potential qualities of things, in each society only a few are selected as characteristic for them. Although this restriction in perceptions might appear as a 'culturally induced limitation' it is the constructive basis for the reliable embedding of a resource, i.e. linking a material or an object with meanings and connections

in a stable manner. Tim Ingold (2007) argues in this context that culture ultimately serves to simplify the complexity of the physical environment. It selects and pushes some useful properties of the material features to the forefront while it simultaneously ignores others.

The often sought-after 'scientific objectivity' in the description of material items has little to do with our everyday perception of objects. Dealing with material culture and substances as well as access to resources has much more to do with 'ignorance'. People use things without really knowing, which characteristics are inherent in these things (Hahn 2015).

Imagine a complete list of properties of a thing, as it should be possible to establish for an anthropologist or an archaeologist. It is obvious that the everyday user will be aware only of a quite small part of these properties. Of course, the inverse relationship is also true: Very specific properties may be overlooked in the scientific context, even though they may play quite an important role in users' subjective perception and appreciation as a resource.

A simple example, which relates to the origin of goods and commodities, demonstrates to which extent objectified knowledge and every-day culturally embedded knowledge diverge. Of course nowadays in every European household we can find goods that have been produced or assembled in all continents. In everyday action however, the origin of an object is of minor importance. People do not know where these things come from. The pathway of a household item from its place of production via long distance trade and regional distribution mechanism to the supermarket does not really interest the average consumer (Arnold et al. 2012). Undeniably, this ignorance has a positive aspect. Not being able to differentiate between things of different origins makes it possible to use them, regardless of their origin at the same time. 'Ignorance' is therefore a basis for using many different things as a reliable resource.

Thus, I have shown a first reason, how selective perception is advantageous in a particular context. In addition to this, the benefits of such a selective perception can be shown in two other fields. One has its conceptual foundation in the so-called 'Ecology of Mind'. An example is provided by Jakob von Uexküll, who described an old oak tree with different animals, which live on or under the tree (Uexküll/Kriszat 1934). The essay deals with the different perceptions of each of these animals. The respective interests and habits lead to special sensitivity concerning particular areas of the tree. The bark beetle has detailed knowledge of the hard and soft parts of the bark; the blackbird particularly appreciates some hidden crotches that serve as a nesting site; the woodpecker lives in a cave in the trunk and the badger finds shelter beneath the roots. All animals perceive the same object, the old oak tree, yet differently from their respective perspectives. Von Uexküll concludes: There is no need for an idea of the whole. The analytical perspective of the tree as an entity with a complex set of properties, i.e. the 'objectified knowledge' is not a priority. What really counts is the precise coordination of perception with regard to specific interests.

The third field to which I refer here in order to underline the usefulness of such a selective perception has been elaborated by Tim Ingold with his notion of 'affordance'. The affordance of a thing is a partial picture; it is the appearance of the object that comes to the fore in the eyes of the beholder (Ingold 1992). The thereby perceived quality may be, for instance, the roughness or the hardness of a surface. Considering the appreciation of many metals, it may also relate to the plasticity and hardness of these materials. Artefacts that are used frequently, like a toothbrush, are often shaped in a way that makes it hard to miss their affordance (Garrow/Shove 2007). But of course also wrong or even dangerous incentives can occur. For example the use of sweetener causes people to eat excessive amounts. The availability of garments at a low price can contribute to the habit of wearing clothes only once.

Building on the framework of 'ignorance', 'selective perception', and 'affordance', many of the correlating ethnographical examples are more complex. One of these deals with the meanings and uses of water. A closer examination of this 'substance', which is of course a highly relevant one reveals an irritatingly wide range of different evaluations. Members of Western societies consider the completely transparent and tasteless form of water as the 'ideal form' of the substance. But in West Africa things are different. In my ethnographic work I had

to learn that rainwater and surface water has a more appealing taste because of its opacity and the fine particles it contains (Hahn 2012a).

In the context of water there is a dominant opinion on a global level describing it as a substance with uniform properties. There are strong normative rules that decide in each individual case, whether the water fits for human consumption or not (Goubert 1989). Ethnographic data show a quite different perception of this 'resource', and particularly of the Ganges in Northern India (Cless 2014). The water of this sacred river is indisputably murky, but it is considered as 'pure'. This purity is by no means only metaphorically; it is perceived as a manifest property of the Ganges water. People in India drink this water in order to rinse themselves internally. They swim in the river in order to obtain external purity (Weiz 2005; Zühlke 2013). Believers claim that bottled water from the Ganges does not rot and even that it maintains its good taste.

It is difficult to find the objective dimension in such statements. Yet, this accounts for an important characteristic of resources: The selection of perceptions and characteristics that constitutes the relational phenomenon we call 'resource' can hardly be determined objectively. We can conclude however that the identification of a resource always includes some explicit and particular features. Without desirable characteristic no resource! The scientific knowledge about water and its properties have led to a de-valuation or elimination of the resource 'water'. The power of culture in defining resources becomes obvious in the case of the 'holy water' from Lourdes. It is almost impossible to identify the specific properties that transform ordinary water into a precious resource for health in a 'scientifically objective' way (Hänel 2009; Worster 2006).

Differing perceptions of resources, affirmative as well as critical positions have probably always existed. Nevertheless, we need to address an important question: What are the limits to the differences in perceiving resources? If there is no water at all anymore, the question about the qualities of water loses its relevance. What is the scope of 'drinkable water' in different cultures? Such questions can be answered only in specific regional and historical settings. To ask them however, is a basic requirement for understanding resources in their complexity.

Changeability

The perception of a resource does not only differ between one locale and another; it is also subject to historical processes. Therefore, it is of particular importance to address these changes explicitly. The dynamics of the increasing appreciation or neglect make it possible to understand some more aspects of the concept of 'resources'. It is probably no mistake to use the metaphor of 'cultural and social filters' that lead people to accept or to reject something as a resource at a particular moment in history.

A quite well documented historical example is that of the history of asbestos. Asbestos or 'Salamander' is a material known since antiquity. It is said that Charlemagne possessed a tablecloth made of asbestos, which he used to impress his guests by throwing it into the fire (Büttner 2004). In the 19th cent. AD people began to use the property of fire-resistance for fireproof clothing for firefighters. Quickly asbestos became a popular material. The 20th cent. AD was the moment to introduce cheap, fire-resistant building materials for example Eternit. Just at the time of its most intensive use in housing, industrial plants and other buildings research findings on severe health hazards of asbestos were confirmed (Roselli 2014). Asbestos completely changed its role and losing its attribution as a resource turned into a dangerous substance. The cost of disposing this hazard are enormous and will be relevant in the future as well.

This example is closely connected with the question of 'clean water' the key example of the previous section. Water and asbestos both show significant changes in evaluation in the course of history. At any particular moment, only certain properties are recognised, while others do not appear. In addition to 'recognition' in the sense of perception, the implementation of new insights that are not necessarily visible for the naked eye is also relevant. New findings may lead to the devaluation or upgrading of a resource.

There is an abundance of ethnographic case studies that describe how ordinary things become

appreciated resources. Frequently, such descriptions also deal with the question of how 'value' is generated. The most famous example in this context concerns the *kula* objects, which circulate among different societies in Oceania as described in the classic monograph by Bronislaw Malinowski (1922). The objects in question, *soulava* and *mwali*, are made out of different kinds of shells and travel over long distances with their temporary owners in order to be exchanged (Strathern/Stewart 2005). Malinowski compares these valuables with the crown jewels of the Queen of England and describes in detail how particular value objects are linked to specific stories. Having a particular story is a value-increasing attribute. Malinowski's study, alongside other studies on the mechanisms of value generation, inspired Nancy Munn to present a more general concept of value generation (Munn 1966; 1971; 1986). Her specific interest focusses on the relatedness of a particular person's appreciation with the value of a prestigious object. This is no surprise given the importance of memorabilia in Western culture (Oesterle 2006). It is important to link this concept of social and cultural 'value generation' to the idea of a resource.

The generation of value is one of the classical topics in anthropology, however mainly with regard to the decrease of value or the rejections of things. Anthropologists have frequently considered their own work as a documentation of things and other phenomena, seemingly on the verge of distinction. There is a general trend in anthropology to believe that traditions are devaluated. 'Traditional' objects seem to lose their role as valuable resources in the societies under examination. But quite often this rather worried and critical assessment turned out to be wrong. Instead, it was shown by 're-studies' that traditions are stronger than expected. Objects linked to traditions may change their role, relevant customs are modified, but the institutions persist. At least, this is the case for the kula valuables (Malnic/Kasaipwalova 1998).

Conclusion

Dealing with resources requires a careful examination of the available conceptual tools. We need to understand cultural embedding and the respective differences in relevance. If a thing, a substance, or a social position (prestige) is considered to be a resource, this means primarily a relation, established and recognised by the individual, but also by the society and culture. To summarise the key arguments of this chapter, three aspects need to be mentioned:

1. 'Resource' cannot be a universal concept. In a first approach, the relations between a society and the materiality of the environment have to be examined, as I have demonstrated above drawing on different studies on the hunter-gatherer societies. As indicated through the following examples from Russia and West-Africa agriculturalists, this is by no means only relevant for 'exotic' societies! Even in the present there are social environments where a universal resource concept cannot apply. Whether and how resources are recognised as such, cannot be answered without considering of 'valuation', 'perception' and 'usages'. All these things are culture-specific and may vary considerably as has been shown in the chapter by different examples.
2. 'Resources' needs both, the reference to things, including the materiality of the environment as I have shown with reference to Uexküll's work, as well as the discursive processes determining the appreciated characteristics of a resource highlighted by Munn. To some extent, the required equilibrium between the natural dimension and the power of the discursive framing can be compared with the old story of Scylla and Charybdis. Any bias towards one of the two ('naturalism' or 'culturalism') will lead to an inacceptable simplification. Referring to resource only with regard to one of the two domains will lead to a failure of the concept as such. It is important not to consider a resource as something 'given'. The historical context, the increase of value, but also the disappearance of valuation should be taken in account. I have exemplified this here with the case of asbestos. On the other hand, there are also limits to the possibility of generating resources through specific discourses. Diamond's book on the collapse of societies presents a collection of examples on how societies fail to acknowledge the importance of particular resources (Diamond 2005).

3. There is a specific relation between 'knowledge' and the recognition of resources. This also includes an observation of the interface between different resources. The rejection of one particular resource can contribute to the appreciation of another. Identifying a new resource may lead to a decrease in relevance of previously existing resources. The relation between limited perception and resources can also lead to ignorance of the potentials of a resource, but also to an elimination of resources through increasing 'scientific objectivity', as in the case of water. Probably 'not knowing', i.e. 'ignorance', about material properties of things and substances plays a considerable role on cultural approaches to potential resources.

Taking the three aspects together, (1) the cultural specificity, (2) the double embeddedness in nature and discourses, and (3) the limitations in the perception contribute to the complexity of the term 'resource', assessed in a cross-cultural perspective. Although talking about limited resources is part of the political negotiations on an everyday basis and plays a role in all domains, we still need to assemble many quite disparate elements across disciplines. What is more, we will have to engage in further research in order to gain a proper understanding of the meanings of this term.

Hans Peter Hahn
Institut für Ethnologie - Campus Westend
Goethe-Universität Frankfurt,
Norbert-Wollheim-Platz 1
D-60323 Frankfurt am Main
hans.hahn@em.uni-frankfurt.de

Bibliography

Arnold et al. 2012: J. E. Arnold/A. Graesch/E. Ragazzini/E. Ochs (ed.), Life at Home in the Twenty-First Century. 32 Families Open Their Doors (Los Angeles 2012).

Büttner 2004: J. U. Büttner, Asbest in der Vormoderne. Vom Mythos zur Wissenschaft. Cottbuser Studien zur Geschichte von Technik, Arbeit und Umwelt 24 (Münster 2004).

Cless 2014: K. Cless, Menschen am Brunnen. Ethnologische Perspektiven zum Umgang mit Wasser (Bielefeld 2014).

Diamond 2005: J. M. Diamond, Collapse. How Societies Choose to Fail or Succeed (New York 2005).

Galbraith 1958: J. K. Galbraith, The Affluent Society (Boston 1958).

Garrow/Shove 2007: D. Garrow/E. Shove, Artefacts between Disciplines. The Toothbrush and the Axe. Archaeological Dialogues 14.2, 2007, 117–131.

Goubert 1989: J.-P. Goubert, The Conquest of Water. The Advent of Health in the Industrial Age (Cambridge 1989).

Hahn 2009 : H. P. Hahn, L'ancienne métallurgie de fer en Afrique de l'ouest. Problèmes ethnoarchéologiques et interprétations. In: S. Magnavita (ed.), Crossroads. Cultural and Technological Developments in First Millennium BC/AD West Africa. Journal African Archaeology Monograph Series 2 (Frankfurt am Main 2009) 241–249.

Hahn 2012a: H. P. Hahn, Water as Substance and Meaning. Anthropological Perspectives. In: H. P. Hahn/K. Cless/J. Soentgen (eds.), People at the Well. Kinds, Usages and Meanings of Water in a Global Perspective (Frankfurt am Main 2012) 23–43.

Hahn 2012b: H. P. Hahn, Archäologie und Ethnologie. Welche gemeinsamen Grundlagen? Forum Kritische Archäologie 1.1, 2012, 35–39.

Hahn 2015: H. P. Hahn (ed.), Vom Eigensinn der Dinge. Für eine neue Perspektive auf die Welt des Materiellen (Berlin 2015).

Hahn/Soentgen 2010: H. P. Hahn/J. Soentgen, Acknowledging Substances. Looking at the Hidden Side of the Material. Philosophy and Technology 24.1, 2010, 19–33.

Hänel 2009: D. Hänel, Dagmar, Heiliges Wasser – heilendes Wasser. Kulturanthropologische Überlegungen zu Handlungspraxen und Deutungen am Beispiel 'Lourdes'. In: G. Hirschfelder/A. Ploeger (eds.), Purer Genuss? Wasser als Getränk, Ware und Kulturgut (Frankfurt am Main 2009) 149–160.

Ingold 1992: T. Ingold, Culture and the Perception of the Environment. In: E. Croll/D. J. Parkin (eds.), Bush Base, Forest Farm. Culture, Environment and Development (London 1992) 39–56.

Ingold 2007: T. Ingold, Materials Against Materiality. Archaeological Dialogues 14, 2007, 1–16.

Köhler 1991: O. Köhler: Die Welt der Kxoé-Buschleute im südlichen Afrika. Eine Selbstdarstellung in ihrer eigenen Sprache, II. Grundlagen des Lebens. Wasser, Sammeln und Jagd. Bodenbau und Tierhaltung. (Berlin 1991).

Krings 1991: T. Krings, Agrarwissen bäuerlicher Gruppen in Mali/Westafrika. Standortgerechte Elemente in den Landnutzungssystemen der Senoufo, Bwa, Dogon und Somono (Berlin 1991).

Lee 1968: R. B. Lee, What Hunters Do for a Living, or, How to Make out on Scarce Resources. In: R. B. Lee/I. De Vore (eds.), Man the Hunter. The First Intensive Survey of a Single, Crucial Stage of Human Development. Man's Once Universal Hunting Way of Life (Chicago 1968) 30–48.

Malinowski 1922: B. Malinowski, Argonauts of the Western Pacific. An Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea, I (London 1922).

Malnic/Kasaipwalova 1998: J. Malnic/J. Kasaipwalova, Kula. Myth and Magic in the Trobriand Islands (Wahroonga 1998).

Munn 1966: N. Munn, Visual Categories. An Approach to the Study of Representational Systems. American Anthropologist 68.4, 1966, 936–950.

Munn 1971: N. Munn, The Transformation of Subjects into Objects in Walbiri. In: R. M. Berndt (ed.), Australian Aboriginal Anthropology. Modern Studies in the Social Anthropology of the Australian Aborigines (Nedlands 1971) 141–163.

Munn 1986: N. Munn, The Fame of Gawa. A Symbolic Study of Value Transformation in a Massim (Papua New Guinea) Society (Cambridge 1986).

Oesterle 2006: G. Oesterle, Souvenir und Andenken. In: U. Schneider/B. Gablowski/G. Körner (eds.), Souvenir. Erinnerung in Dingen von der Reliquie zum Andenken (Köln 2006) 16–45.

Okike et al. 2001: I. Okike/M. A. Jabbar/V. Manyong/J. W. Smith/J. A. Akinwumi/S. K. Ehui, Agricultural Intensification and Efficiency in the West African Savannahs. Evidence from Northern Nigeria. Socio-Economics and Policy Research Working Paper 33 (Nairobi 2001).

Roselli 2014: M. Roselli (ed.), The Asbestos Lie. The Past and Present of an Industrial Catastrophe (Brüssel 2014).

Sahlins 1968: M. D. Sahlins, Notes on the Original Affluent Society. In: R. B. Lee/I. Devore (eds.), Man the Hunter. The First Intensive Survey of a Single, Crucial Stage of Human Development (Chicago 1968) 85–89.

Sahlins 1978: M. D. Sahlins, Ökonomie der Fülle. Die Subsistenzwirtschaft der Jäger und Sammler. In: F. Duve (ed.), Technologie und Politik, XII. Die Zukunft der Ökonomie (Reinbek 1978) 154–204.

Sahlins 1988: M. D. Sahlins, Cosmologies of Capitalism. The Trans-Pacific Sector of 'The World System'. Proceedings of the British Academy 74, 1988, 1–51.

Sahlins 1996: M. D. Sahlins, The Sadness of Sweetness. The Native Anthropology of Western Cosmology. Current Anthropology 37, 1996, 395–428.

Stamm 2001: V. Stamm, Intensification Patterns in West African Agriculture. Social and Cultural Conditions and Constraints. Zeitschrift für Wirtschaftsgeographie 45.1, 2001, 54–63.

Strathern/Stewart 2005: A. Strathern/P. J. Stewart, Ceremonial Exchange. In: J. G. Carrier (ed.), Handbook of Economic Anthropology (Cheltenham 2005) 230–245.

Testart 1982: A. Testart, The Significance of Food Storage among Hunter-Gatherers. Current Anthropology 23.5, 1982, 523–537.

Tschajanow 1987: A. Tschajanow (ed.), Die Lehre von der bäuerlichen Wirtschaft (Frankfurt am Main 1987).

Uexküll/Kriszat 1934: J. von Uexküll/G. Kriszat, Streifzüge durch die Umwelten von Tieren und Menschen. Ein Bilderbuch unsichtbarer Welten (Berlin 1934).

Weiz 2005: B. Weiz, Water Reservoirs in South India. An Anthropological Approach (München 2005).

Widlok 1999: T. Widlok, Living on Mangetti. "Bushman" Autonomy and Namibian Independence (Oxford 1999).

Worster 2006: D. Worster, Water in the Age of Imperialism – and Beyond. In: T. Tvedt/T. Oestigaard (eds.), The World of Water. A History of Water, 1.3 (London 2006) 5–17.

Zühlke 2013: L. Zühlke, Verehrung und Verschmutzung des Ganges. Zusammenhang der ökologischen Probleme und der religiösen Bedeutung des heiligen Flusses (Berlin 2013).

HARTMUT LEPPIN AND CHRISTIAN A. MÜLLER

Discourses of Weakness and Resource Regimes
Preliminary Remarks on a New Research Design[1]

Keywords: weakness, discourses of weakness, deficiency, strength, resources, resource regime, means, power, mobilisation, indication, transformation, agency, value, affordance, materiality, immateriality

Abstract

Changes in the handling of resources are of central interest to historical research. The CRC (collaborative research centre) 1095 Discourses of Weakness and Resource Regimes addresses this question by analysing how discourses of weakness influence the handling of resources, with a particular focus on the impact of power relations in these processes. Thus, the CRC deals with a crucial aspect of historical transformation. Our leading supposition is that discourses of weakness may possess indicating and mobilising functions in different historical formations in as much as they highlight which resources are missing for attaining the goals of a historical formation.

Introduction

Resources have become a crucial issue of our times. It comes therefore as no surprise that there are currently two collaborative research centres that deal with resources. One is located in Tübingen (SFB 1070 RessourcenKulturen), where this volume is edited, and the other is in Frankfurt am Main. The Frankfurt group is called *Schwächediskurse und Ressourcenregime* (Discourses of Weakness and Resource Regimes).[2] This diverse group includes historians of several fields, among them specialists in contemporary history, Chinese history, the history of sciences, economic history, and the history of law as well as anthropologists and philosophers. Resources and written discourses form the main focus of this research centre.

In this short contribution, we will attempt to explain our very abstract concept and set out to articulate a few methodological trials and tribulations. In doing so, we will focus on the term of resources that the research centres in Tübingen and in Frankfurt have in common. Given that it is an article about work in progress, ultimately it will raise more questions than it answers.

The title of the Frankfurt collaborative research centre sounds strange, and deliberately so: both concepts – discourses of weakness and resource regimes – are not very familiar to the scholarly community. They will certainly evoke some ideas, but they do not refer to notorious buzzwords from elaborate theories. It is not even clear why discourses of weakness and resource regimes should relate to each other.

Our core research question, however, is very simple and at the same time tremendously far reaching: how can we describe transformation in a way that is not only metaphorical? There is a huge debate about concepts such as causality,

1 The research design described here has been developed in close cooperation with all the applicants. We are deeply grateful for their support.

2 See, <www.SFB1095.net> (last access 09.11.2016). Here you will also find an overview and presentations of the sixteen CRC-subprojects.

emergence, interdependency and so on, but it is not easy to connect them to the way historians **do** write history. How can we determine where transformation took place and which part of a historical formation was affected by it? How can we identify factors that induced change in a way that allows for comparisons between various fields within a society and even between societies on a global level? We look at this from a perspective that spans various cultures and historical epochs. The comparative approach is fundamental for this research design (for the comparative approach see Osterhammel 2004).

It is obvious, however, that questions of this breadth must be specified. One useful tool is the term 'historical formation'. This expression invites misunderstandings for English speakers. The German language distinguishes between *Formierung* and *Formation*. The first denotes a development, the second a result. The English word 'formation' can apparently mean both, but most hearers will be more likely to think of development. Yet, formation as we define it means the structure, not the process. On the one hand, it denotes structured historical constellations and implies a high degree of reproductivity, stability and security, on the other hand these constellations always depend on various resources. The advantage of the very general term 'formation' is that it can be applied to more phenomena than the term 'order' since it is less fixed (Anter 2004). Thus, the term 'historical formation' embraces societies as well as their sub-systems, for example the sphere of science.

We engage with every kind of historical formation in principle, but only if it has arrived at a certain stage in its development, i.e. when the agents are under the impression that they will fail to reach what is their main aim. We define those formations as weak. Thus, weakness is not something absolute, but it is an ascription and it is mostly made by agents, who also pursue interests within the historical formation. Therefore, it can never be taken at its face value.

The word weakness is abundantly used by historians, but much less often reflected. This is a challenge to historiography in itself, but the more so since every definition of a given formation as weak implies a comparison with something strong. This challenge increases further if one and the same historical formation can be described as weak and as strong at the same time which is quite often the case. You may think of the *Hansa*, which is weak in view of its political ability to act if confronted with territorial powers, and strong when we look at its economic capacity of organisation and its persistent existence.[3] Or, to give another example from the work program of the CRC, in Europe and North America forms of organisation that were not state-like, for instance kinship or patronage, are usually regarded as weak, even though some proved to be both functional and enduring after all.[4]

It is therefore imperative to define the criteria according to which a historical formation could and can be described as weak. In addition, weakness may be described in various ways, as shortage, downfall, crisis, insignificance, ineffectiveness, disintegration, fleetingness, insecurity, vulnerability and so forth. But we want to avoid reproducing those narratives in order to find a more analytical approach. Our question therefore lies in how we can identify the factor or the factors that are lacking in a historical formation to such a degree that it is perceived as weak, i.e. that it comes under pressure and might fall short of its goals.

This is the place where the concept of resources turns up. We describe weakness in corresponding terms of resources. Discussing resources is an everyday topic of our political debates. Everyone will easily agree on resources being important, but there are few convincing narratives or theories about resources. Two debates are especially prominent:

In some strands of German environmental history the ambivalence of the use of resources is highlighted. The *Ressourcenhunger der Moderne*, the 'modern hunger for resources', has become a crucial and popular issue that lends itself to catastrophist scenarios (Uekötter 2010). It is easy to connect it with the idea that modern societies will unavoidably suffer from lack of resources. On the other hand, the growing efficiency of the use of resources, *Ressourcenschonung*, can be seen as

3 <http://www.sfb1095.net/forschung/teilprojekte/b-04-die-hanse-und-ihr-recht-ressourcenschwaeche-und-funktionalitaet.html> (last access 09.11.2016).

4 <http://www.sfb1095.net/forschung/teilprojekte/b-02-politische-organisationen-jenseits-des-staates.html> (last access 09.11.2016).

a history of technical and moral achievements: whereas Gustave Eiffel deployed 7.000 tons of steel to build the Tour Eiffel, today 2.000 tons would do (Wengenroth 1995). These two narratives of resources in modern times seem to be opposed to each other, but underline completely different aspects and they may even interact: the efficient use of resources can even increase (and legitimise) the hunger for resources. Another popular concept concentrated on the availability of resources is the resource curse, which insinuates that easy availability of resources would make it more difficult to identify deeper problems and might thus prevent necessary change, which leads to a dialectical view.[5]

Currently there is a debate among sociologists about the conduct of life today and the limitations of perspectives modern people hold. This approach is based on the thesis that resources are important, but an obsession with resources results in a problem, because it bereaves us of a crucial human value, which is describable as 'resonance' (cf. Rosa 2016, 16). It is clear from these very brief and somewhat erratic remarks that there is a huge and variegated interest in resources, but no scholarly consensus about how to deal with resources scientifically. It is an intriguing task to set out to define historical narratives based on resources.

Core Concepts

The point of departure of our research is an extremely wide definition of resources: in a first step, we regard as a resource what is crucial for a historical formation in order to attain its goals. This means that each formation can and must define what it accepts as a resource. Everything and every concept can be turned into a resource. It has been argued that this is no definition at all. It is certainly by no means an essencialistic definition, but it is a categorically functionalist definition. Our research, however, is restricted to those resources that are of importance in the long term while momentary potentials for instance will not be discussed in our context.

This can be described more precisely when we refer to concepts of the systems theory: in the language of this theory, resources are part of the environment, not part of the system (Luhmann 1984, 242–285). This has an important implication: certain resources are crucial for a historical formation, but no resource is inextricably connected to one. They must be identified as resources in the chaotic rush, the *Rauschen* as Luhmann says graphically, of the environment while their availability as resources depends upon the fact that they are defined as such. But if resources have been defined by a system, the system may easily depend on them.

This implies that scarcity of resources puts any historical formation in grave danger. Against this background, we look at transformation as a process that changes – among other things – the use of resources. Naturally, we must always keep in mind that there is also historical change beyond resources. Further research must determine the relationship between those factors more precisely.

What does this mean on a more concrete level? To illustrate the implications of our approach, we will present a few examples from the broad range of our subprojects. One of these subprojects examines the use of sacred objects in the Roman-Persian wars of the 6th cent.[6] Many Romans were convinced at this time that their successes were due to objects such as particles of the true cross or holy pictures that had been put on display. In that sense, sacred objects became resources that appeared to replace military resources such as weapons and manpower. Another project focuses on the role of Aristotelian philosophy as a resource for the stabilisation of imperial power in the 14th cent.[7] An anthropological project discusses the question of how in modern Africa, the communication of weakness can become a resource that helps to attain financial support.[8]

5 See Auty 1993. Today there is a discourse not about a determining resource curse but rather about open-ended resource challenges, for example Heinrich/Pleines 2012.

6 <http://www.sfb1095.net/forschung/teilprojekte/c-03-sakrale-objekte-als-militaerische-ressourcen-im-ostroemischen-reich-von-justinian-bis-heraclius.html> (last access 09.11.2016).

7 <http://www.sfb1095.net/forschung/teilprojekte/a-04-potestas-iurisdictio-und-dominium-schwaeche-und-gewaltendiskurse-im-13-und-14-jahrhundert.html> (last access 09.11.2016).

8 <http://www.sfb1095.net/forschung/teilprojekte/b-06-flexibel-aus-armut-selbstbeschreibung-und-taktiken-der-ressourcenerschliessung-von-nro-akteuren-in-westafrika.html> (last access 09.11.2016).

It becomes apparent that innumerable objects and thoughts can develop into resources as well as lose this status in an ever-changing world. This might give the impression of a completely voluntaristic approach; it is therefore very important to keep the functional and long-term perspectives in mind: which of these phenomena is really crucial as a resource? This is a core problem in the everyday work of our research.

Moreover, our approach leads to various questions. First of all: who identifies what is lacking in terms of resources? The identification can be carried out on various levels. It can be done by the agents, by their contemporary observers or by second-order-observers, to apply another phrase from Luhmann. If we recall the example of sacred objects in late antiquity, in this case modern second-order-observers would perhaps concede that sacred objects can have a certain psychological impact on motivation, but they would agree with the diagnosis that the real problem lay in the lack of weapons and manpower. In the current stage we privilege the perspective of the contemporaries, which will, however, always be placed in relationship to the position of modern research. This might be altered in future stages.

The next problem is: how can we actually identify the aim of a given historical formation? There is no need to explain that various contemporaries would identify different aims for a given historical formation. We can, however, assume that, typically, every agent in a historical formation will share the basic goal of the formation‘s survival. There may be differences about everything, naturally also about the question which elements are actually lacking and thus become crucial resources. It is important to observe how those debates evolve and examine the relationship between reflectivity as expressed in discourses and resources as located in practice. Which measures are taken after a resource has been considered lacking?

Thus, the study of discursive factors is critical for our research programme (for a general approach Landwehr 2009). However, not every discourse holds the same interest for our studies. We look, as the title indicates, at discourses of weakness. The ways in which weakness is communicated as well as the forms of discourse, semantics and rhetoric all offer essential starting points for further analysis and are therefore important objects of study in themselves. We assume that these discourses are an excellent, if not the best source to identify problems. This seems to be obvious. If the strength of a historical formation is praised, it does not make sense to speak about what is lacking. But discourses of weakness offer yet another important perspective: they are usually intended to mobilise people and some will be successful in this; only in a few cases might they aim at demobilising their audience. In that sense discourses of weakness seem even to be ‘necessary’ for societies since they undermine complacency and indicate problems – such as in the case of the resource curse. The existence of discourses of weakness can be an asset of a historical formation. One of our subprojects therefore will discuss the discourses of weakness in post-war Europe as a base for the dynamics of this region.[9]

Discourses of weakness must be studied very carefully however, since they typically have strategic implications: in various cultural traditions, we find what might be called a rhetoric of weakness, and there are literary traditions that may be influential as is evident in Roman and Christian narratives. Many societies faithfully remember notorious examples of failure such as the fall of the Roman Empire, which has been seen as a cautionary tale by Westerners throughout periods of their history, and there are many similar cases. One of our subprojects deals with the question of how the fates of foreign ‘ruined states’, such as Poland and India, were perceived in China at the turn from the 19th to the 20th cent.[10] Poland, which had seized to exist as an independent polity after being partitioned by its neighbours, became emblematic for ‘national downfall’ in China, which itself had been encroached upon by foreign powers for decades.

Traditions of this kind are much more than a literary ornament to be easily detached from the real problems. Even if the perception of reality is shaped by literary or intellectual traditions, it must have made sense to some people. Traditions of this

9 <http://www.sfb1095.net/forschung/teilprojekte/a-05-der-niedergang-europas-schwaechediskurse-zur-mobilisierung-von-ressourcen.html> (last access 09.11.2016).

10 <http://www.sfb1095.net/forschung/teilprojekte/a-01-vorstellungen-staatlicher-schwaeche-im-china-des-spaeten-19-und-der-ersten-haelfte-des-20-jahrhunderts.html> (last access 09.11.2016).

kind can also influence, or even determine how a formation sees itself, and which problems can be discerned.

In consequence, discourses of weakness need not necessarily strengthen historical formations, but can contribute to their weakening for example when they lead the agents in the wrong direction. This may have been the case in the late Roman Empire when the success of sacred objects justified financial disengagement in military affairs. Sins were regarded as greater threats than the lack of weapons. This could be proven on the basis of the Old Testament narratives, most convincingly so for contemporaries, less so for later generations. Unintentional consequences must therefore also be taken into consideration (Steiner 2014).

If we discuss discourses of weakness as a mobilising force in historical formations, it is again necessary to discuss human agency (for an interesting discussion about the human factor see Steinberg 2002). This leads to the next catchphrase of our project: resource regime. This concept has been proposed and debated among economics on sustainability where it is used primarily to describe the handling of scarce resources (Liebscher 2013, 264–276). In our context, however, in contrast to the colloquial usage the term 'regime' does not imply any pejorative connotation (for an early example of this use see Hasenclever et al. 1997). Similarly, it does not connote solely the political order of a historical formation in general. It rather indicates norms and practices in distributing rights and opportunities to make use of resources. Again, the core questions are quite simple: what was the impact of power-structures on the use of resources? What are the norms regulating the use and distribution of resources?[11] Thus, the concept of regimes is the basic tool with which to analyse how historical formations organise their dependence on and their access to resources. This is especially important since resources are always at risk of being scarce. In most cases they are mobile. They can disappear, they can be taken away, and they can be fought over. In addition, the regime may affect the way in which resources are identified and who is in a position to identify which resources are lacking, and can do so most effectively.

Clearly, single resources are not isolated, but must be considered in connection with other resources. There are always assemblages and arrangements of several resources and a resource regime has not only to regulate the access to individual resources, but also their entanglement with each other. The term can be specified further in accordance with the social context. Within a company the specific use of relevant assemblages of resources may be called resource management and so on.

In our terminology, the concept of resource regime is to be distinguished from that of resource configuration. The last describes how any given historical formation is linked to resources in the sense of the arrangement of different elements and their relation to each other. In contrast, the term resource regime is focused on power. It takes into consideration how means of disposal of resources are distributed in a historical formation and the respective institutions involved.

One important question is how resources are arranged in space. A whole set of subprojects is devoted to the question of how centre and periphery interact in relation to resources: how does information as a resource influence the relationship between centre and periphery in the Papal State, for example?[12] How can citizenship serve as a resource to keep the periphery loyal to an empire?[13] How can the rule of law embrace the periphery of an empire?[14]

Problems and Perspectives to be Discussed

What is a resource and why is there a specific link to discourses of weakness? The environmental historian Frank Uekötter once claimed in a discussion that it is fairly difficult to infuse the resource-topic

11 Here the distinction between allocative and authoritative resources could be helpful: in regard to the generation of power allocative resources refer to material, authoritative to non-material resources. See Giddens 1984, 256–262.

12 <http://www.sfb1095.net/forschung/teilprojekte/b-03-information-als-ressource-fuer-juridische-entscheidungsprozesse.html> (last access 09.11.2016).

13 <http://www.sfb1095.net/forschung/teilprojekte/c-02-mitgliedschaft-als-prekaere-ressource-statuszuschreibungen-in-imperialen-peripherien.html> (last access 09.11.2016).

14 <http://www.sfb1095.net/forschung/teilprojekte/c-01-das-wissen-der-pragmatici.html> (last access 09.11.2016).

with any intellectual friction.[15] This might sound surprising given that, as we said, the relevance of resources and their presence in discourses is completely undisputed, if not overpowering (for example Klare 2002; Reder/Pfeifer 2012). But the observation is intriguing because the resource-topic might be dismissed too quickly: what are the open and pressing issues of resource history right now? Which research approaches have failed? Where do we reach a dead end conceptually? What is left when standard narratives and the overwhelming critical value of prominent singular resources (oil, education) are put aside?

The problem of resource dependency is not a phenomenon that is specific to the modern age since resources have always been of vital importance for societies. If we think about food resources in subsistence economies and the danger of crop failures for instance, the dependence on resources was arguably a lot higher in pre-modern times than in the present.[16]

In many discussions resources are only vaguely defined, which is somewhat surprising considering their importance. It becomes even more obvious if we look into encyclopedias of a few decades ago where resources were simply and without further explanation defined as auxiliary means, respectively funds (*Hilfsquellen, Geldmittel*).[17] We believe however that this definitional vagueness is not a coincidence but rather stems from the resource issue itself. For a long time resources were primarily defined exclusively as raw materials, which is still the crucial and most familiar aspect, which is researched at the CRC from an economic history view point, taking chemical companies as an example.[18] For the CRC however, a conceptual broadening of our understanding of resources is necessary.

To clarify this we would like to introduce a definition of the term resource that is an action-theory approach and is geared towards the basic distinction between goals, means and results of an action.[19] Actions, in the simplest case, are made plausible by a reference to the goal of the action, because the goal normally informs us adequately about the actors and their situations. But if we look for resources, the emphasis of the observation shifts. The focus is now on the means that were used to realise the actions. Resources are always a necessary element for the execution of an action (and accordingly for its description). When an action is not primarily understood by its goal, but by the accompanying use of resources a vital aspect of the CRC-understanding of resources becomes apparent: we define resources merely in a functional approach by their contribution to the success of an action. The value of a resource ultimately stems just from this position in an action-context, which is something that also emphasises the specific affordance of resources (the classical work on this is Gibson 1979. But see the nuances in Costall/Richards 2003, 82–93), which is open-ended from a bifocal perspective: on the one hand it is open to discussion with which resources a goal is **actually** reached. Our subproject about sacred objects illustrates this problem since, suddenly and unexpectedly, sacral objects begin to act as military objects in the place of conventional weaponry. Another question is whether the use of a resource actually accomplishes the success of an action, since resources naturally cannot guarantee the outcome of the action they are employed in.

If resources are examined in this context, we need radically different perspectives and theory concepts because (and this distinction is important) we are not looking for discourses of resources initially. Our starting point is not what is said about resources (even if it is interesting and normally accompanies accounts of the use of resources), but looking from a resource point of view, we observe resource regimes as a shaped-by-power and contentious practice of accessing, assigning and using resources. The starting point of all research on resources is therefore a specific usage in practice,

15 During the preparation of the Historikertag 2012: H-Soz-u-Kult Debatte zu "Ressourcen" in den Geschichtswissenschaften: 1. Teil, in: H-Soz-Kult, 20.09.2012, <http://www.hsozkult.de/debate/id/diskussionen-1876> (last access 09.11.2016).

16 In this sense, economic crises were mostly hunger crises. See: Plumpe 2013, 26–34.

17 For example in the German equivalent to the Encyclopædia Britannica: Ressource. In: Der Große Brockhaus, IX (Wiesbaden 1956), 691.

18 <http://www.sfb1095.net/forschung/teilprojekte/b-01-ressourcenverbrauch-und-oekonomisches-kalkuel.html> (last access 09.11.2016).

19 The elements of an action should be understand in a dynamic sense: A goal of an action can change in the course of an action and so on. See Miebach 2014, 64–66.

which can be followed by the establishment of regime structures (for a perspective on practices see Reckwitz 2002, 245–265). This will be followed by other steps, which will then include resources.

However, if we think about resources in this action-theoretical way, research-related advantages and disadvantages occur: an important advantage is that we are not only able to clarify what a resource is under various historic circumstances but also how something (whether it is coincidental, demonstratively playful or even as an incidental legal consequence) **turns into** a resource. The acquisition of something as a resource firstly requires the micro-level of action to obtain a look at larger formations from this point of departure. A decisive disadvantage though is the obvious broadening of the potential object of investigation because every action can now be investigated for its potentially used resources and additionally **everything** can essentially be a resource. The Eiffel Tower (already mentioned) cannot only be described as a systematically arranged pile of resources but also as, for example, as a visual resource to obtain urban prominence. There is the danger of arbitrariness in the sense of a purely linguistic valorisation of all sorts of resource-related contexts. The spectre of a voluntaristic approach becomes visible again.

This is where the concept of discourses of weakness comes into play, which provides us with crucial specifications in the sense of where and when resources become relevant for the CRC. We assume that resources are not always discussed in the same manner in different periods. It is more probable that agents will search for resources when they perceive a risk that the objectives of an action might not be accomplished without them. We treat the considerations and reflections that come with this as the diagnosis of deficit that can be defined by the term discourses of weakness.

But of course, discourses have their own power. We assume that discourses of weakness can have indicating and mobilising effects in regard to resources: they can indicate, which resource is perceived as missing and which resources should be mobilised in order to counterbalance the deficit. Currently there is another aspect emerging from our discussion: the justifying effect of discourses of weakness. Hereby we are focusing upon a dimension of resources, which is by no means mandatory, but which from our standpoint opens up new perspectives on certain dynamics and – in the long run – the transformation that is connected with it.

To sum up the theoretical aspect: by examining resources, attention shifts to systems of action in general and particularly to the element of action that has only instrumental value. In this case, resources provide a clearly definable contribution to the success of an action but do not constitute the success itself and cannot even guarantee it, which makes them an essentially polyvalent research subject.

Subsequent Questions

A lot of new questions emerge from this background: one major problem is whether meaningful and useful classifications of resources can be developed. We are able to provide just a few ideas about the wide range of possibilities. As they refer to various categories and are still under discussion in our group, our list may look a bit patchy, but they are important issues in our ongoing research. The examples given so far lay stress on what one may call immaterial resources such as Aristotelian concepts of politics or the rhetoric of weakness. Other subprojects discuss resources such as information, citizenship or knowledge;[20] even history can be a resource with which to make certain claims.[21] There is, however, also one subproject that focuses explicitly on material resources, in this case, the commodities that are required for the chemical industry.

Generally speaking however, the distinction between material and immaterial resources has only a limited heuristic value. In contrast to immaterial resources, material ones are based on

20 For subprojects regarding to the history of science see: <http://www.sfb1095.net/forschung/teilprojekte/a-03-wissende-als-ressource-und-die-legitimation-von-macht-waehrend-und-nach-der-krise.html>; <http://www.sfb1095.net/forschung/teilprojekte/a-06-situiertes-wissen-formen-und-funktionen-schwacher-wissensbestaende.html>; <http://www.sfb1095.net/forschung/teilprojekte/c-04-wissen-in-zwischenraeumen.html> (last access 09.11.2016).

21 <http://www.sfb1095.net/forschung/teilprojekte/a-02-vergangenheit-als-politische-ressource-erinnern-als-strategie-in-griechenland-unter-roemischer-herrschaft.html> (last access 09.11.2016).

a substratum in the atomic world. But there is of course no material resource without immaterial qualities. Commodities and knowledge are always embroiled in each other.

Immaterial resources for their part can depend on materiality: if we think again of the sacred objects the difficulties are evident – those objects, such as a holy image, are first of all material objects. But their worth as a resource is defined by something different, namely the sanctity ascribed to the object. On the other hand, the sanctity does not exist independently from the material. The object had to be shown, transferred, in many cases even touched. There are sacred resources such as prayers that are not material, but powerful sacred objects are also material by necessity. Thus, the distinction between materiality and immateriality may be a distinction by degree.[22]

An alternative classification is the distinction between tangible and non-tangible resources. Here the contrast is sharper, or more palpable. But problems remain: gases escape from the distinction because they have different qualities. They are tangible but often not perceptible. And in regard for instance to their industrial use they have much in common with resources that are typically material, such as coal or oil (for the concrete industrial use of this resource see Stokes/Banken 2015). On the other hand, although tangible resources can be only regarded as resources if they are interpreted as such, their usefulness as resources suggests itself much more easily and is much less controversial than the expediency of most non-tangible resources.

Moreover, as already mentioned, resources in our sense should be classified by function, which seems to engage well with our functionalistic theoretical framework, for example political resources in contrast to resources for healing, knowledge resources, economic and religious resources and so on. This presupposes the distinction of social fields or subsystems that might be derived from other theoretical concepts.

But there is a dimension that some of us would call essentialistic and which might transcend pure functionalism: since there are some basic needs of individuals and societies (such as food), we must take into account some basic, indispensable and in that sense essential resources. However, even they can be substituted, if only to a degree: food cannot be substituted as such, but various forms of food can. Bread can be substituted with muesli, meat with soy and so on. One might argue that there are some universally basic needs and it would be a most promising approach to see which level of abstraction must be reached in order to define those needs and how the actual resources of a historical formation relate to them.

Another classification may focus on the question of how far certain resources depend on others as commodities on knowledge. Law can be a crucial resource in making resource regimes work at all. We believe that discussing these forms of dependence and interdependence will be a main task of our CRC during the next years.

Some resources are connected with certain qualities in their use: sacred objects presuppose believing users, but food may be eaten by anyone. Additionally, the users may handle the resources in completely different ways. Even the mobility of a resource may be restricted under the aspect of its user: education for example is indissoluble from the individual persons; it can be incorporated but not delegated. This is another aspect where agency plays an important role.

Still more classifications suggest themselves: distinctions between such resources must then be examined against the background of their respective contexts; another question would be how far one can disengage the classifications from their contexts in order to make them the base for comparisons across cultures and historical epochs. This is where empirical studies are indispensable for the establishment of a theoretical model. In a later stage of the CRC we might consider a classification of resource regimes on this basis.

Another core task is to study how change affects individual resources. Or, to put it differently: how can a historical formation react to the perception of a lack of resources? The reaction is not necessarily rational in a modern sense, but depends

22 For the handling of this distinction see also our subproject in medieval history: <http://www.sfb1095.net/forschung/teilprojekte/b-05-von-schwacher-verwandtschaft-zu-verwandtschaft-als-kommunikativer-ressource.html> (last access 09.11.2016).

on what is defined as a resource: for example by a discourse of weakness. Heuristically, we distinguish two fundamental ways of dealing with this situation: resources can be eked out or thinly distributed (in the sense of making them go further as described by the German word *strecken*, which is difficult to translate into English), and resources can be substituted. Eking out can take place in various ways: the first is accumulation. New natural resources will be extracted when people find new deposits or new mines. They may also be taken away from other people, which is usually a major reason for wars. Eking out can also come in the form of using a resource more efficiently or in different ways. These ideas are familiar to us from present-day discussions about 'sustainability' and 'responsible use'. Some resources, especially natural resources will by necessity, reach the limits of growth – as all of you will know, this most famous discourse of weakness has accompanied modern western societies at least since the nineteen seventies.[23]

The supply of many resources can be extended, and it appears that some can even be multiplied unboundedly. This is especially true of certain immaterial resources such as titles, university degrees or citizenship. But this can prove disadvantageous since inflation may devalue a resource. Even in the case of commodities exorbitant extension can be dysfunctional. Resource regimes must thus carefully control not only the lack, but also the extension or multiplication of resources.

A resource however, may also be substituted by others, either as a whole or in part. We mentioned above the example of bread being supplanted by muesli, and similarly coal can be supplanted by solar energy. There are some extremely interesting cases when immaterial resources supplant material resources or the other way around. Nationalism as a resource can substitute weapons in wars to a degree. Knowledge can substitute commodities under certain circumstances. It will be a major task of our project to determine which resources can be supplanted under which circumstances and how (or whether) resource regimes can react when it is simply impossible to attain sufficient resources.

Eking out resources or substituting them are, of course, heuristic categories that sometimes overlap. Knowledge that enables a new and more efficient way to extract natural resources can be acknowledged as a new resource and at the same time can contribute to eking out other resources.

In addition, one has to keep a third variable in mind. A historical formation can change its aims and thus bring about change to the whole set of resources. This leads to another important point: it depends upon the resource regime which agent is entitled to decide how this problem is to be handled. Again, the question of power and of human agency plays a crucial role in our concept.[24]

If we follow the concept of resources as explored so far, we are confronted with an extremely high degree of variability; we will have to develop our framework further in order to grasp this complexity. Each and every variable may change and restructure the field. Of course, not every subproject will have to deal with all variables – this would be impossible, given the lack of sources in many fields. Nevertheless, this complexity remains a real challenge, though it may also be an advantage of the approach in that it deliberately attempts to face the multifaceted themes systematically. In our view, this may even be one of the approach's major strengths, especially when compared with Pierre Bourdieu's extremely influential concept of various forms of capital, which is otherwise much more far-reaching: Bourdieu's distinction of various forms of capital is based on an economistic language that is perhaps too restrictive.[25] In addition, the concept of capital gives the impression of stability and enduring availability of things that can be appropriated. But is it in fact helpful to describe resources such as honour in this way, i.e. as resources that are only generated by communication (Schlögel 2004, 185–225, 208, n. 88)?

23 See Meadows et al. 1972.

24 The question, if non-humans are active, is also relevant for the question about resources. For the debate in social theory see Passoth et al. 2012.

25 For the problem of the economistic concept of Bourdieu see Nassehi 2004, 155–188, esp. 173–177, 182.

Conclusions

The topic of our CRC is not only an intellectual construct, nor is it only directed at the past. We believe that it will contribute to a most important and even topical debate. Some subprojects examine modern-day problems, such as the role of NGOs in modern Indonesia and in West Africa. One of our core questions is fundamental for dealing with crises today: to which degree are historical formations able to carry out adequate self-diagnosis? Which dispositions may impede self-diagnosis? Today it is widely felt that a lack of resources endangers the western world. Discourses of weakness of this nature pervade modern society.

Almost every single European would agree that a lack of resources menaces modern societies. But it is very difficult to explain what this actually means. Positions become diverse as soon as people discuss the question of which resource is actually lacking. Some will point to oil, others will name education, a third party will dwell on issues of moral attitudes. In regard to the question of the existence and impact of climate change we observe a bewildering rift between some scientists and politicians, but also among scientists themselves, who struggle to advise politicians.[26] And then, there is the interesting idea in our society that there can be such things as sustainable energy, that everlastingness will be man-made. These are discourses that influence our self-perception, our everyday behaviour as well as decision-making in politics: while other discourses seem to remain without any palpable effect. We hope that our historical reflections can make a contribution to a better understanding how those discourses emerge, how they function, how they work and finally how they engage with resources resulting from concrete practices.

We have chosen an unusual experimental setup for our CRC. It is not meant as a mandatory theoretical framework, but as something to work on, as something to provoke questions. This contribution is merely a report on on-going research. The combination of the two elements, discourses of weakness and resource regimes is, admittedly, by no means cogent. We cannot find a deterministic relationship between discourses of weakness and resource regimes. There are many more possibilities of how to discuss transformation from a comparative perspective. Nevertheless, we hope that our approach allows for a new perspective on the relationship between discourses and practice as a method of doing research in humanities; this is possible because the question of agency comes into the fore thanks to the concept of resource regimes. However, one may say that there is a voluntaristic element and rightly so. Our approach is risky as it brings together diverse concepts, but we are confident of being successful since our concept has already stimulated people to design a whole series of subprojects that promise to offer fresh insights into historical and anthropological problems. Therefore, we are convinced that the connection between discourses of weakness and resource regimes is worth investigating, not for the answers given, but for the questions posed.

Hartmut Leppin
Goethe-Universität Frankfurt am Main
SFB 1095 Schwächediskurse und Ressourcenregime
Norbert-Wollheim-Platz 1
60629 Frankfurt am Main
Tel. +49 (0)69 798 32462
h.leppin@em.uni-frankfurt.de

Christian A. Müller
Goethe-Universität Frankfurt am Main
SFB 1095 Schwächediskurse und Ressourcenregime
Gräfstraße 78
60486 Frankfurt am Main
Tel. +49 (0)69 798 33951
c.mueller@em.uni-frankfurt.de

26 An interview with Ralph Keeling is extremely instructive for this conflict, see 'Die aktuellen Messwerte mahnen zum Handeln'. Ein Gespräch mit dem amerikanischen Klimaforscher Ralph Keeling über den jüngsten Kohlendioxid-Rekordwert, in: Frankfurter Allgemeine Zeitung, April 20, 2016, N2.

Bibliography

Anter 2004: A. Anter, Die Macht der Ordnung. Aspekte einer Grundkategorie des Politischen (Tübingen 2004).

Auty 1993: R. Auty, Sustaining Development in Mineral Economies. The Resource Curse Thesis (London 1993).

Costall/Richards 2003: A. Costall/A. Richards, Canonical Affordances: The Psychology of Everyday Things. In: Paul Graves-Brown and Rodney Harrison (eds.), The Oxford Handbook of the Archaeology of the Contemporary World (Oxford 2003) 82–93.

Gibson 1979: J. J. Gibson, The Ecological Spproach to Visual Perception (Boston 1979).

Giddens 1984: A. Giddens, The Constitution of Society. Outline of the Theory of Structuration (Berkeley 1984).

Hasenclever et al. 1997: A. Hasenclever/P. Mayer/V. Rittberger, Theories of International Regimes. Theories of International Regimes 55 (Cambridge 1997).

Heinrich/Pleines 2012: A. Heinrich/H. Pleines, Resource Challenges. Die politische Dimension von Ölbooms. Neue Politische Literatur 75, 2012, 443–477.

Klare 2002: M. Klare, Resource Wars. The New Landscape of Global Conflict (New York 2002).

Landwehr 2009: A. Landwehr, Historische Diskursanalyse. Historische Diskursanalyse 4 (Frankfurt am Main 2009).

Liebscher 2013: A. K. Liebscher, Betriebliche Ressourcensicherung durch Nachhaltigkeitskooperationen. Organisationstheoretische Analysen und widerspruchstolerante Gestaltungsempfehlungen (Berlin 2013).

Luhmann 1984: N. Luhmann, Soziale Systeme. Grundriß einer allgemeinen Theorie (Frankfurt am Main 1984).

Meadows et al. 1972: D. H. Meadows/D. L. Meadows/J. Randers/W. W. Behrens, The Limits to Growth. A Report for the Club of Rome´s Project on the Predicament of Mankind (New York 1972).

Miebach 2014: B. Miebach, Soziologische Handlungstheorie. Eine Einführung (Wiesbaden 2014).

Nassehi 2004: A. Nassehi, Sozialer Sinn. In: A. Nassehi/G. Nollmann, Bourdieu und Luhmann. Ein Theorienvergleich (Frankfurt am Main 2004) 155–188.

Osterhammel 2004: J. Osterhammel, Die Vielfalt der Kulturen und die Methoden des Kulturvergleichs. In: F. Jaeger/J. Straub (eds.), Handbuch der Kulturwissenschaften, II (Stuttgart 2004) 50–65.

Passoth et al. 2012: J.-H. Passoth/B. Peuker/M. Schillmeier (eds.), Agency without Actors? New Approaches to Collective Action (London 2012).

Plumpe 2013: W. Plumpe, Wirtschaftskrisen. Geschichte und Gegenwart (München 2013).

Reckwitz 2002: A. Reckwitz, Toward a Theory of Social Practices. A Development in Culturalist Theorizing. European Journal of Social Theory 5.2, 2002, 243–263.

Reder/Pfeifer 2012: M. Reder/H. Pfeifer (eds.), Kampf um Ressourcen. Weltordnung zwischen Konkurrenz und Kooperation (Stuttgart 2012).

Rosa 2016: H. Rosa, Resonanz. Eine Soziologie der Weltbeziehung (Berlin 2016).

Schlögel 2004: R. Schlögl, Der frühneuzeitliche Hof als Kommunikationsraum. Interaktionstheoretische Perspektiven der Forschung. In: F. Becker (ed.), Geschichte und Systemtheorie. Exemplarische Fallstudien (Frankfurt am Main 2004), 185–226.

Steinberg 2002: T. Steinberg, Down to Earth. Nature, Agency, and Power in History. American Historical Review, 107.3, 2002, 798–820.

Steiner 2014: B. Steiner, Nebenfolgen in der Geschichte. Eine historische Soziologie reflexiver Modernisierung. Beiheft der Historischen Zeitschrift 65 (München 2014).

Stokes/Banken 2015: R. G. Stokes/R. Banken, Building on Air. The International Industrial Gases Industry, 1886–2006 (New York 2015).

Uekötter 2010: F. Uekötter, Umwelt- und Ressourcenprobleme. In: H.-U. Thamer (ed.), Globalisierung 1880 bis heute WBG-Weltgeschichte. Eine globale Geschichte von den Anfängen bis ins 21. Jahrhundert, VI (Darmstadt 2010) 376–380.

Wengenroth 1995: U. Wengenroth, Eiffelturm und Coladose. Über den Zusammenhang von Wirtschaftswachstum und Metallverbrauch. Kultur & Technik 3, 1995, 14.

KARINA IWE, JEANNE FÉAUX DE LA CROIX AND SUSANNE FEHLINGS

Theoretical Promises and Practical Implementation

Interdisciplinary Encounters between Archaeologists and Ethnologists in a Collaborative Research Centre (SFB)

Keywords: interdisciplinarity, ethnology, social and cultural anthropology, archaeology, collaborative research, science careers, research cycles

Acknowledgements

We would like to thank Maria Venne, our interviewees and the SFB team for their time and the interesting talks and answers.

Abstract

In 2013, an interdisciplinary, collaborative research centre (SFB) on ResourceCultures was founded at the University of Tübingen. After almost two years of collaboration, the authors carried out a survey among the 80 SFB members on the potential and challenges of cooperation between the various disciplines, with a particular focus on archaeology and ethnology. We enquired into the perception of the partner discipline, the added value of this interdisciplinary endeavour as well as its disappointments. Based on 33 in-depth interviews, this article provides a snapshot of collaboration that reflects both success stories and setbacks. We take these collected experiences as an opportunity to reflect on varying definitions of interdisciplinarity and practical means to foster its success. Finally, we compare these conclusions with the international literature on interdisciplinarity.

Introduction

Which image captures the concrete work of a large interdisciplinary endeavour such as the ResourceCultures SFB best: Should we compare it to a large experimental fishing expedition, combining fishing techniques to haul in a unique cargo of deep sea fish? Or should we imagine it more like an international UN cocktail party, where each interest group huddles together, appearing only as a group at plenary meetings? After pursuing common goals for almost two years, our analysis of 33 anonymised interviews concentrates on the question to what extent and how ethnologists and archaeologists have actually influenced each other's work. What experiences did employees – from PhD students to professors – report on this exchange? Where can we trace the new 'ingredient' of interdisciplinarity in research processes and outcomes? To anticipate a very generalised answer: In our survey we came across a very wide range of experiences. There were positive and enthusiastic voices from SFB members, as well as unfulfilled expectations. The overall tenor could be described as a marriage of convenience for common goals, rather than a 'falling in love' with the approaches

of the partner discipline. We discuss the causes and consequences of this characterisation below, pointing to structural 'channels' and 'barriers' to mutual learning.

The question of the ideal process of cooperation, as well as the question of actual experiences with interdisciplinarity has provoked a specialist literature in its own right (Klein 1990; Strang/McLeish 2009; Weingart/Padberg 2014). The type of collaboration examined here is a funding model ('Collaborative Research Centre' aka Sonderforschungsbereich) originally launched by the German Research Foundation, the country's largest independent funding body. The purpose of these research centres is to 'implement excellent joint research, to create focus points and structures at institutions [... and] to promote interdisciplinary collaboration'. The German Research Foundation calls for an 'ambitious and long-term research program [and] coherent network of individual projects'.[1] This funding policy seems to be a response to the ever-increasing specialisation of individual scientists and subjects, a trend that requires adjustments and mechanisms to allow for mutual understanding and interaction. The growing 'isolation' of individual disciplines and sub-disciplines is also reflected in the growing number of specialised journals, a development that increasingly means relevant research results are not recognised, used or even understood by related fields.

In our own understanding of interdisciplinarity, we follow Dressel et al., who describe it as: 'established forms of cooperation between different scientific disciplines. The topical focus is at the centre of the entire research process. This necessitates a strong connection between content and modes of organisation, requiring a high degree of communication between the sciences.'[2]

Disciplines can be understood as a particular form of creating and organising knowledge, a set of rules that structures a conversation about the further development of this knowledge. Hence, interdisciplinarity can be understood as a kind of 'undisciplined' move, creating room for 'wild thinking' (Fischer 2015, 14).

It will be immediately apparent that interdisciplinarity is thus a field, in which successes depend on overcoming in-built tensions. In the following, we discuss the collected perspectives on this challenging path, and draw some practical conclusions about the methodology of inter-disciplinary collaboration at this SFB. The following part focuses on the explanation of the gathered perspectives of this potential. We thus pin-point more exactly, where the SFB lies on the continuum between the 'cocktail party' and 'fishing expedition'. We first offer a brief overview of the genesis and history of collaboration between archaeologists and ethnologists in English- and German-speaking countries.[3] We then examine the SFB set-up and concept in studying ResourceCultures. We discuss the empirical experiences of researchers – mainly archaeologists and ethnologists – who have been working together in the SFB since 2013. Finally, we highlight the most influential factors for a successful 'haul' in deep-sea fishing.

As mentioned above, we conducted a total of thirty-three semi-structured interviews, documented with tape recordings and transcripts, where appropriate. The survey encompassed a wide range of colleagues, from SFB management positions to postdocs, PhD students and employees in the public relations department. The majority of interviewees were ethnologists and archaeologists. Since philologists, historians and geographers were also exposed to archaeology and ethnology, we also included these SFB members in our study (see breakdown in *fig. 1*). The study itself was in many ways an interdisciplinary experiment itself, as it was conducted by an archaeologist and three ethnologists, who developed a catalogue of questions together, carried out and analysed interviews. Interviewees were preferably assigned an

1 http://www.dfg.de/foerderung/programme/koordinierte_programme/sfb/kompakt/index.html (last access 05.04.16)

2 Quote in the original: 'geregelte Form der Kooperation verschiedener wissenschaftlicher Disziplinen. Im Zentrum steht die Themenzentrierung während des gesamten Forschungsprozesses. Dadurch sind Sach- und Organisationsebene miteinander verknüpft, was einen hohen Kommunikationsaufwand zwischen den Wissenschaften mit sich bringt. Interdisziplinarität beruht auf selbstorganisierenden Prozessen, die ihrem Wesen nach nicht planbar sind' (Dressel et al. 2014, 21).

3 Because the Tübingen discipline calls itself 'Ethnologie', we have maintained this term in English, though we also include anglophone Social and Cultural Anthropology in our discussion of the discipline.

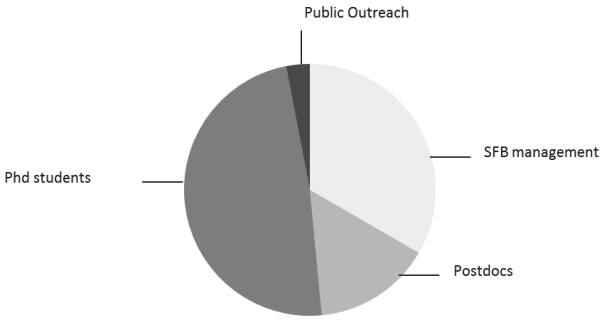


Fig. 1. Statements of SFB researchers participating in our survey.

interviewer from the partner discipline, so that the conversation itself was part of the crossover and could to some extent serve as a 'field' of demonstrating interdisciplinarity in action. The dialogue lasted about seventy minutes on average and full anonymity was guaranteed to respondents. We felt it important that all four researchers on the study were either very new employees of the SFB, or financially independent of its structures. The research team thus offered a 'tangential' position in relation to the SFB and was not managed from within the SFB hierarchy.[4]

The key questions of our interviews focused on how colleagues dealt with methods and forms of knowledge introduced from the partner discipline, their effect on their own work and people's take on the advantages and weaknesses of the interdisciplinary endeavour. In this paper, we have consolidated the survey results in thematic blocks. We consider the SFB ResourceCultures a practical case study that allows us to discuss the enriching and limiting aspects of collaboration between disciplines. We have therefore attempted to generalise potential obstacles to the best possible 'fishing' as well as making some recommendations for overcoming these hurdles.

Archaeology and Ethnology – Twins Raised Apart?

Like all social sciences and humanities, ethnology and archaeology began life in the nursery of the European Enlightenment and its broad approach to studying human nature and its history. Both subjects share a fascination with the universality and diversity of human behaviour. Archaeology and ethnology both document social structures and economies, exploring all aspects of human life, from warfare to art. Both disciplines establish their own data sets (rarely large enough to be statistically exploitable), and use interpretive methods. In the early years of these budding disciplines stood important common endeavours such as the Haddon Expedition in 1907 to Melanesia. Key debates such as the question of ‚diffusion' of inventions and social change were shared. Until the mid-20th cent., it was a matter of course for key figures such as Boas, Frobenius and Kroeber to draw on results from both fields.

In 'ethno-archaeology', which established itself as a subdiscipline of archaeology in the late 1970s, we can perhaps find the most obvious combination of archaeological and ethnographic material. Ethnoarchaeologists try to interpret evidence from prehistory by looking for analogies with ethnographic data from contemporary societies. However, in most cases this attempt did not result in direct co-operations between archaeologists and anthropologists. Instead, archaeologists themselves, started to collect ethnographic material and used new methods that had been established in the 1960s and 1970s in the course of the 'new archaeology', or 'processual archaeology' movement in the United States (Porr 1998; Göbel 1993). Meanwhile 'new archaeology' and 'processual archaeology' tried to overcome the limits of archaeological records in reconstructing 'cultural processes' (Eggert 1978; Earle/Preucel 1987). In striving for greater objectivity, this school of thought focused on statistics and quantitative analysis. This approach generated a lot of criticism, challenging the results of asymmetric comparisons of cultural similarities, which often ignored the embeddedness of practices and material artefacts into complex contexts (Porr 1998). For example, 'straight' comparisons of contemporary hunter-gatherer societies with prehistoric societies were criticised for treating these contemporary humans as 'pre-modern' or 'less developed'.

In the 1980s 'post-processual archaeology' arose as a critique of 'processual archaeology'. It was argued that 'processual archaeology' not only

4 In order to ensure anonymity, we have limited direct quotes in this paper and occasionally disguised the gender identity of interviewees.

ignored the behaviour and gender of past societies but also cultural frameworks. 'Post-processual archaeology' was sceptical of claims to objectivity, and celebrated subjectivity as an essential part of archaeological interpretations (e. g. Bernbeck 1997; Johnson 1999). A structuralist approach stresses the idea that people's actions are linked to specific concepts and cosmologies.

Alongside these fundamental debates, a fruitful connection between archaeology and ethnology has nevertheless been maintained mainly in the U.S. 'four-field approach' of anthropological departments uniting archaeology, biological, linguistic, and cultural anthropology in common institutes and teaching curricula.[5] However, the crystallisation of sub-fields such as 'linguistic anthropology' and others means that the common ground of debate has often been lost from view. At the same time, we can observe new mergers that are highly innovative, such as computational linguistics, and their consolidation as units (Barry et al. 2008, 23). In this sense, we can understand the SFB ResourceCultures as a moment in a historic 'dance' involving moves both towards and away from different dance partners.

The latest internationally recognised reincarnation of these 'siblings' is associated with the 'material turn' (Gosden 1999; Garrow/Yarrow 2010). The 'material turn' actually consists of a number of schools of thought that seek to rethink or overcome the division between mind and matter. Several of these intertwine with the concerns of ethnology and archaeology, such as feminist geographies, Latourian conceptions of actors and actants, or the marxist-inspired production and consumption studies of David Miller.[6] Certainly, ethnologists beyond museum-specialists have recently introduced a more explicit focus on things into their work (examples of quite different forms of engagement include Buchli 2013; Hoskins 1998; Ingold 2007; Oushakine 2013). One cannot however claim that ethnology has broadly taken archaeology as a starting point for these explorations (yet).

An SFB which explicitly studies cultures clearly owes much to the above mentioned schools of thought.[7] The attraction of archaeology and ethnology to each other is often put down to the productive relationship between the firm hold on 'deep' history that archaeology affords, and the extensive repertoire of ethnology on near-contemporary human societies. However, significant cracks in bridging this formidable spread of knowledge on human societies have recently appeared. This is particularly due to archaeology adapting many new natural science methods and techniques, while ethnology continues to operate to a large extent solely with hermeneutic tools. This means that an archaeologist now has an easier time in conversation with zoologists or geologists, while ethnologists share their approaches much more easily with historians and political scientists. In addition, ethnology has, towards the end of the 20th cent., become rather cautious and withdrawn from explicit and systematic global comparisons. In light of these developments, establishing a sustained collective exchange on an ambitious topic such as ResourceCultures certainly poses a timely challenge. How can ethnologists and archaeologists consistently engage in joint research? What kind of framework can favour a goal-oriented meeting of the lost 'twins'?

On the Structure of the SFB 1070 ResourceCultures

The research network has been investigating sociocultural dynamics in the use of resources since 2013. At the research centre resources are defined as: 'tangible or intangible media, used by protagonists to create, sustain or vary social relations, units and identities. This definition abolishes the separation between natural and cultural resources. In our understanding, also resources that are taken from nature are affected and defined by cultural

5 Worth mentioning is also the Soviet tradition of ethnographic fieldwork, which is sometimes still practiced. This generally involves a multi-disciplinary team of researchers sharing a fieldwork site, in order to document all aspects of human life holistically.

6 The 2007 debate between Ingold, Tilley, Knappet and Miller in Archaeological Dialogues 14.1 charts some of the tensions between these schools of thought (Ingold 2007).

7 See the Conceptual Introduction SFB 1070, 32, last updated 2015, <http://www.sfb1070.uni-tuebingen.de/> (last access 05.12.16).

activity. On principle we assume that resources do not appear isolated, but instead as part of what we call ResourceComplexes (see below), a combination of objects, individuals, knowledge and practices. Thus, the resource use includes the exploitation and production, as well as preparation, refining, distribution and use of socially relevant resources and ResourceComplexes. It triggers specific dynamics, multidimensional processes of change, which affect certain parts of a society or the society as a whole'.[8]

The SFB aims to use results from the cluster of projects to create models for the kind of processes described above. These evolving models are put to the test through interdisciplinary conversations. These models are intended to recast the resource concept and integrate, for example, symbolic dimensions of resources. Furthermore, these models aim to suggest patterns of changes within different time horizons, spatial expansions and processes of identity formation.[9]

The collaborative research centre involves around 80 employees, bringing together a wide range of subjects and methods. These include archaeologists from various sub-disciplines (Pre-History and Early History, Medieval Archaeology, Classics, Near Eastern Archaeology, Biblical Archaeology), ethnologists, but also geographers, philologists, economic historians and others. The twenty individual projects of the research centre cover topics such as agricultural resources in Palestine of the Bronze and Iron Age, the resource concept in Hesiod's ancient Greek poetry and research on rice and medicinal plants in South India. These individual projects are usually conducted from within a single discipline, and not set-up immediately in an interdisciplinary manner.

Most of the PhD students and the SFB administration have offices in a shared building. The professors of the participating institutes however remain in their departments, mostly in the Castle of Hohentübingen. Meetings and discussions among individual projects mainly take place during guest lectures or when project results are presented. Alongside these, there are also informal gatherings such as reading circles. Other possible exchanges, such as reciprocal visits in the laboratory or field, or critical counter-reading of chapters have remained rare. In the following we discuss the effect of existing collaborative arrangements on individual projects and the training of researchers, as far as they are described by those involved themselves over the last two years.

Results of the Survey

We identified several areas of concern in answer to our queries. Firstly, the idea of interdisciplinarity was repeatedly discussed and problematised. Secondly, the generative and limiting aspects of different forms of collaboration were considered. Thirdly, the SFB members discussed the types of exchange platforms available and reflected on the basic requirements for successful partnerships. Before broaching the main topic of 'interdisciplinarity within the Collaborative Research Centre', we started our interviews by asking about current stereotypes on different disciplines. What does 'the archaeologist' think about 'the ethnologist', and *vice versa*? We set out with this question to allow 'unofficial' corridor speak and emotive assessments about the partner discipline to surface. The deliberately formulated clichés (*fig. 2*) show that there are quite a few expectations and prejudices with respect to the other discipline. Such generalised assumptions can easily affect collaboration, so it is helpful to actively address and dismantle them in the course of work (Strang/Bell 2013). To highlight two common examples of such 'cliché-prejudices', here are two excerpts from our interviews: 'the ethnologists travel around and write travelogues in unintelligible language' ('Die Ethnologen reisen herum und verfassen Reiseberichte in verquaster Sprache') or 'intense interpretation on the basis of minimal characteristics' ('extreme Deutung auf der Grundlage minimaler Merkmale') as a comment on archaeologists.

8 See the Conceptual Introduction SFB 1070, 32, last updated 2015, 13, <http://www.sfb1070.uni-tuebingen.de/> (last access 06.12.16).

9 Original quote: 'Furthermore, as stated, it pursues three additional aims: 1) perception of social and political long-term developments; 2) understanding of processes of spatial development and identity creation and 3) comprehension of the symbolic dimensions of resources.' (Conceptual Introduction SFB 1070, 37, last updated 2015, <http://www.sfb1070.uni-tuebingen.de/> (last access 06.12.16).

Fig. 2. Stereotypes of archaeologists and ethnologists from the conducted survey – a first step towards the 'other' subject.

Individual and Collective Understanding of Interdisciplinarity

It became obvious early on in our conversations that respondents held a wide variety of ideas on what interdisciplinary work actually involves. At what point does interdisciplinarity begin, and how far can or should you take it? The discrepancies in the range of expectations to a large extent explain the wildly diverging assessments on collaboration we heard. These pointers to different expectations of collaboration can already be found in the initial description of the SFB: Some projects focused from the start on close cooperation, while others only envisaged sporadic contact points to other disciplines. Therefore, the programme was marked from the outset by differently accentuated interdisciplinary connections.

The importance of earlier training in the partner discipline or interdisciplinary environments was emphasised by many respondents. A number of employees highlighted their interdisciplinary background, for example in human geography or a combination of major and minor subjects in their first degree. Several reported that studying abroad had introduced them to a much broader disciplinary horizon and knowledge basis than their academic work in Germany. In consequence, some pointed out the difficulties arising from non-existent or piecemeal training in the partner discipline. Personnel changes between the preparation phase of the project and actual implementation also often caused disjunctures and need for 'catch-up' in project assumptions. For these reasons, it was felt that discussions of research by the other projects would often get misunderstood and need laborious explanation of basic terms and parameters. The researchers clearly set out on the SFB track from very different starting points of experience with the respective subjects.

Despite these potential obstacles, the interviewees regularly expressed mostly positive experiences with the partner discipline. Their experiences with interdisciplinarity can be divided according to different criteria: According to the level of interaction (single researchers, formal or informal group encounters), the duration of interaction, and its place in the research process. Some scientists of the SFB thought a lot of interdisciplinary practice was already taking place when colleagues shared ideas across disciplines, in informal conversation. Planning a joint workshop was mentioned as a potential result and visible product of such conversations. On the other hand, one employee questioned whether any interdisciplinary work happened at all, beyond the small project teams themselves. Another respondent rather provocatively stated that 'there is a lot of talk about interdisciplinarity, but then little actually happens' ('Es wird viel von Interdisziplinarität geredet, aber dann passiert wenig').

Because of the large number of archaeologists split into sub-disciplines with very different methodological approaches and periods of concern, from Pre-History to Classics and Medieval Archaeology, it was often argued that even putting these in touch with each other was an interdisciplinary achievement. We also encountered the format

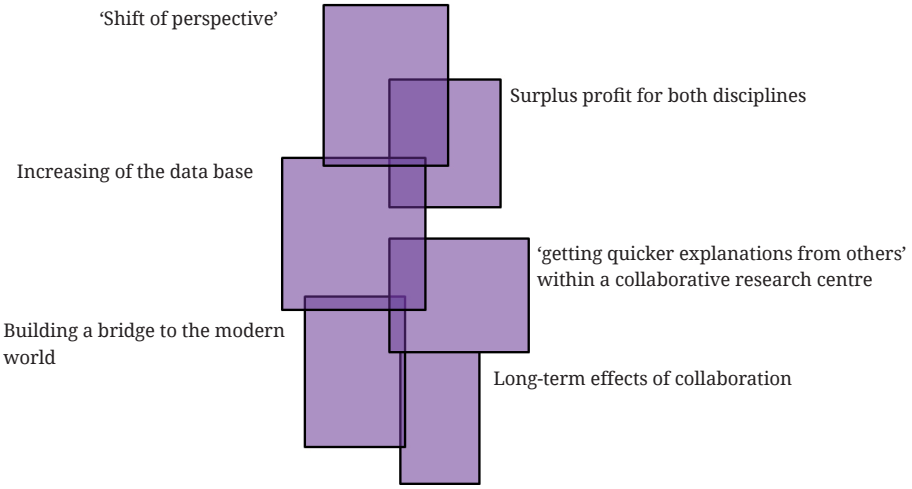


Fig. 3. Positive aspects of interdisciplinary co-operation within the SFB 1070.

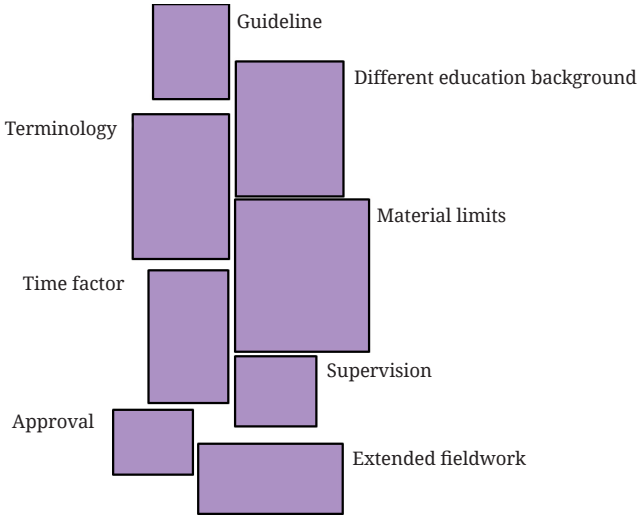


Fig. 4. Limiting aspects of interdisciplinary co-operation within the SFB 1070.

that interdisciplinarity takes place when data generated by the other subject is used in one's own research (comment from a project that combined disciplines). On the other hand, interviews may be part of archaeological fieldwork, but are not consciously classed as interdisciplinary methods, or even perceived as specific methods at all. Conversations revealed a broad range of expectations on what the partner discipline might have to offer: Ranging from the idea that ethnology could provide 'living examples' of hunter-gatherer societies to compare with Palaeolithic societies, to the hope for a productive examination of key terms such as 'resources' and 'cultures'.

While talking to the SFB staff members we identified a number of positive aspects of interdisciplinarity (*fig. 3*). The size of the blocks in the graph indicates how frequently these aspects were mentioned. The connecting edges indicate that these aspects were brought together in the conversation.

The shift in perspective and expansion of horizons enabled by the sister discipline was most frequently highlighted ('Perspektivenverschiebung'). 'Similar social and sacred contexts despite variations in time and place', ('trotz unterschiedlicher Räume und Zeiten ähnlicher sozialer und sakraler Kontext'), 'different point of view on the resources topic' ('unterschiedliche Blickwinkel auf das Thema Ressourcen möglich') are some of the concrete ways that respondents described these shifts and the effect on their own research material. Many thought the SFB model leads to an intense theoretical reflection of their research design and output. Furthermore, an ethnologist argued that his project 'had begun very much with actions and relationships in mind, but the experience in the SFB brought material aspects more clearly to the fore'

('zu Beginn sehr stark von Handlungen/Beziehungen ausgegangen, durch die Erfahrungen im SFB ist aber auch das Materielle spürbar in den Fokus gerückt'). He argued that the archaeologists' focus on material culture helped ethnologists pay more attention to visible objects. In addition, it was noted that the available database grows with the diversity of participating disciplines, allowing them to increase the validity of their conclusions.

Members appreciated the opportunity the SFB offered to 'have something quickly explained to you' by colleagues ('schneller von anderen etwas erklären zu lassen'). The interface of archaeologists and ethnologists was also felt to offer a bridge between the past and the present, although there were also concerns about handling these comparisons properly and not making the mistake of assuming direct analogies. One interviewee was of the opinion that results of the interdisciplinary encounter might not always be immediately obvious, but that the potential long-term effect should not be ignored. The interdisciplinary context might not immediately come to fruition in the current research project, but might well influence the cast of future projects. Moving on from these laudable aspects, we now turn to the limiting or negative aspects of the interdisciplinary experience that our survey also documented (*fig. 4*).

Different Terminologies, Data Sets and Research Questions

Our respondents reported that problems in cooperating lay with discongruities in the field of terminology, but also with the differing nature of sources and methods. One researcher thought 'it depends on the research question posed, whether one can engage with interdisciplinarity' ('ob man mit Interdisziplinarität viel anfangen kann, hängt von der Fragestellung der Arbeit ab'). On bridging languages, a staff member described this difficulty as 'a lack of basic understanding for concepts and sources, since we did not study both disciplines' which is why 'an immediate interdisciplinary start to collaboration is difficult' ('ein fehlendes Grundverständnis für Begriffe und Quellen, da wir nicht beides studiert haben', weshalb ein 'direkter interdisziplinärer Arbeitseinstieg am Beginn der Zusammenarbeit schwer ist').

In an interdisciplinary environment, different definitions of key terms such as mobility, culture, religion or secularism was an immediate challenge, we heard. 'This leads to misunderstandings and an explanation often has to start with the basics in order to help colleagues understand, how this (term) is handled in that particular discipline', as one researcher pointed out ('Missverständnisse können dadurch erzeugt werden und eine Erklärung muss häufig bei Null beginnen, um den Kollegen zu erklären, wie das jeweilige Fach damit umgeht'). Therefore, discussions are characterised by 'difficulties in understanding the representative of that subject, since they are speaking a different language or using different vocabulary' ('ein schwieriges Verstehen der jeweiligen Fachvertreter, da diese eine andere Sprache bzw. ein anderes Vokabular sprechen'), as another colleague put it. Being unclear about these differences, or failing to reach a consensus on their meaning could quickly lead to an impasse.[10]

Frequently, the different methodological approaches were discussed, challenging the limits of their applicability. The 'meeting of two chronologically distant [research] areas' was considered a great challenge ('Begegnung von zwei zeitlich völlig unterschiedlichen Bereichen') as well as the differences in general outlook on what good project implementation would look like. It was felt that sometimes ethnological theories were too complex, and the archaeological data too fragmented to pursue a comparison. 'Sometimes we just don't have the material to e. g. make claims about social processes', an archaeologist commented ('Manchmal fehlt einfach das Material um z. B. über soziale Prozesse Aussagen zu treffen'). Different research material would also lead to a number of problems. For example, 'if archaeologists hoped that ethnologists could interpret particular funeral rites, but these were unable to make these definitively or uncritically' ('wenn sich Archäologen von den Ethnologen Deutungen für beispielsweise bestimmte Bestattungsweisen versprachen, die aber

10 Interestingly, this problem was not widely regarded as a positive challenge, but as 'ballast'.

nicht völlig unkritisch von jenen gemacht werden konnten‘). Another limiting factor could be the difference in the kinds of questions explored by the different disciplines.

Interdisciplinarity: A Disadvantage for Career Planning?

Many employees thought the question whether concepts, theories and methods from other disciplines could be included in their research was, at the end of the day, a question of committing time. They felt this question was not to be taken lightly and worried that too much emphasis on interdisciplinarity in subjects unaccustomed to the practice, could have real disadvantages for their career. Would the introduction of ideas from the partner discipline be assessed positively? Respondents voiced concerns that the need to communicate with an interdisciplinary audience could lead to damagingly oversimplified or superficial portrayals of their research. Were they sacrificing the development of key competencies in their discipline, to interdisciplinary ‘extras’ irrelevant in the competitive job market? Doctoral students in particular emphasised that a clear disciplinary profile was necessary to fit the current job market, in which they felt presenting interdisciplinary competences would not be particularly advantageous (cf. Lund et al. 2006, 42).

These uncertainties lock into a general sense of struggle for employment in the academic sphere. For the majority of employees, the SFB project is completed in four years and does not offer an extension, which some felt made a heavy investment in interdisciplinarity unreasonable and unlikely. These structural resistances to ‘strong’ forms of interdisciplinarity that could cast doubt on the ‘true’ disciplinary identity of researchers, was particularly keenly felt by PhD candidates who constitute about half of the SFB membership. The PhD period is of course characterised by an effort at specialisation and deep immersion in a very specific research question. At the same time, this is also usually the phase in which young researchers ‘find their feet’ and establish themselves in the parameters of their choice. However, Marzano and colleagues note that an opening towards other disciplines is particularly profitable when researchers have gained confidence in their own discipline, a step that should include a reflective critique of its weaknesses (Marzano et al. 2006, 187). Since PhD students cannot be expected to set out on their research with such a degree of confidence and maturity, and since they are striving for consolidating a knowledge base, we can see that interdisciplinarity in this phase can cause particular tensions and come to look like a risk, rather than an opportunity.

So far the perspective of junior researchers. More experienced staff members noted that the learning effect or the advantage of demonstrating a broad expertise might not be discernible during the SFB period. As with any good teaching, it is likely that much can only be identified in retrospect, and not always directly attributable. ‘We should also count as knowledge ideas that can become inspiring much later’ (‘unter Wissen sind auch Ideen zu verstehen, die noch viel später ausstrahlen können’). Experienced researchers also saw the capacity to convey research to non-specialist audiences in a much more positive light, rather than a ‘dumbing down’ exercise. Thus far, their experience can be counted as assuaging the fears of junior researchers. But this perspective also demands patience and, shall we say, a certain love of adventure and willingness to engage in ‘creative dawdling’ that need not bear immediate results. These different perspectives however also highlight different needs and positions of researchers at different points of their careers: while the PhD aims to specialise, people further on in their career want to broaden their expertise and address universal problems. These are patterns that are adapted to the established academic expectations and reward system.

Different Research Cycles and Fora of Exchange

A practical problem was described in relation to the different research cycle of the disciplines. As one respondent commented: ‘ethnologists start off straight away with theories and develop questions from these; archaeologists first have to collect

material and can only then develop such questions and engage with theories. This disjuncture in timing means that our work phases don't match each other and we have different needs, in different phases' ('Ethnologen beginnen gleich mit Theorien und entwickeln daraus Fragen; Archäologen müssen erst Material sammeln und können dann Fragen stellen und sich mit Theorien beschäftigen. Diese Ungleichzeitigkeit führt dazu, dass die Arbeitsphasen nicht zusammenpassen und es die Bedürfnisse zeitlich verbschiebt').[11] In addition, each discipline requires different patterns of absence from Tübingen. Visiting field sites far away from Tübingen University, or even Germany, is an integral part of most SFB projects. But these absences are timed differently, leading to a disconnection and lack of overlap in research phases. Fieldwork will include over a year of absence for ethnologists, for example, and archaeologists are also hard to contact during excavations. It was commented that these patterns reduced the time available for organising joint events: There were periods where collaboration was simply not feasible or of low-intensity.

Respondents also discussed the question, in what form and on what occasions interdisciplinary conversations actually took place. They identified a number of interdisciplinary arrangements: Seating different kinds of researchers together in common offices, the resulting casual conversations in corridors, regularly scheduled meetings such as cross-sectional areas (project divisions), research colloquia, working groups on concepts like 'ResourceComplexes', 'materiality' or 'cultural memory', and conferences. PhD students in particular repeatedly mentioned that there were no guidelines on how to conduct an interdisciplinary SFB, something that these members missed. Despite a wide variety of structured encounters, many of the more junior researchers did not see this lack of guidelines as a freedom, but rather as a deficit.

Solution Strategies: Structural and Situational

The survey of SFB members showed a broad range of ideas about what constitutes interdisciplinarity and how to make it happen. The different timing in research processes, as well as differences in the meaning of concepts and the role of theory were identified as particular moments of friction. As the particular nature of these frictions only emerges in the course of collaboration, solutions cannot necessarily be forecast. As in any good research endeavour, the results of an interdisciplinary collaboration cannot be fully projected in advance. As Dressel put it, much 'interdisciplinarity relies on self-organising processes, which are in themselves not planable' (Dressel et al. 2014, 21).[12] For these reasons, we do not recommend accommodating some group members' anxieties by establishing detailed guidelines for interdisciplinarity or explicit 'instructions' for harnessing the other discipline. Collaboration always requires a certain flexibility and curiosity. Nevertheless, projects working in such a dynamic field are well advised to periodically review their interactions across disciplinary boundaries, and to renegotiate them.

In pursuing their great common interest in Anthropos, many respondents emphasised personal engagement as a *sine qua non* of successful interdisciplinarity. They used the German phrase 'man muss sich darauf einlassen' to describe this openness and willingness to move towards each other, alongside the need to find cooperative colleagues. The need to communicate extensively in order to find productive intersections with other subjects was also mentioned. Members did not feel that all research topics were conducive to interdisciplinary enquiry, and that a judgment on its uses should be made on a case by case basis.

Mutual understanding is described both as a basic requirement, as well as an effect of these moves. Several respondents underlined that this engagement required time and could be compared to 'sort of doing a second degree' ('quasi dem Nachholen eines Studiums gleich'). One supervisor noted 'one needs to learn the disciplinary

11 Whether this is really a fair description of how all ethnologists and archaeologists work is a question that goes beyond the scope of this paper.

12 Original quote: 'Interdisziplinarität beruht auf selbstorganisierenden Prozessen, die ihrem Wesen nach nicht planbar sind' (Dressel et al. 2014, 21).

vocabulary of the others. That can't be done solely through conversations' ('man muss den Fachjargon der Anderen erst lernen. Das ist nicht nur in Gesprächen getan'). For these purposes, the offer of a 'crash-course' in the partner discipline in the initial phase of an SFB would be helpful. Such a course would not only present the main methods and history of the sister discipline, but also discuss the habitus of researchers and current debates. Such an introduction would also serve to make researchers aware of what, in fact, needs explaining about their work, in dialogue with other disciplines. Other methods of fostering such awareness might be a tandem system modelled on language learning.

The sometimes deleterious effect of divergent expectations of interdisciplinarity could be countered by initially asking participants to voice these expectations explicitly, to make them conscious to themselves. This would allow more reflected decision-making in choosing partners for events, for example. Certainly, structures such as an SFB are perfectly capable of encompassing different collaborative goals. Models for fruitful collaboration could be discussed by introducing a range of cases as positive examples in which ethnologists and archaeologists have worked together. The asynchronicity of research processes could also be anticipated, and discussed explicitly when projecting such a four-year cycle. This would allow a certain adjustment of 'collaborative cycles' and of expectations as to what the partner researchers can deliver or need at any time. The earlier interdisciplinary 'binoculars' can be attached to a researcher's disciplinary 'magnifying glasses', the better.

Since respondents commented on a lack of disciplinary mix in several project areas, it would be useful to consciously design over-arching project teams to always include a balance of disciplines. This mixing already works well in the field of crosssectional areas (project divisions).

Conclusion: The SFB as an Intellectual Laboratory between Expectations and Experimentation

The experiences of the SFB 1070 ‚ResourceCultures' reveal that the foundations for a fruitful cooperation have indeed been successfully laid in many respects since 2013. Concrete results such as the production of this volume, but also the development of new joint project ideas, bear witness to this. We have documented here the gains SFB members feel they have made by interacting with partner disciplines. We have also noted the tensions and resistances that needed to be overcome, in order to make these gains, and moments when resistances can threaten productive encounters. These tensions involve significant gaps in understanding each other's vocabulary, research process and goal-orientation. But they also include very practical concerns such as mismatches in office presence in Tübingen, or worries about the status of interdisciplinary research on a CV. Some of these are structural issues that reflect tensions and strictures on many levels, from global debates on the benefits of interdisciplinary design to an SFB's four-year timeline. SFBs are only able to solve some of these, such as the much-lauded (and expandable?) practice of providing SFB members with common office space. Our 33 interviewees highlighted that the abstract endeavour of 'interdisciplinarity' in fact depends in many ways on quite mundane, everyday practices and structures of scientific 'cohabitation'. It is clear that interdisciplinarity primarily consists of communication work, the scope of which is endlessly expandable, and from which one should not expect a 'smooth' ride or even a sense of 'arrival'. We therefore recommend a highly conscious handling of differences, rather than papering over gaps, as a bridge to 'strong' interdisciplinarity (*fig. 5*).

From the range of responses caught by our survey, we can move to a characterisation of the SFB as a particular type of interdisciplinarity: A model that sites many small projects with clear disciplinary identities under the umbrella of a common research question. The practical value of the neighbouring discipline is mainly pursued through comparisons and shared theoretical literature. This interdisciplinary endeavour is not one that attempts to fundamentally reform or adapt disciplinary research processes to incorporate methods from a neighbouring subject. Such a 'revolutionary' interpenetration by the other discipline was not expected or discussed by respondents. We noted a certain imbalance in the burden of expectation towards partner subjects: The Tübingen ethnology

Fig. 5. Interdisciplinary exchange at conferences, example of the Berlin colloquium „Begegnungen. Archäologie und Ethnologie im Dialog. Erfahrungen und Reflexionen aus der Praxis in Vorder- und Zentralasien und Nordafrika“ (27.11.2015).

department seems to have been assigned the role as a ‘theory service centre’ by some, and one that also delivers ‘living examples of alternative social forms’. The benefits expected from the archaeological subjects by ethnologists seemed much less clearly formulated. This imbalance may be a consequence of the disjuncture in research cycles mentioned above: At the point of interview, many ethnologists PhD students had only just returned from a very extensive field period.

One might see the above portrait of interdisciplinarity in practice as a rather sober assessment, a kind of ‘marriage of convenience’ rather than a love match. However, most business relations are after all, highly productive ‘marriages of convenience’. Historians and ethnologists see ‘arranged’ marriages in which forms of love can bloom, but are not obligatory, as a very successful and common practice. Or, to return to our initial metaphor of ‘deep sea fishing’ and ‘UN cocktail parties’, in today’s world of fast multiplying specialisation and fracturing of research on human life, it seems UN-type fora that struggle through the many different points of view, are essential. Just like the United Nations (including its cocktail parties), collaborative research centres on big ideas like ‘ResourceCultures’ may not offer a diplomatic ‘quick fix’, but they do form a vital component of collective scientific life. It is the very struggle for a common language and understanding that generates creativity in the pursuit of solving common problems.

Karina Iwe
Graduate School
‘Human Development in Landscapes’
Kiel University
Leibnizstr. 3
D-24118 Kiel

Jeanne Féaux de la Croix
Asia Orient Institute
Department of Ethnology
University of Tübingen
Burgsteige 11, Castle Hohentübingen
D-72070 Tübingen

Susanne Fehlings
Institute for Social and Cultural Anthropology
Goethe-University Frankfurt am Main,
Norbert-Wollheim-Platz 1
D-60323 Frankfurt am Main

Bibliography

Barry et al. 2008: A. Barry/G. Born/G. Weszkalnys, Logics of Interdisciplinarity. Economy and Society 37.1, 2008, 20–49.

Bernbeck 1997: R. Bernbeck, Theorien in der Archäologie. UTB 1964 (Tübingen 1997).

Buchli 2013: V. Buchli, An Anthropology of Architecture (London 2013).

DFG 2016: Deutsche Forschungsgemeinschaft, Sonderforschungsbereiche. Kompaktdarstellung, <http://www.dfg.de/foerderung/programme/koordinierte_programme/sfb/kompakt/index.html> (last access 29.07.2016).

Fischer 2014: R. Fischer, Interdisziplinarität als Bewegung. In: G. Dressel/W. Berger/K. Heimerl/V. Winiwarter (eds.), Interdisziplinär und transdisziplinär forschen. Praktiken und Methoden. Science Studies (Bielefeld 2014) 13-16.

Dressel et al. 2014: G. Dressel/W. Berger/K. Heimerl/ V. Winiwarter (eds.), Interdisziplinär und transdisziplinär forschen. Praktiken und Methoden. Science Studies (Bielefeld 2014).

Earle/Preucel 1987: T. Earle/R. Preucel, Processual Archaeology and the Radical Critique. Current Anthropology 28, 1987, 501–538.

Eggert 1978: K. H. Eggert, Prähistorische Archäologie und Ethnologie. Studie zur amerikanischen New Archaeology. Prähistorische Zeitschrift 53, 1978, 6–164.

Garrow/Yarrow 2010: D. Garrow/T. Yarrow (eds.), Archaeology and Anthropology. Understanding Similarity, Exploring Difference (Oxford 2010).

Göbel 1993: B. Göbel, Archäologen als Ethnographen. Möglichkeiten und Grenzen der Ethnoarchäologie. In: T. Schweizer/M. Schweizer/W. Kokot, Handbuch der Ethnologie. Ethnologische Paperbacks (Berlin 1993) 415–440.

Gosden 1999: C. Gosden, Anthropology and Archaeology. A Changing Relationship (London 1999).

Hoskins 1998: J. Hoskins, Biographical Objects. How Things Tell the Story of People‘s Lives (London 1998).

Ingold 2007: T. Ingold, Materials against Materiality. Archaeological Dialogues 14.1, 2007, 1–16.

Johnson 1999: Matthew Johnson, Archaeological Theory. An Introduction (Oxford 1999).

Klein 1990: J. T Klein. Interdisciplinarity. History, Theory and Practice (Detroit 1990).

Lund et al. 2006: V. Lund/G. Coleman/S. Gunnarsson/M. Calvert Appleby/K. Karkinen. Animal Welfare Science – Working at the Interface Between the Natural and Social Sciences. Applied Animal Behaviour Science 97.1, 2006, 37–49.

Marzano et al. 2006: M. Marzano/D.N. Carss/S. Bell, Working to Make Interdisciplinarity Work. Investing in Communication and Interpersonal Relationships. Journal of Agricultural Economics 57.2, 2006, 185–197.

Oushakine 2013: S. A. Oushakine, Динамизирующая вещь. In: ОБЪЕКТЫ АФФЕКТА: К МАТЕРИОЛОГИИ ЭМОЦИЙ (Moscow 2013).

Porr 1998: M. Porr, Ethnoarchäologie. Ein Plädoyer für Interdisziplinarität und Disziplinlosigkeit in der Archäologie. Archäologische Information 21.1, 1998, 41–49.

Strang/Bell 2013: V. Strang/S. Bell, Navigating Interdisciplinarity (Durham 2013).

Strang/McLeisch 2015: V. Strang/T. McLeish, Evaluating Interdisciplinary Research. A Practical Guide (Durham 2015).

Weingart/Padberg 2014: P. Weingart/B. Padberg (eds.), University Experiments in Interdisciplinarity. Obstacles and Opportunities (Bielefeld 2014).

II. Resources and Processes of Social Change

NORMAN YOFFEE

Prolegomena to the Study of Collapse, Resilience, and Sustainability

How do 'Cultural Resources' Help Us Understand the 'Fate' of Ancient Cities and States?

Keywords: ancient cities and states, collapse, regeneration, fragility, complexity and simplicity

Abstract

This essay interrogates certain key terms that have been used to discuss the 'cultural resources' critical in the evolution of the earliest cities and states. Are early states 'integrated' by political and/or religious systems? Do early states 'collapse' because leaders failed to understand environmental circumstances; or does 'collapse' occur when otherwise stable, complex systems fall to superior armaments of their enemies? Under what conditions are early states 'sustainable' and/or able to 'regenerate'?

Introduction[1]

This brief paper presents some thoughts (really just an outline) on aspects of social evolutionary theory (see Yoffee 2005) and how a focus on 'cultural resources' might clarify some issues relating to the rise and fall of ancient cities and states. The Collaborative Research Centre SFB 1070 RessourcenKulturen explicitly intends to place 'resources' in an ontological perspective, that is, to explore how natural resources and landscapes are culturally constructed. How do people understand their lives, their pasts, and how must they adapt these understandings in times of social and environmental change? How do we study 'resources' in this new light? What terms guide our investigations?

In this article I also take the liberty of introducing myself as a 'scientific adviser' (and *Gast-Wissenschaftler*) to the project's team. First, I am a historian of ancient Mesopotamia who is also invested in 'world history'. That is, I assert that to understand the rise of cities and states in Mesopotamia it is necessary to consider the rise of cities and states on a global scale (Yoffee 2015b; Yoffee 2015c; Yoffee 2016a). It is only in this expanded temporal and geographical perspective that one can appraise why Mesopotamian institutions took the form they did and not other forms (Baines/Yoffee 1998). Also, to consider cultural forms, representation, and meaning my research is also necessarily archaeological. If my research, thus, blurs the line between history and archaeology, I join other scholars who have utilised and must utilise both historical and archaeological data, especially in studying the phenomena of 'collapse' (Yoffee 2016b; Yoffee/Cowgill 1988; Tainter 1988; Middleton 2012 and 2016).

1 Thanks to speaker Martin Bartelheim, coordinator Anke Scholz (and colleagues) and also to Peter Pfälzner for inviting me to participate in the SFB 1070 RessourcenKulturen. This paper preserves much of the oral presentation at the conference and also its brevity. As my talk served as my introduction to the project as a 'scientific adviser', a number of citations are to articles and books I happen to have written and edited. This essay resumes my earlier work and places it in the perspective of research on cultural resources.

‘Fate’ and Cultural Resources

Jared Diamond has written the best-sellers, ‘Guns, Germs, and Steel. The Fates of Human Societies’ (1997) and ‘Collapse: How Societies Choose to Fail or Succeed’ (2005). In the first book Diamond depicts a triumphant West because agriculture, as it developed in ‘Eurasia’, resulted in large surplus production of resources and also conferred an immunity to certain diseases and finally the production of superior weapons. Since natural resources are the key to the West’s triumph, history and culture count for little. The Rest was ‘fated’ to fall under the domination of the West.

In the second book, it would seem that Diamond contradicts his story: people ‘choose’ to fail by overexploiting natural resources or were unable to deal with climate change that left natural resources vulnerable. Poor leadership was the main cause of collapse according to Diamond. Again history and culture are little considered as resources.

It is easy to show that most of the examples, especially of ‘collapse’, that Diamond explores are under-researched or wrong (see the extended critiques of Diamond’s theses in McAnany/Yoffee 2010). Without going into detail about his failures, one can simply note that Diamond does not distinguish between the collapse of dynasties and political systems and the cultural systems that can promote new dynasties. In rare cases a cultural tradition may collapse (Yoffee 1988).

Some Examples of ‘Collapse’ and Abandonment in the Perspective of Cultural Resources

Some of Diamond’s examples show how we must reorient terms like ‘fate’ and ‘collapse’. The Aztec Empire (Guttiérrez 2015; Berdan 2014) and the Inka Empire (Cahill 2010) each lasted about a century and a half. The empires were vast (but in the Aztec case discontinuous) and demands for resources and people to work on imperial ventures were enormous. These demands were resisted (to a certain extent), and the Spanish found allies ready to join them against the Aztec and Inka emperors.

Inka and Aztec conquerors invented new resources to administer their empires, account for taxes and tribute, and control their subject peoples. Under the Inka a system of ropes with various knots and in various colours, called quipus (or khipus), was conceived and which functioned not unlike a digital computer (Urton 2015). In the Aztec empire in the capital, Tenochtitlan, the architecture of procession ways leading to ceremonial precincts, as well as written codices (Gutierréz 2015), demonstrated the power of rulers and their desire to ‘simplify’ their societies (see below for ‘complexity’ and ‘simplification’).

Under the conquering Spanish, who were just as cruel as Aztec or Inka emperors, some natives were able to improve their lives. Marginals, that is, people of low status (for various reasons) in native kinship and other social systems, and those people of higher status whose rights were abrogated by Inka and Aztec overlords could and did appeal to Spanish courts for redress of grievances, especially in land claims (Moore 1958). The Spanish system became a resource, if in a limited way, for conquered Indians.

The demographic story of collapse is similarly more complicated than depictions of ruin and abandonment. In the Petén of the Maya, as is well-known, most of the large cities were abandoned (McAnany et al. 2016), but not at the same time or at the same speed. Indeed, other Maya cities flourished to the north (McAnany/Gallareta Negrón 2010), and there are about 8 million Maya living today. They celebrate their past by building altars and conducting ceremonies in the ‘abandoned’ Classic period sites.

Perhaps the most famous putative case of overexploitation of natural resources is that claimed for Easter Island (Rapa Nui). After the first Polynesian colonisation of the island around 1200 CE in a few hundred years deforestation occurred and the construction of giant statues, *moai*, ceased (Hunt/Lipo 2010). However, the archaeological evidence does not show a decrease in population attendant with deforestation. Furthermore, deforestation is attributed, at least in part, to rats which were brought by Polynesians (as stowaways probably) and which ate pine nuts. Rat population exploded on Rapa Nui, and archaeological discoveries of pine nuts in habitation sites show gnawing by rats. Population did decrease markedly, but only after the Dutch discovery of Rapa Nui in 1722.

Some collapses, in brief, are not as sudden or as complete as they appear from afar, and the impact of contingent events is often large enough to make them inherently unpredictable and therefore not all 'fated'.

'Integration' and 'Stability': Towards a Counternarrative and a Mesopotamian Example

If 'fate' and 'collapse' tell us little about the history and resilience of ancient cities and states, the terms 'integration' and 'stability' do not help us understand how people led their lives and considered their own pasts, that is, what cultural resources connected people and in what limited ways. In the literature on social evolution, ancient cities and states are often held to be 'integrated' (or 'systemic'), that is, their inhabitants and beliefs are held together in political and religious systems (see the still evocative critique of Brumfiel 1992). Because integration, by various 'means' (Feinman 2012) is thought to be a good thing, such 'complex' societies are 'stable' until something bad happens: climate change, more powerful enemies, bad decisions that lead to the destruction of essential resources (as in the Diamond scenario). But is this so? I provide one slightly extended example from Mesopotamia (but regret to eschew illustrations in this essay) and then a few shorter examples from elsewhere.

In Mesopotamia political integration is an emic goal. The Sumerian King List, a document composed in the time of the Third Dynasty of Ur but referring to the earliest history of the land, proclaims that only one city ruled at any one time before rule passed to another city (for translation, Michalowski 2006). Although this version of history had its own purposes (Michalowski 1983) and is thus a historical document, it ignores the contemporaneity of powerful, independent cities and omits certain cities in order to maintain its literary character. Indeed, city-states competed for power in the early 3rd mill. BC. When a unification under Sargon of Akkade was created, it lasted a little more than one hundred years as rival cities re-established autonomous rule. When subsequent unification was effected by rulers of Ur around 2100 BC, that, too, lasted less than a century before cities again became independent, destined to compete for power with rivals. The so-called empire of Hammurabi, after struggles with other cities in the early eighteenth century BC, asserted a dominance that lasted less than a decade before it came asunder (for a history of Mesopotamia, see Van De Mieroop 2016). Mesopotamian political systems were unstable at the regional level. Local cities resisted overarching power, and within cities local communities and ethnic groups themselves contested for power. 'Stability' and a lack of struggle do not characterise Mesopotamian cities and states.

The 'First' Mesopotamian City

Uruk (Warka) until recently has been considered the first Mesopotamian city and that early cities first appeared in southern Mesopotamia (Iraq). That view has changed because cities like Tell Brak appeared in the north at least as early as Uruk (Emberling 2016). Still we know more about Uruk in the 4th mill. BC than about other cities in the south or the north, thanks to long-term German excavations (Cruesemann 2013; Finkbeiner 1986; Nissen 2015). From the middle of the fourth millennium through the start of the third millennium, Uruk encompassed more than 300ha and a population in the tens of thousands. German excavations of this time period, the Middle and Late Uruk, concentrated on two ceremonial precincts, the Eanna precinct and the Anu Ziggurat, which were originally in two different communities that later were joined by the mid-4th mill. in one city. From the Middle to the Late Uruk period everything changed. Not only were there many large temples, plazas, and other buildings in Eanna, which covered 9ha, but in the creation of the ceremonial district of Eanna the cultural life of the city of Uruk was transformed. The first clay tablets with pictographic writing were invented, perhaps by one person. (A colleague has noted that it's hard to imagine that a committee invented writing. There were various forms of notation, such as small clay tokens, sometimes inserted in clay envelopes, and potters' marks, but the appearance of writing, just at the time the first city took shape, was an invention). Cylinder seals were created and carved scenes were rolled over clay tablets, on jar stoppers, and on clay stoppers

on doors (of storerooms). These decorations noted the authority and personnel who were responsible for transactions of various sorts. In a slightly later stage of the evolution of clay tablets, early cuneiform writing of lexical lists, for example, of officials, wood items, or cities were used in schools. It is not entirely facetious to claim that writing was developed so that there could be schools.

Among other changes in the late Uruk period, spanning the archaeological levels of Uruk IV, was the appearance of new forms of sculpture. Notable among these is the 'Uruk vase'.[2] The vase, about a meter high, shows in three levels the production of plants and animals, the products themselves heaped in containers and carried by slaves, and the agricultural products placed before the goddess Inanna. The Eanna precinct was sacred to Inanna, and the earliest texts document the accounting of products brought to the temple complex (Nissen et al. 1993).

Also in the late levels of Uruk IV beveled-rim bowls, plausibly interpreted as ration containers (Nissen 2015), are found in sites of this period. These include some of the so-called 'Uruk colonies' (Algaze 2008). These sites, found in Western Iran and up the Euphrates in Syria and southern Anatolia, have been interpreted as 'trade colonies', and/or places of 'expansion' from the Urukian heartland. In one heterodox interpretation, however, Gregory Johnson (1988/89) speculated that the Urukian presence outside the heartland was due to 'collapse' of the city of Uruk itself (and perhaps of the Urukian system). There is reason to take Johnson's speculation seriously.

The spectacular array of temples in the last phase of the Uruk IV levels at Uruk, which marked a renovation of earlier temples, was razed, and a series of offering places throughout the Eanna precinct was installed. The glories of Uruk, which grew explosively from the 4th mill. BCE, with several enormous areas of ceremonial display, new forms of extreme stratification and social and economic differentiation, the centre of a cultural identification of Mesopotamian-ness and worship of Inanna, were destroyed. Perhaps this destruction and ritual closure of Eanna also entailed the flight of 'losers' in whatever factional struggle may have occurred in Uruk. In any case, the earliest experiment of urbanism in Mesopotamia failed. The city of Uruk and Mesopotamian culture that was in part created in the city did not fall to zero, and a new city of Uruk grew. Indeed, the city of Uruk in its various forms survived into Hellenistic times and finally under the hegemony of various Persian dynasties.

History is not a report-card. If Uruk in its earliest urban phase can be said to have 'failed', one can also attribute the cumulative 'cultural resources' as leading to its successful regeneration. However, Uruk was never again a leading player in the struggle for political hegemony in Mesopotamia; as a centre of Inanna/Ishtar worship it was a centre – one of several – of Mesopotamian culture.

Vignettes of Comparison in the Growth and Collapse of Early Cities

The 'fragility' of early cities is common (Yoffee 2016c), and in one early city, Teotihuacan (in southern Mexico), (Clayton 2015), the ritual centre was also ceremonially burned in the late 6th cent. CE, (whereas the residential areas of the city continued to be occupied. The earliest cities (or city-states) in China[3] in the 2nd mill. BCE (i.e., Erlitou, Zhenzhou, Anyang [Yinxu]) were the largest cities in the world in their time. Anyang at 1200 BCE is estimated by Tang Jigen, its current director of research, at more than 30km^2 and with a population around 200,000 (personal communication). Each of these massive cities, however, lasted less than two centuries. The enormously powerful rulers controlled many resources, both goods and people, campaigned far and wide, and were spectacularly brutal, but they were unable to ensure the their legitimacy and under challenges were quickly abandoned.

Cahokia, near the modern city of St. Louis, Missouri, was created in a 'big bang' (Pauketat et al. 2015) around 1050 CE (springing from a small village almost overnight, as it were). Cahokia consisted of a ceremonial district with one major

2 Excellent images of the vase are found in M. Guimarães Lima <arthistorypart1.blogspot.com/2011.01/Sumerian-art-warka-vase.html> (last access 23.2.2016) and in Miller et al. 2015 with recent literature.

3 Taosi, a city in the late 3rd mill., has been termed 'Neolithic' (Shelach-Lavi 2015).

mound and dozens of other mounds, a huge ceremonial plaza and outlying districts, including another ceremonial mound and surrounding area in East St. Louis. Altogether, there were around 50,000 people in the Cahokia complex, many migrating to the new city from surrounding areas. Rulers seem to have been ritual leaders, and sacrificial captives were interred as part of ceremonies. However, this spectacular and unprecedented city survived for about 150 years.

'Integration', Resilience, and Sustainability: What are the Critical 'Resources'?

James Scott has argued that the leaders of some modern states seek to 'simplify' their societies, make them 'legible, orderly and so easier to understand and control' (Scott 1998). Scott's examples indicate that the very attempt to simplify physical and cultural aspects of a society in fact tend to destabilise that society. Furthermore, such attempts can lead to increased resistance to the new social order imposed by rulers (Scott 2009). Trends toward simplification and legibility in early states may well have resulted in the tactics of resistance to those states. Although archaeologists tend to use the term 'integration' to refer to the new political and religious institutions of emerging states as integrating these 'complex societies', that is, highly differentiated and stratified societies, the irony is that such attempts may have led to their collapse. Early cities and states evolve in large part as a result of the in-migration of new peoples and their disparate cultural institutions and local organisational systems. The irony is that the many new parts in early cities and states do not function 'systemically', and attempts to tie the parts through control mechanisms from the top can also accentuate the 'cleavage planes' of identity and community organisations that pre-existed the formation of cities and states. The cases presented above indicate that collapse can occur precisely in this dialectic of complexity and simplification.

Quasi-ecological metaphors of resilience and sustainability must also be questioned. Social systems that collapsed and then reformed/regenerated (see essays in Schwartz/Nichols 2006) did not simply spring back into their previous existence. People do know their own history which they materialise in a variety of ways (Van Dyke/Alcock 2003; Mills/Walker 2008), and they try to avoid problems of the past. As things change, people make decisions of what part of their identity they privilege. Resistance to central power, to integration, occurs as the centre tries to appropriate local beliefs and leadership in local organisations. The attendant struggle over who controls symbolic and ideological resources can lead to collapse. It is in the nature of that collapse that one might find a 'regeneration' in which people might use their understanding of the past to build new institutions (that are often depicted as not new at all).

In Mesopotamia in the collapse of dynasties new dynasties appeared. Sometimes these new dynasties were the creations of ethnic groups, such as Amorites or Kassites, who were hardly foreigners in Mesopotamia. The leaders of these ethnic groups as well as their followers maintained their own identities for purposes of political advantage but also were concerned to become 'Mesopotamians'. They honoured Mesopotamian gods and customs and faithfully copied ancient texts. They did not write in their own languages or sponsor new cultural forms, new ideologies of royal behaviour; they attempted to legitimise their rule as Mesopotamians.

After the conquest of Persians, Greeks, and more Persians, starting in the 6th cent. BCE, the new rulers certainly honoured venerable Mesopotamian traditions but not at the expense of their own ruling ideologies. Gradually, Mesopotamians chose to become Greeks or Persians or eventually Muslims. People had resources of identity, in fact, multiple identities.

Concluding Remarks

One sometimes reads that Mesopotamians destroyed their own civilisation by ignoring problems of over-irrigation and resulting salinisation, by destroying their natural resources. In fact, it was only under Sasanian Persians and the first caliphates in Iraq that massive canals were built in order to bring new land under cultivation and by ignoring local knowledge about the need to leave agricultural land fallow (Adams 1982). These late

kings wanted large quantities of resources in order to fund their political goals. Early Mesopotamian rulers simply did not have the power to engineer their own environmental disaster. The Tübingen project on cultural resources asks the right questions: how were cultural resources formed, how were cultural and natural resources mobilised by political leaders and for what purposes, and how and under what conditions and circumstances were these purposes resisted?

Norman Yoffee
Departments of Near Eastern Studies and Anthropology
University of Michigan
nyoffee@gmail.com

Bibliography

Adams 1982: R. McC. Adams, Heartland of Cities (Chicago 1981).

Algaze 2008: G. Algaze, Ancient Mesopotamia at the Dawn of Civilization (Chicago 2008).

Berdan 2014: F. F. Berdan, Aztec Archaeology and Ethnohistory. Cambridge World Archaeology (Cambridge 2014).

Brumfiel 1992: E. Brumfiel, Breaking and Entering the Ecosystem – Gender, Class, and Faction Steal the Show. American Anthropologist 94, 1992, 551–567.

Cahill 2010: D. Cahill, Advanced Andeans and Backward Europeans. Structure and Agency in the Collapse of the Inca Empire. In: P. McAnan/N. Yoffee (eds.), Questioning Collapse. Human Resilience, Ecological Vulnerability, and the Aftermath of Empire (Cambridge 2010) 207–238.

Clayton 2015: S. Clayton, Teotihuacan. An Early Urban Center in its Regional Context. In: Yoffee 2015a, 279–299.

Cruesemann 2013: N. Crusemann (ed.), Uruk. 5000 Jahre Megacity (Petersburg 2013).

van Dyke/Alcock 2003: R. van Dyke/S. Alcock, Archaeologists of Memory (Malden, MA 2003).

Emberling 2016: G. Emberling, Structures of Authority. Feasting and Political Practice in the Earliest Mesopotamian States, in G. Emberling (ed.), Social Theory in Archaeology and Ancient History. The Present and Future of Counternarratives (Cambridge 2016) 34–59.

Feinman 2012: G. Feinmann, Comparative Frames for the Diachronic Analysis of Complex Societies. In: M. Smith (ed.), The Comparative Archaeology of Complex Societies (Cambridge 2012) 21–43.

Finkbeiner 1986: U. Finkbeiner, Uruk-Warka. Evidence from the Ğamdat-Naşr Period. In: U. Finkbeiner/W. Röllig (eds.), Ğamdat-Naşr. Period or Regional Style. Tübinger Atlas des Vorderen Orients (Wiesbaden 1986) 33–56.

Gutiérrez 2015: G. Gutiérrez, Mexico-Tenochtitlan. Origin and Transformations of the last Mesoamerican Imperial City. In: Yoffee 2015a, 491–512.

Hunt/Lipo 2010: T. Hunt/C. Lipo, Ecological Catastrophe, Collapse, and the Myth of 'Ecocide' on Rapa Nui (Easter Island). In: P. McAnany/N. Yoffee, (eds.), Questioning Collapse. Human Resilience, Ecological Vulneratibility, and the Aftermath of Empire (Cambridge 2010) 21–44.

Johnson 1988/89: G. Johnson, Late Uruk in Greater Mesopotamia. Expansion or Collapse? Origini 14, 1988/89, 595–611.

McAnany/Gallareta Negrón 2010: P. McAnany/T. Gallareta Negrón, Bellicose Rulers and Climatological Peril? Retrofitting Twenty-First Century Woes on Eighth-Century Maya Society, In: Questioning Collapse. Human Resilience, Ecological Vulnerability, and the Aftermath of Empire (Cambridge 2010) 142–175.

McAnany et al. 2016: P. McAnany/J. Sabloff/M. L. St-Hilaire/G. Iannone, Leaving Classic Maya Cities. Agent-based Modeling and the Dynamics of Diaspora. In: G. Emberling (ed.), Social Theory in Archaeology and Ancient History. The Present and Future of Counternarratives (Cambridge 2016) 259–290.

McAnany/Yoffee 2010: P. McAnany/J. Yoffee (eds.), Questioning Collapse. Human Resilience, Ecological Vulnerability, and the Aftermath of Empire (Cambridge 2010).

Michalowski 1983: P. Michalowski, History as Charter. Some Observations on the Sumerian King List. Journal of the American Oriental Society 103, 1983, 237–248.

Michalowski 2006: P. Michalowski, The Sumerian King List. In: M. Chavalas (ed.), The Ancient Near East (Historical Sources in Translation) (Malden, MA 2006) 81–85.

Middleton 2012: G. Middleton, Nothing Lasts Forever. Environmental Discourses on the Collapse of Past Societies. Journal of Archaeological Research 20, 2012, 257–307.

Middleton 2016: G. Middleton, Understanding Collapse. Ancient History and Modern Myths (Cambridge 2016).

van De Mieroop 2016: M. van De Mieroop, A History of the Ancient Near East, ca. 3000–323 BC (Malden, MA 2016).

Miller et al. 2015: N. P. Miller/P. Jones/H. Pittman, Sign and Image: Representation of Plants on the Warka Vase of Early Mesopotamia, <http://repository.u.penn.edu/penn_musem-papers/2> (last access 23.02.2016).

Mills/Walker 2008: B. Mills/W. Walker, Memory Work: Archaeologies of Material Practices (Santa Fe 2008).

Moore 1958: S. F. Moore, Power and Property in Inca Peru (New York 1958).

Nissen 2015: H. Nissen, Urbanization and the Techniques of Communication. The Mesopotamian City of Uruk during the Fourth Millennium BCE. In: Yoffee 2015a, 113–130.

Nissen et al. 1993: H. Nissen/P. Damerow/R. Englund, Archaic Bookkeeping. Early Writing and Techniques of Economic Administration in the Ancient Near East (translated by Paul Larsen) (Chicago 1993).

Pauketat et al. 2015: T. Pauketat/S. Alt/J. Kruchten, City of Earth and Wood. New Cahokia and its Material-Historical Implications. In: Yoffee 2015a, 437–454.

Schwartz/Nichols 2006: G. Schwartz/J. Nichols, After Collapse. The Regeneration of Complex Societies (Tucson 2006).

Scott 1998: J. Scott, Seeing Like a State. How Certain Schemes to Improve the Human Condition Have Failed (New Haven 1998).

Scott 2009: J. Scott, The Art of Not Being Governed. An Anarchist History of Upland Southeast Asia (New Haven 2009).

Shelach-Lavi 2015: G. Shelach-Lavi, The Archaeology of Early China. From Prehistory to the Han Dynasty (Cambridge 2015).

Tainter 1988: J. Tainter, The Collapse of Complex Societies (Cambridge 1988).

Urton 2015: G. Urton, Inka Administration in Tawantinsuyu by Means of the Knotted-Cords. In: Yoffee 2015a, 181–206.

Yoffee 1988: N. Yoffee, The Collapse of Ancient Mesopotamian States and Civilization. In: N. Yoffee/G. L. Cowgill (eds.), The Collapse of Ancient States and Civilization (Tucson 1988) 44–68.

Yoffee 2005: N. Yoffee, Myths of the Archaic State. Evolution of the Earliest Cities, States and Civilizations (Cambridge 2005).

Yoffee 2015a: N. Yoffee (ed.), Early Cities in Comparative Perspective, 4000 BCE–1200 CE. The Cambridge World History 3 (Cambridge 2015).

Yoffee 2015b: N. Yoffee, Introduction. A History of the Study of Early Cities. In: Yoffee 2015a, 1–26.

Yoffee 2015c: N. Yoffee, Conclusion. The Meanings of Early Cities. In: Yoffee 2015a, 546–557.

Yoffee 2016a: N. Yoffee, The Present and Future of Counternarratives. In: G. Emberling (ed.), Social Theory in Archaeology and Ancient History. The Present and Future of Counternarratives (Cambridge 2016) 345–357.

Yoffee 2016b: N. Yoffee, The Evolution of Urban Society Today. Robert Adams in and for the New Century. In: D. Domenici/N. Marchetti (eds.), Urbanized Landscapes in Early Syro-Mesopotamia and Prehispanic Mesoamerica, Chicago, Oriental Institute (2016).

Yoffee 2016c: N. Yoffee, The Power of Infrastructures. A Counternarrative and a Speculation. Journal of Archaeological Method and Theory 23.4, 2016, 1053–1065.

Yoffee/Cowgill 1998: N. Yoffee/G. L. Cowgill, The Collapse of Ancient States and Civilization (Tucson 1998).

INGO SCHRAKAMP

Ressourcen und Herrschaft
RessourcenKulturen im Reich von Akkade (2300–2181 v. Chr.)

Schlüsselwörter: Mesopotamien, Imperium, Ressourcen, Grundeigentum, Patronage, Ideologie

Danksagung

Der vorliegende Beitrag entstand im Rahmen des Exzellenzclusters 264 TOPOI – The Formation and Transformation of Space and Knowledge in Ancient Civilizations.

Abstract

At the end of the 24th cent. Sargon of Akkade (2324–2285 BC) defeated Lugalzagesi, king of Uruk, and unified the whole of Babylonia proper for the first time into a single territorial state, thus laying the foundation of the Akkadian Empire. Sargon, his sons Rimuš and Maništušu (2284–2262 BC), and his grandson Naramsin (2261–2206 BC) led their armies as far as the Mediterranean in the west and reached the springs of the Euphrates and Tigris in the north. They campaigned as far as highland Iran in the east and reached the Arabian Gulf in the south, dominating the political landscape of Mesopotamia for more than a century (2300–2181 BC). Under Naramsin's son Šarkališarri (2205–2181 BC), Amorites from the west and Guteans and Elamites from the east penetrated deep into the empire. Provinces defected and Akkade was reduced to a petty state. After a short period of confusion, when four members of the former Akkadian bureaucracy and army rivalled for the succession to the throne (2180–2178 BC), Dudu and Šudurul (2177–2142 BC) presided over an Akkadian resurgence. They established a late Akkadian territorial state, which encompassed parts of northern Babylonia, the Diyala valley, and Upper Mesopotamia. Eventually the Guteans and the Elamites under Puzurinšušinak would successively occupy central and northern Babylonia, conquer the capital, and eliminate Akkade from the political stage. Half a century later, the concept of the territorial state was revived under Urnamma, the founder of the 3rd dynasty of Ur (2110–2093 BC).

The Sargonic period brought about numerous political, socio-economic, and ideological transformations and is therefore regarded as a turning point in Mesopotamian history. Among these transformations, the unification of the whole of Babylonia proper into a single territorial state, the spread of 'privately' owned land, the integration of the former city-states into the royal palace economy, and the deification of the living ruler feature most prominently. The Akkadian empire's geographical scale and reach, mode of administration, and conception of kingship had long-lasting influence. It became a paradigm for future dynasties, whose model-like character is also apparent in later literary texts. Nevertheless, repeated upheavals against Akkadian rule and the ambivalent tradition that evolved around Naramsin indicate that these transformations caused major political tensions especially in the Sumerian south of Babylonia.

The present paper describes Akkadian rule in terms of the concept of ResourceCultures, i.e. the specific way in which resources are appropriated, used, and allocated. It argues that Akkadian rule meant the forcible implementation of a specific ResourceCulture, which was politically, socio-economically, and ideologically incompatible with

the ResourceCulture prevalent in the Sumerian south. This 'northern' ResourceCulture was borne by a secular and autocratic kingship with territorial claims to power, characterised by patrimonial dominion, a network of royal patronage, and a tributary or palace-economy based on royal land holdings.

The paper further demonstrates that royal land holdings were the base of the Akkadian economic power. They were appropriated through confiscation and purchase, and administered and exploited through a centralised administration, the inclusion of the provincial economies of the former city-states into the royal household, and the establishment of rural agricultural domains. Through allocations of crown land to affiliates of the royal court and members of the local elite the kings of Akkade established a far-flung network of royal patronage, which also included parts of the local populace.

Akkadian rule caused political, economic and ideological distress, which led to repeated rebellions of the south, and the downfall of the empire. Although this meant a return to political particularism, the concept of empire prevailed when the 3rd dynasty of Ur (2110–2004 BC) united Babylonia into a second territorial state and Hammurabi of Babylon (1792–1750 BC) finally brought about the end of particularism.

Zusammenfassung

Um 2300 v. Chr. besiegte Sargon von Akkade (2324–2285 v. Chr.) Lugalzagesi, der als König von Uruk ganz Sumer beherrschte. Damit vereinte er ganz Babylonien in einem Territorialstaat ungekannter Dimensionen und begründete das Reich von Akkade (2300–2181 v. Chr.). Sargon, seine Söhne Rimuš und Maništušu (2284–2262 v. Chr.) und sein Enkel Naramsin (2261–2206 v. Chr.) erreichten auf ihren Feldzügen das Mittelmeer im Westen, die Quellen von Euphrat und Tigris im Norden, das iranische Hochland im Osten und den Oman im Süden und beherrschten ganz Mesopotamien für mehr als ein Jahrhundert in einem Staatsgebilde, das auch als „First World Empire" bezeichnet wird. Unter Šarkališarri (2205–2181 v. Chr.) brach das Reich unter dem Druck von Amurritern, Gutäern und Elamern zusammen, und die zu Provinzen degradierten ehemaligen Stadtstaaten Sumers proklamierten ihre Unabhängigkeit. Für sie bedeutete die akkadische Oberherrschaft tiefgreifende politische, sozioökonomische und ideologische Umwälzungen, die sich wiederholt in Rebellionen gegen die akkadische Herrschaft entluden und auch in der späteren literarischen Überlieferung noch greifbar sind. Der vorliegende Beitrag beschreibt die Zeit der akkadischen Oberherrschaft über ganz Babylonien als den Zusammenprall zweier distinkter RessourcenKulturen, deren politische, sozioökonomische und ideologische Ausformungen unvereinbar waren.

1. Das Reich von Akkade

Gegen Ende der Frühdynastisch IIIb- oder präsargonischen Zeit (2475–2300 v. Chr.)[1] beherrschte Sargon (2324–2285 v. Chr.) von seiner Hauptstadt Akkade aus, die man heute in der nordöstlichen Peripherie Babyloniens bei Samarra vermutet (Sommerfeld 2014; Sallaberger/Schrakamp 2015a, 90, 104), einen Regionalstaat, der Teile Nordbabyloniens, das Diyala-Gebiet und das nördlich angrenzende Mutterland der Akkader, Warium, umfasste (Schrakamp 2016a, 50 f.; 2016b). Um 2300 v. Chr. besiegte Sargon Lugalzagesi, der seine Karriere als „Stadtfürst" (ensi$_2$) von Umma begonnen hatte, zum König von Uruk aufgestiegen war und über ganz Südbabylonien herrschte. Damit vereinte Sargon ganz Babylonien in einem Territorialstaat und legte das Fundament für das Reich von Akkade (2300–2181 v. Chr.), das Mesopotamien für mehr als ein Jahrhundert beherrschen sollte. Die Akkade-Zeit ist durch ein Corpus von rund 8000 Keilschrifttexten dokumentiert, die neben offiziellen Herrscherinschriften (Gelb/Kienast 1990; Frayne 1993; Kienast/Sommerfeld 1994; Franke 1995) insbesondere administrative Texte aus staatlichen Verwaltungseinheiten, Rechtsurkunden und die Korrespondenz staatlicher Funktionäre aus über 20 Fundorten vom Haburgebiet

1 Die hier verwendeten Daten folgen der historischen Chronologie von Sallaberger/Schrakamp (2015a, 1–136; 2015b, 301–304) und schließen an die sog. mittlere Chronologie an (Hammurabi von Babylon 1792–1750 v. Chr.).

in Nordsyrien bis nach Südwestiran umfassen (Foster 1982c; Westenholz 1984a; Foster 1986b; 1993a; 1993b; Sallaberger/Schrakamp 2015a, 106 Map 8, 107 Map 9, 111 Map 10, 112 Map 11; Schrakamp 2015a, 211–270; Foster 2016, 51–80, s. unten *Abb. 1–3*). Sie unterrichten über Wirtschaft, Gesellschaft und die Geschichte des Reiches, die zunächst knapp skizziert werden soll (zur Akkade-Zeit s. grundlegend Glassner 1986 mit Franke 1992 und Westenholz 1992; Westenholz 1999; Foster 2016; Schrakamp 2016a, ferner Westenholz 1979; die Beiträge in Liverani 1993a; Sommerfeld 2006–08; 2009–11; Westenholz 2009–11; Pomponio 2011; 2012; Sallaberger/Schrakamp 2015a, 85–112).

Nach der Eroberung Sumers herrschte Sargon als „König der Gesamtheit“ (lugal kiši) über ganz Babylonien. Er schleifte die Mauern der besiegten Städte, installierte „Söhne von Akkade“ als Stadtfürsten (ensi$_2$), besetzte die bedeutendsten Priesterämter mit Königstöchtern, bemühte sich um die Zentralisierung des Fernhandels und opferte in Nippur. Auf seinen späteren Feldzügen erreichte Sargon Mari am mittleren Euphrat, den Libanon und das Mittelmeer im Westen und eroberte Husistan im Südwestiran. Seine Söhne Rimuš und Maništušu (2284–2262 v. Chr.) konsolidierten die akkadische Oberherrschaft.[2] Rimuš sah sich bei seinem Regierungsantritt 2284 v. Chr. jedoch zunächst einer umfassenden Revolte gegenüber, der sich neben drei sumerischen Städtekoalitionen unter der Führung eines Rebellenkönigs von Ur später auch das nordbabylonische Kazallu anschloss. Rimuš schlug die Revolte blutig nieder, deportierte und tötete mehr als 80.000 Männer und konfiszierte gewaltige Flächen von Ackerland. Nach der Niederschlagung der Rebellion besiegte Rimuš eine iranische Koalition, beendete die Vorherrschaft von Paraḫšum im Osten und konsolidierte die akkadische Präsenz in Obermesopotamien. Maništušu unternahm einen noch weitreichenderen Feldzug nach Iran, erreichte das Hochland des modernen Fars, überquerte den Golf und kämpfte im heutigen Oman. Der Zukauf von Land in Nordbabylonien zur Vergrößerung königlichen Grundbesitzes gilt als bedeutende innenpolitische Maßnahme. Unter Sargons Enkel Naramsin (2261–2206 v. Chr.) gelangte Akkade auf den Höhepunkt seiner Macht. Naramsin erreichte auf seinen Feldzügen das Mittelmeer im Westen, die Quellen von Euphrat und Tigris im Norden, unternahm Feldzüge in den nördlichen Zagros, beanspruchte sogar die Herrschaft über das iranische Hochland und brachte seinen absoluten Machtanspruch durch den neuen Titel „König der vier Weltgegenden“ zum Ausdruck. In der Mitte seiner Regierungszeit um 2230 v. Chr. erhoben sich die Kernprovinzen des Reiches in einer umfassenden Rebellion, die von einer südlichen Koalition unter der Führung von Uruk und einer nordbabylonischen, von Kiš angeführten Allianz getragen wurde. Binnen Jahresfrist gelang es Naramsin, die Aufständischen in neun Schlachten zu besiegen. Nach seinem Sieg ließ sich Naramsin vergöttlichen und begann ein reichsweites Tempelbauprogramm, das mit dem Enlil-Tempel in Nippur auch das Hauptheiligtum Sumers einschloss. Zugleich schreibt man Naramsin eine umfassende Verwaltungsreform zu, die sich in erster Linie in der reichsweiten Einheitlichkeit der Urkunden aus staatlichen Verwaltungsinstitutionen, der Standardisierung von Maßen und Gewichten, der Einrichtung königlicher Stützpunkte und einer deutlich auf die Hauptstadt Akkade gerichteten Zentralisierung niederschlug. Der Beginn der Regentschaft seines Sohnes und Nachfolgers Šarkališarri (2205–2181 v. Chr.) gilt als Zeit der Stabilität; er bereiste das Reich, brachte das von seinem Vater initiierte Tempelbauprogramm zum Abschluss und erwarb in Sumer umfangreichen Grundbesitz. Bald aber drangen im Westen und Osten Amurriter, Elamer und Gutäer in das Reich ein, und spätestens bei Šarkališarris Tod brach das Reich zusammen. Nach einer kurzen Phase des Chaos, in

2 Steinkeller (2003, 272) nimmt an, dass nicht Rimuš, sondern Maništušu Sargons Nachfolge antrat, da die Ur III-zeitliche und älteste Version der Sumerischen Königsliste ihn als Nachfolger benennt. Westenholz (2014, xiv Anm. 3), Marchesi (2015, 149 Anm. 96) und Schrakamp (2016a, 51) halten jedoch die traditionelle Abfolge Sargon – Rimuš – Maništušu für plausibel, da sich eine deutliche Trennung zwischen den Inschriften des Sargon und Rimuš auf der einen und denen des Maništušu auf der anderen Seite beobachten lässt, Rimuš auf seinen Ostfeldzügen lediglich in Husistan kämpfte, während Maništušu weiter in das iranische Hochland vordrang und die durch altbabylonische Textvertreter der Sumerischen Königsliste angezeigte traditionelle Abfolge Rimuš – Maništušu der Anordnung entspricht, in der altbabylonische Schreiber die Inschriften von Rimuš und Maništušu auf Sammeltafeln kopierten. Für eine derartige Abfolge argumentieren auf Grundlage der Überlieferung aus Adab auch Pomponio/Visicato 2015, 2 f. auch Pomponio 2012, 99 f.

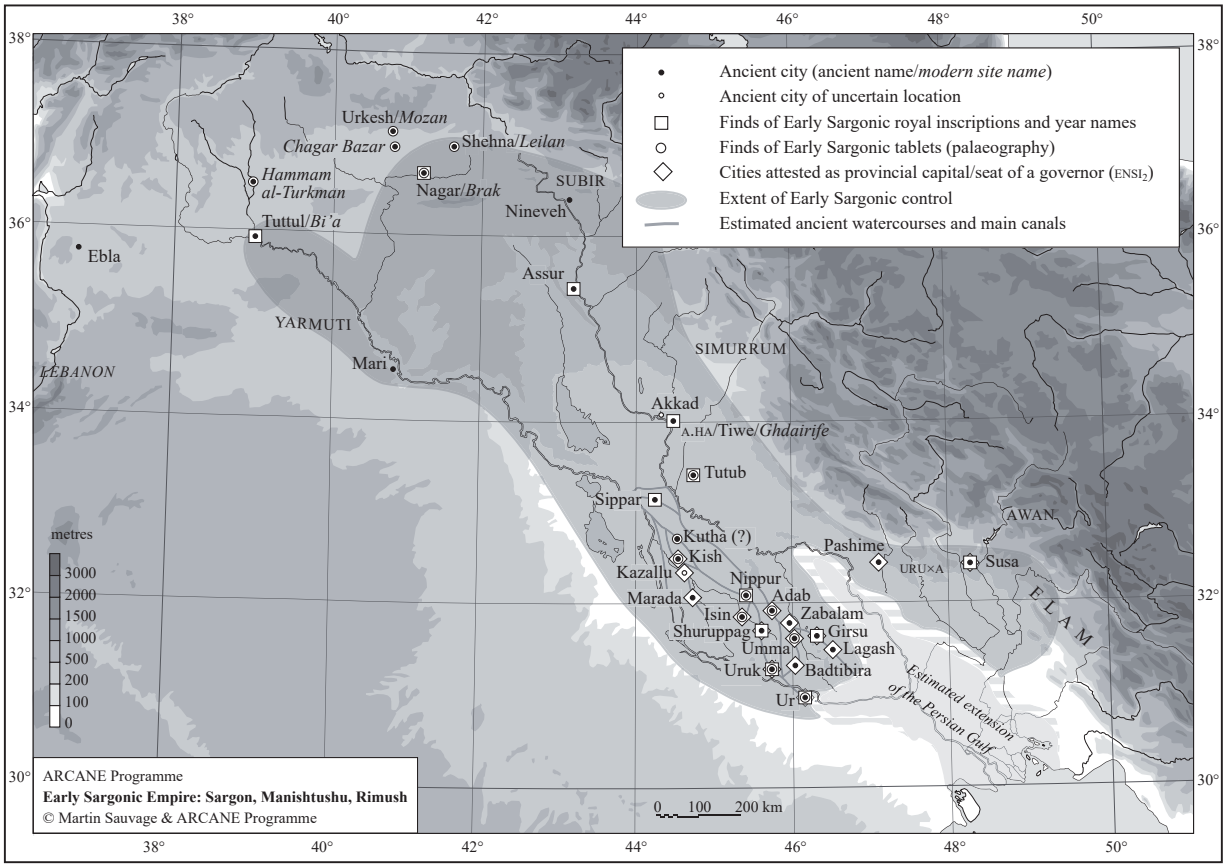


Abb. 1. Mesopotamien in frühsargonischer Zeit (aus Sallaberger/Schrakamp 2015a, 106 Map 8).

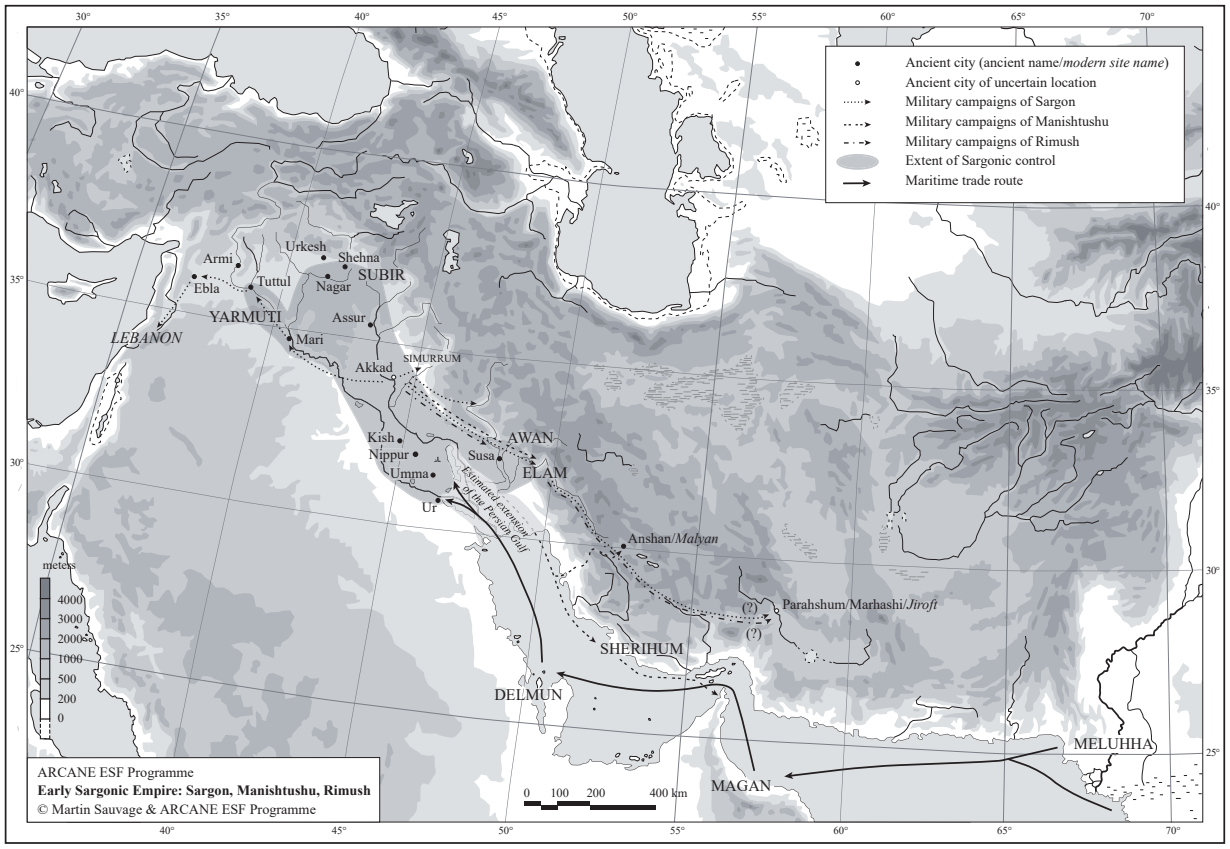


Abb. 2. Feldzüge frühsargonischer Herrscher (aus Sallaberger/Schrakamp 2015a, 107 Map 9)

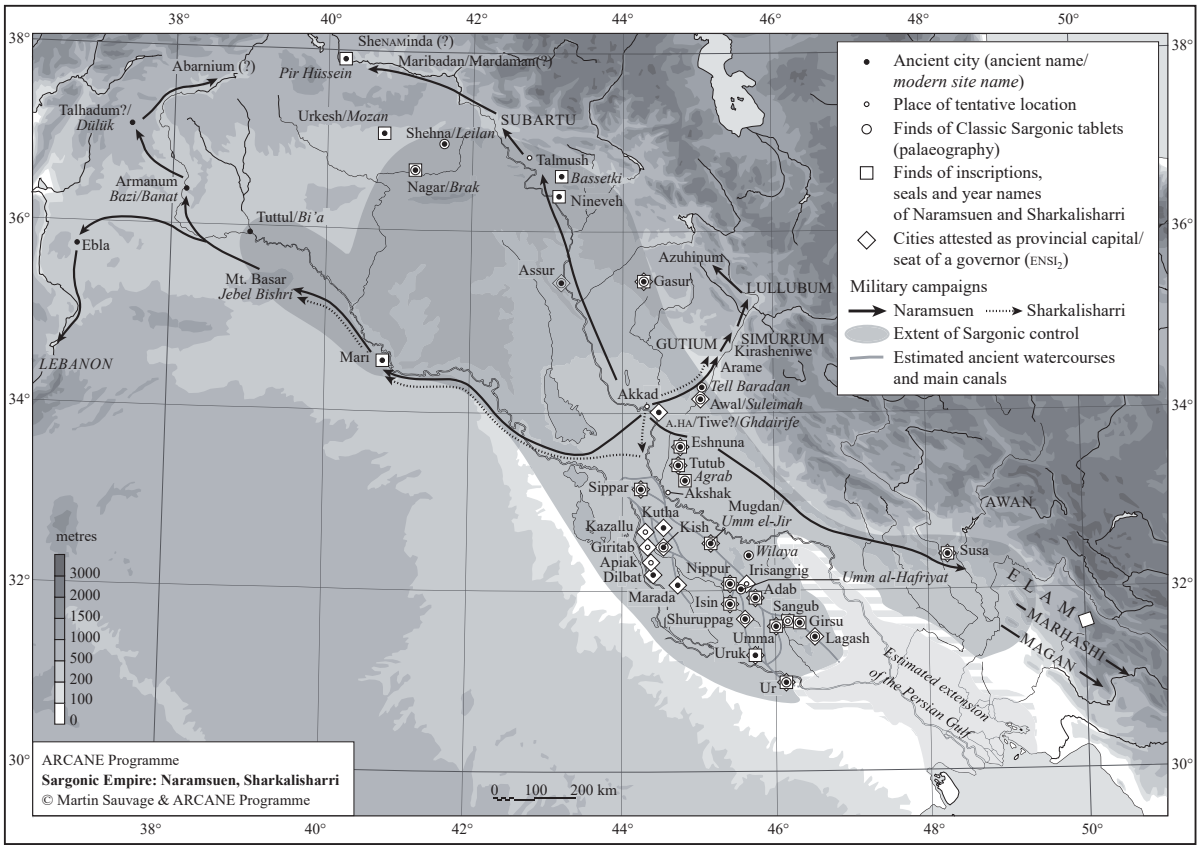


Abb. 3. Mesopotamien in klassisch-sargonischer Zeit (aus Sallaberger/Schrakamp 2015a, 111 Map 10).

	2475–2300	Präsargonische / Frühdynastisch IIIb-Zeit	
Sargon	2324–2285		
Eroberung Sumers	2300	Sargonische / Akkade-Zeit	frühsargonisch
Rimuš & Maništušu	2284–2262		
Naramsin	2261–2206		klassisch-sargonisch
Šarkališarri	2205–2181		
4 ephemere Herrscher	2180–2178	Spät-Akkade- / Gutäer-Zeit	
Dudu	2177–2157		
Šudurul	2156–2142		

Abb. 4. Zeittafel (nach Sallaberger/Schrakamp 2015a; Schrakamp 2016a).

der vier aus der akkadischen Bürokratie und dem Militär stammende Funktionäre um die Krone rangen (2180–2178 v. Chr.), gelang es Dudu (2177–2157 v. Chr.) und Šudurul (2156–2142 v. Chr.), die akkadische Vorherrschaft im akkadischen Mutterland, Teilen Nordbabyloniens und Obermesopotamiens wieder herzustellen, doch vormalige Provinzen wie Uruk und Lagaš begründeten Lokaldynastien, und schrittweise fielen weite Teile Mittel- und Nordbabyloniens an die Gutäer und später an die Elamer unter Puzurinšušinak, die schließlich auch die Hauptstadt Akkade eroberten. Erst Urnamma von Ur (2110–2093 v. Chr.) gelang es, Nord- und Südbabylonien wieder zu vereinen und mit dem Reich der III. Dynastie von Ur das zweite Imperium auf mesopotamischem Boden zu begründen.

2. Das Reich von Akkade als Wende- und Bezugspunkt

Der Aufstieg Akkades zum „First World Empire“ (Liverani 1993a) markierte einen Wendepunkt in der mesopotamischen Geschichte. Die akkadische Oberherrschaft bedeutete den ersten Schritt auf dem Wege zur Durchsetzung des territorialstaatlichen und zentralistischen Herrschaftsprinzips in einem traditionell dem Partikularismus verhafteten Milieu (Kienast 1973; Selz 2011–13, 26 f.; Neumann 2014, 35–39). Mit ihr verbanden sich zugleich diverse administrative, sozioökonomische, politische und ideologische Neuerungen wie die Einführung des Akkadischen als Verkehrs- und Verwaltungssprache (Sommerfeld 2003; Hasselbach 2005; Sommerfeld 2012; Keetman 2014), das Aufkommen privaten Grundeigentums und tributärer Wirtschaftsformen im sumerischen Süden (Renger 1995; Steinkeller 1999a), die Durchsetzung eines starken Königtums (Westenholz 2002, 38) und die Vergöttlichung des Herrschers zu Lebzeiten (Selz 2016, 545 f.). Diese Umwälzungen führten nicht nur zu Aufständen, sondern wirkten als Paradigma weit über das Ende des Reiches hinaus (Cooper 1993; Liverani 1993b). Nicht umsonst gilt die Akkade-Zeit gleichermaßen als Epoche der Innovation und Unruhe (Neumann 2014, 38).

Über den Untergang des Reiches hinaus wirkte auch die Erinnerung an die Akkade-Herrscher. Ihre Inschriften wurden bis in das 1. Jtsd. v. Chr. kopiert (Cooper 1993; Liverani 1993b; Westenholz 2000), und wie kein anderes Herrschergeschlecht evozierten Sargon und Naramsin eine vorwiegend akkadischsprachige Tradition, die in pseudohistorischen Erzählungen, Chroniken und Omina bis in das 1. Jtsd. v. Chr. lebendig blieb (Glassner 1986, 55–88; Cooper 1993; Liverani 1993b; Michalowski 1993b; Tinney 1995; J. G. Westenholz 1997; Haul 2009; Foster 2016, 245–270). Diese Tradition stilisierte Sargon zum Idealherrscher, dem es nachzueifern galt, und schrieb dem Dynastiebegründer manche Taten seines Enkels Naramsin zu. Naramsin selbst galt der Forschung lange Zeit als Unheilsherrscher, jedoch setzt sich zunehmend eine differenziertere Betrachtungsweise durch, die ihn als den Bezugspunkt einer ambivalenten Tradition auffasst (Cooper 1993, 12): Während akkadische Erzählungen auch Naramsin zumeist als heldenhaften Krieger darstellen (Franke 1992, 435; Westenholz 1999, 55), beschreibt ihn die aus der Ur III-Zeit (2112–2004 v. Chr.) stammende sumerische Dichtung „Fluch über Akkade“ als überheblichen König, der den Tempel des Gottes Enlil in Nippur, das Hauptheiligtum Sumers, plünderte, sich gegen die Götter versündigte, ihren Zorn heraufbeschwor und damit den Untergang des Reiches herbeiführte (Cooper 1993, 16 f.; Liverani 1993b, 56–59; Wilcke 1993, 33 f.; Westenholz 1999, 55; Foster 2016, 265–270). Dieses negative Urteil wird oft als Reflex der sozioökonomischen (und religiösen bzw. ideologischen) Spannungen bewertet, die die akkadische Oberherrschaft für den sumerischen Süden und insbesondere den Klerus bedeutete (Kienast 1973, 498 f.; Franke 1992, 435; Westenholz 1992, 46; Liverani 1993b, 56–59; Westenholz 1999, 55). Dazu passt auch, dass die sumerische erzählende Literatur insgesamt nichts enthält, was die Könige von Akkade verherrlicht (Wilcke 1993, 67–69),[3] und dass sich die neusumerischen Herrscher der II. Dynastie von Lagaš, der III. Dynastie von Ur und sogar Puzurmama von Lagaš, der wohl kurz nach dem Tod Šarkališarris amtierte (Volk 1992; Sallaberger/Schrakamp 2015a, 110, 115, 117, 119; Sommerfeld 2015b, 272 f.), in ihren Bilddenkmälern

3 Wilcke 1993, 67 führt als mögliche Ausnahme die sumerische Sargon-Legende an, weist aber darauf hin, dass ihr Ausgang offen bleibt; zum Text s. auch Cooper 1993, 17 f.

und Inschriften ideologisch von ihren akkadischen Vorgängern absetzten, obwohl das Reich der III. Dynastie von Ur etwa in seinem Territorialstaatskonzept, seinen Zentralisierungsbestrebungen oder der Vergöttlichung des Königs zu Lebzeiten an die Akkade-Zeit anknüpfte (Kienast 1973, 499; Westenholz 1979, 113 f.; 1993, 168; Selz 1999/2000, 22 f.). Die Gutäer, Lullubäer und Puzurinšušinak von Elam übernahmen in ihren Inschriften und ihrer Ikonografie hingegen bewusst zahlreiche Elemente akkadischer Herrscherdarstellung (Franke 1992, 434; 1995, 230; Sommerfeld 2003, 584, vgl. Steinkeller 2015, 287 f.). Die Herrscherikonografie des Naramsin (2261–2206 v. Chr.) fand in Nordbabylonien noch in der ersten Hälfte des 2. Jtsd. v. Chr. Nachahmer (J. G. Westenholz 2000, 108).

Offenbar erzeugte die akkadische Oberherrschaft besonders im sumerischen Süden Spannungen, die nicht nur zu Aufständen führten, sondern auch in der späteren Überlieferung noch fassbar sind. Die ältere Forschung hat diese Spannungen gelegentlich auf einen ethnischen Konflikt zwischen Sumerern und Akkadern zurückgeführt, doch gilt dies seit langem als überholt (Westenholz 1999, 24 f.). Die jüngere Forschung weist wiederum auf die Unterschiede zwischen sumerischer und akkadischer Kunst hin, will Unterschiede in der Mentalität von Sumerern und Akkadern erkennen (Westenholz 1993; 1999, 26 mit Anm. 44, 76 mit Anm. 357), macht anstelle ethnischer Merkmale ökologische, ökonomische, religiöse und ideologische Faktoren für diese Unterschiede geltend (Renger 1995, 283 f.; Steinkeller 1999b, 304–308) und betont zugleich die kulturellen und politischen Verbindungen zwischen den traditionellen Stadtstaaten Sumers, die sich während der antiakkadischen Revolten gegen Rimuš und Naramsin in Koalitionen manifestierten (Westenholz 1999, 52 f.; Sassmannshausen 2005).

Dass sich das nordbabylonische Kazallu einer von sechs sumerischen Städten getragenen Revolte gegen Rimuš anschloss, dieser aber gleichzeitig von Šuruppag unterstützt wurde (Frahm/Payne 2003–04) und sich während der „Großen Revolte“ gegen Naramsin auch mehreren Städte in Nordbabylonien gegen die akkadische Oberherrschaft erhoben, spricht nicht nur gegen einen ethnischen Konflikt, sondern deutet gleichzeitig an, dass die akkadische Herrschaft auch in Teilen Nordbabyloniens wenig willkommen war (Westenholz 1979, 111; 1999, 46, 52 f.; Foster 2016, 44–46).

3. RessourcenKulturen im Mesopotamien der Akkade-Zeit

In seiner rezenten Gesamtdarstellung der Akkade-Zeit betont Foster (2016, 39 f.) die enorme Bedeutung, die der Aneignung und Verteilung von Ressourcen als Machtmittel der Könige von Akkade zukam, jedoch steht eine Untersuchung des akkadischen Ressourcenmanagements bislang noch aus. Daher betrachtet der vorliegende Beitrag die Akkade-Zeit im Rahmen des von Bartelheim et al. skizzierten Konzeptes der RessourcenKulturen (Bartelheim et al. 2015, 39–43). Diesem Konzept wird ein weitgefasster Ressourcenbegriff zu Grunde gelegt, der nicht nur mit der Kategorie der materiellen Ressourcen operiert, zu der etwa Rohstoffe zählen, sondern auch die Kategorie der immateriellen Ressourcen berücksichtigt, die beispielsweise soziale Ressourcen wie Personen, Netzwerke und Institutionen umfassen. Zudem wird angenommen, dass bestimmte Ressourcen gebündelt auftreten bzw. RessourcenKomplexe bilden, da sie einander bedingen, indem Aneignung, Nutzung und Vermehrung einer Ressource den Zugang zu einer anderen voraussetzen oder ihn erschließen (Bartelheim et al. 2015, 39 f.). Die spezifische Art und Weise, wie Ressourcen und RessourcenKomplexe angeeignet, eingesetzt und vermehrt werden, wird von Bartelheim et al. (2015, 40 f.) als RessourcenKultur bezeichnet. Von besonderer Bedeutung ist schließlich die Annahme, dass innerhalb größerer sozialer Einheiten mehrere, bisweilen konkurrierende RessourcenKulturen auftreten können, die in der räumlichen, zeitlichen und ideologischen Dimension Dynamiken unterliegen (Bartelheim et al. 2015, 41 f.). Auf dieser Grundlage unternimmt der vorliegende Beitrag den Versuch, die Zeit der akkadischen Oberherrschaft über Nord- und Südbabylonien als Konflikt zwei distinkter RessourcenKulturen zu beschreiben, die bereits in der ausgehenden frühdynastischen Zeit voll ausgebildet waren und sich in ihren politischen, sozioökonomischen und ideologischen Ausformungen grundlegend

voneinander unterschieden. Dazu bedarf es zunächst eines Rückgriffs auf die Zeit vor der Eroberung Babyloniens durch Akkade.

4. Die politischen und sozioökonomischen Verhältnisse vor dem Aufstieg Akkades

Die Forschung betont seit langem die politischen, sozioökonomischen und ideologischen Unterschiede, die in frühdynastischer Zeit zwischen Süd- und Nordbabylonien bzw. Sumer und Akkade bestanden. Anzuführen sind hierbei Arbeiten von Falkenstein (1954, 801–805, 809–811; 1974), Edzard (1965, 68–82), Kienast (1973), Gelb (1977; 1981; 1987; 1992), Renger (1995, 281–284) und insbesondere Steinkeller (1992a, 725 f.; 1993a, 116–127; 1999b, 290–309; 2013a, 145–151), dessen kontrastierende Darstellungen der nachfolgende Abriss zusammenfasst.

Über die politischen, sozioökonomischen und ideologischen Verhältnisse des sumerischen Südens unterrichten paradigmatisch rund 2000 Verwaltungsurkunden, Rechtsurkunden und offizielle Herrscherinschriften aus Lagaš (zu Quellen und Forschungsgeschichte s. Foster 2005; Schrakamp 2013a, 445–447; 2015c, 303 f. mit Anm. 1). Sie zeigen, dass die politische Landkarte Sumers in frühdynastischer Zeit von partikularistischen Stadt- oder Kleinstaaten in den Grenzen entsprechender Bewässerungsprovinzen geprägt war. Der gesamte Staat war offizieller Ideologie zufolge das Eigentum einer göttlichen Großfamilie, deren Oberhaupt mit seiner Gattin und seinen Kindern in der Hauptstadt residierte, während geringere Gottheiten in den umliegenden Ortschaften beheimatet waren. Die in Lokalpanthea organisierten Götterfamilien aller Kleinstaaten unterstanden Enlil, der als *pater familias* einer erweiterten Großfamilie in Nippur residierte und als Schlichter in Grenzstreitigkeiten zwischen rivalisierenden Stadtstaaten eingriff. Zwar organisierten sich die Stadtstaaten in losen Amphiktyonien. Ausgreifende Expansion, territoriale und politische Einigung waren in dieser Konfiguration jedoch kaum möglich, so dass erste Versuche zur Schaffung größerer Staatsgebilde erst für die letzte Phase der frühdynastischen Zeit greifbar sind. Die Kontrolle über den Stadt- oder Kleinstaat lag in den Händen des „Stadtfürsten“ (sumerisch ensi$_2$), der als irdischer Stellvertreter der Götter fungierte und säkulare wie religiöse Funktionen in seiner Person vereinte. Die Verwaltung der göttereigenen Ressourcen – Felder, Nutztiere, Gärten, Haine und Röhrichte – oblag den Tempeln, die als weitgehend autarke, redistributive *oikoi* Subsistenzwirtschaft betrieben, den größten Teil der Bevölkerung in Landwirtschaft, Viehzucht, Fischerei und Handwerk beschäftigten und im Gegenzug durch Zuteilungen von Naturalien und Ackerland versorgten. Privater Grundbesitz war auf Gärten beschränkt, insignifikant, im Besitz der Herrscherfamilie bzw. im gegebenen ideologischen Rahmen weder denk- noch veräußerbar. Machtzentrum des Staates war der Palast, durch den der Stadtfürst als legitimer Stellvertreter der Götter auf die Liegenschaften der Tempel zugriff und strategische Ressourcen, Fernhandel, Diplomatie und Militär kontrollierte (Steinkeller 1992a, 725; 1993a, 116 f., 121 f.; 1999b, 290 f., 294–298; zu Wirtschaft und Ideologie s. grundlegend Schrakamp 2013a; 2015c, 335–342).[4]

Für das gleichzeitige Nordbabylonien rekonstruiert Steinkeller eine in ihren politischen, sozioökonomischen und ideologischen Ausformungen völlig anders geartete Konfiguration. In Anlehnung an Gelb nimmt er an, dass Nordbabylonien Teil eines semitischen Kulturverbundes mit einer eigenständigen Schrifttradition war, der sich vom Osttigrisland über das Diyala-Gebiet, Nordbabylonien und Mari am mittleren Euphrat bis nach Ebla in Nordsyrien erstreckte. Innerhalb dieses Verbundes, so Steinkeller, bildete die Stadt Kiš das politische Zentrum eines frühen Territorialstaates, der Nordbabylonien und die angrenzenden Gebiete umfasste, eine Machtfülle innehatte, die die der Stadtstaaten Sumers weit übertraf und in dem prestigereichen Herrschertitel lugal kiši^{ki} „König von Kiš“ anklang, der Hegemonen über Nord- und

4 Einschränkend gilt, dass mit Darlehen und Pacht auch Elemente tributärer Wirtschaftsformen in den Texten aus Girsu/Lagaš greifbar sind, die mit dem Begriff des *oikos* strenggenommen unvereinbar sind; die Eindämmung der damit erstarkenden Privatwirtschaft gilt als eines der Ziele der sogenannten Reformtexte des Urukagina, s. ausführlich und mit Literatur Schrakamp 2013a, 446 f., 454–457; 2015c, 337–342.

Südbabylonien vorbehalten war, und durch ein autokratisches und säkulares Königtum getragen wurde, das in frühen semitischen Stammesstrukturen wurzelte. Wirtschaft und Gesellschaft waren durch eine starke Privatwirtschaft, tributäre Wirtschaftsformen und einen hohen Anteil privaten Grundeigentums gekennzeichnet, das sich in Händen des Herrschers konzentrierte und anders als im Süden veräußert werden konnte. Neben frühdynastischen Herrscherinschriften und Verwaltungsurkunden sowie der Überlieferung aus Ebla, die Kiš als einen bedeutenden Machtfaktor ausweisen, zieht Steinkeller auch eine als „gazeteer of the Kishite kingdom" gedeutete Ortsnamenliste, Landkaufurkunden aus Nordbabylonien sowie jüngere Akkade-zeitliche Texte und die Sumerische Königsliste heran, die Kiš mehrfach die Vorherrschaft über ganz Babylonien zuschreibt. In dem frühdynastischen „kingdom of Kish" vermutet Steinkeller den Vorläufer des Reiches von Akkade (Steinkeller 1992a, 725 f.; 1993a, 117–127; 1999b, 299–308; 2013a, 145–151; zur Bedeutung von Kiš ferner Kienast 1973, 495; Selz 1998, 313 f.; 1999/2000, 20 f., vgl. auch Frayne 2009; Charvát 2010, zu der erstmals von Gelb postulierten Schrifttradition dieses Kulturverbundes s. zuletzt Sommerfeld 2012, 194 sowie Veldhuis 2014a und vgl. Foster 1983b, 304 f.).[5]

Im Rahmen der von Steinkeller herausgearbeiteten Dichotomie zwischen Nord- und Südbabylonien sind vor allem die Grundbesitzverhältnisse bedeutend, denn sie bestimmen die sozioökonomische und politische Entwicklung eines Gemeinwesens maßgeblich (Neumann 1988, 29; Renger 1995, 269 f.; zum Grundeigentum in frühdynastischer Zeit s. ferner Neumann 1988; Steinkeller 1988; Gelb et al. 1991, 24–26; Foster 1994; Powell 1994; Glassner 1995; Renger 1995, 272–280; Edzard 1996; Steinkeller 1999b; Magid *apud* Steinkeller 1999b, 322–324; Cripps 2007; Milano 2008). Die Ursache für die Gemeinsamkeiten und die deutlichen Unterschiede zwischen Norden und Süden vermuten Steinkeller und Renger in den ökonomischen, ökologischen und ideologischen Rahmenbedingungen. Der Gebrauch des Saatpfluges setzte Ressourcen zum Unterhalt der Zugtiere und Arbeitskraft voraus und wurde erst bei Feldergrößen praktikabel, die die Möglichkeiten einer Subsistenzwirtschaft treibenden Kleinfamilie deutlich überstiegen und beförderte in Nord- wie Südbabylonien die Ausbildung kommunalen oder institutionellen Grundeigentums. Darüber hinaus begünstigten im Süden auch die Anforderungen von Brachewirtschaft, künstlicher Bewässerung sowie die im Vergleich zum Norden wenig stabilen Wasserläufe im Rahmen dörflicher Gemeinschaften die Ausbildung kommunalen oder institutionellen anstelle privaten Eigentums an Ackerland. Im dimorph geprägten Nordbabylonien, so Steinkeller, ermöglichten die deutlich stabileren Flussläufe und der ausgeprägte pastorale Bereich der Wirtschaft auch die Ausbildung kleiner Gehöfte und privaten Grundbesitzes, wobei die tribalen Strukturen der frühen semitischen Bevölkerung die Konzentration von Land in den Händen des Scheichs bzw. Königs begünstigten (Renger 1995, 283 f.; Steinkeller 1999b, 301–309, vgl. Powell 1994, 103 f.).[6]

5. Die Akkade-Zeit als Ressourcenkonflikt

Vor dem Hintergrund der oben skizzierten politischen, sozioökonomischen und ideologischen Umwälzungen, der daraus resultierenden Spannungen und der für die frühdynastische Zeit nachzuweisenden Dichotomie zwischen Nord- und

5 Yoffee (1995), Cooper (1999, 65 f. Anm. 9) und Westenholz (1999, 29; 2002, 37 f.) bezweifeln die Existenz eines frühdynastischen Territorialstaates mit dem Zentrum Kiš (s. Steinkeller 2013a, 146 Anm. 53), jedoch kann Steinkeller (2013a, 145–151) in seiner rezenten Darstellung der Geschichte von Kiš im 3. Jtsd. v. Chr. auf historische Quellen verweisen, die zur Zeit seiner grundlegenden Darstellung (Steinkeller 1993a, 117–127) noch nicht zugänglich waren und diese Einwände zerstreuen dürften. Hierbei ist insbesondere eine Frühdynastisch I/II-zeitliche, offenbar aus Kiš stammende Inschrift bedeutend, die Steinkeller (2013a) zufolge 36.000 Kriegsgefangene aus zahlreichen Orten Nordbabyloniens und den nordöstlich angrenzenden Gebieten summiert, die ein König von Kiš auf seinen Feldzügen gefangennahm.

6 Yoffee (1995) hält die von Steinkeller (1993a, 117–127) herausgearbeitete Dichotomie zwischen Nord- und Südbabylonien für überzeichnet; die Argumentation von Renger (1995, 283 f.) und Steinkeller (1999b, 301–308) dürfte jedoch auch diesen Einwand plausibel entkräften. Westenholz (2002, 37 f.), der die Existenz eines Territorialstaates von Kiš bezweifelt, schließt sich im Hinblick auf die sozioökonomischen Verhältnisse in Nordbabylonien der Steinkeller'schen Auffassung weitgehend an.

Südbabylonien lässt sich die akkadische Oberherrschaft als der Versuch beschreiben, in allen Reichsteilen eine RessourcenKultur durchzusetzen, die sich durch ein säkulares, autokratisches Königtum, ein territorialstaatliches Herrschaftskonzept, patrimoniale und auf persönlicher Loyalität beruhende Herrschaftsstrukturen und eine tributäre Wirtschaft auszeichnete und auf königlichem Grundbesitz basierte, der im Sinne von Gudeman (2005, 97, vgl. Bartelheim et al. 2015, 40) als die „base" gelten darf. Seine Bewirtschaftung erfolgte im Rahmen tributärer Wirtschaftsformen und sicherte so die Einkünfte der Krone. Die Vergabe von königlichem Land an Funktionsträger erzeugte und vertiefte Loyalitäten und Abhängigkeiten und schuf ein Netzwerk königlicher Patronage, das nicht nur die wichtigsten Funktionsträger, sondern auch Teile der Bevölkerung umfasste und den Zugriff auf Institutionen eröffnete. Da sich diese „nordbabylonische" RessourcenKultur in ihren politischen, sozioökonomischen und ideologischen Ausformungen grundlegend von derjenigen der sumerischen Stadtstaaten unterschied, führte ihre Übertragung auf den Süden zu vielfältigen Spannungen, die sich nicht nur in Aufständen manifestierten, sondern auch dazu führten, dass sich nachfolgende Herrscher bewusst von den Akkade-Königen abgrenzten, so dass der Versuch der Durchsetzung dieser RessourcenKultur mit dem Untergang des Reiches von Akkade zunächst gescheitert scheint. Aus der Perspektive der *longue durée* stellt sich die Akkade-Zeit hingegen als die früheste, durch Keilschriftquellen ausreichend dokumentierte Phase eines längeren Prozesses dar, der mit dem Ende des Partikularismus und der endgültigen Durchsetzung des territorialstaatlichen Herrschaftsprinzips, eines starken Königtums und tributärer Wirtschaftsformen während der ersten Hälfte des 2. Jtsd. v. Chr. zum Abschluss kam (s. etwa Kienast 1973; Renger 1995, 283 f., 318 f.; Selz 1999/2000, 20 f.; Neumann 2014, 39 f.; Foster 2015, 16). Dies lässt sich in der Begrifflichkeit von Bartelheim et al. als das Resultat soziokultureller und sozioökonomischer Dynamiken begreifen, die in ihrer räumlichen, zeitlichen und ideologischen Dimension als Ausbreitung, Neubewertung und Durchsetzung einer spezifischen RessourcenKultur verstanden werden dürfen (Bartelheim et al. 2015, 41).

6. Südbabylonien in frühsargonischer Zeit (Sargon, Rimuš und Maništušu)

Die ältesten Textzeugnisse zu den Formen akkadischer Oberherrschaft in Südbabylonien liefern die Inschriften des Dynastiebegründers Sargon sowie administrative Texte aus lokalen Verwaltungseinheiten in Adab, Nippur und Umma, die den dortigen „Stadtfürsten" (ensi$_2$) unterstanden. Sargon berichtet, nach der Eroberung Sumers (2300 v. Chr.) die Mauern der eroberten Städte niedergerissen und „Söhne von Akkade" (dumu dumu a-ga-de$_3^{ki}$) bis zum Golf als Stadtfürsten (ensi$_2$) eingesetzt zu haben (FAOS 7 Sargon C 1 = RIM E2.1.1.1: Sumerian 74–80//Akkadian 79–85; FAOS 7 Sargon C 4 = RIM E2.1.1.2: 82–91, zur Lesung Westenholz 1999, 39 Anm. 117). Manche Gelehrte bezweifeln die konsequente Umsetzung dieser Praxis oder halten sie für ein wenig erfolgreiches und kurzlebiges Experiment, da mit Hinnanum und Šuruškin von Umma aus dem sumerischen Süden nur zwei Stadtfürsten bekannt sind, bei denen es sich ihren Namen nach um Akkader handelte, und mit Meskigala von Adab außerdem ein sumerischer Stadtfürst bezeugt ist, der bereits vor der Eroberung Sumers durch Sargon amtierte (Foster 1993a, 28; Westenholz 1993, 161 Anm. 11; 1999, 39; 2002, 39; Frahm/Payne 2003/04, 54, zu Hinnanum und Šuruškin s. Visicato 2010, 269, 271; Marchesi 2011, 18 f.; Pomponio 2012, 104 f.; Visicato 2012; Sallaberger/Schrakamp 2015a, 39 f., 93 f.). Diese Auffassung ist in zweierlei Hinsicht zu revidieren. Die als Maništušu-Obelisk bekannte Landkaufurkunde, die den Erwerb umfangreicher Ländereien durch den König Maništušu dokumentiert (s. unten 8.), zählt 49 als „Söhne von Akkade" bezeichnete Personen als Zeugen des Landkaufs auf. Bei ihnen handelt es sich um Mitglieder der Königsfamilie und die Söhne hochrangiger Würdenträger, in denen man zugleich die Nutznießer des königlichen Landkaufs vermuten darf. Bedeutend ist, dass sich unter ihnen auch einige Personen finden, die ihren Namen nach aus sumerischem Milieu stammten, darunter die Söhne eines Funktionärs des Stadtfürsten (ensi$_2$) von Umma und der Sohn des Stadtfürsten (ensi$_2$) von Lagaš (Visicato 2010, 269, 271; Marchesi 2011, 19 Anm. 19; Pomponio 2012, 105; Visicato 2012; Marchesi 2015, 149 Anm. 96; Sallaberger/

Schrakamp 2015a, 40 Anm. 132; Schrakamp 2015b, 18; 2015c, 318 f., vgl. Such-Gutiérrez 2015, 435). Da unter den „Söhnen von Akkade“ auch Personen mit kyriophoren Namen erscheinen, die die dem König gegenüber empfundene Loyalität ausdrückten, bezeichnet „Söhne von Akkade“ keine Akkader im ethnischen Sinne, sondern die Gefolgsleute des Königs, deren Loyalität durch Landzuweisungen seitens des Königs vergolten wurde (s. ausführlich unten 8.). Außerdem zählt der Maništušu-Obelisk auch den Sohn des Ilšurabi zu diesem Personenkreis, der seine Karriere als Militär begonnen hatte und spätestens unter Maništušu zum Stadtfürsten von Pašime im Zagrosvorland aufgestiegen war (Steinkeller 1982, 241 Anm. 15; Potts 1994, 103; Hussein et al. 2010, 57 f.).[7] Diese im Maništušu-Obelisk genannten Würdenträger dürfen daher als späte Nachfolger der von Sargon in Sumer eingesetzten Stadtfürsten gelten. Sargons Inschrift dokumentiert also eine Politik, die auch seine Söhne Rimuš und Maništušu noch praktizierten (Glassner 1986, 11 f.; Potts 1994, 103): Sie beruhte auf der Besetzung administrativer Schlüsselpositionen mit Gefolgsleuten, die unabhängig von ihrer Herkunft in ein Netzwerk königlicher Patronagen eingebunden waren (vgl. unten 8.).[8]

Sargon benennt in seinen Inschriften „neun Regimenter von Akkade“ (*in* 9 *ki-zi-ri*$_2$ a-ga-de$_3^{ki}$) als die Stütze seiner Macht (FAOS 7 Sargon C 3 = RIM E 2.1.1.3: 6–8, s. Westenholz 1999, 36 Anm. 99; Sommerfeld 2009–11, 45) und rühmt sich, täglich „5400 Männer“ (ĝuruš) bzw. „13 Truppen(einheiten)“ (sur$_x$) an seiner Tafel gespeist zu haben (FAOS 7 Sargon C 2: 41–44 = RIM E2.1.1.11 Akkadian 41–44 // Sumerian 34–37, zur Lesung Sommerfeld 2008, 233–235). Dies gilt als Hinweis, dass auch das stehende Heer dem Herrscher loyal verbunden war und stellt zugleich den Aspekt herrscherlicher Fürsorge in den Vordergrund (Westenholz 1979, 122 Anm. 23; 1993, 161; Franke 1995, 248; Westenholz 1999, 34, 68; Schrakamp 2010, 4, 12, 83 f.). Ob die Einsetzung von Sargons Tochter Enḫeduanna in das Amt der Hohepriesterin des Mondgottes in Ur gleichermaßen als gezielte Übernahme einer kultischen Schlüsselposition zu bewerten ist (Glassner 1986, 12 f.; Renger 1995, 280; Steinkeller 1999c, 124 f.) oder aber eine ältere Tradition fortsetzte, die dem lugal die Einsetzung der en-Priesterin zugestand, ist kontrovers (Westenholz 1999, 38; Weiershäuser 2008, 254).[9] Sicher ist hingegen, dass auch die nachfolgenden Akkade-Herrscher königliche Töchter in die wichtigsten Priesterämter des Reiches einsetzten und eine Tradition fortführten, die bis in das frühe 2. Jtsd. v. Chr. wirkte und einen Affront gegen die lokalen Eliten bedeutete, deren Familien die Besetzung der wichtigsten Priesterämter seit jeher zustand (Michalowski 1987, 65 f.; Steinkeller 1999c, 125–129; Renger 2001, 373 f.).

Die gleichzeitigen Verwaltungsurkunden aus Adab, Nippur und Umma dokumentieren demgegenüber eine deutliche Kontinuität lokaler Verwaltungsstrukturen; sie sind paläografisch nicht von jenen vor Sargons Eroberung von Sumer zu unterscheiden und nennen dieselben Funktionäre, die schon vor Sargon tätig waren (zur Paläografie Westenholz 1975a, 3 f.; Foster 1982d, 3–6; Sallaberger 1998, 24–39; Milone 2002, 3–5; Such-Gutiérrez 2015, 438–445; zu den Funktionären Westenholz 1975a, 4; Foster 1979, 156 f.; 1982d, 43; Visicato 2000, 85–87, 94 f.; Sallaberger 2004, 23; Sallaberger/Schrakamp 2015a, 39, 93 f. Tab. 22; Such-Gutiérrez 2015, 435 f.). Auffällig ist zudem das Fortbestehen des örtlichen, auf den Amtsjahren des lokalen Stadtfürsten basierenden mu-iti Datierungssystems in Umma (Foster 1979; 1982d, 2–7, 60, 83; 1993a, 34; Sallaberger/Schrakamp 2015a, 36–40).[10] Nur vereinzelte Belege für

7 Die von Studevent-Hickman veröffentlichte Inschrift nennt „Ilšurabi (von) Pašime, den Bewaffneten“ (*il*$_3$-*su-rabi*$_2$ *ba-si-me*^{ki} *šu* ^{ĝeš}tukul) und datiert folglich aus einer früheren Phase von Ilšurabis Laufbahn; die Ernennung zum „Stadtfürsten“ (ensi$_2$) erfolgte spätestens unter Maništušu.

8 Bei Šarru(m)ali von Adab könnte es sich um einen weiteren durch den König eingesetzten ensi$_2$ in Sumer handeln; er amtierte nach der Niederschlagung der sumerischen Revolte gegen Rimuš, der sich auch Meskigala von Adab anschloss, und trug als einziger Stadtfürst von Adab einen akkadischen Namen, der zudem mit kyriophoren Namen von Höflingen im Maništušu-Obelisk zu vergleichen ist (s. unten 8.). Zu Šarru(m)ali, dessen zeitliche Stellung noch nicht endgültig geklärt ist, s. Molina 2014, 29–31; Pomponio 2015, 193.

9 Der literarischen Tradition zufolge endete dies mit Enḫeduannas Vertreibung aus Ur durch den Rebellenkönig Lugalanne während der „Großen Revolte“ gegen Naramsin (s. unten 22.), s. grundlegend Zgoll 1997, ferner Wilcke 1993, 33 f.; Westenholz 1999, 53 f.; Sommerfeld 2000, 427 Anm. 421; Haul 2009, 38–40, 46, zur Datierung Westenholz 2000, 553–555; Sallaberger 2004, 29 Anm. 30; Sallaberger/Schrakamp 2015a, 95 f., 115.

10 Foster (1977, 39 Anm. 101; 1982d, 8–10, 46–50; 1989b, 358; 1993b, 175; 2016, 6 f.) datiert das sogenannte mu-iti

„königliche Soldaten“, „königliche Bewaffnete“ (aga$_3$-us$_2$ lugal, lu$_2$ tukul lugal, Nik. 2, 31 Vs. 4–5) oder „akkadische Bevollmächtigte“ (maškim uri-me, Nik. 2, 21 Rs. 5), teilweise mit akkadischen Namen, deuten auf die akkadische Oberherrschaft über Umma hin (Foster 1982d, 15 f., 19, 29, 30, 38 f.; Edzard/Wiggermann 1987–90, 451; Schrakamp 2013b, 152; 2016b, 646, zu maškim vgl. Molina 2014, 34, 61). Auch Meskigala von Adab datierte nach lokalen Gebräuchen und erließ eigene Datenformeln, deren Promulgation eigentlich dem König vorbehalten war (Banca d’Italia 1, 47 Vs. ii 6–Rs. i 1; CUSAS 11, 234 Vs. ii 4–5; CUSAS 26, 78; Visicato 2010, 266 f. 2b Rs. i 3–4, s. Visicato 2010; Visicato/Westenholz 2010, 7; Molina 2014, 70; Sallaberger/Schrakamp 2015a, 42 f.; Such-Gutiérrez 2015, 436–438).[11] Diese bemerkenswerte Unabhängigkeit war wohl darin begründet, dass Meskigala an der Seite Sargons gegen Lugalzagesi gekämpft und ihn später sogar auf einem Feldzug bis in den Libanon (das „Zederngebirge“, kur ^{ĝeš}eren) begleitet hatte (Banca d’Italia 1, 23; CUSAS 11, 165; RIM E1.1.9.2001, s. Visicato 2010, 270; Visicato/Westenholz 2010, 7; Molina 2014, 29; Such-Gutiérrez 2015, 437), sie gilt aber auch als ein Indiz für den starken Einfluss lokaler Eliten (Westenholz 1984b, 80; Sallaberger 2006–08, 35–37; Visicato/Westenholz 2010, 4–8; Sallaberger/Schrakamp 2015a, 88, 94; Such-Gutiérrez 2015, 436 f.). Die Präsenz von akkadischen Funktionären wie „Leuten des Königs“ (lu$_2$ lugal, CUSAS 11, 122 Vs. ii 5–6), „Boten des Königs“ (sugal$_7$ lugal, CUSAS 11, 256 Rs. ii 1–3), „Boten von Akkade“ (sugal$_7$ a-ga-de$_3^{ki}$, CUSAS 11, 156 Vs. 2–3; vgl. CUSAS 26, 78 Vs. ii 2), „königlichen Martu-Leuten“ (mar-du$_2$ lugal, CUSAS 11, 174 Vs. ii 2–3), Sendungen von Vieh an einen König bzw. nach Akkade (CUSAS 11, 124 Vs. i 4–5; CUSAS 11, 145), Meskigalas Reisen nach Akkade (CUSAS 11, 234 Vs. ii 6–Rs. i 1) und eine Visite Sargons in Adab (Banca d’Italia 1, 63) zeigen, dass auch Meskigala die akkadische Oberherrschaft anerkannte (Visicato 2010, 264–268; Visicato/Westenholz 2010, 4–8; Sallaberger/Schrakamp 2015a, 88; Such-Gutiérrez 2015, 434–438). Nippur-Urkunden verwenden gelegentlich standardisierte, königliche Hohlmaße (gur lugal, AS 17, 11; OSP 1, 31, s. Westenholz 1975a, 5 f., 29; 1999, 39 mit Anm. 119),[12] erwähnen Opfer für Sargon (ECTJ 84, 85 Vs. i 8–ii 1) und datieren nach Sargon-Jahresdaten (ECTJ 85, 151, 181). Dies steht vielleicht mit Nippurs Rolle als Sitz des Hauptgottes Enlil in Zusammenhang (s. unten 20.–22.).[13] Zuletzt ist erwähnenswert, dass ein Šarkališarri-zeitlicher (?) Brief auf Eingriffe Sargons in die Provinzgliederung von Lagaš und Ur Bezug nimmt (FAOS 19 Gir 26, s. Volk 1992; Kienast/Volk 1995, 102–104; Westenholz 1999, 56 Anm. 27; Wilcke 2007, 36 f. mit Anm. 66; Sommerfeld 2015b, 272, zur Datierung s. unten 17. mit Anm. 35).

Die frühsargonische Oberherrschaft im Süden war somit durch die Besetzung administrativer (und kultischer) Schlüsselpositionen durch loyale, in das herrscherliche Patronagenetzwerk eingebundene Gefolgsleute, das Fortbestehen traditioneller lokaler Verwaltungsstrukturen und die Präsenz königlicher Funktionäre gekennzeichnet (Westenholz 1979, 110, 121 Anm. 16, Anm. 20; Westenholz 1999, 37–40; vgl. Michalowski 1987, 58–60).

Diese Architektur war offenbar so instabil, dass sich bei Thronbesteigung des Rimuš „unmittelbar nachdem Enlil ihm das Königtum gegeben

A-Archiv aus Umma in die Zeit des Rimuš, verbindet eine Gruppe von Urkunden über Einsatz und Versorgung von „(Arbeits-)Truppen“ (sur$_x$) an einem Bauprojekt mit einer Inschrift des Rimuš, die von Deportationen tausender Gefangener nach der Niederschlagung einer akkadischen Revolte berichtet (s. oben 6.–7.), und vergleicht dieses Bauprojekt mit dem Neubau des Enlil-Tempels Ekur in Nippur (s. unten 22., ähnlich Westenholz 1984b, 78); für prosopografische und andere Argumente gegen diese Interpretation und eine Datierung auf Sargon s. Westenholz 1984b, 76–78; Powell 1985, 144 f.; Steinkeller 1987a, 185–189; Neumann 1989, 523; Westenholz 1999, 39 Anm. 118, 41 Anm. 126; Visicato 2000, 88–90; Marchesi 2011; Sallaberger/Schrakamp 2015a, 39 f., 93 f.

11 Beachte, dass Such-Gutiérrez auch Datierungsvermerke einbezieht, die keine Datenformeln im engeren Sinne darstellen.

12 Der z. B. von Westenholz (1999, 39 Anm. 119) zitierte Beleg für gur lugal in AS 17, 11 erscheint im Kontext mit „Delmun-Schiffen“. Hier besteht vielleicht ein Zusammenhang mit Sargons Behauptung, er habe Schiffe von Delmun, Magan und Meluḫḫa am Kai von Akkade ankern lassen, die meist als ein Hinweis auf die Zentralisierung des Fernhandels gedeutet wird, s. etwa Westenholz 1999, 39.

13 Eine Gruppe prä- oder frühsargonischer Verwaltungstexte (ECTJ 32, 35, 38, 40, 168, 206; OSP 1, 53–60, 153, 154) dokumentiert Ausgaben von Lebensmitteln an Gesandte aus verschiedenen urbanen Zentren Babyloniens. Westenholz (1975a, 5 f., 38; 1999, 64 Anm. 272) und Visicato (2000, 82 Anm. 257) datieren diese Texte vorbehaltlich auf Sargon und vermuten in diesen Gesandten königliche Funktionäre, jedoch ist auch eine Datierung auf Lugalzagesi oder Enšakušana von Uruk nicht auszuschließen, die Zeitgenossen Sargons waren und zeitweilig weite Teile Babyloniens beherrschten, s. Schrakamp 2015a, 213.

hatte“ drei Städtekoalitionen bestehend aus Ur und Lagaš, Adab und Zabala sowie Umma und KI.AN bzw. Kidiĝira in einer Revolte erhoben, an deren Spitze ein selbsternannter Rebellenkönig von Ur namens Kaku stand. Dass sich Meskigala von Adab dem Aufstand anschloss, gilt als Hinweis, dass die Revolte von den lokalen Eliten getragen wurde (Westenholz 1999, 41, s. oben 6.). Dafür spricht wohl auch, dass sich unter den sechs aufständischen Städten mit Ur, Lagaš und Umma gleich drei Orte finden, in denen Sargon Stadtfürsten- und Priesterämter durch Gefolgsleute und Angehörige besetzt hatte. Rimuš schlug die Revolte brutal nieder; der *body count* seiner Inschriften umfasst zwischen 84.556 und 85.816 Getötete, Deportierte und Gefangene, was modernen Schätzungen zufolge bis zu 30 % der waffenfähigen männlichen Bevölkerung entsprochen haben dürfte (FAOS 7 Rīmuš C 1–5 = RIM E2.2.1–5, zu Lesung und Hintergrund s. Neumann 1992, 243 f.; Buccellati 1993; Westenholz 1999, 41 f. Anm. 131; 2002, 39; Sommerfeld 2006–08, 372; 2008, 227–232; Pomponio 2012, 103 f.).[14] Der enorme Blutzoll, den die Städte Sumers zu entrichten hatten, dürfte ein wesentlicher Grund dafür gewesen sein, dass es innerhalb der nächsten Jahrzehnte zu keinen weiteren Revolten im Süden kam.

Mit der Niederschlagung der Revolte verbindet man auch die sogenannte Rimuš-Stele. Ihre Inschrift dokumentiert weitverbreiteter Auffassung zufolge die Konfiskation von Ackerland in Sumer, die am Beginn einer wirtschaftlichen und administrativen Neuordnung des Südens stand.

7. Die sogenannte Rimuš-Stele als Zeugnis gewaltsamer Enteignung von Land in Sumer

Als ein Mittel der Vergrößerung königlichen Grundbesitzes gilt die (gewaltsame) Enteignung (Foster 1985; Gelb et al. 1991, 26; Neumann 1992, 243 f.; Postgate 1992, 41; Renger 1995, 281; Westenholz 1999, 44; Milano 2008, 119; Neumann 2014, 38). Die zentrale Quelle für diese Annahme liefern zwei im Louvre befindliche Fragmente einer beschrifteten Siegesstele, die aufgrund stilistischer Kriterien üblicherweise auf Rimuš datiert werden (Bänder 1995, 133; Nigro 2001–03; Huh 2008, 290). Sie zeigen akkadische Soldaten, die Männer mit sumerischer Haartracht (Westenholz 1999, 43 Fig. 1; Pomponio 2012, 107 Anm. 18) exekutieren, während die Inschrift gewaltige Flächen von Land in der Region Lagaš auflistet und Parzellen Würdenträgern zuordnet, unter denen sich mit „Hauptleuten“ (NU-banda$_3$ mar-du$_2$-ne) auch Militärs finden (OIP 104, 24, s. grundlegend Foster 1982a, 30–32; 1985; Gelb et al. 1991, 3, 26, 88–90). Aufgrund von Kollationen der Originale und mineralogischen Analysen ordnet Foster (1985) diesen Stelenfragmenten ein drittes, in Yale befindliches Inschriftenfragment zu, das ebenfalls umfangreiche Feldflächen in der Provinz Lagaš auflistet (OIP 104, 39, s. Foster 1985; Gelb et al. 1991, 89, 115 f.). Da eines der Louvre-Fragmente zudem die Inthronisierung eines Königs von Akkade erwähnt, folgert Foster, dass Reliefdarstellung und Inschrift auf die blutige Niederschlagung einer von Lagaš mitgetragenen antiakkadischen Revolte, der sich Rimuš bei seiner Thronbesteigung gegenübersah, und die anschließende Enteignung umfangreicher Ländereien in der Provinz Lagaš Bezug nehmen. Die Inschriftenfragmente summieren nach Foster (2000, 313 f.; 2011, 128) zusammen eine Fläche von 133.979 ha oder 1339 km² Land, die 17 Städte (eri saĝ) sowie acht Siedlungen (maš-ga-na saĝ) umfasste, etwa 2 % der gesamten Ackerfläche Babyloniens entsprochen haben dürfte und damit die größte in Keilschriftquellen überhaupt bezeugte landwirtschaftliche Nutzfläche darstellt (grundlegend Foster 1985, ferner Foster 1982a, 30–32; Glassner 1986, 29, 32; Westenholz 1992, 42; Foster 1994, 447 f.; Glassner 1995, 22 f.; Westenholz 1999, 42 Anm. 132, 49 f.; Foster 2000, 313–315; 2011, 128 f.; 2016, 7 f., 71).[15] Ungeachtet der

14 Da es sich nicht um „runde“ Zahlen handelt und Archi (2010, 29–32) Gefallenenlisten aus dem frühdynastischen Ebla identifiziert, die beispielsweise die Verluste zweier Kampagnen auf 20.309 Mann beziffern, darf man diese Angaben durchaus ernstnehmen. Ähnliche Zahlen nennt mit 95.340 Getöteten und Gefangenen auch Naramsins Bericht über die Niederschlagung der „Großen Revolte“ (s. unten 22.). Eine ähnlich große Zahl nennt mit 36.000 Kriegsgefangenen auch eine Frühdynastisch I/II-zeitliche Inschrift aus Kiš (Steinkeller 2013a).

15 Zur Lesung der Zahlen in der abschließenden Summierung des Louvre-Fragments AO 2679, die umstritten ist, s. auch Foster 1985, 20 („šu-níĝin (5 × 6,480,000?) + (5 × 1,080,000?) + 108,000 + (3 × 18,000) + (4 × 1800) + (2 × 600) + 100 + 25 GÁNA “Total: … 1328,9 square kilometres of land“); Gelb et al. 1991, 89, 90 („444,505¼ iku … or 156,837,450m² … or slightly less than 40 km by 40 km … šu-nigín 6(sár-gal)

Kollationsergebnisse von Foster schließen manche Gelehrte aus, dass die Fragmente zu einem Monument gehören (Gelb et al. 1991, 88–90; Steinkeller 1999a, 554 f., vgl. Neumann 1992, 243 f. Anm. 42), oder führen für eine Datierung der Stelenfragmente auf Naramsin (2261–2206 v. Chr.) oder Šarkališarri (2205–2181 v. Chr.) epigrafische bzw. paläografische Argumente an (Gelb et al. 1991, 89; Glassner 1995, 22 f.). Andere halten die von Foster vorgeschlagene Deutung und Datierung aufgrund von Beobachtungen zu Paläografie und Orthografie für plausibel (Westenholz 1999, 42 Anm. 142; Milano 2008, 119; Pomponio 2012, 106 f., zu den Einwänden von Gelb et al. 1991, 26, 88–90, s. Foster 1994, 447 f.). Dass die Stelenfragmente die (gewaltsame) Enteignung von Ländereien in der Provinz Lagaš dokumentieren, die zu Lasten der Tempel ging, wird allgemein anerkannt (Gelb et al. 1991, 26; Neumann 1992, 244; vgl. Renger 1995, 281; Neumann 2014, 38) und gestützt durch die große Zahl königlicher Funktionäre, die in Naramsin- und Šarkališarri-zeitlichen Texten aus Girsu/Lagaš als Halter von Liegenschaften enormer Ausdehnung erscheinen (s. unten 17.), auch wenn jüngst abweichende Deutungen vorgeschlagen werden.[16]

Die Aneignung von Land im Süden gilt zugleich als Grundlage zur Schaffung landwirtschaftlicher Krondomänen im Umland der sumerischen Provinzhauptstädte (Bridges 1981, 431 f.; Gelb et al. 1991, 26; Neumann 1992, 243 f.; Postgate 1992, 41; Neumann 2014, 38 f.; Foster 2011, 129 f.; 2016, 90–92, vgl. Westenholz 1999, 24). Ihre Funktionsweise dokumentieren mehrere Archive aus der Zeit des Naramsin und Šarkališarri (s. unten 11.–15.).[17]

8. Der Maništušu-Obelisk als Zeugnis königlicher Landkäufe in Nordbabylonien

Neben der gewaltsamen Enteignung gilt auch der Zukauf von Land als Mittel zur Vergrößerung des königlichen Grundbesitzes. Das bekannteste Zeugnis eines königlichen Landkaufs liefert die Inschrift der als Maništušu-Obelisk bekannten Stele aus Gabbro-Stein, den der König auf einem Kriegszug im heutigen Oman brach (OIP 104, 40, s. grundlegend Gelb et al. 1991, 116–140; Westenholz 1999, 44–46, ferner Glassner 1986, 29; Neumann 1988, 33; Steinkeller 1987–90, 335; Postgate 1992, 41, 184; Foster 1994, 448 f.; Steinkeller 1999a, 556, 558; Selz 1999–2000, 20 f.; Milano 2003, 25–29; Wilcke 2007, 31 Anm. 42, 105; Milano 2008, 117–120; Foster 2016, 1 f., 35). Er beurkundet den Erwerb von 9723 Iku bzw. 3430 ha Land in der Region des nordbabylonischen Kiš (Gelb et al. 1991, 118) aus dem Besitz lokaler Großfamilien durch den König und bezeugt damit zunächst die Praxis, königlichen Grundbesitz durch den Zukauf von Land zu vergrößern.[18] Da diese Liegenschaften an den Grundbesitz der Königsfamilie angrenzten (Gelb et al. 1991, 116 f.; Westenholz 1999, 44), vermutet man trotz des angemessenen Preises von 3,3 Sekel bzw. 25 g Silber pro Iku, dass der Verkauf unter Zwang erfolgte, der sich sicherlich unter der unausgesprochenen Drohung (militärischer) Gewaltanwendung vollzog und vielleicht durch ein offizielles Verkaufsformular „legalisiert“ wurde (vgl. Steinkeller 1999a, 558).

Als Zeugen des Kaufs benennt die Inschrift 49 „Söhne von Akkade“ (dumu-dumu a-ga-de$_3^{ki}$), in denen man zugleich die Nutznießer des

5(sar'u-*gunû*) 1(sár) 3(bùr-*gunû*) 4(bùr) 2(éše) 1(iku) ¼(iku) gán“); Foster 2011, 128 („133,979h … 5(šár)<gal> 5(šar'u) 1(šár) 3(bur'u) 4(bùr) 2(éše) 1 ¼(iku) = ±379,723 iku“); Pomponio 2012, 107 mit Anm. 19 („6 (or 5) sár-gal + 5 sár-u-*gunû* + 1 sár + 3 bùr-*gunû* + 4 bùr + 2 éše + 1 iku + ¼ iku, that is about 1.600,21 (or 1366,9) square kilometres“).

16 Steinkeller (1999a, 554 f.) nimmt von seiner früheren Interpretation einer Enteignung von Land (Gelb et al. 1991, 26) Abstand und vermutet aufgrund einer aus dem ensi$_2$-Archiv von Girsu/Lagaš stammenden Urkunde über einen Kauf von Land durch Šarkališarri, dass die Vergrößerung königlichen Grundeigentums (ausschließlich?) durch Zukauf erfolgte (s. unten 17.). Legt man dieser Annahme den gleichen Kaufpreis zu Grunde, wie ihn Šarkališarri entrichtete, so entspräche die in der Rimuš-Stele verzeichnete Fläche nach der Kalkulation von Foster (2011, 130) einer Menge von 147 Talenten bzw. 4410 kg Silber. Pomponio (2012, 106–108) erwägt auch eine alternative Deutung der Inschriftenfragmente als Reste eines Katasters der Provinz Lagaš, jedoch sind seine Argumente wenig stichhaltig, und der bei einem derartigen Monument vorauszusetzende Zusammenhang zwischen Inschrift und Darstellung bliebe unklar. Die von Glassner (1986, 29) geäußerte Vermutung, dass das Land im Rahmen von Beutebeteiligung an Militärs verteilt wurde, kann sicherlich nur für einen geringen Teil der genannten Flächen zutreffen.

17 Dass derartige Krondomänen erst ab der Mitte der Regierungszeit des Naramsin nachweisbar sind, könnte vielleicht für einen Zusammenhang mit dem als „Große Revolte“ bekannten Aufstand gegen Naramsin und eine entsprechende Datierung der Stele sprechen (s. unten 15.).

18 1 Iku entspricht 0,3528 ha, s. Steinkeller 1999b, 302.

königlichen Landkaufs vermutet (Foster 1985, 23; Glassner 1986, 11 f.; Steinkeller 1987–90, 335; Foster 2000, 313). Unter ihnen finden sich neben dem „Bruder des Königs“ (ses lugal) und einem „(Diener) der Königin“, der zugleich „Tempelverwalter des Lugalmarada“ war (*šu* nin saĝĝa ^{d}lugal-mara$_2$-da), die Söhne ranghoher Würdenträger (zu den Filiationen s. Schrakamp 2015b, 18). Genannt werden unter anderem die Söhne eines „Majordomo“ (šabra e$_2$), eines „Generals der Lanzenkämpfer“ (šagana lu$_2$ ĝeš-gid$_2$-da), eines „Generals der Bogenschützen“ (šagana lu$_2$ ^{ĝeš}ti) und eines weiteren „Generals“ (šagana), eines „Richters“ (di-ku$_5$), eines „(Dieners) des *Ober-Musterungsoffiziers*“ (ši gal$_5$-la-gal), eines „Barbiers“ (šu-i), eines „Mundschenks“ (sagi), des „Tempelverwalters des Gottes Ilaba“ (saĝĝa *il*$_3$-*a*-*ba*$_4$) und des „Stadtfürsten“ (ensi$_2$) von Pašime (s. oben 6.). Ihren Namen nach stammten 41 der 49 „Söhne von Akkade“ aus akkadischem Milieu, für drei sind sumerische Namen bezeugt (Foster 2000, 310–313). Da Sargon sich rühmt, nach der Eroberung Sumers (2300 v. Chr.) „Söhne von Akkade“ als Statthalter im Süden Sumers eingesetzt zu haben und aus dem frühsargonischen Umma zwei Stadtfürsten mit akkadischen Namen bekannt sind, vermutet man in den „Söhnen von Akkade“ zumeist Bürger von Akkade oder Akkader (z. B. Westenholz 1993, 161; 1999, 38, 39). Der Maništušu-Obelisk zählt mit den Söhnen eines Untergebenen des Stadtfürsten von Umma sowie dem Sohn eines Stadtfürsten von Lagaš jedoch auch Personen mit sumerischen Namen zu dieser Gruppe (vgl. oben 6.). In den „Söhnen von Akkade“ darf man daher königliche Gefolgsleute vermuten, die dem Herrscher loyal verpflichtet waren (vgl. Glassner 1986, 11 f.; 1995, 23; Foster 2000, 311–313; 2015, 8; 2016, 40). Dies bestätigt zum einen das Onomastikon, denn einige Angehörige dieser Gruppe trugen typologisch innovative Anthroponyme wie Śarru(m)kēn-ilī „Sargon ist mein Gott“ oder Namen wie „Der König ist meine Festung“, „Der König ist mein Gott“, die die gegenüber dem König empfundene Loyalität des Vaters zum Zeitpunkt der Namengebung ausdrückten (Westenholz 1979, 111, 121 Anm. 21 f.; Glassner 1986, 18; Westenholz 1993, 161; 1999, 40 Anm. 123; Andersson 2011, 76, 199 f., 211 Anm. 1344, 257). Zum anderen stützen auch Naramsin- und Šarkališarri-zeitliche Verwaltungstexte aus Sumer diese Interpretation, denn sie zählen eine ganz ähnliche Gruppierung von Würdenträgern zur herrscherlichen Entourage, die das Königspaar auf seinen Reise durch das Reich begleitete (s. unten 17.). Die Annahme, dass es sich bei dieser Elite zugleich um die Nutznießer des königlichen Landkaufs handelt, stützen Landtexte aus dem ensi$_2$-Archiv von Girsu/Lagaš; sie nennen eine ähnliche Gruppe von Funktionsträgern als Halter großer Feldflächen (s. unten 17.). Nimmt man an, dass der Landkauf zu gleichen Teilen auf die „Söhne von Akkade“ verteilt wurde, so entspräche dies 49 Liegenschaften zu jeweils 70 ha. Zum Vergleich: nach modernen Schätzungen deckte ein Feld von 1 Iku bei durchschnittlichem Ertrag den Unterhalt für mehr als eine Person ab, ein Feld von 2 Iku stellte die Versorgung einer Kleinfamilie sicher (Bauer 1998, 535; vgl. Steinkeller 1999b, 302).

Der Maništušu-Obelisk erweist sich damit als ein zentrales Zeugnis des akkadischen Ressourcenmanagements in frühsargonischer Zeit: Die grundlegende Ressource war königlicher Grundbesitz, der durch Zukauf oder Konfiskation vergrößert wurde. Die Vergabe von Land an Gefolgsleute und Funktionsträger erzeugte Loyalitäten und Abhängigkeiten und stellt ein frühes Beispiel altorientalischer Patronage dar. Dass Maništušus Inschrift unter den „Söhnen von Akkade“ dabei nicht ranghohe Würdenträger aufführt, sondern deren Söhne, die noch nicht in einflussreiche Positionen aufgestiegen waren, belegt ein Netzwerk königlicher Patronage, das bereits zur Zeit von Maništušus Vater Sargon Bestand hatte, und verdeutlicht das Bestreben, die darin begründeten Loyalitäten und Abhängigkeit über die Generationengrenze hinweg zu vertiefen (vgl. Foster 2016, 39 f., zur Patronage im Alten Orient s. Westbrook 2005).

Verwaltungsurkunden aus Umma und Girsu/Lagaš belegen, dass der König spätestens unter Naramsin und Šarkališarri (2261–2206 v. Chr. bzw. 2205–2181 v. Chr.) auch in Sumer über ausgedehnten Grundbesitz verfügte, und deuten an, dass der Herrscher auch im Süden umfangreiche Käufe von Grund und Boden tätigte; die einschlägigen Textzeugnisse stammen aus den ensi$_2$-Archiven von Girsu/Lagaš und Umma und werden in ihren Archivzusammenhängen vorgestellt (s. unten 17.–18.).

9. Die klassisch-sargonische Zeit: Naramsin und Šarkališarri

Aus der (späteren) Regierungszeit des Naramsin und der Zeit des Šarkališarri liegt ein im Vergleich zur vorangegangen Periode deutlich umfangreicheres Urkundencorpus aus staatlichen Verwaltungseinheiten des sumerischen Südens vor (s. die Überblicke in Foster 1982c; 1986b; Westenholz 1984a, 18–24; Foster 1993b, 175 f.; Schrakamp 2015a, 223–270; Foster 2016, 65–73 sowie Sallaberger/Schrakamp 2015a, 111 Map 10, s. oben *Abb. 3*). Während die frühsargonischen Texte aus Adab, Nippur und Umma noch deutlich den lokalen Schreibgepflogenheiten verhaftet erscheinen (s. oben 6.), zeigt die große Mehrheit klassisch-sargonischer Texte eine im Hinblick auf Tafelformat, Layout und Paläografie weitgehend einheitliche Gestaltung (grundlegend Foster 1982a, 19; 1982c, 3 f., 9 f.; 1986b, 46–49; Maiocchi 2015; Foster 2016, 20, ferner beispielsweise Foster 1982d, 3–6; Yang 1989, 34–46; Milone 2002; Sallaberger/Schrakamp 2015a, 105–108). Viele Gelehrte führen diese Einheitlichkeit auf eine Verwaltungs-, Schreib- und Schriftreform zurück (Foster 1982b, 3 f.; Michalowski 1987, 60; Hasselbach 2005, 30; Foster 1993a, 34, 36 f.; 2016, 18–20). Da das innovative orthografische System des Altakkadischen bereits unter Sargon voll ausgebildet war, hält Sommerfeld (2012, 214, vgl. Westenholz 1999, 74) dies für unsicher. Er weist anhand akkadischer Verwaltungstexte aus Tutub im Dijala-Gebiet stattdessen ein Nebeneinander verschiedener Schreibstile oder Duktus nach und hält die typisch sargonisch-akkadische Schrift- und Tafelgestaltung für ein Charakteristikum von Archiven der Zentralverwaltung, das in hohem Maße an die Verschriftung des als offizielle Verwaltungssprache eingeführten Sargonisch-Akkadischen (Sommerfeld 2003) gebunden war, während dezentrale oder lokale Archivzusammenhänge weiterhin lokalen Schreibgepflogenheiten und Dialekten verhaftet blieben (Sommerfeld 1999, 7–13, bes. 10 f.; 2003, 584 f.; 2010, 154 f.; 2012, 210 f., 214). Bedeutend ist also, dass die Verwendung des Akkadischen und des akkadischen Duktus auf die Einbindung einer Institution in die königliche Zentralverwaltung hinweisen. Das Nebeneinander des Sumerischen und Akkadischen als Verwaltungssprache und der Wechsel verschiedener Schreibstile oder Duktus lassen sich in verschiedenen Archivkontexten beobachten (s. Gelb 1970, xxi f.; Westenholz 1975a, 9 mit Anm. 20 f.; Foster 1982a, 29; 1982b, 9 f.; 1982c, 3 f., 9 f.; 1983a, 173; 1986b, 49; Westenholz 1987, 24; Sommerfeld 1999, 10 f.; Foster 1999–2000, 254; Sommerfeld 2012, 211 und s. unten 10., 11., 17., 18., 21., 22.).

10. Das Archiv von Pugdan als Zeugnis einer königlichen Domäne in Nordbabylonien

Zunächst soll die Funktionsweise einer landwirtschaftlichen Domäne veranschaulicht werden. Einschlägig ist hierfür ein Archiv von rund 40 Verwaltungsurkunden sowie einigen Briefen und Schultexten aus Pugdan (Umm-el-Jir) östlich von Kiš, das aus der Zeit des Naramsin stammt (grundlegend Foster 1982b, bes. 36–38; 1983a; Steinkeller 1993a, 122 f. Anm. 41; Foster 2016, 59 f., ferner Westenholz 1984b, 80 Anm. 14; Glassner 1986, 29; Neumann 1992, 243 Anm. 40; Foster 1993a, 27; Westenholz 1993, 161 mit Anm. 13; Kienast/Volk 1995, 148–150; Visicato 2000, 209–212; Sommerfeld 2010, 156 f.; Foster 2011, 129; Neumann 2014, 38 Anm. 34; Schrakamp 2015a, 249 f.). Die Urkunden dokumentieren hauptsächlich Einlieferungen, Ausgaben und Darlehen von Getreide, betreffen aber auch Kleinvieh, Silber(abgaben) und Varia. Fünf Urkunden, die sich im Gegensatz zu den übrigen Texten durch typisch klassisch-sargonische Tafelformate und Zeichenformen auszeichnen, betreffen die Verwaltung von Ackerland (AIA 14; BIN 8, 144; MAD 5, 67, 69, 99, s. Foster 1982b, 10, 35 f.; 1983a, 173). Sie zeigen, dass das Archiv zu einer Domäne unter der Leitung des „Königssohns“ (dumu lugal) Šumigri gehörte, der zugleich als „Stadtfürst“ (ensi$_2$) amtierte (AIA 1 Vs. 6–8, s. Foster 1982b, 21 f.),[19] und über Felder im Umfang von wenigstens 2955 Iku bzw. 1042,5ha verfügte, die entlang des Kiškattum-Kanales bei verschiedenen Ortschaften zwischen Kiš und Kutha lagen (BIN 8, 144; MAD 5, 67, s. Gelb 1970, 62–64; Foster 1982b, 14–18; 1983a mit Kollation). Die Institution erwirtschaftete Gewinn in Form von Getreideerträgen,

19 Zu den Stadtfürsten von Pugdan s. ferner Krecher 1972, 271; Westenholz 1972, 381; Steinkeller 1992b, 109 f.; Sommerfeld 1999, 36.

die nach dem „königlichen Kor“ (gur a-ga-de$_3^{ki}$, AIA 1, 7, 8) gemessen wurden, und Silber, das als Pachtabgabe zu entrichten war (vgl. Foster 1982b, 20 f.). Neben Feldern, die durch „Bauern“ (engar) bzw. „königliche Bauern“ (engar lugal) kultiviert wurden und der Bedarfsdeckung der Domäne dienten, erscheinen als „königlicher Pflug“ (^{ĝeš}apin lugal) bezeichnete Felder, die man als königliches Land deutet, dessen Erträge und Pacht der Krone zustanden (Foster 1982b, 21; 1993a, 31). Ihre Kontrolle oblag „königlichen Bevollmächtigten“ (maškim lugal, BIN 8, 144 Vs. ii 10, s. Foster 1982b, 17, 21, 37; 1993a, 29; vgl. Molina 2014, 34, vgl. oben 6.). Die Urkunden dokumentieren ferner die Vergabe von Feldern an Personen (bes. AIA 14; BIN 8, 144; MAD 5, 67, s. Gelb 1970, 62–64; Foster 1982b, 10–21; 1983a mit Kollation; 1993a, 31; Steinkeller 1993a, 122 f. Anm. 41). Die umfangreichsten Liegenschaften hielt mit 900 Iku bzw. 317,5 ha ein „(Diener) der Königin“ namens Dada (da-da ši nin) (Foster 1982b, 14 f., 25, 26, 35, 37). In ihm vermutet man den gleichnamigen „Verwalter“ (šabra), der auch in Girsu/Lagaš umfangreiche Liegenschaften hielt, nach Texten aus Girsu/Lagaš als Mitglied der königlichen Entourage zu den ranghöchsten Funktionären des Reiches zählte und auch in Texten aus anderen Archiven erscheint (s. unten 13.,17., 21.) (Westenholz 1987, 95; 1999, 70 mit Anm. 321; Weiershäuser 2008, 196, zur Person s. ferner Foster 1980, 31, 36; Glassner 1986, 30; Kienast/Volk 1995, 88; Sommerfeld 2006a, 10 Anm. 26; Milano/Westenholz 2015, 25). Die nächstgrößeren Liegenschaften hielten ein „Majordomo“ (šabra e$_2$) mit 270 Iku bzw. 95,25 ha, ein „Verwalter“ (šabra) mit 216 Iku bzw. 76 ha, zwei nur namentlich genannte Personen mit 144 Iku bzw. 51 ha und 54 Iku bzw. 19 ha sowie je ein weiterer „Majordomo“ bzw. „Verwalter“ mit 42 Iku bzw. 15 ha pro Person. Die Institution vergab ferner Ackerland an „Hauptleute“ (NU-banda$_3$), „Soldaten“ (aga$_3$-us$_2$), „Schmiede“ (si$_7$) und „Hirten“ (sipa); ihre Felder hatten jedoch mit 12 Iku bis 24 Iku bzw. rund 4,25 ha bis 8,5 ha deutlich geringeren Umfang (Foster 1982b, 14 f.).

Das Archiv von Pugdan dokumentiert damit die Aktivitäten einer landwirtschaftlichen Domäne, die durch Angehörige und Funktionäre des Königshauses verwaltet und kontrolliert wurde, Land an ranghohe königliche Beamte vergab, Überschüsse in Form von Ernteerträgen, Abgaben und Pacht erwirtschaftete und an die Krone abführte und sich somit durch königlichen bzw. privaten Grundbesitz, tributäre Wirtschaftsform und patrimoniale Strukturen auszeichnete.

Als Hinweise darauf, dass die Akkade-Herrscher über zahlreiche derartiger Domänen verfügten, gelten neben dem aus frühsargonischer Zeit stammenden Maništušu-Obelisk (s. oben 8.) auch Erwähnungen von Mitgliedern der Herrscherfamilie in Landkäufen aus dem nordbabylonischen Sippar (OIP 104, 41, s. Foster 1985, 25 mit Anm. 14; Glassner 1986, 29; Gelb et al. 1991, 140–151), eine Verwaltungsurkunde aus Kiš, die Feldflächen von insgesamt 3312 Iku bzw. 1126 ha in zehn Ortschaften addiert (MAD 5, 12 = AAICAB 1/1, pl. 9 Ash. 1931–147, s. Steinkeller 1993a, 122 f. Anm. 41; Visicato 2000, 207; Foster 2016, 58) sowie eine fragmentarische, in akkadischer Sprache abgefasste Urkunde unbekannter Herkunft, die 647 ha Felder einer Inanna-Priesterin zuzuweisen scheint, in der man eine Königstocher vermutet (MCS 9, 231, s. Foster 1982a, 107 f. mit Kollation; Cripps 2010, 42 f. Nr. 7; Schrakamp 2013b, 149 Nr. 7).[20] Bedeutender ist jedoch, dass sich königliche Domänen spätestens für die Zeit des Naramsin auch im sumerischen Süden nachweisen lassen; ihre Dokumentation wird nachfolgend vorgestellt (s. unten 11.–15.).

11. Archive königlicher Domänen im sumerischen Süden

Aus der Regierungszeit des Naramsin (2261–2206 v. Chr.) und Šarkališarri (2205–2181 v. Chr.) stammen drei Archive, die Institutionen zugeordnet werden, die der Krone unterstanden (Foster 1982c, 24; Westenholz 1984b, 81; Foster 1989b, 361; 1993a, 30; Westenholz 1995, 536; 1999, 50 Anm. 167; Wilcke 2007, 31; Milano/Westenholz 2015, 23–27). Sie unterscheiden sich formal von den gleichzeitigen Archiven der sumerischen Stadtfürsten von Adab, Girsu/Lagaš und Umma durch das Nebeneinander des Sumerischen und des Akkadischen, das als offizielle Verwaltungs- bzw. Zweitsprache gleichberechtigt bis dominant neben das Sumerische tritt (grundlegend Sommerfeld 2003; 2012,

20 Foster (1982a, 107 f.) erwägt unter Vorbehalt auch eine Herkunft aus Girsu/Lagaš, s. unten 17. Anm. 36.

212, 254–256; Keetman 2014), belegen außerdem ein Nebeneinander lokaler und standardisierter bzw. „königlicher“ Maße und Verwaltungspraktiken (Foster 1982c, 22–25; 1983b; 1986a, 113–115; 1986b, 46–49) und enthalten praktisch keine Texte, die Tempel oder Kult betreffen.

12. Das Mesag-Archiv

Bei der am besten erschlossenen Textgruppe handelt es sich um das sogenannte Mesag-Archiv (s. grundlegend Bridges 1981, bes. 426–444; Foster 1982a, 52–69; 1986a, 110–115, ferner Foster 1983b, 301–305; 1986b, 47 f.; 1987a; Steinkeller 1992b, 8–10; Foster 1993c, 443–445; Steinkeller 1999a, 554 Anm. 5; Foster 2000, 314–316; Van Driel 2000, 16 f.; Visicato 2000, 102–110; Salgues 2011; Markina 2012; Sommerfeld 2012, 212, 254–258; Milano/Westenholz 2015, 26 f.; Schrakamp 2015a, 255 f.; Foster 2016, 72 f.). Es umfasst rund 600 Verwaltungsurkunden, die anhand jüngst publizierter Datenformeln in die Regierungszeit des Naramsin (2261–2206 v. Chr.) datiert werden (Salgues 2011, 253 f., 259 f.; Sallaberger/Schrakamp 2015a, 39 f.). Rund 150 Texte sind bislang veröffentlicht. Das Archiv stammt aus der Provinz Lagaš; ob die zugehörige Verwaltungseinheit in Saǧub beheimatet war, ist umstritten (s. die Diskussion bei Foster 1982a, 52; Steinkeller 1992b, 8–10; Foster 1993c, 444; Selz 1995, 193 f. Anm. 1; Steinkeller 1999a, 554 Anm. 5 sowie Salgues 2011, 253 f. Anm. 3; Markina 2012, 171; Milano/Westenholz 2015, 26 Anm. 29).[21] Formal zeichnet es sich dadurch aus, dass es eine große Zahl Urkunden in sargonisch-akkadischer Verwaltungssprache und -schrift (Bridges 1981, 443; Foster 1982a, 52; Salgues 2011, 260 mit Anm. 45, 268; Markina 2012, 172; zur Sprache einschränkend Sommerfeld 2012, 212, 254–258; Foster 2016, 212) und eine ebenso große Anzahl gemischtsprachiger Texte mit akkadischen und sumerischen Phrasen enthält (Foster 1982j, 301 Anm. 14; Steinkeller 1992b, 10; Westenholz 1995, 536; Salgues 2011, 259 f.; Markina 2012, 172 mit Anm. 28; Keetman 2014, 5 Anm. 19, 7). Dies gilt als mögliches Indiz, dass das Archiv aus einer Frühphase der Neuorganisation Sumers stammt (Markina 2012, 172, s. unten 15.). Die Texte dokumentieren die Aktivitäten einer Wirtschaftseinheit unter der Leitung des „Schreibers (und) Katasterleiters“ (dub-sar sa_{12}-du_5) Mesag, der später zum „Stadtfürsten“ ($ensi_2$) von Umma aufstieg (s. unten 18. mit Anm. 41). Er hielt laut einer Felderurkunde wenigstens 1270 ha Subsistenz- ($aša_5$ šuku) und Pachtland ($aša_5$ sa_{10}-a) (BIN 8, 291, s. Foster 1982a, 57 f. mit Kollation; 1982c, 23 Anm. 35; 1986a, 111; Salgues 2011, 254 Anm. 6),[22] das durch zwei „Oberschreiber“ (dub-sar maḫ) vermessen wurde (Foster 1982a, 63; Visicato 2000, 103–106), verfügte über einen beachtlichen Bestand an Groß- und Kleinvieh und beschäftigte wenigstens 172 Personen in Landwirtschaft, Viehzucht, Fischerei, Handwerk und Verwaltung, von denen 81 % sumerische und 13 % akkadische Namen trugen (Foster 1982j, 299). Die wirtschaftliche Grundlage der Institution bildete der Grundbesitz, der zu einem Drittel Mesags eigenem Unterhalt diente, der aus Ernteerträgen und Pachteinnahmen erwirtschaftet wurde. Zwei Drittel gelten als Kronland, aus dessen Erträgen Abgaben an den Herrscher zu entrichten waren, die sich im Urkundenmaterial durch Lieferungen von Getreide nach Akkade niederschlagen (z. B. BIN 8, 122 Vs. i 1–ii 2, s. Bridges 1981, 362–416, 432–436; Foster 1982a, 69; 1983b, 303; 1986a, 120 f. mit Kollation; Milano/Westenholz 2015, 26; Schrakamp 2015a, 255 f.). In ihrer Wirtschaftsweise und Verwaltungspraxis ähnelte die Institution damit der königlichen Domäne des nordbabylonischen Pugdan (s. oben 10.) oder der landwirtschaftlichen Wirtschaftseinheit in Gasur (Bridges 1981, 443; zu Gasur s. Foster 1982c, 9 f.; 1982e; Westenholz 1984a, 18 f. Anm. 3; 1984b, 80; Foster 1987b, 89 f.; 1993b, 177; Dsharakian 1994; Westenholz 1999, 56 Anm. 214, 64 mit Anm. 278; Visicato 2000, 225–231; 2001; Schrakamp 2015a, 231; Foster 2016, 65). Die enge Anbindung an die Krone verdeutlichen der

21 Steinkeller (1992b, 8–10) erwägt neben einer Herkunft aus Saǧub vorsichtig auch eine Zuordnung zum klassisch-sargonischen $ensi_2$-Archiv von Umma, was Milano/Westenholz (2015, 26 Anm. 29) jedoch ablehnen, da dies weder den hohen Anteil akkadischer und gemischt akkadisch-sumerischer Texte noch das Erwerbungsdatum und ebenso wenig die Datierung der Texte mit Jahresnamen statt mu-iti-Daten berücksichtigt. Zudem lässt sich eine solche Lokalisierung nicht mit der Datierung des klassisch-sargonischen $ensi_2$-Archiv von Umma in die Zeit des Šarkališarri (s. unten 18.) vereinbaren.

22 Steinkeller 1992b, 8 f. Anm. 36 deutet $aša_5$ sa_{10}-a wörtlich als „purchased land“; zur Deutung als „leased land“ s. Foster 1982a, 58; 1982b, 21 sowie Renger 1995, 274 Anm. 15.

Gebrauch der akkadischen Verwaltungssprache, -schrift und -praxis, das Nebeneinander lokaler und königlicher Maße, die Präsenz königlicher Inspekteure, die auch in Pugdan bezeugt sind (Salgues 2011, 260 mit Anm. 45), und die Visite einer Delegation, der neben „Königssöhnen“ (dumu lugal-me), Boten aus Gasur, Umma und Uruk außerdem ein Funktionär namens Lugalušumgal angehörte, in dem man den gleichnamigen „Stadtfürsten“ (ensi$_2$) von Lagaš vermutet (BIN 8, 214 Rs. 2, s. Foster 1980, 39 f.; Volk 1992, 24 mit Anm. 15; Felli 2006, 35, s. unten 17.).[23] Die Urkunden belegen neben Getreidelieferungen von und nach Adab, E'igi'il und Zabala ferner, dass Mesag nach Irisaĝrig/Alšarraki, A.HA^{ki} und regelmäßig in die Hauptstadt Akkade reiste (BIN 8, 135 Rs. 1–2; BIN 8, 146 Vs. 9–11, Rs. 1–3), und erwähnen schließlich eine Reisestation des Herrschers (BIN 8, 134 Vs. 8–Rs. 1, vgl. BIN 8, 140, s. Foster 1980, 39 f.; Bridges 1981, 420–422; Volk 1992, 23 f.; Schrakamp 2015a, 255 f.).

Das Mesag-Archiv dokumentiert damit die Aktivitäten einer landwirtschaftlichen Domäne im Umland eines urbanen Zentrums in Sumer, die auf der Zuweisung königlichen Grundeigentums an einen loyalen Gefolgsmann des Königs basierte. Sie zeichnete sich durch eine tributäre Wirtschaftsweise und akkadische Verwaltungspraxis aus und unterstand letztlich der Krone. Von der Provinzverwaltung durch die lokalen Stadtfürsten weitgehend unabhängig, kann diese Institution als Fremdkörper im sozioökonomischen Gefüge Sumers betrachtet werden (Bridges 1981, 432); sie illustriert damit die Übertragung nordbabylonischer Wirtschaftsformen auf den sumerischen Süden (Renger 1995, 281).

Eine Verwaltungsurkunde, die die Vermessung von Land durch einen „Katasterleiter“ (sa$_{12}$-du$_5$) dokumentiert, summiert Land im Umfang von 17.676 Iku bzw. 6236 ha (BIN 8, 198, s. Foster 1982a, 57, 63; 1985, 26 f. Anm. 19 mit Kollation). Da dies den Umfang von Mesags Liegenschaften um das Fünffache übersteigt, vermutet man, dass seine Wirtschaftseinheit Teil einer weit größeren königlichen Domäne war, deren Ursprung in der Enteignung riesiger Ländereien in der Lagaš-Region lag (Foster 1982a, 57, 63, 109; 1985, 26 f. mit Anm. 19; 2000, 313 f.; Visicato 2000, 102; Foster 2011, 129 f.; Milano/Westenholz 2015, 26 Anm. 28).[24]

13. Das Lugalra-Archiv

Aus der Region Lagaš stammt ein Archiv von etwa 100 Texten aus der Zeit des Šarkališarri (Kienast/Volk 1995, 88; Westenholz 2014, 148; Milano/Westenholz 2015, 24), die man einer Institution zurechnet, die derjenigen des Mesag ähnelte (grundlegend Limet 1973, bes. 13–21; Foster 1982a, 45–52; Westenholz 2014, 148–167, bes. 148; Milano/Westenholz 2015, 25, ferner Farber 1975; Powell 1975; Foster 1978; Westenholz 1993, 159; Kienast/Volk 1995, 88; Foster/Robson 2004; Foster 2016, 41, 48 Anm. 61, zur möglichen Herkunft aus E'igi'il in der Region Lagaš s. Limet 1973, 13 f.; Farber 1975, 119–121; Foster 1989a, 158 Anm. 11).[25] Das Archiv umfasst hauptsächlich Verwaltungsurkunden, die etwa zu gleichen Teilen in akkadischer und sumerischer Sprache verfasst sind (Limet 1973, 20 f.; Westenholz 2014, 148; Milano/Westenholz 2015, 25), einige Briefanweisungen (Kienast/Volk 1995, 88) und mathematische Übungen zur Feldervermessung (Foster/Robson 2004). Die Texte dokumentieren die Aktivitäten einer Wirtschaftseinheit, die Landwirtschaft, Viehzucht und Fischerei betrieb und über Ackerland im Umfang von wenigstens 324 Iku bzw. 114,5 ha verfügte, das als „Domänenland“ der Bedarfsdeckung der Wirtschaftseinheit diente (ašа$_5$-gud, CT 50, 182 Rs. 1),[26] durch „Bauern“ (engar) mit festen Abgabeobligationen kultiviert (CT 50, 182 Rs. 2; CUSAS 26, 200,

23 Ranghohe Titelträger wurden zuweilen nur durch ihre Namen identifiziert (Foster 1989a, 157 Anm. 5). Dass es sich bei den „Leuten“ (lu$_2$) aus Gasur, Umma und Uruk um die „Stadtfürsten“ (ensi$_2$) dieser Orte handelt, wie Bridges (1981, 17) vermutet, bleibt allerdings sehr unsicher, s. Milano/Westenholz (2015, 26 Anm. 34) und Schrakamp (2015a, 255 f.).

24 Aufgrund von Duktus und Museumsnummer bezweifelt Salgues (2011, 253 Anm. 3) allerdings, dass die fragliche Urkunde zum Mesag-Archiv gehört.

25 Foster (1989a, 158) rechnet diesem Archiv aufgrund prosopografischer Beobachtungen vorbehaltlich eine weitere Gruppe von Texten aus der Region Lagaš zu, die in erster Linie Kleinvieh betreffen, jedoch hält Westenholz (2014, 148) die dieser Zuweisung zugrundeliegenden prosopografischen Beobachtungen für wenig belastbar.

26 Foster 1982a, 108 berücksichtigt CT 50, 182 in anderem Kontext, zur Zuordnung dieses Textes zum Lugalra-Archiv s. beispielsweise Limet 1973, 16; Farber 1975, 119–121; Milano/Westenholz 2015, 25 Anm. 26.

208) und als Subsistenz- (šuku) und Pachtland (apin-la$_2$), für das Abgaben (maš$_2$ aša$_5$-ga) zu entrichten waren (CUSAS 26, 179; DPA 31–33), unter anderem an „Schreiber“ (dub-sar) vergeben wurde (Foster 1982a, 47, 50, 108). Der geografische Horizont der Texte beschränkt sich auf die Region Lagaš, Interaktionen mit anderen Orten sind nicht dokumentiert.[27] Die Verwaltung der Wirtschaftseinheit oblag Lugalra, dem „Katasterleiter der Königin“ (sa$_{12}$-du$_5$ nin, CUSAS 26, 210 Rs. 2–3, zur Person s. Limet 1973, 14; Foster 1978, 275; Glassner 1986, 40 Anm. 11; Westenholz 1993, 159; Kienast/Volk 1995, 88, 93 f.; Westenholz 2014, 148; Milano/Westenholz 2015, 25). In einer Briefanweisung in sargonisch-akkadischer Verwaltungssprache und -schrift befiehlt Iškundagan, der „Majordomo der Königin“ (šabra e$_2$ nin, RIM E2.1.5.2001) und einer der ranghöchsten Funktionäre des Reiches, Lugalra in harscher Diktion, Felder zu bestellen, zum Schutz von Ackerland und Viehbeständen gegen plündernde Gutäer Wachtruppen aufzustellen und seinen Abgabeobligationen gegenüber der Krone nachzukommen (FAOS 19 Gir 19, s. Westenholz 1993, 157 f., 159; Kienast/Volk 1995, 89–94; Neumann 2006, 5 f.; Milano/Westenholz 2015, 25, zu Iškundagan s. Glassner 1986, 40; Foster 1987a, 53; Frayne 1993, 198; Westenholz 1993, 157 f.; Kienast/Volk 1995, 54 f.; Weiershäuser 2008, 197–199; Steinkeller 2015, 282). Auf Abgabeverpflichtungen gegenüber der Krone deuten ferner zwei Urkunden, die im Zusammenhang mit großen Getreidemengen einen Repräsentanten des Iškundagan (*šu iš-ku-un-*^{d}*da-gan*) und den „*Musterungsoffizier*“ Ilumdan (di$\hat{g}$ir-kal *šu*-gal$_5$:la$_2$) nennen (CUSAS 26, 194 Vs. 2–3; DPA 14 Rs. 9, s. Milano/Westenholz 2015, 25), der als Mitglied der herrscherlichen Entourage in Texten aus dem ensi$_2$-Archiv von Girsu/Lagaš (s. unten 17.), in Nippur (s. unten 21.) sowie in Maškanili’akkade erscheint (s. unten 14., zur Person Westenholz 1987, 95; 2004, 602 Anm. 18; Milano/Westenholz 2015, 22, 25). Zwei weitere Briefanweisungen enthalten Order eines Funktionärs namens Dada; ob er mit dem gleichnamigen „Verwalter“ (šabra) identifiziert werden darf, der beispielsweise in Texten aus Pugdan (s. oben 10.) und Girsu/Lagaš (s. unten 17.) erscheint, bleibt ungewiss (FAOS 19, Gir 17–18, s. Kienast/Volk 1995, 88; Milano/Westenholz 2015, 25, zur Person s. oben 10.). Gelegentlich finden sich standardisierte Maße (sila$_3$ a-ga-de$_3^{ki}$, CUSAS 26, 203 Vs. 1).

Das Lugalra-Archiv dokumentiert damit die Aktivitäten einer autarken Wirtschaftseinheit in der Region Lagaš, die Landwirtschaft und Viehzucht betrieb, von der Provinzverwaltung von Girsu/Lagaš unabhängig agierte, durch einen Funktionär der Königin verwaltet wurde und somit der Krone unterstand.

14. Das Šuilišu-Archiv aus Maškanili’akkade

Aus Maškanili’akkade (Umm-el-Hafriyat), einer Gründung der späteren Regierungszeit des Naramsin ca. 25 km östlich von Nippur (Milano/Westenholz 2015, 15),[28] stammt das sogenannte Šuilišu-Archiv (grundlegend Milano/Westenholz 2015, bes. 13–48, ferner Gibson 1978; 1982; Westenholz 1984a, 23 Anm. 18; Biggs 1989; Westenholz 1995, 536; 1999, 50 mit Anm. 167; Visicato/Westenholz 2006, 16; Westenholz 2010, 458–460). Es umfasst ca. 220 Texte aus der Zeit des Šarkališarri (Milano/Westenholz 2015, 16) und enthält hauptsächlich Verwaltungsurkunden, aber auch rund 20 Briefanweisungen, ebenso viele Texte juristischen Inhalts und einen literarischen Text (Biggs 1989). Die Texte sind zu 95 % in akkadischer Sprache verfasst, zeigen nur selten ein Nebeneinander akkadischer und sumerischer Phrasen (Westenholz 2010, 458; Milano/Westenholz 2015, 16) und dokumentieren ein mehrheitlich akkadisches Onomastikon (Milano/Westenholz 2015, 303–318). Sie stammen aus einer

27 Kienast/Volk (1995, 87) und Westenholz (2014, 148) identifizieren den in der Briefanweisung FAOS 19 Gir 17 genannten Amarsi mit dem gleichnamigen „Hauptmann“ (NU-banda$_3$), der im ensi$_2$-Archiv von Girsu/Lagaš als Kommandant von „(Arbeits-)Truppen“ erscheint (Schrakamp 2006, 161–163); da die Briefanweisung keinen Titel nennt, die Texte des ensi$_2$-Archivs von Girsu/Lagaš mehrere Träger dieses Namens bezeugen und dies die einzige nachweisbare Verbindung zwischen dem ensi$_2$-Archiv von Girsu/Lagaš und dem Lugalra-Archiv darstellen würde, bleibt diese Identifikation unbewiesen. Dem ensi$_2$-Archiv von Girsu/Lagaš zugeordnet wird auch die in sargonisch-akkadischer Sprache verfasste Lieferung von Fetten CT 50, 51; diese Urkunde ist jedoch prosopografisch an das Lugalra-Archiv anzuschließen, s. Limet 1973, 16; Farber 1975, 119.

28 Der Name Maškanili’akkade bedeutet „Siedlung des Gottes von Akkade“, bezieht sich damit auf den vergöttlichten Naramsin und weist diese Ortschaft als Neugründung dieses Königs aus.

Wirtschaftseinheit, die über Ackerland und Vieh verfügte, schätzungsweise 400 Personen in Landwirtschaft, Viehzucht, Fischerei und Handwerk beschäftigte, versorgte und durch den „Schreiber“ (dub-sar) Šuilišu und einige weitere Funktionäre verwaltet wurde.[29] Das Ackerland war in verschiedene Distrikte (agar$_4$) untergliedert, wurde durch „Bauern“ (engar) kultiviert, die feste Lieferungsverpflichtungen zu erfüllen hatten und durch Getreidezuteilungen versorgt wurden (CUSAS 27, 13, 69, 70), und wurde als Subsistenz- (aša$_5$ šuku) und Pachtland (apin-la$_2$) vergeben (Banca d'Italia 1, 220 = CUSAS 27, 10; CUSAS 27, 1; CUSAS 27, 13, s. Milano/Westenholz 2015, 18). Briefanweisungen auswärtiger akkadischer Funktionäre erwähnen „königliches Domänenland“ (aša$_5$-gud lugal, CUSAS 27, 61 Vs. 4, s. Milano/Westenholz 2015, 21) und nennen einen „königlichen Majordomo“ (šabra e$_2$ lugal, CUSAS 27, 65 Vs. 8–9) im Zusammenhang mit einer Feldflur (agar$_4$ maš-da-lu-gal, CUSAS 27, 65 Vs. 4, s. Milano/Westenholz 2015, 21, 35 f.), aus der nach einer fragmentarischen Urkunde Felder von wenigstens 223 Iku bzw. rund 79 ha zur Versorgung (šuku) an Beamte wie den „Schreiber“ (dub-sar) Šuilišu (27 Iku bzw. ca. 9,5 ha), den „Katasterleiter“ (sa$_{12}$-du$_5$) Imi'ilum und zur Pacht bzw. Bearbeitung (eš$_2$-gar$_3$) an „Bauern“ (engar) vergeben wurden (CUSAS 27, 1, 2, 8, s. Milano/Westenholz 2015, 21, 28, 35 f.). Auf dieser Flur befanden sich einer Briefanweisung zufolge auch Felder einer ereš-diĝir-Priesterin (aša$_5$ ereš-diĝir, CUSAS 27, 58 Vs. 5), in der man eine Prinzessin vermuten darf, und vielleicht die Liegenschaften eines Inanna-Heiligtums (CUSAS 27, 65 Vs. 6, zu weiteren saĝĝa „Tempelverwaltern“ in CUSAS 27, 119, 125, 126, 162 s. Milano/Westenholz 2015, 20). Als Absender der Briefanweisungen erscheinen ein „Oberschreiber“ (dub-sar maḫ, CUSAS 27, 58) sowie eine Person namens Sikkur. Sikkur wird vorbehaltlich mit dem Funktionär Sikkurkin identifiziert, der aus dem ensi$_2$-Archiv von Girsu/Lagaš als Mitglied der königlichen Entourage bekannt ist (s. unten 17.). Imi'ilum, der „Katasterleiter des Sikkur“ (sa$_{12}$-du$_5$ *zi-gur*), erscheint mehrfach als Adressat (CUSAS 27, 61–65, s. Milano/Westenholz 2015, 23). Die Urkunden erwähnen ferner ein „königliches Haus der Mahlmägde“ (e$_2$ geme$_2$-kikken lugal, CUSAS 27, 110 Vs. 4), „Bauern des Gottes von Akkade“, „Bauern der Königin“ (engar diĝir a-ga-de$_3^{ki}$, engar nin, CUSAS 27, 201 Vs. 10, Rs. 4–5), ordnen ihr große Getreidemengen zu und deuten an, dass Maškanili'akkade Lieferungsverpflichtungen gegenüber der Krone zu erfüllen hatte (CUSAS 27, 112, s. Milano/Westenholz 2015, 21). Das Königshaus verfügte demnach auch in Maškanili'akkade über Grundbesitz. Die enge Anbindung der Institution an die Krone belegen ferner zahlreiche Belege für königliche Bedienstete. Neben dem „Majordomo des Königs“ (šabra e$_2$ lugal, s. oben 14.) erwähnen die Texte einen „Handelsbeauftragten des Königs“ (dam-gara$_3$ lugal, CUSAS 27, 194 Vs. 18), einen Bediensteten eines Prinzen (*šu* dumu lugal, CUSAS 27, 198 Rs. 2, s. Milano/Westenholz 2015, 21) und einen „Verwalter“ der Prinzessin Tuttanabšum (šabra *tu-da-na-ab-šum*, CUSAS 27, 147 Vs. 2–3, zur Person s. Michalowski 1981; Westenholz/Westenholz 1983; Weiershäuser 2008, 256–259; Milano/Westenholz 2015, 21, zum Namen s. Sommerfeld 2011a, 290–292). Eine Urkunde belegt schließlich eine königliche Reisestation in Maškanili'akkade (CUSAS 27, 155, vgl. CUSAS 27, 152, s. Milano/Westenholz 2015, 22, 212, s. unten 17.). Darüberhinaus erscheinen weitere Untergebene und Bedienstete des Herrscherpaares (ir$_{11}$ lugal, ir$_{11}$ nin, *šu* nin) als Empfänger von Rationen, von Darlehen und als Zeugen (CUSAS 27, 126 Rs. ii 8, 172 Rs. 6, 174 Rs. 5, 196 Vs. 2, 197 Rs. 2, 201 Vs. 10–11, 205 Rs. 4, s. Milano/Westenholz 2015, 20).

Schließlich erwähnen die Texte eine Reihe weiterer ranghoher königlicher Beamter, von denen einige auch in anderen Archiven bezeugt sind. Zunächst nennen die Urkunden vier „Generäle“ (šagana) namens Idi'ilum, Puzureštar, Nannum und Ubarum. Idi'iIum erscheint in einer Urkunde, die auf eine königliche Visite Bezug nimmt (CUSAS 27, 155, s. Milano/Westenholz 2015, 22). Puzureštar (CUSAS 27, 193 Rs. ii 6) wurde laut Datenformeln von Šarkališarri mit dem Neubau des Enlil-Tempels Ekur in Nippur (s. unten 22.) betraut (Glassner 1986, 11 Anm. 32; Westenholz 1987, 28; Cripps 2010, 19; Schrakamp 2010, 205; Milano/Westenholz 2015, 16, 22). Die Generäle Ubarum und Nannum

29 Milano/Westenholz (2015, 19) zählen neben Šuilišu eine Reihe weiterer Funktionäre zu den Spitzen dieser Institution und machen keine deutliche Leitperson aus. Šuilišu erscheint in Zuweisungen von Feldern und Zuteilungen von Getreide jedoch häufig an erster Stelle. Dies deutet an, dass er der zentrale Funktionsträger der Institution war.

erscheinen als Empfänger von Kleinvieh, Brot und Bier; letzterer inspizierte Tafeln des Šuilišu und war ihm gegenüber offenbar weisungsbefugt. Milano/Westenholz identifizieren ihn zugleich mit einem der vier ephemeren Thronprätendenten, die laut der Sumerischen Königsliste nach dem Tode Šarkališarris für drei Jahre um das Königtum rangen (CUSAS 27, 78 Vs. 13, 154 Rs. 1–3, s. Milano/Westenholz 2015, 22).[30] Eine Rechtsurkunde erwähnt einen Boten des bekannten „*Musterungsoffiziers*“ Ilumdan (s. oben 13., unten 17., 21.) (lu$_2$ kiĝ$_2$-gi$_4$-a diĝir-kal *ši*-gal$_5$-la$_2$, CUSAS 27, 194 Rs. 15–16, s. Milano/Westenholz 2015, 22), Naḫšumšanat erscheint auch in Verwaltungstexten aus Nippur (s. unten 21.) und ist aus Texten des ensi$_2$-Archivs von Girsu/Lagaš (s. unten 17.) als „Majordomo der *Werkstatt*“ (šabra [e$_2$] ĝeš-kiĝ$_2$-ti, RTC 127 Rs. v 20–22) und Mitglied der königlichen Entourage bekannt (CUSAS 27, 148 Vs. 7, 193 Vs. i 2, zur Person s. Westenholz 1987, 26 Anm. 28, 94 f.; Milano/Westenholz 2015, 16, 34, 47, 247). Einige dieser Funktionäre werden als „(Untergebene) des Gottes von Akkade“ (*šu* bzw. *šu-ut* diĝir a-ga-de$_3^{ki}$) bezeichnet, was die Bindung an das Königshaus zusätzlich unterstreicht (CUSAS 27, 148 Vs. 25, 201 Rs. 5, 202 Rs. 3, 203 Vs. 9, 205 Rs. 2, 206 Rs. 14, s. Milano/Westenholz 2015, 20). Schließlich dokumentieren die Texte sporadische Kontakte mit verschiedenen anderen Städten, wobei aber die nahegelegenen Provinzzentren Adab und Nippur die Mehrzahl der Belege liefern (Milano/Westenholz 2015, 22, 322).

Die Texte aus Maškanili'akkade dokumentieren somit die Aktivitäten einer Institution, die auf Landwirtschaft und Viehzucht basierte, königlichen Grundbesitz bewirtschaftete, sich durch eine starke Präsenz ranghoher königlicher Beamter auszeichnete, von den Provinzverwaltungen der nahegelegenen Zentren Adab, Irisaĝrig/Alšarraki und Nippur unabhängig agierte und von Gefolgsleuten der Krone verwaltet wurde.

15. Die Funktion königlicher Domänen des sumerischen Südens

Die Funktion der Institutionen, denen die drei oben vorgestellten Archive zuzuordnen sind, ist umstritten. Westenholz vermutet zunächst, dass die von Sargon begründete Praxis, „Söhne von Akkade“ als Stadtfürsten im sumerischen Süden einzusetzen (s. oben 6.), nach den Revolten gegen Rimuš als gescheitert galt und man in der Folgezeit stattdessen Zentren im Umland der Provinzhauptstädte errichtete, die Abgaben erhoben und die Kontrolle über den Süden aufrechterhielten, während man den Provinzhauptstädten eine gewisse Unabhängigkeit gewährte (Westenholz 1984b, 80 f.; 1999, 50). Wie diese Institutionen ihre Kontrollfunktion ausübten, lässt Westenholz allerdings offen (Westenholz 1987, 96; 1999, 50). Nach der Veröffentlichung des Šuilišu-Archivs revidieren Milano/Westenholz (2015, 23 f., 27) diese Auffassung. Sie datieren die Texte aus den Archiven des Mesag, Lugalra und Šuilišu zunächst in die Zeit des Šarkališarri (ca. 2230–2181 v. Chr.) und weisen darauf hin, dass sich diese Archive durch die Verwendung des Akkadischen, die wirtschaftliche Autarkität der zugehörigen Institutionen, das Fehlen von Interaktionen mit den Verwaltungen der lokalen Stadtfürsten und die Einbindung in ein Netzwerk akkadischer Funktionäre auszeichnen, ohne aber Funktion und Zweck dieser Institutionen näher bestimmen zu können (Milano/Westenholz 2015, 27).[31]

Diese Auffassung lässt sich im Hinblick auf die Funktion dieser Institutionen präzisieren. Nach dem Überblick über die Archive des Mesag, Lugalra und Šuilišu ist in Anlehnung an Foster (2015, 16; 2016, 90–92) die Verwaltung und Bewirtschaftung

30 Der klassisch-sargonische Brief aus Umma MCS 9, 252 (FAOS 19 Um 5, s. Cripps 2010, 109 f. Nr. 39; Schrakamp 2013b, 159 Nr. 39) erwähnt einen Funktionär namens *ir*$_3$-*gi*$_4$-*gi*$_4$, der ebenfalls mit einem der Thronprätendenten der Sumerischen Königsliste identifiziert wird, s. Foster 1993b, 182; Westenholz 1999, 57; Steinkeller 2003, 283 mit Anm. 8; Wilcke 2007, 38 Anm. 75, 165; Cripps 2010, 110; Pomponio 2011, 228; Sallaberger/Schrakamp 2015a, 118.

31 In diesem Zusammenhang ist zu betonen, dass Westenholz (1999, 50 mit Anm. 167) und Milano/Westenholz (2015, 23–27) neben den Mesag-, Lugalra- und Šuilišu-Archiven auch die Texte des sogenannten Semitic Quarter von Adab berücksichtigen. Hierbei handelt es sich um eine kleine Gruppe von Urkunden und Briefen in akkadischer Sprache, die anders als die zuvor genannten Archive nicht aus dem Umland eines urbanen Zentrums, sondern aus einem Wohngebiet der Provinzhauptstadt Adab selbst stammen und unter anderem die Korrespondenz des Puzureštar, eines akkadischen Funktionärs in Adab, umfassen. Im Hinblick auf Herkunft, Archivzusammenhang und Funktion sind diese Texte jedoch mit den oben genannten Archiven nicht zu vergleichen, s. dazu die Beschreibungen bei Yang 1988, 8 f.; 1989, 122, 270 f.; Westenholz 1993, 159; Kienast/Volk 1995, 54; Wilson 2012, 53–63; Milano/Westenholz 2015, 24 f.; Foster 2016, 67 f.

von königlichem Grundbesitz als die eigentliche Funktion der durch diese Textgruppen dokumentierten Institutionen zu bestimmen. Sie erfolgte im Rahmen einer tributären, „nordbabylonischen" Wirtschaftsweise, wie sie beispielsweise in Pugdan bezeugt ist (s. oben 10.); sie minimierte Ertragsrisiko und Kosten für die Krone und basierte auf der Vergabe von Ländereien an lokale Beamte wie den „Schreiber (und) Katasterleiter" (dub-sar sa$_{12}$-du$_5$) Mesag, den „Katasterleiter der Königin" (sa$_{12}$-du$_5$ nin) Lugalra oder den „Schreiber" (dub-sar) Šuilišu. Foster (2011, 130) vermutet eine Anspielung auf die Funktion der „Katasterleiter" in der Dichtung „Fluch über Akkade" (s. oben 2.), nach der Stadtfürsten (ensi$_2$), Tempelverwalter (saĝĝa) und Katasterleiter (sa$_{12}$-du$_5$) Abgaben in die Hauptstadt zu schicken hatten (Cavigneaux 2015, 323). Briefanweisungen auswärtiger Würdenträger und die starke Präsenz königlicher Beamter zeigen, dass diese lokalen Funktionsträger in ein Netzwerk ranghöherer weisungsbefugter Funktionäre wie Iškundagan oder anderer „Majordomos" (šabra e$_2$) eingebunden waren. Der Gebrauch der akkadischen Verwaltungssprache und -praxis, die typisch akkadischen Tafelformate und ihre Lokalisierung im Umland der Provinzhauptstädte weisen diese Institutionen als Neugründungen und Fremdkörper im sozioökonomischen Gefüge des Südens aus. Das weitgehende Fehlen von Interaktionen mit den Provinzverwaltungen der sumerischen Stadtfürsten bezeugt nicht nur die Unabhängigkeit dieser Wirtschaftseinheiten, sondern deutet zugleich auf eine strikte Trennung der königlichen und der lokalen Wirtschaftsverwaltung auf Provinzebene.

Damit teilen die Wirtschaftseinheiten von Mesag, Lugalra und Šuilišu zentrale Merkmale mit ländlichen Siedlungen im Hinterland der urbanen Zentren, die den Herrschern der III. Dynastie von Ur zur Verwaltung von königlichem Grundbesitz dienten (Steinkeller 2007; 2013b, 353–361). Diese Siedlungen besaßen oft kyriophore Namen wie iri-^{d}sul-ge-sipa-kalam-ma „Stadt: (König) Šulgi ist der Hirte des Landes", Alšusuenre'iniši „Stadt: (König) Šusin ist der Hirte der Menschen" oder akkadische Namen mit Elementen wie *maškanum* „Ort, Siedlung" oder *uṣārum* „Pferch" und geben sich damit als Neugründungen zu erkennen. Sie unterstanden königlichen „Generälen" (šagana), beschäftigen und versorgten „(königliche) (Arbeits-)Truppen" (eren$_2$) und kontrollierten einen Großteil des königlichen Grundbesitzes, dessen Verwaltung Kronfunktionären wie „Majordomos" (šabra e$_2$), „Verwaltern" (šabra), „königlichen Schreibern" (dub-sar lugal) und „Katasterleitern" (sa$_{12}$-du$_5$) oblag. Interaktionen mit den Provinzverwaltungen bzw. der Wirtschaft der jeweiligen „Stadtfürsten" (ensi$_2$) sind nur im Rahmen königlicher Bauprojekte nachzuweisen, für die neben „(königlichen) (Arbeits-)Truppen" auch die Provinzaufgebote der Stadtfürsten mobilisiert wurden. Die Akkade-zeitlichen Domänen im sumerischen Süden dürfen daher als Vorläufer dieser Siedlungen angesehen werden.[32]

Manche Gelehrte betrachten die Eingriffe in das Bodenregime und Wirtschaftsgefüge Sumers als einen Auslöser für die „Große Revolte" gegen Naramsin um 2230 v. Chr. (s. unten 22.), jedoch datieren Milano/Westenholz (2015, 24) die Texte der Mesag-, Lugalra und Šuilišu-Archive in die Zeit des Šarkališarri. Aufgrund des Namens „Siedlung des Gottes von Akkade" betrachten sie Maškan'iliakkade allerdings als eine von Naramsin nach der Niederschlagung der Revolte und seiner anschließenden Vergöttlichung gegründete Niederlassung (Milano/Westenholz 2015, 15, s. unten 22.). Dies könnte andeuten, dass die Etablierung landwirtschaftlicher Domänen in Sumer früher in Angriff genommen wurde als Milano/Westenholz (2015, 24) vermuten; auf den hohen Anteil gemischt sumerisch-akkadischer Texte als Indiz für eine frühere Datierung des Mesag-Archivs (Markina 2012, 172) wurde bereits hingewiesen.[33] Zwei jüngst veröffentlichte Naramsin-Datenformeln aus dieser Textgruppe bestätigen diese Annahme (RBC 2631 Rs. ii 15–16; RBC 2664 Rs. 5–8, s. Salgues 2011, 254, 259 f., 268 f.; Sallaberger/Schrakamp 2015a,

32 Hinweise auf die Präsenz von akkadischem Militär sind allerdings auf sporadische Erwähnungen von Soldaten und Offizieren in Maškanili'akkade beschränkt. Neben den unter 14. erwähnten „Generälen" (šagana) nennen die Texte vereinzelte „königliche Soldaten" (aga$_3$-us$_2$ lugal), „Bogenschützen" (^{ĝeš}bana, *šu-ut* ti (?)), „Bewaffnete" (*šu* ^{ĝeš}tukul) und „Bogenmacher" (zadim ^{ĝeš}bana), s. CUSAS 27, 48 Rs. iii 3–4, 58 Rs. 3, 137 Rs. 7, 193 Rs. ii 2, 194 Vs. 16–17, 198 Vs. 5, vgl. zu diesen Termini Schrakamp 2010.

33 Eine Datierung des Mesag-Archivs auf Naramsin ergibt sich nach Salgues (2011, 254 Anm. 8, 260 Anm. 45) außerdem aus der unveröffentlichten Urkunde RBC 2676a; sie erwähnt einen ensi$_2$ namens Urutu, der nach der Briefanweisung FAOS 19 Gir 26 (s. oben 6.) ein Zeitgenosse des Naramsin war.

46). Eine Datenformel kommemoriert Naramsins Feldzug gegen Subir und könnte daher aus der Zeit vor der „Großen Revolte“ datieren (vgl. Sallaberger 2007, 428). Salgues (2011, 259 f.) und Sallaberger/Schrakamp (2015a, 46) vermuten jedoch, dass es sich hierbei um eine Variante eines aus Pugdan bekannten Jahresnamens handelt, der sich auf einen Feldzug nach der „Großen Revolte“ bezieht (AIA 8 Rs. i 9–11, s. Sallaberger 2007, 428; Salgues 2011, 259 f.). Dafür spricht nicht nur die zweite Datenformel des Mesag-Archivs, die Naramsins Armanum-Feldzug kommemoriert, der laut der zugehörigen Inschrift (FAOS 7 Narāmsîn C 5 = RIM E2.1.4.26) nach der „Großen Revolte“ stattfand (RBC 2664 Rs. 5–8; für eine mögliche Variante in MAD 5, 76 Rs. 1–3 aus Pugdan s. Foster 1983b, 174; Sallaberger/Schrakamp 2015a, 48, zur Datierung Sallaberger 2007, 429), sondern auch der Umstand, dass die auf das Jahr von Naramsins Subir-Feldzug datierte Urkunde aus Pugdan und Texte aus dem Mesag-Archiv einen ensi$_2$ namens Kinumupi erwähnen (AIA 8 Rs. ii 10–11; RBC 2661//RBC 2679, s. Salgues 2011, 260 Anm. 45). Die Errichtung landwirtschaftlicher Domänen in Sumer lässt sich damit zwar bereits in die Zeit des Naramsin datieren; dass derartige Institutionen schon vor der „Großen Revolte“ bestanden, ist bislang aber nicht zu beweisen (vgl. oben 7.).

Die Vergabe von Land an Funktionsträger erzeugte gleichzeitig Loyalitäten, die den Zugriff auf die Provinzverwaltungen vereinfachten. Zu Beginn der Regierungszeit des Šarkališarri (2205–2181 v. Chr.) übernahm Mesag das Amt des „Stadtfürsten“ (ensi$_2$) von Umma (s. unten 18.), womit ihm die Verwaltung der gleichnamigen Provinz oblag; seine Einbindung in das königliche Patronagenetzwerk bedeutete den direkten Zugriff der Krone auf einen Verwaltungsapparat, der noch in hohem Maße traditionellen Strukturen verhaftet war, wie nachfolgend zu zeigen ist.

16. Die Provinzverwaltung in klassisch-sargonischer Zeit

Das Reich war in Provinzen unterteilt, die meist den traditionellen Stadtstaaten entsprachen und von „Stadtfürsten“ (ensi$_2$) verwaltet wurden, die sich als „Diener“ (ir$_{11}$) des Königs bezeichneten (grundlegend Foster 1993a, 28 f.; Wilcke 2007, 32–35; Sallaberger 2006–08, 35–37; Foster 2016, 40 f.; zur Provinzeinteilung s. Sallaberger/Schrakamp 2015a, 106 Map 8, 111 Map 10, s. oben *Abb. 3*). Die Provinzen des Nordens befanden sich unter direkter Kontrolle des Herrscherhauses; zur Zeit des Naramsin (2261–2206 v. Chr.) bzw. Šarkališarri (2205–2181 v. Chr.) amtierten in Pugdan (s. oben 10.), Marada, Tutub und Ešnunna Königssöhne als „Stadtfürsten“ (ensi$_2$) (Foster 1982a, 37, 40 Anm. 24; Westenholz 1984b, 80; Glassner 1986, 12 Anm. 35; Westenholz 1993, 161 mit Anm. 13; 1999, 64 Anm. 278 f.; Sommerfeld 1999, 36; 2011b, 89). Wichtige Städte wie Gasur, das eine große agrarische Wirtschaftseinheit beherbergte (s. die Angaben unter 12.), unterlagen ebenfalls königlicher Kontrolle. Die Verwendung der sargonisch-akkadischen Verwaltungssprache und -schrift (Sommerfeld 1999, 7–13; 2003, s. oben 9.), standardisierter Maße, ein intensiver Verkehr von Gütern und Personen, die Präsenz von königlichen Funktionären, Angehörigen der Herrscherfamilie und Visiten des Königs selbst (s. die Angaben unter 17.) dokumentieren eine auf die Hauptstadt ausgerichtete Zentralisierung.

Die Verwaltung des sumerischen Südens stellt sich demgegenüber anders dar. Dies sollen nachfolgend Texte aus den ensi$_2$-Archiven von Girsu/Lagaš und Umma (s. unten 17.–19.) sowie zwei Archive aus Nippur (s. unten 20.–22.) veranschaulichen.

17. Das klassisch-sargonische ensi$_2$-Archiv von Girsu/Lagaš

Als erstes Beispiel eines Provinzarchivs soll das ensi$_2$-Archiv von Girsu/Lagaš herangezogen werden. Es umfasst rund 3800 Texte aus der Zeit des Naramsin und Šarkališarri, von denen nur ein Teil veröffentlicht ist (Westenholz 1984a, 21 f. Anm. 18; Sommerfeld 2015a, 251 f.; 2015b, 275 f.). Der größte Teil der Texte besteht aus Verwaltungsurkunden. Daneben enthält das Archiv auch offizielle Korrespondenz des Stadtfürsten, Rechtsurkunden und Texte, die der Schreiberausbildung dienten (grundlegend Foster 1982a, 17 f.; 1982c, 11–26; Westenholz 1984a, 18–23; Visicato 2000, 124–128, ferner Foster 1977, 36; 1982a, 17–44; 1982f; 1982g; 1993a; 1993b, 176; Volk/Kienast 1995, 66–119;

Visicato 2000, 124–176; Schrakamp 2006; Sommerfeld 2006b; Foster 2010b; Schrakamp 2015a, 237–248; Sommerfeld 2015a; 2015b; Foster 2016, 70–72). Die Texte sind überwiegend auf Sumerisch abgefasst, das mit 83 % gegenüber 13 % akkadischen Namen auch das Onomastikon deutlich dominiert (Foster 1982j, 299), jedoch finden sich auch Texte, die in der sargonisch-akkadischen Verwaltungssprache und Kanzleischrift (s. oben 9.) abgefasst sind (Foster 1999/2000, 254; Sommerfeld 2012, 210 f.). Das Archiv dokumentiert sämtliche Bereiche von Wirtschaft und Verwaltung. Dabei betreffen nach der Statistik von Foster (1982c, 11; 2016, 71) 29 % der Texte Nahrung (Mehl, Brot, Bier, Fische, Schildkröten, Vögel, Eier, Gewürze und Aromata, Früchte und Nüsse, Molkereiprodukte), 22 % die Verwaltung von Personen, 16 % Groß- und Kleinvieh (Schweine, Schafe, Ziegen, Rinder, Equiden sowie Häute), 13 % Handwerk und Handwerksprodukte (Hölzer und Holzobjekte, Edel- und Halbedelsteine sowie Edelmetalle und Metalle, Rohr, Textilien, Garne, Ziegel, Töpferwaren, Haushaltsartikel, Werkzeuge, Bitumen, Seifen, Alkali, Salz usw.), 6 % Getreide und 4 % Felder. 4 % der Texte sind Briefanweisungen, Bullen, Tafelkorbetiketten und unbeschriftete Tafeln, weitere 4 % Schul- und lexikalische Texte, 2 % betreffen rechtliche Belange oder den (Fern-)Handel. Nach Visicato (2000, 125–127) dokumentieren 22,0 % der Texte die Mobilisierung von Personen, 13,5 % Zuteilungen von Brot, Bier und regelmäßige Lieferungen, 11,5 % Kleinvieh, 7,0 % Metalle, d. h. Silber, Gold, Bronze, Kupfer und Preziosen, 6,2 % Gerste, 6,0 % Fisch, 5,5 % Ackerland, 4,5 % Großvieh und Schweine, 3,5 % Mehl sowie 3,0 % Wolle und Kleidung (vgl. Westenholz 1984a, 19 f., 26). Die Institution verwaltete ausgedehnte Liegenschaften an Ackerland (Foster 1982a, 17–45), konnte auf Personal und Ressourcen der verschiedenen, von „Tempelverwaltern“ (sa$\hat{g}$ga) geleiteten Heiligtümer der Provinz zurückgreifen (z. B. L.1125 = STTI 7, s. Schrakamp 2006, 163, 164, 165, 172; 2010, 91 f., 337 f., vgl. Westenholz 1984a, 20 Anm. 14) und für Arbeits- und Wehrdienst „(Arbeits-)Truppen“ (sur_x) mobilisieren, deren Umfang auf wenigstens 5000 Mann geschätzt wird, vermutlich aber deutlich höher lag (Visicato 2000, 129 f. Anm. 114; Schrakamp 2006, 161–163; 2010, 90 f., 147). Das Archiv zeigt einen ausgedehnten geografischen Horizont, der einen intensiven Verkehr von Gütern und Personen im gesamten Reichsgebiet dokumentiert und verdeutlicht, dass Girsu im Austausch mit den östlich und südlich gelegenen Regionen in Iran und der Golfregion eine zentrale Rolle spielte (Schrakamp 2015a, 202–204, 237–248; Foster 2016, 80–82). Zugleich erwähnen die Urkunden zahlreiche auswärtige Boten und Würdenträger, darunter die „Stadtfürsten“ ($ensi_2$) von Elam, Ešnunna, Iri’aza, Maškanpuša, Nippur, Umma, Ur, Uruk und Zabala (Schrakamp 2015a, 237 f.), sowie königliche Funktionäre, Visiten der königlichen Entourage und Reisen des Stadtfürsten in die Hauptstadt Akkade (Foster 1982a, 19 f.; Schrakamp 2015a, 238). Sie erscheint in fast 40 Texten als das am häufigsten genannte Toponym und wird unter anderem als Ziel zahlreicher Lieferungen von Gütern genannt (Sommerfeld 2014, 159–163; Schrakamp 2015a, 238 f.). Foster (1982a, 110 f.; 1985, 28 f.; 1993b, 176) vermutet in Girsu daher das administrative und wirtschaftliche Zentrum einer (unter den Akkade-Herrschern neugeschaffenen) Provinz, die weite Teile Sumers umfasste. Die Verwaltung der Institution und ihrer Ressourcen oblag dem $ensi_2$ von Lagaš.[34]

Stellung und Status der sumerischen Stadtfürsten unter Naramsin und Šarkališarri sind umstritten: Während Westenholz (1984b, 80; 1993, 161; 1999, 39) vermutet, dass die Stadtfürsten Sumers anders als in frühsargonischer Zeit (s. oben 6.) im Wesentlichen aus der Schicht örtlicher Schreiber und Funktionäre stammten und auf Provinzebene weitgehend eigenständig agierten, betrachtet sie Foster (1982d, 101–103; 1993a, 28; 2016, 40 f.) lediglich als königliche Funktionäre, die durch den Herrscher ernannt wurden und im Rahmen der königlichen Tributwirtschaft Verwaltungsfunktionen auf Provinzebene erfüllten.

Unter Naramsin und Šarkališarri amtierte Lugalušumgal als $ensi_2$ von Lagaš, der laut seiner Siegelinschriften „Schreiber“ (und) Stadtfürst von Lagaš“ ($dub\text{-}sar\ ensi_2\ lagas_x(NU_{11}.BUR)^{la.ki}$) und damit Angehöriger einer schriftkundigen Elite war (Westenholz 1974–77, 95 Anm. 1; Veldhuis 2014b, 67, 69 Anm. 107, zur Person ferner Bauer 1987–90; Volk 1992, 22 f.; Kienast/Volk 1995, 67; Westenholz

34 Zur herausragenden Bedeutung, die Girsu/Lagaš von der präsargonischen bis Ur III-Zeit hatte, s. Schrakamp 2015c, 345–347.

1999, 56 Anm. 217; Visicato 2000, 133 f.; Rohn 2011, 189 Anm. 1541; Sallaberger/Schrakamp 2015a, 108, 110; Foster 2016, 41, 213). Lugalušumgal stammte dem Namen nach aus sumerischem Milieu (vgl. Andersson 2011, 166, 401), war möglicherweise mit einem Stadtfürsten von Uruk verschwägert (Carroué 1994, 74 mit Anm. 83) und daher wohl Angehöriger der lokalen Oberschicht. Ikonografie und Typologie seiner Siegel deuten gleichzeitig an, dass Lugalušumgal dem akkadischen Königshaus loyal verbunden war (Zettler 1977; Felli 2006; Rohn 2011, 203, 217 f.), eine Urkunde aus dem Mesag-Archiv erwähnt ihn als Mitglied einer königlichen Delegation (s. oben 12.). Daher ist es gut denkbar, dass Lugalušumgal von Naramsin nach der Niederschlagung der „Großen Revolte“ um 2230 v. Chr., an der sich auch Lagaš beteiligte (s. unten 22. Anm. 50), in das Stadtfürstenamt eingesetzt wurde.[35] Die Provinz Lagaš lag demnach in der Hand eines königstreuen Gefolgsmannes.

Dass Wirtschaft und Verwaltung der Provinz in die königliche Tributökonomie integriert waren, belegen Urkunden über Landzuweisungen und Landkäufe. Landtexte erwähnen „Herrenbesitz“ (niĝ$_2$-en-na) bzw. „Domänenland“ (aša$_5$-gud), das dem Zugriff durch den „Stadtfürsten“ (ensi$_2$) unterlag und den Bedarf der zentralen Wirtschafts- und Verwaltungseinheit deckte (ITT 1, 1115, s. Foster 1982a, 29; 1982c, 12 f.). Aus diesem Bestand wurde Subsistenz- (šuku) und Pachtland (apin-la$_2$) an Personen und Personengruppen verteilt (Foster 1982a, 29, 34, 43–45, 111 f.). Der Erhalt von Ackerland zur Subsistenz war im sumerischen Süden traditionell an eine Dienstpflicht gekoppelt, die gegenüber der verausgabenden Institution zu erfüllen war. Die Landtexte aus dem ensi$_2$-Archiv von Girsu/Lagaš nennen hingegen zahlreiche auswärtige Würdenträger, deren Berechtigung zum Erhalt von Land allein aus ihrer Beziehung zum König resultierte (ITT 5, 9253; RTC 143; STTI 32; STTI 158, s. Foster 1982a, 19 f., 36–38; 1982c, 22; 1993a, 29; 2016, 39 f., 184). Als ranghöchster Landhalter erscheint Etibmer, der unter Naramsin und Šarkališarri als königlicher „Majordomo“ (šabra e$_2$) amtierte und einer der mächtigsten Funktionäre des Reiches war (zur Person Foster 1980, 31; Michalowski 1981, 173; Foster 1982a, 35 f.; 1982d, 88, 143; Glassner 1986, 30; Westenholz 1987, 94 f.; 1993, 159 f.; Sommerfeld 1999, 120; 2006a, 9 f.; Wilcke 2007, 32; Foster 2016, 43, 69, 71); er verfügte mit 420 ha über die umfangreichsten Liegenschaften (Foster 1982a, 35 f., 38; 1993a, 29; 2016, 43). Daneben finden sich ein „General“ (šagana) namens Ezira mit 190,5+x ha (L.5791 = STTI 158 Vs. 2'–4'), ein „Oberadjutant“ (gal-sugal$_7$) mit 128 ha (L.5791 = STTI 158 Rs. 2'–4'), der aus Pugdan bekannte „Verwalter“ (šabra) Dada (s. oben 10.) mit 121,5 ha (76 ha plus 45,5 ha) (L.1246 = STTI 32 Vs. 4–Rs. 1), der „Stadtfürst von Susa“ (ensi$_2$ šušin^{ki}, RTC 143 Rs. i 7–8) mit 63,5 ha, ferner der „Stadtfürst von Elam“ (ensi$_2$ elam, RTC 143 Vs. ii 7'),[36] der Sohn eines „Richters“ (di-ku$_5$, RTC 143 Vs. ii 8'–9'), ein „…“ (lu$_2$-EME, RTC 143 Rs. 6) (vgl. unten 18.) mit jeweils 31,75 ha sowie der „Stadtfürst von Ešnunna“ (ensi$_2$ išnun-na^{ki}, ITT 5, 9253 Vs. 1'–2'), der zugleich ein „Königssohn“ (dumu lugal) war (s. oben 16.). Die ereš-diĝir-Priesterin des akkadischen Titulargottes Ilaba, dessen Kult in Lagaš fremd war (L.1246 = STTI 32 Vs. 1–2), zählte mit 410 ha Land zu den Haltern der umfangreichsten Liegenschaften (Foster 1982a, 19–21; Visicato 2000, 128; Foster 2016, 43).[37]

Dabei ist zunächst bedeutend, dass die Landzuweisungen für diese Elite die der lokalen

35 Da König Naramsin in Lugalušumgals Siegelinschrift (Rohn 2011, 127 Nr. 566) den Titel „Mächtiger, Gott von Akkade“ trägt und dem Königsnamen das Zeichen DIĜIR voransteht, muss das Siegel nach Naramsins Vergöttlichung und daher nach der Niederschlagung der „Großen Revolte“ um 2230 v. Chr. angefertigt und verliehen worden sein, s. unten 22. Anm. 50. Ein Jahresdatum gilt manchen Gelehrten als Hinweis darauf, dass sich Lugalušumgal nach dem Tode Šarkališarris (?) von der akkadischen Zentralmacht lossagte (Sollberger 1954–56, 31; Glassner 1986, 44; Westenholz 1992, 45; 1999, 56 Anm. 217). Zu der von Volk (1992) begründeten Annahme, dass Puzurmama als Nachfolger des Lugalušumgal und letzter sargonischer ensi$_2$ von Lagaš amtierte und sich nach Šarkališarris Tod unabhängig machte, s. Sommerfeld 2015b, 272 f. sowie Sallaberger/Schrakamp 2015a, 110, 119.

36 Beachte, dass die „Stadtfürsten“ (ensi$_2$) von Susa und Elam akkadische Namen trugen und durch den König eingesetzt wurden, s. etwa Potts 1994, 109.

37 Foster (1982a, 107 f.) hält es für denkbar, dass auch die fragmentarische, in akkadischer Sprache verfasste Landzuweisungsurkunde MCS 9, 231 über Zuweisungen von wenigstens 647 ha Land an eine Inanna-Priesterin, bei der es sich vielleicht um eine Königstochter handelt, aus Girsu/Lagaš stammt, s. oben 10. Ein beschädigter Eintrag einer Felderliste nennt nach Foster (1982a, 20) möglicherweise „akkadische Bevollmächtigte“ ([mašk]im uri, RTC 137 Vs. i 2), die beispielsweise auch in Umma bezeugt sind, s. oben 6. und Schrakamp 2016b, 646.

Funktionäre um ein Vielfaches übertrafen. Darüber hinaus ergeben sich deutliche Parallelen zu den als „Söhne von Akkade“ bezeichneten Funktionsträgern im Maništušu-Obelisk (s. oben 8.). Weitere Parallelen ergeben sich schließlich zu denjenigen Würdenträgern, die den Herrscher nach klassisch-sargonischen Verwaltungstexten als Mitglieder der königlichen Entourage auf seinen Reisen durch das Reich begleiteten (zur Textgruppe s. grundlegend Foster 1980; Volk 1992, ferner Michalowski 1981, 173; Foster 1982a, 36; 1982d, 88, 143; Carroué 1985, 90 f.; Westenholz 1987, 94–96; Yang 1989, 215 f.; Steinkeller 1992b, 56 f.; Foster 1993a, 28 f.; Kienast/Volk 1995, 76 f.; Sallaberger 1997, 150 f. Anm. 12; Visicato 2000, 128 mit Anm. 112; 2001; Westenholz 2004, 602; Sommerfeld 2006a, 9 f.). Ein singulärer Text aus dem ensi$_2$-Archiv von Girsu/Lagaš beurkundet Abgaben von mehreren Kilogramm Gold, Rindern, Mastschafen und Lämmern an das Herrscherpaar (RTC 134 Vs. i 1–13) und königliche Funktionäre wie Etibmer, den „Majordomo“ (šabra e$_2$), Šarrutab, Beliqarrad, Puzursin und Dada (RTC 134 Vs. i 14–Rs. i 16). Die ausführlichste Urkunde stammt aus demselben Archivkontext (CT 50, 172 = CUSAS 26, 174, ähnlich Foster 1980, 40 f. L.4699; ITT 1, 1472; RTC 127). Sie verzeichnet Ausgaben für das Herrscherpaar sowie rund 50 Angehörige des Hofstaates. Da Abfolge und Umfang der Aufwendungen offensichtlich die Hierarchie des Hofes widerspiegeln, darf diese bedeutende Urkunde als die zentrale Quelle zum Organigramm des Reiches in klassisch-sargonischer Zeit angesehen werden (vgl. Sommerfeld 2006, 9). Die Aufstellung beginnt mit Ausgaben für das Herrscherpaar (CT 50, 172 = CUSAS 26, 174 Vs. i 1–6). Genannt werden im Folgenden ein anonymer „Majordomo“ (šabra e$_2$), der vielleicht mit dem „Majordomo der Königin“ Iškundagan zu identifizieren ist (CT 50, 172 = CUSAS 26, 174 Vs. i 7–8, s. oben 13.), Etibmer (CT 50, 172 = CUSAS 26, 174 Vs. i 9–10, s. oben 17.), drei Würdenträger namens Šarrutab, Beliqarrad und Puzursin (CT 50, 172 = CUSAS 26, 174 Vs. i 11–16, s. oben 17.), der „Majordomo“ (šabra e$_2$) Dada (CT 50, 172 = CUSAS 26, 174 Vs. i 17–18, s. oben 10., 13., 17.), sechs „Generäle“ (šagana, CT 50, 172 = CUSAS 26, 174 Vs. i 19–ii 11, s. Schrakamp 2010, 201), zwölf „Richter“ (di-ku$_5$, CT 50, 172 = CUSAS 26, 174 Vs. ii 12–Rs. i 2, s. Sommerfeld 2006a, 9 f.), der aus Pugdan, dem Lugalra-Archiv, aus Maškanili’akkade sowie Umma und Nippur bekannte *„Musterungsoffizier“* Ilumdan (šu-gal$_5$-la$_2$-um) (CT 50, 172 = CUSAS 26, 174 Rs. i 3–4, s. oben 10., 13., 14., unten 18., 21.), ein Funktionär namens Sikkurkin (*zi-gur*-gi) (?), der anscheinend unter der Namenskurzform Sikkur in Maškanili’akkade bezeugt ist (CT 50, 172 = CUSAS 26, 174 Rs. i 5, s. oben 14.), sowie rund 20 weitere Funktionäre, darunter ein „…“ (lu$_2$-EME) (CT 50, 172 = CUSAS 26, 174 Rs. i 15, vgl. oben 17., unten 18.), ein „Untergebener des Majordomo“ (lu$_2$ šabra e$_2$, CT 50, 172 = CUSAS 26, 174 Rs. ii 2–3) sowie Angehörige des Hofpersonals wie ein „Hauptmann der Barbiere“ (NU-banda$_3$ šu-i$_2$, CT 50, 172 = CUSAS 26, 174 Rs. ii 8–9). Dies verdeutlicht, dass die auswärtigen Landhalter des ensi$_2$-Archivs von Girsu/Lagaš zur obersten Elite des Reiches gehörten, und belegt, dass der Herrscher in der Provinz Lagaš Grundeigentum von erheblichem Umfang besaß. Ein Landtext notiert schließlich die Zuweisung von 190,5 ha Land an „königliche Baumeister“ (šidim lugal-me, RTC 143 Vs. ii 5'–6', s. Foster 1982a, 21), vielleicht im Zusammenhang mit einem herrscherlichen Bauprojekt.

Unter den lokalen Funktionären erhielten lediglich der „Tempelverwalter von Nin$_{MAR.KI}$“ (sa$_2$ĝa ^{d}nin-MAR.KI) mit 381 ha und der „Tempelverwalter des Ebabbar“ (sa$_2$ĝa e$_2$-babbar$_2^{ki}$) mit 127 ha ähnlich große Liegenschaften (L.1072 = STTI 4 Vs. i 2'–3', Rs. ii 3'–4', s. Foster 1982a, 21, 37 f.; 2016, 71 f., für einen weiteren Tempelverwalter s. L.1072 = STTI 4 Rs. i 1'–2'). Da auch die ereš-diĝir-Priesterin des Ilaba mit 410 ha ausgedehnte Liegenschaften hielt (L.1246 = STTI 32 Vs. 1–2), vermutet Foster (1982a, 38) unter Vorbehalt, dass insbesondere Kultpersonal umfangreiche Felder zugewiesen bekam. Da die Priesterin des akkadischen Titulargottes aber sicherlich zum engsten Kreis des Königs zählte, vielleicht sogar zur Familie des Herrschers (vgl. oben 8.), Kultbedienstete sonst aber nur sehr selten in Landtexten bezeugt sind (Foster 1982a, 21), ist anzunehmen, dass auch die Tempelverwalter von Utu und Nin$_{MAR.KI}$ in das königliche Patronagenetzwerk integriert waren.

Eine singuläre Urkunde aus dem ensi$_2$-Archiv von Girsu/Lagaš stützt diese Vermutung. Sie beurkundet den Kauf von 2160 Iku bzw. 762 ha Land durch König Šarkališarri (2205–2181 v. Chr.) und benennt als Empfänger einer Zahlung von Wolle und Getreide im Wert von 75 Minen bzw. 37,5 kg Silber

neben „Schreibern“ (dub-sar)[38] und ranghohen Funktionären wie „Katasterleitern“ (sa$_{12}$-du$_5$) die „Tempelverwalter“ (saĝĝa) der Götter Nanše, NinMAR.KI und des Utu-Tempels Ebabbar, denen die Leitung dieser wichtigen Heiligtümer oblag (ITT 2, 5798+5893, s. grundlegend Steinkeller 1999a, 555 f., ferner Foster 1982a, 29 f.; 1993, 29; 1994, 444; Visicato 2000, 140; Foster 2011, 130; 2016, 23).[39] Die Tempelverwalter besaßen zwar die Verfügungsgewalt (FAOS 19 Gir 23, s. Foster 1982a, 28 f.), jedoch keinerlei Eigentumsrechte am Tempelland, das als göttliches Eigentum galt (s. oben 4.). Der Kaufpreis lag mit 2,1 Sekel Silber pro Iku Land um ein Drittel unter dem von Maništušu gezahlten Preis (s. oben 8.) und deutet damit entweder auf einen Zwangsverkauf von tempeleigenem Land an den König oder, wie Steinkeller (1999a, 556, 558) vermutet, auf eine Bestechung der involvierten Funktionäre, die durch ein offizielles Urkundenformular legalisiert wurde. Der Umstand, dass die Tempelverwalter von NinMAR.KI und Utu ähnlich umfangreiche Liegenschaften wie die Gefolgsleute des Herrschers hielten, dürfte Steinkellers Vermutung stützen. Landtexte und Landkäufe dokumentieren demnach nicht nur die Vergabe von Feldern an königliche Gefolgsleute, sondern auch die Praxis, leitende Funktionsträger des lokalen Klerus durch Zuweisung von Land in das Patronagenetzwerk des Königs einzubinden und seinem Einfluss zu unterwerfen (vgl. Steinkeller 1999a, 558; Foster 2016, 90–92) – möglicherweise im Zusammenhang mit der von Sargon eingeführten Praxis, Königstöchter in die höchsten Priesterämter einzusetzen (s. oben 6.). Die Verwendung des „akkadischen Kor“ (gur a-ga-de$_3$) zur Abmessung von Getreide und der sargonisch-akkadischen Verwaltungssprache und Kanzleischrift (Foster 1982a, 29; Steinkeller 1999a, 555 Anm. 9; vgl. Foster 1999/2000, 254; Sommerfeld 2012, 211, s. oben 9.) unterstreicht, dass der Landkauf einen wirtschaftlichen Eingriff der Krone an der Schnittstelle zwischen Provinz- und Zentralverwaltung darstellte (s. unten 18. Anm. 43 für Parallelen aus Umma). Weitere Verwaltungstexte aus den ensi$_2$-Archiven von Girsu/Lagaš und Umma (s. unten 18.) gelten als Hinweise darauf, dass Landkäufe durch den König im Süden keine Seltenheit waren (ITT 1, 1091, s. Gelb et al. 1991, 25 f.; Steinkeller 1999a, 556–558). Faktisch handelte es sich um Enteignungen, die zu Lasten der Tempel gingen, die als irdische Haushalte der Götter die ursprünglichen Besitzrechte innehatten (s. oben 4., Neumann 1992, 243 f.; Foster 2016, 90–92).

Die übrigen Landtexte erwähnen „Subsistenzfelder des Stadtfürsten“ (aša$_5$ šuku ensi$_2$-ka, ITT 1, 1115 Vs. 4) und dokumentieren, dass der Stadtfürst Zuweisungen von Subsistenz- und Pachtland an „Soldaten“ (aga$_3$-us$_2$), „(Arbeits-)Truppen“ (sur$_x$) sowie zugehörige Berufsgruppen wie Fischer, Hirten, Wäscher, Rohrarbeiter, Brauer usw. vornahm, die im Gegenzug für ihre Dienstpflicht zum Erhalt von Land berechtigt waren; sie erhielten jedoch Land in vielfach geringerem Umfang (z. B. L.4673 = STTI 144; L.5872 = STTI 166, s. Foster 1982a, 19–23, 34; 2016, 71).

Eine auffällige Ausnahme bietet eine Urkunde, die Landzuweisungen für eine als ni-is-ku bezeichnete Personengruppe notiert, deren Umfang von insgesamt 1458 Iku oder 514,5 ha (360 Iku bzw. 127 ha plus 1098 Iku bzw. 387,5 ha) selbst die Liegenschaften des Majordomo Etibmer (419 ha), der ereš-diĝir des Ilaba (410 ha) und des Tempelverwalters von NinMAR.KI (381 ha) übertraf (L.2951 = STTI 84 Vs. ii 4'–5', Rs. ii 3'–4', s. Foster 1982a, 20). Die ni-is-ku stammten ihren sumerischen Namen nach aus der lokalen Bevölkerung, wurden wie die lokalen „(Arbeits-)Truppen“ (sur$_x$) durch Zuteilungen von Lebensmitteln und Zuweisung von Feldern versorgt und verstärkten im Rahmen des Arbeits- und Wehrdienstes die Aufgebote der lokalen Arbeitstruppen, wurden aber in Verwaltungsurkunden begrifflich von diesen unterschieden. Man hat in den ni-is-ku Unfreie oder Personen von niedrigem Stand vermutet (z. B. Gelb 1957, 206; Parpola et al. 1977, 160; Michalowski 1993a, 34; Roth 1995, 271; Römer 1993, 372 Anm. 164, s. Schrakamp 2010, 143 f.). Tatsächlich handelt es sich bei ni-is-ku jedoch um einen in das Sumerische entlehnten, fast ausschließlich in der sargonisch-akkadischen Verwaltungssprache bezeugten

38 Möglicherweise handelt es sich bei dem Schreiber, von dessen Namen nur der Anfang erhalten ist, um den ranghohen Schreiber Lu'utu, der unter anderem für die Sendung von Mastrindern, Kleinvieh und Preziosen nach Akkade verantwortlich zeichnete (RTC 134 Rs. ii 10–13), zu diesem Beamten s. Visicato 2000, 140 f.

39 Ob es sich bei diesem Text um die Abschrift einer auf Stein geschriebenen Landkaufurkunde handelt, wie sie beispielsweise mit dem Maništušu-Obelisk vorliegt, ist umstritten, s. die Diskussion bei Foster 1994, 444 und Steinkeller 1999a, 555 Anm. 9.

Begriff, der als *nisqū* „Ausgewählte“ anzusetzen ist. *nisqū* fungierten bei Gericht als Bevollmächtigte, erfüllten (leitende) Funktionen in der Landwirtschaft, besaßen Sklaven und Vieh und genossen demnach relativen materiellen Wohlstand und einen gehobenen sozialen Status. Die Landtexte deuten an, dass *nisqū* Ackerland von „königlichem Boden“ (ki lugal, s. unten 18.) in einem Umfang erhielten, der den der lokalen „(Arbeits-)Truppen“ deutlich übertroffen haben dürfte. Zuweilen bildeten *nisqū* mit „königlichen Soldaten“ (aga$_3$-us$_2$ lugal) eigene Truppenabteilungen, die akkadischen Offizieren unterstanden (Schrakamp 2010, 27 f., 31 f.). Eine in sargonisch-akkadischer Verwaltungssprache und -schrift verfasste, an einen akkadischen Funktionär adressierte Briefanweisung aus dem ensi$_2$-Archiv von Girsu/Lagaš erwähnt Truppenbewegungen einer Streitmacht aus *nisqū*; in dem Absender vermutet man einen ranghohen, auswärtigen akkadischen Würdenträger, vielleicht gar den König selbst (FAOS 19 Gir 37, s. Westenholz 1993, 158 f.; Kienast/Volk 1995, 116–119; Markina 2010; Schrakamp 2010, 146). Die *nisqū* waren demnach eine Gruppe, die in der Landwirtschaft und im Militär tätig und unmittelbar dem König verpflichtet war und im Gegenzug durch hohen sozialen Status und materiellen Wohlstand entlohnt wurde, dessen Grundlage die Zuweisung königlichen Ackerlandes gebildet haben dürfte (zu *nisqū* s. ausführlich Schrakamp 2010, 143–151, ferner Foster 1981; 1982d, 85; 1986b, 50; 2016, 40).[40] Der Umstand, dass die Landzuweisung für *nisqū* auch Felder für einen „Majordomo“ (šabra e$_2$) verzeichnet, unterstreicht die Bindung dieser Gruppe an den Herrscher (L.2951 = STTI 84 Vs. i 10'–11'). Nach der Akkade-Zeit werden *nisqū* einzig im Prolog der Gesetzessammlung des Urnamma (2110–2093 v. Chr.) erwähnt, die der Begründer der III. Dynastie von Ur nach der erneuten Reichseinigung promulgierte. Er berichtet, dass *nisqū* bestimmte Kontrollfunktionen über Felder und Bewässerungskanäle innehatten und rühmt sich, diesen sozialen Missstand beseitigt zu haben (Wilcke 2002, 306 f. mit Anm. 54; 2007, 50). Dass es sich hierbei um einen von drei explizierten Missständen handelt, weist deutlich auf die privilegierte Stellung der „Ausgewählten“ des Königs hin (vgl. Selz 1999/2000, 23).

Landzuweisungen und Landkäufe aus dem ensi$_2$-Archiv von Girsu/Lagaš belegen somit, dass die Krone auch in der Provinz Lagaš über umfangreichen Grundbesitz verfügte und aus diesem Bestand Felder nicht nur an ranghohe königliche und lokale Funktionäre, sondern auch an Teile der lokalen Bevölkerung vergab und diese in das Netzwerk königlicher Patronage einband. Die Landvergabe erfolgte formal durch den „Stadtfürsten“ (*iš-de*$_3$ ensi$_2$ lagas$_x$(NU$_{11}$.BUR)$^{la.ki}$, ITT 1, 1465 Vs. 6–Rs. 2, s. Foster 1982a, 21). Dass er in Anlehnung an Foster (s. oben 17.) lediglich als ein königlicher Beamter auf Provinzebene betrachtet werden darf, der an die Weisungen der Krone und ihrer Funktionäre gebunden war, verdeutlichen neben königlichen Visiten in Girsu/Lagaš (s. oben 17.) auch Urkunden über Reisen des Stadtfürsten in die Hauptstadt (ITT 1, 1104 Rs. 9–10; ITT 2, 4690 Rs. ii 4; RTC 103 Rs. 6', s. Foster 1982c, 25 f.; Schrakamp 2015a, 238 f.) sowie beispielsweise eine in akkadischer Verwaltungssprache verfasste Briefanweisung, in der ein akkadischer Funktionär namens Šarrutab dem Stadtfürsten Lugalušumgal den Befehl zur Sendung von Textilien und Gerste im Umfang von rund 2000 hl Gerste erteilt (FAOS 19 Gir 8). Šarrutab erscheint in den oben genannten Urkunden über Ausgaben an Angehörige der herrscherlichen Entourage nach dem Herrscherpaar, dem Majordomo und Etibmer (CT 50, 172 = CUSAS 26, 174 Vs. i 11–12; RTC 134 Vs. ii 6–7) und war damit einer der mächtigsten Männer des Reiches (zur Person s. Foster 1980, 31; Kienast/Volk 1995, 77; für weitere briefliche Anweisungen akkadischer Funktionäre oder des Herrschers an den Stadtfürsten Lugalušumgal s. FAOS 19 Gir 1–9).

18. Das klassisch-sargonische ensi$_2$-Archiv von Umma (mu-iti C)

Als zweites Beispiel eines Provinzarchivs im sumerischen Süden soll das klassisch-sargonische ensi$_2$-Archiv von Umma vorgestellt werden. Es umfasst rund 270 Texte aus der Zeit des Šarkališarri (Sallaberger/Schrakamp 2015a, 38–40; Schrakamp 2015a, 266), die fast ausschließlich in sumerischer Sprache abgefasst sind; der Anteil

40 Die *nisqū* teilen damit wesentliche Merkmale mit dem RU-lugal im präsargonischen Lagaš, einer staatstragenden Schicht von „Wehrbauern“, s. Schrakamp 2010, 170–190; 2014.

akkadischer Texte liegt bei ca. 2,5 % (Foster 1982d, 80, 135 f.; Westenholz 1984b, 78–80) und deutlich niedriger als der der akkadischen Namen, die 26 % gegenüber 68 % sumerischen Namen ausmachen (Foster 1982j, 299). Die Texte verwenden das lokale mu-iti-Datierungssystem (s. oben 6.), lokale Hohlmaße wie das „sumerische Sila“ und das „DUL$_3$-Hauptkor“ (sila$_3$ eme-gi$_7$, gur-saĝ-ĝal$_2$-DUL$_3$) sowie lokale Zeichen und Zeichenformen (Foster 1982a, 80 f.; 1982d, 4 f.; Steinkeller 1987a, 190; Schrakamp 2013b, 146, 147, 150) und folgen damit der traditionellen lokalen Verwaltungspraxis. Die Urkunden betreffen alle Wirtschaftsbereiche, dokumentieren insbesondere die Verwaltung von Feldern, Getreide, Viehzucht, Arbeitskräften sowie Ausgaben von Lebensmitteln an auswärtige Personen(gruppen) und stammen aus einer zentralen Verwaltungseinheit, die dem ensi$_2$ Mesag unterstand (s. grundlegend Foster 1982d, 79–148, ferner Foster 1982a, 69–83; Westenholz 1984a, 19 f.; 1984b, 78–80; Neumann 1989, 520–524; Foster 1993b, 175 f.; Visicato 2000, 111 f.; Cripps 2010, 10–26; Schrakamp 2015a, 266–269; Foster 2016, 69 f.).[41] Die jüngere Forschung identifiziert den ensi$_2$ Mesag mit dem gleichnamigen Schreiber und Katasterleiter (s. oben 12.), der zur Zeit Naramsins eine landwirtschaftliche Domäne in der Provinz Lagaš verwaltete (zuletzt Salgues 2011, 259 f. Anm. 3; Markina 2012, 169; Sallaberger/Schrakamp 2015a, 39 f.; Foster 2016, 41).[42] Die Verwaltung der Provinz Umma und ihrer Ressourcen lag damit in den Händen eines Gefolgsmannes der Krone.

Urkunden über die Verwaltung von Feldern zeigen, dass auch die Wirtschaft von Umma fest in die königliche Tributökonomie integriert war (Foster 1982a, 69–84; 1982d, 81–89; Cripps 2010, 16–18). Sie erwähnen neben „Domänenland“ (aša$_5$ gud) eine als „königlicher Boden“ (ki lugal) bezeichnete Felderkategorie, in der man denjenigen Teil des (Einkommens des) institutionellen Landes vermutet, das dem König zukam und als Pacht- (ki lugal apin-la$_2$) oder Subsistenzland (ki lugal zi-ga) vergeben werden konnte (Foster 1982a, 78, 80–82, 111; 1982d, 86, 89, 147 f.; Westenholz 1984b, 78; Cripps 2010, 36; Schrakamp 2013b, 147, vgl. Powell 1978, 27 Anm. 33). Dass die Krone in Umma umfangreichen Grundbesitz hielt, deuten auch Verwaltungsurkunden an, die „königliche Pflüger“ (saĝ apin lugal-ke$_4$-ne) erwähnen bzw. Bilanzierungen ihrer Lieferungsrückstände durch den ensi$_2$ dokumentieren (MCS 9, 238, s. Foster 1982a, 68; Cripps 2010, 17, 46–48 Nr. 9).

Die wichtigste Bestätigung für die Annahme, dass die Krone auch in Umma über ausgedehnten Grundbesitz verfügte, bieten jedoch präsargonische Feldertexte aus dem Inanna-Tempel von Zabala, die aus der Zeit von Lugalzagesis Oberherrschaft über Sumer datieren (Sallaberger/Schrakamp 2015a, 86–90). Auch sie erwähnen neben (tempeleigenem) „Pachtland“ (apin-la$_2$) Felder von „königlichem Boden“ (ki lugal) und zählen unter anderem einen Stadtfürsten von Adab, in dem man Meskigala vermuten darf (s. oben 6.), einen Stadtfürsten von Nippur, einen lu$_2$-maḫ-Priester von Uruk sowie weitere auswärtige Würdenträger zu den Landhaltern. Ihre Berechtigung zum Erhalt von Land ergab sich nicht aus einer Dienstpflicht gegenüber dem Tempel, sondern aus ihrer politischen Abhängigkeit vom König von Uruk, der das Königtum über Sumer ausübte (Powell 1978, 27 mit Anm. 33; Sallaberger 2004, 19 Anm. 6; Marchesi/Marchetti 2011, 128 Anm. 295; Schrakamp 2013a, 453; Marchesi 2015, 147 f.; Sallaberger/Schrakamp 2015a, 86 f.; Schrakamp 2015a, 218; 2015c, 359 f.). Mit der Vergabe von tempeleigenem Land an auswärtige Würdenträger, die vom König abhängig waren, dürfen diese Urkunden als Vorläufer der Feldertexte aus dem klassisch-sargonischen ensi$_2$-Archiv von Umma gelten.[43]

41 Eine kleine Anzahl von Texten datiert aus der Amtszeit des *Šu*-DU.NI-*le*, Mesags Vorgänger im ensi$_2$-Amt, s. Foster 1982j, 345; 1982d, 154 f.; Carroué 1985, 90, 94 Anm. 22; Sallaberger/Schrakamp 2015a, 40 Anm. 138.

42 Diese bislang umstrittene Identifikation ergibt sich aus der Urkunde UTI 6, 3768, deren Unterschrift nach Kollation von E. Salgues „Mesag, Schreiber (und) Stadtfürst von Umma“ erwähnt ([me]-sag$_2$ dub-sar ensi$_2$ umma^{ki}), s. Robson/Zólyomi 2014, 190; Sallaberger/Schrakamp 2015a, 40 Anm. 147; Foster 2016, 48 Anm. 60.

43 Dass das Herrscherhaus auch in der Provinz Umma Grundeigentum besaß, bestätigt nach Steinkeller (1999a, 557 f., 565–568 Nr. 2) auch eine Feldkaufurkunde, die Parallelen zu dem oben unter 17. vorgestellten Landkauf durch Šarkališarri aus dem ensi$_2$-Archiv von Girsu/Lagaš aufweist. Sie dokumentiert den Kauf eines Feldes von 90 Iku bzw. 31,75 ha Land zum Preis von 5 Minen bzw. 2,5 kg Silber, was 3,3 Sekel Silber pro Iku und somit dem von Maništušu gezahlten Preis entspricht (s. oben 8.), nennt zwei „Verwalter“ (šabra) und einen „Landvermesser“ (gu-sur) als Verkäufer und weist diese wie der Šarkališarri-Feldkauf als „*Tempelverwalter*“ (lu$_2$ mar-za-ke$_4$-ne) aus. Da der Käufer nicht benannt wird, bleibt der Hintergrund der Transaktion unklar, jedoch hält Steinkeller (1999a, 557) die Involvierung lokaler Tempelfunk-

Auch die klassisch-sargonischen Feldertexte bezeugen die Vergabe von Land an königliche Gefolgsleute. Wie in Girsu/Lagaš erscheinen auch hier *nisqū*-Leute als Landhalter (CST 9; CST 12, s. Foster 1982a, 70, 113; 1982d, 85; 1982h, 458 f., 467 Nr. 9, 469 Nr. 12). Über die ausgedehntesten Liegenschaften verfügte der königliche „Majordomo“ (šabra e_2) Etibmer, der auch in Girsu/Lagaš umfangreiche Ländereien hielt (s. oben 17.). Eine Urkunde dokumentiert die Vermessung von 444,5 ha Land für Etibmer, was dem 200-fachen des Durchschnitts entspricht (NBC 14439 = USP 18, s. Foster 1982a, 36; 1982d, 88, 143; Westenholz 1984b, 78 Anm. 12, 80); ein teilweise paralleler Verwaltungstext notiert sogar Felder im Umfang von insgesamt 647,7 ha bzw. 1333,5 ha (CST 18, s. Foster 1982a, 36; 1982d, 88, 143; 1982h, 459, 472 Nr. 18; Westenholz 1984b, 78 Anm. 12, 80).[44] Wichtig ist zum einen, dass diese Urkunde zu den wenigen akkadischen Texten des Archivs zählt, und zum anderen, dass das Urkundensubskript zwar den ensi$_2$ Mesag erwähnt, die Feldvermessung aber durch einen „königlichen Schreiber“ (dub-sar lugal) vorgenommen wurde. Dies bestätigt, dass das akkadische Königshaus auch in Umma über ausgedehnten Grundbesitz verfügte, kennzeichnet die Zuweisung von Land für Etibmer als einen Verwaltungsvorgang an der Schnittstelle von Provinz- und königlicher Zentralverwaltung (Westenholz 1984b, 78–80; Foster 1993a, 29; Visicato 2000, 113 f.) und verdeutlicht schließlich, dass Stadtfürst auch hier als ein königlicher Verwaltungsbeamter auf Provinzebene agierte, der der Zentralverwaltung der Krone und ihrem Beamtenapparat untergeordnet war (vgl. Foster 1982a, 79; 1982d, 88; Westenholz 1984b, 78 Anm. 12; Cripps 2010, 17).

Die Folgerung, dass der ensi$_2$ ein königlicher Funktionär auf Provinzebene war, lässt sich durch weitere Verwaltungsurkunden stützen. Ein singulärer Text beurkundet die Ausgabe von rund 110.000 l Getreide, 6600 l Fisch und 630 l Öl an eine Gruppe von Arbeitskräften, Offizieren und Funktionären, die einem „General“ (šagana) unterstand und mehrere hundert „Arbeiterinnen“ (geme$_2$) und „Arbeiter“ (ĝuruš), 4 „…“ (KU.KU$_3$.GI), 36 „Zugführer“ (ugula), mehrere „Hauptleute“ (NU-banda$_3$), mehrere „Schreiber“ (dub-sar), einen „*Musterungsoffizier*“ (šu-gal$_5$:la), einen „Adjutanten“ (sugal$_7$), einen „Boten“ (sugal$_7$-KAS$_4$), einen „…“ (lu$_2$-EME) (vgl. oben 17.), einen „Arzt“ (a-zu) und einen „Beschwörer“ (maš-šu-gid$_2$-gid$_2$) umfasste (MCS 9, 233, s. Foster 1982d, 98–100, 112 f.; 1993a, 28; Cripps 2010, 93–95 Nr. 30; Schrakamp 2013b, 157 Nr. 30).[45] Foster vermutet, dass es sich hierbei um das Kontingent und den Stab eines königlichen Generals handelte, das auf der Durchreise in Umma durch den lokalen Stadtfürsten verproviantiert wurde (Foster 1982d, 98–100; 1993a, 26), Cripps erwägt einen Zusammenhang mit einem königlichen Bauunternehmen wie dem Ekur-Projekt in Nippur, das ebenfalls einen General involvierte, der königlichen Zentralverwaltung unterstellt war und durch die lokale Administration versorgt wurde (s. unten 22.) (Cripps 2010, 18–22, 93–95 Nr. 30).[46] Um denselben General handelt es sich wohl auch bei dem Offizier, der in Urkunden über Ausgaben von Brot und Bier an eine ganz ähnliche Gruppe von Offizieren und Funktionsträgern erscheint (z. B. USP 35; zur Textgruppe s. zusammenfassend Foster 1982d, 110–116; Schrakamp 2010, 203 sowie ferner Glassner 1986, 47 mit Anm. 85; Molina 1991, 139–141; Steinkeller 1992b, 51; Foster 1993c, 445; Westenholz 1995, 536).[47] Bemerkenswert sein dürfte, dass diese Texte einen höheren Anteil akkadischer Namen enthalten als die übrigen Urkunden des Archivs (Cripps 2010, 21). Dass die Verwaltung des ensi$_2$ direkt der Krone unterstand, bestätigt auch eine

tionäre, die große Fläche und den Preis für einen deutlichen Hinweis auf eine königliche Beteiligung, s. oben 17.

44 Foster (1982a, 50) ordnet diese Urkunde Girsu/Lagaš zu, jedoch weisen Westenholz (1984b, 78 Anm. 12) und Visicato (2000, 113 Anm. 57) aufgrund der Parallelen zu dem zuvorgenannten Text eine Herkunft aus dem klassisch-sargonischen mu-iti-Archiv von Umma nach.

45 Auffällig ist auch, dass die Urkunde zwar nach dem lokalen mu-iti-Datierungssystem datiert ist, aber eine Monatsdatierung nach dem semitischen Kalender trägt, der nur in akkadischen Texten verwendet wird (MCS 9, 233 Rs. 12 iti *ḫa-li$_2$-da* „Monat H.“). Zum Gebrauch des semitischen Kalenders in Texten der königlichen Zentralverwaltung in Nippur s. unten 22.

46 Denkbar wäre ein Zusammenhang mit dem für Šarkališarri bezeugten Bau am Inanna-Tempel von Zabala, s. Westenholz 2000; 2009–11, 64.

47 Der Umstand, dass die Brot-und-Bier-Texte den besagten General als Empfänger von Lebensmitteln nennen und meist an erster Stelle aufführen, widerlegt Cripps‘ Annahme, dass der General die in MCS 9, 233 notierten Ausgaben autorisierte. Steinkeller (1992b, 51) vergleicht die Textgruppe mit Ur III-zeitlichen Botentexten, jedoch zeigen insbesondere die Parallelen zu MCS 9, 233, dass dies nicht das Richtige trifft, vgl. Foster 1993c, 445.

in sargonisch-akkadischer Verwaltungssprache verfasste, an den Stadtfürsten Mesag gerichtete briefliche Anweisung zur Lieferung von Milchprodukten an den Untergebenen eines akkadischen Funktionärs. Als Absender erscheint ein anonymer „Majordomo“ (šabra e_2), in dem man Etibmer vermutet (FAOS 19 Um 2, s. Westenholz 1984b, 78; Kienast/Volk 1995, 129–131; zur Korrespondenz des Mesag s. ferner FAOS 19 Um 1, Um 3; Catagnoti 2003; Robson/Zólyomi 2014). Zu den wenigen akkadischen Texten zählt auch eine Urkunde über die Verschiffung von rund 583.200 l Gerste durch einen akkadischen „Verwalter“ (šabra) (USP 21, s. Foster 1982d, 90 f.; Westenholz 1984b, 80).

Dass Wirtschaft und Verwaltung von Umma in die königliche Tributökonomie eingebunden waren, deuten außerdem der gelegentliche Gebrauch von standardisierten Maßen wie dem „akkadischen Sila“ (sila$_3$ a-ga-de$_3^{ki}$) und dem „akkadischen Kor“ (gur a-ga-de$_3^{ki}$) an, die anders als die lokalen Maße für verarbeitete Produkte wie Mehl erscheinen und beispielsweise in den soeben erwähnten Brot-und-Bier-Texten vorliegen (Foster 1982d, 6, 102, 107, 147; Westenholz 1984b, 80). Schließlich enthält das Archiv Urkunden, die die Ausgabe von Gold-, Silber- und Bronzeobjekten, hochwertigen Textilien, Mastvieh, anderen Luxusgütern und Speisen an den Herrscher und seine Entourage dokumentieren (vgl. oben 17.) und hinsichtlich ihres Duktus zu den anspruchsvollsten Texten des Archivs zählen. Der Anlass für diese aufwändigen Geschenke mag die Inthronisation des Šarkališarri oder Mesags Einsetzung in das Amt des Stadtfürsten durch den Herrscher gewesen sein (CT 50, 52; MCS 9, 232, 247, s. Foster 1980, 36 f.; 1982d, 5, 143; Cripps 2010, 13, 113–118 Nr. 41, 42; Foster 2010a, 139; Schrakamp 2013b, 159 f. Nr. 41, 42; Sallaberger/Schrakamp 2015a, 38 f.; Foster 2016, 73).

19. Die Funktion der klassisch-sargonischen Provinzverwaltungen in Sumer

Der Überblick über die ensi$_2$-Archive von Girsu/Lagaš und Umma zeigt, dass auch die sumerischen Provinzzentren fest in die königliche Tributwirtschaft integriert waren. Die Verwaltung ihrer Ressourcen oblag den lokalen Stadtfürsten, die zwar aus der lokalen Elite stammten, aber fest in das Netzwerk königlicher Patronagen integriert, an die Weisungen ranghöherer akkadischer Funktionäre gebunden, dem Herrscher loyal ergeben waren und somit als königliche Funktionäre auf Provinzebene betrachtet werden dürfen. Charakteristisch ist dabei ein Nebeneinander von lokalen und traditionellen Verwaltungsstrukturen und Eingriffen der königlichen Zentralverwaltung, die besonders in der Verwaltung und Vergabe des königlichen Grundbesitzes, in Abgabe- und Lieferungsverpflichtungen gegenüber der Krone und der Mobilisierung von (Arbeits-)Truppen für Wehr- und Arbeitsdienst (vgl. unten 22.) deutlich wird.

20. Klassisch-sargonische Archive aus Nippur

Zuletzt sollen zwei Naramsin- und Šarkališarri-zeitliche Archive aus Nippur vorgestellt werden, das den Enlil-Tempel Ekur, das Hauptheiligtum Sumers beherbergte und daher eine besondere Bedeutung genoss (Neumann 1987, 306 f.; Westenholz 1987, 29; Selz 1992; Sallaberger 1997; Westenholz 1999, 60–65).[48]

21. Das „Onion Archive“ von Nippur

Bei der ersten Textgruppe handelt es sich um das sogenannte „Onion Archive“ (s. grundlegend Gelb 1965; Westenholz 1987, 87–98, ferner Westenholz 1984a, 23 f. Anm. 22; Foster 1989b, 361 f.; Neumann 1989, 526 f.; Steinkeller 1993b, 143–145; Westenholz 1999, 60–62; Visicato 2000, 196–198; Schrakamp 2015a, 253 f.; Foster 2016, 66). Das Archiv umfasst ca. 110 in sumerischer Sprache und lokalem Duktus abgefasste Verwaltungstexte aus der Zeit des Naramsin und des Šarkališarri. Es gehörte zu einer Institution, die dem Stadtfürsten

48 Zur Wirtschaft des Ekur-Tempels, der der Leitung des „Tempelverwalters“ (sa$\hat{g}$ga) des Enlil unterstand, von der Verwaltung des ensi$_2$ von Nippur unabhängig agierte, tausende Männer und Frauen beschäftigte und versorgte und über umfangreiches Ackerland und Kleinvieh verfügte, s. Westenholz 1984a, 23 f.; 1999, 60–62; Such-Gutiérrez 2003/1, 41–48. Die Rationenlisten, die die bedeutendste Quelle zur Wirtschaft dieses Tempels darstellen, sind bislang nur teilweise veröffentlicht.

(ensi$_2$) von Nippur unterstand, Zwiebeln und Lauch kultivierte und zu bestimmten Anlässen in großen Mengen als Delikatessen – üblicherweise im Kontext königlicher Palastarchive bezeugt (Sallaberger 2013, 244) – an hochrangige Funktionäre ausgab (Westenholz 1987, 93; 1999, 60; Brunke 2011, 223). Als Empfänger erscheinen der Gott Ninurta, lokale Funktionäre wie „Mundschenke“ (sagi), „Hausvorsteher“ (ugula e$_2$) oder der ensi$_2$ von Nippur, die zum Anlass von Reisen in die Hauptstadt Zwiebeln erhielten, und die „Tafel des ensi$_2$“ (pansur ensi$_2$-kam) (OSP 2, 114–122, 126, 129, 134, 139). Darüber hinaus erscheinen als Empfänger hochrangige königliche Funktionäre, die auch in anderen Archiven bezeugt sind. Šuaštakal, der unter Naramsin als „königlicher Majordomo“ (šabra e$_2$ lugal) amtierte, und der General Ilšuqarrad waren in den Neubau des Enlil-Tempels von Nippur involviert (s. unten 22.). Naḫšumšanat ist als ranghoher Funktionär aus Maškanili'akkade und Girsu/Lagaš bekannt (s. oben 14.,17.).[49] Bei Etibmer, Beliqarrad, Puzursin, dem „Verwalter“ (šabra) Dada und dem „*Musterungsoffizier*“ (*šugal$_5$-la-um*) Ilumdan handelt es sich um ranghohe Würdenträger, die den Herrscher laut Urkunden des ensi$_2$-Archivs von Girsu/Lagaš auf seinen Reisen begleiteten (s. oben 17.) und auch in Pugdan, dem Lugalra-Archiv, Maškanili'akkade und Umma aktiv waren (s. oben 10., 13., 14., 18.) (OSP 2, 124, 128, 130–133, 135, 137, 138). Außerdem dokumentiert das Archiv Ausgaben anlässlich der Einsetzung von Naramsins Tochter Tuttanabšum als en-Priesterin (s. oben 6.), der Heirat eines Königssohnes und einer königlichen Reisestation (vgl. oben 17.) (OSP 2, 129, 133, 135, 154, 170, 178). Zuletzt umfasst das Archiv Lieferungen für die „Tafel des Königs“ (pansur lugal), vielleicht im Zusammenhang mit einer königlichen Reisestation (Westenholz 1987, 96, s. oben 17.), das „(alte) Haus des Königs“, das „Haus der Königin“ (e$_2$ lugal, e$_2$ lugal šumun$_2$, e$_2$ nin) und einen „(alten) Palast“ (e$_2$-gal, e$_2$-gal šumun$_2$), d. h. die königliche Residenz (Westenholz 1987, 92, 96) (OSP 2, 127, 128, 132, 136, 141, 169, 170, 177, 178). Das „Onion Archive“ belegt damit nicht nur die zeitweilige Präsenz auswärtiger akkadischer Würdenträger und die Einbindung Nippurs in ein Netzwerk der wichtigsten Würdenträger des Hofes, sondern dokumentiert zugleich eine dauerhafte Präsenz von Vertretern der Königsfamilie, die sicherlich durch die herausragende religiöse und politische Bedeutung dieses Kultzentrums zu erklären ist (Westenholz 1984a, 22 f. Anm. 18; 1987, 92, 94–98; 1999, 60 f.; Schrakamp 2015a, 253 f.).

22. Das „Akkadian Archive“ von Nippur

Bei der zweiten Textgruppe handelt es sich um das sogenannte „Akkadian Archive“. Über den historischen Hintergrund unterrichtet Naramsins Inschrift über die sogenannte „Große Revolte“ um 2230 v. Chr., in deren Verlauf sich zunächst eine nordbabylonische Koalition aus Kiš, Kutha, A.HA, Sippar, Kazallu, Giritab, Apiak und einigen weiteren Orten unter der Führung eines Rebellenkönigs von Kiš und anschließend ein von Amargirid von Uruk angeführtes sumerisches Bündnis erhob, dem außer der Stadt Uruk selbst auch Ur, Lagaš, Umma, Adab, Šuruppag, Isin und Nippur angehörten (FAOS 7 Narāmsîn C 2 = RIM E2.1.4.2, s. die Neubearbeitungen durch Wilcke 1997 und Sommerfeld 2000 mit den Anmerkungen von Sommerfeld 1999, 3 Anm. 7; Westenholz 1999, 51–54; Foster 2016, 12 f., zur Datierung Westenholz 2000, 553–555; Sallaberger 2004, 29 Anm. 30; 2007, 425–431; Sallaberger/Schrakamp 2015a, 95 f., 108–110, zur literarischen Tradition ferner Tinney 1995; J. G. Westenholz 1997, 221–261; Haul 2009, 59–94). Naramsin schlug die Revolte innerhalb eines Jahres in neun Schlachten nieder; der *body count* der Besiegten summiert 95.340 Mann, darunter 2(?) „Könige“ (lugal), 13 „Generäle“ (šagana), 23 „Stadtfürsten“ (ensi$_2$) sowie 1210 „Große“ (*rabiānu*) (zur Lesung Sommerfeld 2000, 426; 2008, 232 f., zu den Zahlen vgl. oben 6.). Nach seinem Sieg ließ sich Naramsin auf den Wunsch der Bewohner von Akkade vergöttlichen (s. unten 23.) und initiierte zum Dank an die Götter ein reichsweites Bauprogramm, das auch den Enlil-Tempel Ekur in Nippur einschloss (Westenholz 2000, 553 f.).[50] Die Bauarbeiten an

49 Zur Möglichkeit, dass auch Naḫšumšanat in das Ekur-Bauprojekt involviert war, s. unten 22. Anm. 52.

50 Da die Schreiber nach der Vergöttlichung Naramsins dem Herrschernamen meist das Zeichen diĝir „Gott“ voranstellten, gilt die Schreibung mit Götterdeterminativ ^{d}*na-ra-am-*^{d}EN.ZU „(göttlicher) Naramsin“ bzw. diĝir *na-ra-am-*^{d}EN.ZU

diesem Heiligtum dokumentiert das sogenannte „Akkadian Archive“ (s. grundlegend Westenholz 1987, 21–29, ferner Westenholz 1984a, 23; Foster 1989b, 358–360; Neumann 1989, 524 f.; Durand 1993; Steinkeller 1993b, 142 f.; Sallaberger 1997, 153; Westenholz 1999, 61; Visicato 2000, 193 f.; Westenholz 2000, 553–555; Such-Gutiérrez 2003/1, 37–48; Schrakamp 2015a, 253 f.; Foster 2016, 15 f., 66). Es umfasst rund 40 Verwaltungstexte aus der Zeit des Naramsin und Šarkališarri, die neben einigen Inschriften in sekundärer Lage im Bereich des Enlil-Tempels Ekur aufgefunden wurden. Sie sind in der offiziellen sargonisch-akkadischen Verwaltungssprache und -schrift abgefasst (s. oben 9., 16., vgl. oben 17., 18.), nach dem akkadischen Kalender datiert (OSP 2, 6, vgl. oben 18. Anm. 45) und geben sich damit als Texte einer Institution der königlichen Zentralverwaltung zu erkennen (Westenholz 1987, 21–24; Visicato 2000, 193; Sommerfeld 2012, 210). Dieser Institution oblag der Neubau des Enlil-Tempels Ekur, der unter Naramsin begonnen und unter Šarkališarri abgeschlossen wurde (Steinkeller 1993b, 142; Franke 1995, 165; Westenholz 1999 52 Anm. 181; 2000, 553–555).[51] Sie unterstand dem „königlichen Majordomo“ (šabra e_2 lugal) Šuaštakal (OSP 2, 40, zur Person s. Westenholz 1987, 55, 94 f.; Molina 2014, 82) und dem „General“ (šagana) Puzureštar (s. oben 14.) bzw. dem Kronprinzen Šarkališarri, der als „Bevollmächtigter“ (maškim) erscheint (OSP 2, 16). Die Institution beschäftigte rund 400 Schmiede, Goldschmiede, Tischler, Zimmerleute und Bildhauer (OSP 2, 10, 11, 16) in einer königlichen „*Werkstatt*“ (ĝeš-kiĝ$_2$-ti, OSP 2, 9),[52] mobilisierte Arbeitskräfte aus Sippar, Kiš und Zabala oder Ur (OSP 2, 2; OSP 2, 13 Rs. i 8'–9', s. Schrakamp 2015, 255), erhielt gewaltige Lieferungen von Getreide aus Städten wie Marada (OSP 2, 3) und verfügte über eine Garnison Soldaten als Wachschutz (aga$_3$-us$_2$, OSP 2, 6). Etwa 15 fragmentarische Urkunden bezeugen, dass spezialisierte Handwerker, deren Obleute oft akkadische Namen trugen, hunderte Kilogramm Gold, Silber und Tonnen von Kupfer zu figürlichem Tempelschmuck verarbeiteten (OSP 2, 17–32, s. Westenholz 1987, 24–27; Durand 1993), und verbuchen Einzelposten von ca. 29 kg Gold, 180 kg Silber sowie 30 Lieferungen von jeweils rund 20 t Kupfer (ECTJ 51; OSP 2, 25, 31, s. Westenholz 1975b, 37 f.; 1987, 25). Als einziger lokaler Würdenträger erscheint der „Tempelverwalter“ (saĝĝa) Irinabadbi (OSP 2, 40, 41); er bezeichnet sich in seinen Inschriften jedoch als „Diener“ (ir$_{11}$) Naramsins und wurde nach der „Großen Revolte“ durch den König eingesetzt (zur Person s. Glassner 1986, 13; Westenholz 1987, 55 f.; Steinkeller 1993b, 142 Anm. 2; Such-Gutiérrez 2003/1, 44). Er stand im Rang unter dem Majordomo Šuaštakal (OSP 2, 40), erscheint in Urkunden über Getreide- und Öllieferungen und hatte demnach die Versorgung der Arbeitskräfte aus den Mitteln der Tempelwirtschaft sicherzustellen (OSP 2, 3–5). Weitere Interaktionen mit der lokalen Verwaltung sind nicht nachzuweisen, der ensi$_2$ von Nippur wird nicht einmal erwähnt.[53] Das „Akkadian Archive“ dokumentiert damit eine

mit diĝir als Wortzeichen für akkadisch *ilum* „Gott“ als Indikator für die Abfassung eines Textes nach der „Großen Revolte“ und damit als chronologischer Fixpunkt, s. Glassner 1986, 14–16; Frayne 1991, 381–383; Westenholz 1999, 47; 2000, 553; Sallaberger/Schrakamp 2015a, 108 f., zur Frage der sprachlichen Realisierung s. Westenholz 1999, 47; Sallaberger 2002, 93 Anm. 34. Westenholz (1999, 47; 2000, 553) bezweifelt allerdings, dass diese Schreibung als festes Datierungskriterium herangezogen werden darf und hält daher vor allem Schreibungen ohne Götterderterminativ für chronologisch wenig aussagekräftig. Salgues (2011, 259) schließt sich dieser Kritik mit Verweis auf Naramsin-Datenformeln aus dem Mesag-Archiv an (s. oben 15.). Molina (2014, 29 Anm. 30) verweist auf eine jüngst veröffentlichte Naramsin-Datenformel (CUSAS 20, 98), die den Herrschernamen ohne Götterdeterminativ schreibt, nach gängigem Verständnis Akkade-zeitlicher Paläografie in die frühere Regierungszeit des Naramsin datiert und mit einem Feldzug gegen Talmuš auf ein Ereignis Bezug nimmt, das Sallaberger (2007, 428) in die frühe Regierungszeit dieses Herrschers datiert.

51 Westenholz (1999, 52 Anm. 181; 2000, 554 f.) revidiert damit seinen ersten Versuch einer Rekonstruktion des historischen Hintergrundes (Westenholz 1987, 28). Die Datierung des Baus in die Zeit nach der „Großen Revolte“ um 2230 v. Chr. beruht auf der Beobachtung, dass alle Naramsin-Ziegelinschriften aus Nagar/Tell Brak im Haburgebiet, Adab, Lagaš, Nippur und Ur dem Königsnamen das Götterdeterminativ voranstellen, s. Anm. 50.

52 Zur Möglichkeit, dass diese Werkstatt durch Naḫšumšanat geleitet wurde, der in Texten aus Maškanili'akkade und dem „Onion Archive“ bezeugt und aus dem ensi$_2$-Archiv von Girsu/Lagaš als „Hausverwalter der *Werkstatt*“ (šabra e_2 ĝeš-kiĝ$_2$-ti) bekannt ist (RTC 127 Rs. v 20–22, s. oben 14.), vgl. Westenholz 1987, 26; Neumann 1989, 525. Die Texte des Onion Archive erwähnen außerdem Ausgaben für einen „Schreiber der *Werkstatt*“ (dub-sar ĝeš-kiĝ$_2$-ti, OSP 2, 133, 140) namens Šuilišu; direkte Nachweise für eine Verbindung zu diesen Funktionären lassen sich dem Textmaterial aber nicht entnehmen.

53 Westenholz (1987, 24) betrachtet eine Gruppe von vier Urkunden aufgrund ihres Duktus (s. oben 9., 16.) als Schriftstücke lokaler Schreiber und stellt ihre Zugehörigkeit zum „Akkadian Archive“ in Frage; sie nennen den Kronprinzen Šarkališarri als „Bevollmächtigten“ (maškim, OSP 2, 16), erwähnen „königliche Diener“ (ir$_{11}$ lugal, OSP 2, 33) und den

Institution der königlichen Zentralverwaltung, die den Bau des Hauptheiligtums von Sumer durchführte, dabei enorme materielle Ressourcen aus dem königlichen Schatz einsetzte (vgl. allgemein Sallaberger 2013), Arbeitskräfte aus dem gesamten Reichsgebiet mobilisierte und von der Lokalverwaltung der Stadt Nippur vollkommen unabhängig agierte.

„Onion Archive“ und „Akkadian Archive“ veranschaulichen, dass die Krone dem Verhältnis zu Nippur eine herausragende Bedeutung beimaß (Neumann 1987, 306 f.; 1989, 527). Sie lag zweifelsfrei in Nippurs Rolle als Kultzentrum des Enlil begründet, der bereits in der Frühdynastisch IIIa-Zeit (ca. 2575–2475 v. Chr.) als oberster Gott ganz Babyloniens erscheint. Mit dem Ekur beherbergte Nippur das Heiligtum, in dem Könige mit überregionalem Herrschaftsanspruch ihre Weihgaben darbrachten – auch die Akkade-Herrscher ließen ihre Statuen im Ekur aufrichten, und Rimuš weihte aus seiner Kriegsbeute 15 kg Gold, 1800 kg Kupfer, 300 Sklaven und Sklavinnen sowie Stein und Steingefäße (Westenholz 1979, 109 f., 121 Anm. 14; Buccellati 1993; Sallaberger 1997, 148 f.; Such-Gutiérrez 2003/1, 41, 43 f.).[54] Der Umstand, dass der Bau des Tempels und die Pflege seines Kultes dem König von Akkade oblagen, spiegelt nicht nur Enlils Position als herausragende Gottheit wider, sondern reflektiert seinen Aufstieg vom Stadt- zum Reichsgott, der sich parallel zur Großreichsbildung vollzog (Sallaberger 1997, 152 f.).[55] Hierin deutet sich zugleich der absolute Herrschaftsanspruch der Akkade-Könige an, der gegenüber dem Selbstverständnis der sumerischen Stadtfürsten eine markante Neuerung darstellte. Auf den Neubau des Ekur durch Naramsin nimmt auch die sumerische Dichtung „Fluch über Akkade“ Bezug. Sie berichtet, dass Naramsin das Ekur auf das Ausbleiben göttlicher Omina, die seinen Neubau erlaubten, plünderte und zerstörte (Cavigneaux 2015, 325 f.), und gilt als Hinweis auf die Machteinbußen, die die lokale Priesterschaft von Nippur unter der Akkaderherrschaft hinnehmen musste (Kienast 1973, 498 f.; Franke 1992, 435; Westenholz 1992, 46; Liverani 1993b, 56–59; Westenholz 1999, 55).[56] Beides verweist auf die ideologischen Implikationen und die Nachwirkungen der akkadischen Oberherrschaft, die in einem kurzen Ausblick angerissen werden sollen.

23. Ausblick

Die sumerischen Stadtstaaten galten traditioneller Auffassung zufolge als Eigentum der Stadtgötter, deren Verwaltung den Stadtfürsten als irdischen Stellvertretern der Götter oblag. Die akkadische Oberherrschaft unterwarf den Süden einem säkularen und autokratischen Königtum mit ungeheuren Machtansprüchen, die sich auch in der Herrscherikonografie, der Diktion der altakkadischen Königsinschriften, in Herrscherepitheta wie „König der vier Weltteile“ und dem Onomastikon niederschlagen (Bänder 1995; Franke 1995; Westenholz 1999, 37–40; 2002, 38; Andersson 2011, 231–242).[57] Die Durchsetzung dieser Machtansprüche – die Degradierung der Stadtstaaten zu Provinzen, ihre Einbindung in die königliche Tributwirtschaft, die Entmachtung der Stadtfürsten, die Besetzung administrativer und kultischer Posten mit königlichen Gefolgsleuten – hatte daher nicht nur politische und wirtschaftliche, sondern auch ideologische Implikationen, die auch als Auslöser der wiederholten Revolten gegen Rimuš und Naramsin gelten (Kienast 1973, 496–499; Westenholz 1979,

„General“ (šagana) Ilšuqarrad (OSP 2, 34), zu diesen Texten s. auch Foster 1989b, 358 f. und Westenholz 1999, 55 Anm. 211.

54 Die weit verbreitete und beispielsweise von Westenholz (1974, 155 f.; 1979, 109; 1987, 29) vertretene These, dass in Nippur alle Könige mit überregionalem Herrschaftsanspruch gekrönt wurden, widerlegt Sallaberger (1997, 150 Anm. 12, s. auch Westenholz 2002, 33). Dass ein Herrscher, der Nippur kontrollierte, Enlil zu seinen Unterstützern zählen konnte, bleibt davon freilich unberührt.

55 Beachte, dass Lugalniĝzu als „Stadtfürst von Nippur (und) Tempelverwalter des Enlil“ (ensi$_2$ nibru^{ki} saĝĝa ^{d}en-lil$_2$) noch selbst als Bauherr in Erscheinung trat; ob dieser Lokalfürst aber vor der „Großen Revolte“ gegen Naramsin amtierte, wie etwa Westenholz (1987, 28) und Such-Gutiérrez (2003/1, 43) vermuten, oder später, wie Sallaberger (1997, 153 Anm. 29) annimmt, ist umstritten; für eine Datierung an das Ende der Akkade-Zeit spricht jedoch der Fundkontext seiner Inschrift, s. Westenholz 1987, 28 sowie Frayne 1991, 393 Anm. 76. Zur Person s. ferner Sommerfeld 2000, 427 Anm. 22.

56 Westenholz (1979, 122 Anm. 32; 1987, 25, 28) vermutet, dass dies auf einen Abriss anspielt, der dem Neubau des Tempels vorausging.

57 Sargon übernahm in den zweisprachigen, allgemeiner Auffassung zufolge in seine frühe Regierungszeit datierenden Inschriften noch die Epitheta des Lugalzagesi und ließ die Inschriften im urukäischen, südlichen Dialekt des sumerischen abfassen, s. Westenholz 1999, 37 f.

110 f.; Selz 1999–2000, 20 f.; Westenholz 2002, 38; Foster 2016, 44–46). Eine besondere Rolle messen manche Gelehrte der Aneignung von Land durch den König zu, denn sie ging zu Lasten der Tempel und kam einer Aneignung göttlichen Eigentums gleich (Kienast 1973, 497; Neumann 1992, 243 f.; Renger 1995, 281; Selz 2002b, 185–187; Neumann 2014, 38). In diesem Zusammenhang ist die Vergöttlichung des Naramsin, die ein Novum in der altorientalischen Geschichte darstellte, von besonderer Bedeutung.[58] Nachdem Naramsin die „Große Revolte" niedergeschlagen hatte, so die Inschrift der Basetki-Statue, erhoben ihn die Bewohner von Akkade zum Dank zu ihrem Gott (Hallo 1999; Sallaberger 2002, 95 f.; Michalowski 2008, 34 f.; Selz 2016, 546 f.). Von den vielfältigen Aspekten, unter denen die Vergöttlichung Naramsins allein in der jüngeren Forschung diskutiert wurde (s. zuletzt Hallo 1999; Sallaberger 2002, 93–98; Sazonov 2007; die Beiträge in Brisch 2008; Stępień 2009; Král 2010; Foster 2016, 140; Selz 2016, 546 f.), sind im Rahmen des vorliegenden Beitrags zwei entscheidend. In Anlehnung an Kienast (1973, 497–500) nehmen verschiedene Gelehrte an, dass der Vergöttlichung eine staatsrechtliche Absicht zugrunde lag. Sie vermuten, dass die Königsvergöttlichung der Entmachtung der Stadtgötter diente, dadurch die Übertragung des Grundeigentums auf den vergöttlichten König bedeutete, gegenüber den lokalen Eliten einen absoluten Machtanspruch ausdrückte und somit das Territorialstaatskonzept untermauerte (Neumann 1992, 245 f.; Renger 1995, 281; Steinkeller 1999a, 554; Selz 1999/2000, 21; Neumann 2014, 37 f.). Andere nehmen an, dass der vergöttlichte Herrscher für die Bewohner des beinahe untergangenen Reiches eine geistig-religiöse Identifikationsfigur darstellte und damit zum Zusammenhalt des Reiches beitrug (Sallaberger 2002, 93–98; Stępień 2009, 248–250; Král 2010). Beides lässt sich im Rahmen einer „'Privatisierung' des Staates" verstehen, die in den Eingriffen in das Grundrecht am deutlichsten zutage tritt (vgl. Selz 1999/2000, 1, 20 f.).[59]

Es wurde bereits darauf hingewiesen, dass Mitglieder der akkadischen Elite schon zur Zeit Sargons kyriophore Personennamen trugen, die die Verehrung des Herrschers ausdrückten (s. oben 6., 8.). In Naramsin-zeitlichen Texten sind Namen wie Narām-Suen-ilī „Mein Gott ist Naramsin" nicht nur häufiger, es finden sich auch sumerische Anthroponyme wie „ein Held ist Akkade" oder „Akkade ist ein guter Ort" (Westenholz 1979, 111, Glassner 1986, 18; Westenholz 1999, 40 Anm. 123 f.; Andersson 2011, 231–242; Foster 2016, 8).[60] Dies könnte andeuten, dass sich das Konzept von Königtum und Einheitsstaat auch im Süden durchzusetzen begann.

Dafür spricht auch die Sumerische Königsliste; sie gilt als politische Tendenzschrift, die das Königtum (nam-lugal) über Sumer und Akkade als urtümlich und gottgegeben (Kienast 1973, 490; Selz 2002a, 23–25; Steinkeller 2003, 285 f.; Glassner 2004, 55 f.) und die III. Dynastie von Ur als legitime Erbin dieses Königtums darstellt (Wilcke 1988; 1989, 569; 1993, 36). Steinkeller (2003, 268, 285 f.) unterstellt auch der ältesten, Ur III-zeitlichen Version der Königsliste eine solche Intention, hält aber auch ein Entstehungsdatum in der Akkade-Zeit für möglich (vgl. Sallaberger 2007, 425 Anm. 45) – in demjenigen Zeitabschnitt, für den die Liste erstmals historisch verlässliche Daten liefert (Wilcke 1988, 127; Sallaberger 2004, 17 f. Sallaberger/Schrakamp 2015a, 14).

Nach dem Tod Šarkališarris fiel Mesopotamien zunächst in eine Zeit des Partikularismus zurück, um 2100 v. Chr. gelang es jedoch Urnamma von Ur, Sumer und Akkade erneut in einem Territorialstaat zu einen. Obwohl sich die Herrscher der III. Dynastie von Ur vordergründig von der Dynastie von Akkade abgrenzten (s. oben 2.), knüpften sie in der Konzeption des Einheitsstaates, der herausragenden Stellung des Königs und seiner Vergöttlichung, der königlichen Kontrolle über Grund und Boden und den Verwaltungsstukturen in Vielem an das Reich von Akkade an, selbst wenn Urnamma und Šulgi das Grundeigentum der Tempel in Teilen nominell wiederherstellten (s. die Diskussion bei Steinkeller 1987b, 20–22; Waetzoldt 1991, 638 f.; Renger 1995, 284–288; Sallaberger 1999, 148; Selz

58 Sazonov (2007) will erste Hinweise auf Vergöttlichung des Königs zu Lebzeiten schon in Texten aus der Zeit des Maništušu erkennen.

59 Die Eindämmung einer ausufernden Privatwirtschaft im präsargonischen Lagaš war das Ziel der sogenannten Reformtexte des Urukagina, s. Schrakamp 2013a, 457 mit Anm. 60; 2015c, 340 f.

60 Sumerische lugal-Namen knüpfen angesichts der Aufstände gegen Rimuš und Naramsin wohl eher an das präsargonische Onomastikon an.

1999–2000, 23; Sallaberger 2003–05, 201; Selz 2010, 13, 15; Schrakamp 2013a, 457 Anm. 59; Sallaberger 2015, 423). Nach dem Ende von Ur III verfiel Mesopotamien für zweihundertfünfzig Jahre abermals in eine Phase der Kleinstaaterei, in der amurritische Königtümer um die Vorherrschaft rangen, bis Hammurabi die erneute Reichseinigung gelang. Das Modell des Einheitsstaates hatte überlebt und sich endgültig durchgesetzt (Cooper 1993; Liverani 1993b) – „Nobody wished to follow the example of the early Sumerian city-state, it seems“ (Westenholz 2002, 38 f.).

Ingo Schrakamp
Institut für Altorientalistik
Freie Universität Berlin
Exzellenzcluster 264 TOPOI
Fabeckstr. 23–25
D-14195 Berlin
schrakam@zedat.fu-berlin.de

Bibliographie

AAICAB 1: Textnummer bei Grégoire 1996.

AIA: Textnummer bei Foster 1982b.

Andersson 2011: J. Andersson, Kingship in the Early Mesopotamian Onomasticon 2800–2200 BCE. Studia Semitica Upsaliensia 28 (Uppsala 2011).

Archi 2010: A. Archi, Men at War in the Ebla Period. On the Unevenness of the Written Documentation. In: A. Kleinerman/J. M. Sasson (Hrsg.), Why Should Someone Who Knows Something Conceal It? Cuneiform Studies in Honor of David I. Owen on His 70th Birthday (Bethesda, MD 2010) 15–35.

AS 17: Textnummer bei Biggs/Buccellati 1969.

Banca d'Italia 1: Textnummer bei Pomponio et al. 2006.

Banca d'Italia 2: Textnummer bei Visicato/Westenholz 2006.

Bänder 1995: D. Bänder, Die Siegesstele des Naramsîn und ihre Stellung in Kunst- und Kulturgeschichte. Beiträge zur Kunstgeschichte 103 (Idstein 1995).

Bartelheim et al. 2015: M. Bartelheim/R. Hardenberg/Th. Knopf/A. K. Scholz/J. Staecker, ResourceCultures – A Concept for Investigating the Use of Resources in Different Societies. In: A. Danielisová/M. Fernández-Götz (Hrsg.), Persistent Economic Ways of Living. Production, Distribution, and Consumption in Late Prehistory and Early History. Archaeolingua 35 (Budapest 2015) 39–49.

Bauer 1987–90: J. Bauer, Lugal-ušumgal. Reallexikon der Assyriologie und Vorderasiatischen Archäologie 7, 1987–90, 155.

Bauer 1998: J. Bauer, Der vorsargonische Abschnitt der mesopotamischen Geschichte. In: P. Attinger/M. Wäfler (Hrsg.), Mesopotamien. Späturuk-Zeit und Frühdynastische Zeit. Annäherungen 1. Orbis Biblicus et Orientalis 160/1 (Fribourg/Schweiz) 429–585.

Biggs 1989: R. D. Biggs, An Old Akkadian Literary Text from Umm al-Hafriyat. In: H. Behrens/D. Loding/M. T. Roth (Hrsg.), Dumu E_2-dub-ba-a. Studies in Honor of Åke W. Sjöberg. Occasional Publications of the Samuel Noah Kramer Fund 11 (Philadelphia 1989) 33–36.

Biggs/Buccellati 1969: R. D. Biggs/G. Buccellati, Cuneiform Texts from Nippur. The Eighth and Ninth Seasons. Assyriological Studies 17 (Chicago 1969).

BIN 8: Textnummer bei Hackman 1958.

Bridges 1981: S. J. Bridges, The Mesag Archive. A Study of Sargonic Society and Economy. PhD Dissertation Yale University (Yale 1981).

Brisch 2008: N. Brisch, Religion and Power. Divine Kingship in the Ancient World and beyond. Oriental Institute Seminars 4 (Chicago 2008).

Brunke 2011: H. Brunke, Essen in Sumer. Metrologie, Herstellung und Terminologie nach Zeugnis der Ur III-zeitlichen Wirtschaftsurkunden (München 2011).

Buccellati 1993: G. Buccellati, Through a Tablet Darkly. A Reconstruction of Old Akkadian Monuments Described in Old Babylonian Copies. In: M. E. Cohen/D. Snell/D. B. Weisberg (Hrsg.), The Tablet and the Scroll. Near Eastern Studies in Honor of William W. Hallo (Bethesda 1993) 58–71.

Carroué 1985: F. Carroué, Un autre prince sargonique d'Umma. Acta Sumerologica 7, 1985, 89–96.

Carroué 1994: F. Carroué, La situation chronologique de Lagaš II. Un élément du dossier. Acta Sumerologica 16, 1994, 47–75.

Catagnoti 2003: A. Catagnoti, Two Sargonic Tablets mentioning Mesag, Énsi of Umma. In: M. Marrassini (Hrsg.), Semitic and Assyriological Studies Presented to Pelio Fronzaroli by Pupils and Colleagues (Wiesbaden 2003) 105–115.

Cavigneaux 2015: A. Cavigneaux, Aufstieg und Fall – Das Paradigma. Der Fluch über Akkade. In: K. Volk, Erzählungen aus dem Lande Sumer (Wiesbaden 2015) 317–335.

Charvát 2010: P. Charvát, The Earliest History of the Kingdom of Kiš. In: P. Charvát/P. Mařiková Vlčková (Hrsg.), Who Was King? Who Was not King? The Rulers and the Ruled in the Ancient Near East (Prague 2010) 16–22.

Cooper 1993: J. S. Cooper, Paradigm and Propaganda. The Dynasty of Akkade in the 21st Century. In: M. Liverani (Hrsg.), Akkad. The First World Empire. Structure, Ideology, Traditions. History of the Ancient Near East/Studies 5 (Padova 1993) 11–23.

Cooper 1999: J. S. Cooper, Sumerian and Semitic Writing in Most Ancient Syro-Mesopotamia. In: K. Van Lerberghe/G. Voet (Hrsg.), Languages and Cultures in Contact. At the Crossroads of Civilizations in the Syro-Mesopotamian Realm. Proceedings of the 42th[sic!] RAI. Orientalia Lovanensia Analecta 96 (Leuven 1999) 61–77.

Cripps 2007: E. L. Cripps, Land Tenure and Social Stratification in Ancient Mesopotamia. Third Millennium Sumer before the Ur III Dynasty. BAR International Series 1676 (Oxford 2007).

Cripps 2010: E. L. Cripps, Sargonic and Presargonic Texts in the World Museum Liverpool. BAR International Series 2135 (Oxford 2010).

CST: Textnummer bei Fish 1932.

CT 50: Textnummer bei Sollberger 1972.

CUSAS 11: Textnummer bei Visicato/Westenholz 2010.

CUSAS 20: Textnummer bei Pomponio/Visicato 2015.

CUSAS 26: Textnummer bei Westenholz 2014.

CUSAS 27: Textnummer bei Milano/Westenholz 2015.

de Genouillac 1910/11: H. de Genouillac, Inventaire des tablettes de Tello conservées au Musée Impérial Ottoman, Tome II. Textes de l'époque d'Agadé et de l'époque d'Ur (Fouilles d'Ernest de Sarzec en 1894) (Paris 1910/1911).

de Genouillac 1921: H. de Genouillac, Inventaire des tablettes de Tello conservées au Musée Impérial Ottoman, Tome V. Époque présargonique, époque d'Agadé, époque d'Ur (Paris 1921).

Donald 1964: T. Donald, Old Akkadian Tablets in the Liverpool Museum. Manchester Cuneiform Studies 9.1 (Manchester 1964).

Donbaz/Foster 1982: V. Donbaz/B. R. Foster, Sargonic Texts from Telloh in the Istanbul Archeological Museums. Occasional Publications of the Samuel Noah Kramer Fund 5. American Research Institute in Turkey Monographs 2 (Philadelphia 1982).

DPA: Textnummer bei Limet 1973.

Dsharakian 1994: R. Dsharakian, Altakkadische Wirtschaftstexte aus den Archiven von Awal und Gasur (III. Jahrtausend v. Chr.). Zeitschrift für Assyriologie und Vorderasiatische Archäologie 84, 1994, 1–10.

Durand 1993: J.-M. Durand, Notes de lecture. Old Sumerian and Old Akkadian Texts in Philadelphia, MARI. Annales de Recherche Interdisciplinaires 7, 1993, 377–382.

ECTJ: Textnummer bei Westenholz 1975b.

Edzard 1965: D. O. Edzard, Die frühdynastische Zeit. In: E. Cassin/J. Bottéro/J. Vercoutter (Hrsg.), Die Altorientalischen Reiche I. Vom Paläolithikum bis zur Mitte des 2. Jahrtausends. Fischer Weltgeschichte 2 (Frankfurt 1965) 57–90.

Edzard 1996: D. O. Edzard, Private Land Ownership and its Relation to "God" and "State" in Sumer and Akkad. In: M. Hudson/B. A. Levine (Hrsg.), Privatization in the Ancient Near East and Classical World. A Colloquium Held at New York University November 17–18, 1994. Peabody Museum Bulletin 5 (Cambridge 1996) 109–128.

Edzard/Wiggermann 1987–90: D. O. Edzard/F. A. M. Wiggermann, maškim. Reallexikon der Assyriologie und Vorderasiatischen Archäologie 7, 1987–90, 449–455.

Falkenstein 1954 : A. Falkenstein, La cité-temple sumérienne. Cahier d'histoire mondiale I, 1954, 784–814.

Falkenstein 1974: A. Falkenstein, The Sumerian Temple City. Monographs on the Ancient Near East 1.1 (Malibu 1974).

FAOS 7: Textnummer bei Gelb/Kienast 1990.

FAOS 19: Textnummer bei Kienast/Volk 1995.

Farber 1975: W. Farber, Rezension zu Limet 1973. Die Welt des Orients 8, 1975, 118–123.

Felli 2006: C. Felli, Lugal-ušumgal. An Akkadian Governor and his Two Masters. In: P. Taylor (Hrsg.), The Iconography of Cylinder Seals. Warburg Institute Colloquia 9 (London 2006) 35–50.

Fish 1932: T. Fish, Catalogue of the Sumerian Tablets in the John Rylands Library (Manchester 1932).

Foster 1977: B. R. Foster, Commercial Activity in Sargonic Mesopotamia. Iraq 39, 1977, 31–43.

Foster 1978: B. R. Foster, Rezension zu Limet 1973. Journal of Near Eastern Studies 37, 1978, 273–275.

Foster 1979: B. R. Foster, New Light on the "mu-iti" Texts. Orientalia nova series 48, 1979, 153–162.

Foster 1980: B. R. Foster, Notes on Sargonic Royal Progress. Journal of the Ancient Near Eastern Society 12, 1980, 29–42.

Foster 1981: B. R. Foster, Notes brèves 10. ni-is-ku, Revue d'assyriolgie et d'archéologie orientale 75, 1981, 190.

Foster 1982a: B. R. Foster, Administration and Use of Institutional Land in Sargonic Sumer. Mesopotamia 9 (Copenhagen 1982).

Foster 1982b: B. R. Foster, An Agricultural Archive from Sargonic Akkad, Acta Sumerologica 4, 1982, 7–51.

Foster 1982c: B. R. Foster, Archives and Record-Keeping in Sargonic Mesopotamia. Zeitschrift für Assyriologie und Vorderasiatische Archäologie 72, 1982, 1–27.

Foster 1982d: B. R. Foster, Umma in the Sargonic Period. Memoirs of the Connecticut Academy of Arts and Sciences 20 (Hamden 1982).

Foster 1982e: B. R. Foster, Administration of State Land at Sargonic Gasur. Oriens Antiquus 20, 1982, 39–48.

Foster 1982f: B. R. Foster, Education of a Bureaucrat in Sargonic Sumer. Archív Orientální 50, 1982, 238–241.

Foster 1982g: B. R. Foster, Notes on Sargonic Legal Procedures. Die Welt des Orients 13, 1982, 15–24.

Foster 1982h: B. R. Foster, Sargonic and Pre-Sargonic Tablets in the John Rylands University Library. Bulletin of the John Rylands University Library of Manchester 64, 1982, 457–480.

Foster 1982j: B. R. Foster, Ethnicity and Onomastics in Sargonic Mesopotamia. Orientalia nova series 51, 1981, 297–354.

Foster 1983a: B. R. Foster, Collations to the Umm el-Jir Tablets. Acta Sumerologica 5, 1983, 173–174.

Foster 1983b: B. R. Foster, Ebla and the Origins of Akkadian Accountability. Bibliotheca Orientalis 40, 1983, 298–305.

Foster 1985: B. R. Foster, The Sargonic Victory Stele from Telloh. Iraq 47, 1985, 15–30.

Foster 1986a: B. R. Foster, Agriculture and Accountability in Ancient Mesopotamia. In: H. Weiss (Hrsg.), The Origins of Cities in Dry-Farming Syria and Mesopotamia in the Third Millennium B.C. (Guilford 1986) 109–128.

Foster 1986b: B. R. Foster, Archives and Empire in Sargonic Mesopotamia. In: K. Veenhof (Hrsg.), Cuneiform Archives and Libraries, Papers Read at the 30e Rencontre Assyriologique Internationale, Leiden, 4–8 July 1983. Uitgaven van het Nederlands Instituut voor het Naabije Oosten te Leiden = Publications de l'institut historique-archéologique néerlandais de Stamboul 57 (Leiden 1986) 46–52.

Foster 1987a: B. R. Foster, Notes on Women in Sargonic Society. In: J.-M. Durand (Hrsg.), La femme dans le proche-orient antique. Compte rendu de la XXXIIIe rencontre assyriologique internationale (Paris, 7–10 juillet 1986) (Paris 1986) 53–61.

Foster 1987b: B. R. Foster, People, Land and Produce at Sargonic Gasur. In: M. A. Morrison/D. I. Owen (Hrsg.), Studies in the Civilization and Culture of Nuzi and the Hurrians 2. General Studies and Excavations at Nuzi 9.1 (Winona Lake 1987) 89–107.

Foster 1989a: B. R. Foster, A Sargonic Archive from the Lagash Region. In: H. Behrens/D. Loding/M. T. Roth (Hrsg.), Dumu E_2-dub-ba-a. Studies in Honor of Åke W. Sjöberg. Occasional Publications of the Samuel Noah Kramer Fund 11 (Philadelphia 1989) 155–165.

Foster 1989b: B. R. Foster, Rezension zu Westenholz 1987, Bibliotheca Orientalis 46, 1989, 357–362.

Foster 1993a: B. R. Foster, Management and Administration in the Sargonic Period. In: M. Liverani (Hrsg.), Akkad. The First World Empire. Structure, Ideology, Traditions. History of the Ancient Near East/Studies 5 (Padova 1993) 25–39.

Foster 1993b: B. R. Foster, Select Bibliography of the Sargonic Period. In: M. Liverani (Hrsg.), Akkad. The First World Empire. Structure, Ideology, Traditions. History of the Ancient Near East/Studies 5 (Padova 1993) 171–182.

Foster 1993c: B. R. Foster, Rezension zu Steinkeller 1992b. Orientalia nova series 62, 1993, 442–446.

Foster 1994: B. R. Foster, Early Mesopotamian Land Sales. Journal of the American Oriental Society 114, 1994, 440–452.

Foster 1999/2000: B. R. Foster, Rezension zu Sommerfeld 1999. Archiv für Orientforschung 46/47, 1999/2000, 253–254.

Foster 2000: B. R. Foster, The Forty-Nine Sons of Agade. In: S. Graziani/M. C. Casaburi/G. Lacerenza (Hrsg.), Studi sul vicino oriente ancito dedicati alla memoria di Luigi Cagni Vol. 1. Istituto Universitario Orientale Seminario di Studi Asiati Series Minor 61 (Napoli 2000) 309–319.

Foster 2005: B. R. Foster, Shuruppak and the Sumerian City State. In: L. Kogan/N. Koslova/S. Loesov/S. Tishchenko (Hrsg.), Memoriae Igor M. Diakonoff. Babel und Bibel 2. Annual of Ancient Near Eastern, Old Testament, and Semitic Studies (Winona Lake, IN 2005) 71–88.

Foster 2010a: B. R. Foster, Clothing in Sargonic Mesopotamia. Visual and Written Evidence. In: C. Michel/M.-L. Nosch (Hrsg.), Textile Terminologies in the Ancient Near East and the Mediterranean from the Third to the First Millennia BC. Ancient Textiles 8 (Oxford 2010) 110–145.

Foster 2010b: B. R. Foster, On Personnel in Sargonic Girsu. In: S. Dönmez (Hrsg.), Veysel Donbaz'a Sunulan Yazılar. DUB.SAR É.DUB.BA.A. Studies Presented in Honour of Veysel Donbaz (Istanbul 2010) 143–151.

Foster 2011: B. R. Foster, The Sargonic Period. Two Historiographical Problems. In: G. Barjamovic/J. L. Dahl/U. S. Koch/W. Sommerfeld/J. G. Westenholz (Hrsg.), Akkade is King. A Collection of Papers by Friends and Colleagues Presented to Aage Westenholz on the Occasion of His 70th Birthday, 15th of May 2009, PIHANS. Uitgaven van het Nederlands Instituut voor het Nabije Oosten te Leiden = Publications de l'institut historique-archéologique néerlandais de Stamboul 118 (Leiden 2011) 127–137.

Foster 2015: B. R. Foster, Akkadian Economics. Rivista di storia economica 31, 2015, 7–23.

Foster 2016: B. R. Foster, The Age of Agade. Inventing Empire in Ancient Mesopotamia (New York 2016).

Foster/Robson 2004: B. R. Foster/E. Robson, A New Look at the Sargonic Mathematical Corpus. Zeitschrift für Assyriologie und Vorderasiatische Archäologie 94, 2004, 1–15.

Frahm/Payne 2003/04: E. Frahm/E. Payne, Šuruppak under Rīmuš. A Rediscovered Inscription. Archiv für Orientforschung 50, 2003/2004, 50–55.

Franke 1992: S. Franke, Rezension zu Glassner 1986. Bibliotheca Orientalis 49, 1992, 433–439.

Franke 1995: S. Franke, Königsinschriften und Königsideologie. Die Könige von Akkade zwischen Tradition und Neuerung. Altorientalistik 1 (Münster 1995).

Frayne 1991: D. R. Frayne, Historical Texts in Haifa. Notes on R. Kutscher's "Brockmon Tablets". Bibliotheca Orientalis 48, 1991, 378–409.

Frayne 1993 : D. R. Frayne, Sargonic and Gutian Periods (2334–2113 BC). The Royal Inscriptions of Mesopotamia Early Periods 2 (Toronto 1993).

Frayne 2007: D. R. Frayne, Presargonic Period (2700–2350 BC). The Royal Inscriptions of Mesopotamia Early Periods 1 (Toronto 2007).

Frayne 2009: D. R. Frayne, The Struggle for Hegemony in "Early Dynastic II" Sumer. The Canadian Society for Mesopotamian Studies/La Société canadienne des études mésopotamiennes Journal 4, 2009, 37–75.

Gelb 1957: I. J. Gelb, Glossary of Old Akkadian. Materials for the Assyrian Dictionary 3 (Chicago 1957).

Gelb 1965: I. J. Gelb, The Philadelphia Onion Archive. In: H. G. Güterbock/Th. Jacobsen (Hrsg.), Studies in Honor of Benno Landsberger on his Seventy-Fifth Birthday, April 21, 1965. Assyriological Studies 16 (Chicago 1965) 57–62.

Gelb 1970: I.J. Gelb, Sargonic Texts in the Ashmolean Museum, Oxford. Materials for the Assyrian Dictionary 5 (Chicago 1970).

Gelb 1977: I. J. Gelb, Thoughts about Ibla. A Preliminary Evaluation. Syro-Mesopotamian Studies 1.1 (Malibu 1977).

Gelb 1981: I. J. Gelb, Ebla and the Kish Civilization. In: L. Cagni (Hrsg.), La Lingua di Ebla. Atti del convegno internazionale (Napoli, 21–23 aprile 1980). Istituto Universitario Orientale Seminario di Studi Asiati Series Minor 14 (Napoli 1981) 9–73.

Gelb 1987: I. J. Gelb, The Language of Ebla in the Light of the Sources from Ebla, Mari, and Babylonia. In: L. Cagni (Hrsg.), Ebla 1975–1985. Dieci anni di studi linguistici e filologici. Atti del convegno internazionale (Napoli, 9–11 ottobre 1985). Istituto Universitario Orientale Seminario di Studi Asiati Series Minor 27 (Napoli 1987) 49–74.

Gelb 1992: I. J. Gelb, Mari and the Kish Civilization. In: G. D. Young (Hrsg.), Mari in Retrospect. Fifty Years of Mari and Mari Studies (Winona Lake 1992) 121–202.

Gelb et al. 1991: I. J. Gelb/P. Steinkeller/R. Whiting, Earliest Land Tenure Systems in the Near East. Ancient Kudurrus. Oriental Institute Publications 104 (Chicago 1991).

Gelb/Kienast 1990: I. J. Gelb/B. Kienast, Die altakkadischen Königsinschriften des dritten Jahrtausends v. Chr. Freiburger Altorientalische Studien 7 (Stuttgart 1990).

Gibson 1978: McG. Gibson, Nippur Regional Project. Umm-el-Hafriyat. The Oriental Institute Annual Report 1977–78, 1978.

Gibson 1982: McG. Gibson, Current Oriental Institute Excavations in Iraq, The Society of Mesopotamian Studies Bulletin 3, 1982, 16–26.

Glassner 1986: J.-J. Glassner, La chute d'Akkadé. L'événement et sa mémoire. Berliner Beiträge zum Vorderen Orient 5 (Berlin 1986).

Glassner 1995: J.-J. Glassner, La gestion de la terre en Mésopotamie selon le témoignage des kudurrus anciens. Bibliotheca Orientalis 52, 1995, 5–24.

Glassner 2004: J.-J. Glassner, Mesopotamian Chronicles. Society of Biblical Literature Writings of the Ancient World 19 (Atlanta 2004).

Grégoire 1996: J.-P. Grégoire, Archives administratives et inscriptions cunéiformes de l'Ashmolean Museum et de la Bodleian Collection d'Oxford. Contribution à l'histoire sociale, économique, politique et culturelle du Proche-Orient ancien 1 (Paris 1996).

Gudeman 2005: S. Gudeman, Community and Economy. Economy's Base. In: J. G. Carrier (Hrsg.), A Handbook of Economic Anthropology (Cheltenham 2005) 94–106.

Hackman 1958: G.G. Hackman, Sumerian and Akkadian Administrative Texts. From Predynastic Times to the End of the Akkad Dynasty. Babylonian Inscriptions in the Collection of James B. Nies, Yale University 8 (New Haven 1958).

Hallo 1999: W. W. Hallo, "They Requested Him as God of Their City". A Classical Moment in the Mesopotamian Experience. In: G. Holst-Warhaft/D. McCann (Hrsg.), The Classical Moment. Views from Seven Literatures (Lanham 1999) 23–35.

Hasselbach 2005: R. Hasselbach, Sargonic Akkadian. A Historical and Comparative Study of the Syllabic Texts (Wiesbaden 2005).

Haul 2009: M. Haul, Stele und Legende. Untersuchungen zu den keilschriftlichen Erzählwerken über die Könige von Akkade. Göttinger Beiträge zum Alten Orient 4 (Göttingen 2009).

Huh 2008: S. K. Huh, Studien zur Region Lagaš. Von der Ubaid- bis zur altbabylonischen Zeit. Alter Orient und Altes Testament 345 (Münster 2008).

Hussein et al. 2010: A. M. Hussein/H. A. Hamza/A. K. Thaher/S. J. Kadhum/M. Hashem/H. M. Taha/M. R. Altaweel/B. Studevent-Hickman, Tell Abu Sheeja/Ancient Pašime. Report on the First Season of Excvations, 2007. Akkadica 131, 2010, 47–103.

ITT 1: Textnummer bei Thureau-Dangin 1910.

ITT 2: Textnummer bei de Genouillac 1910–1911.

ITT 5: Textnummer bei de Genouillac 1921.

Keetman 2014: J. Keetman, Bilingualismus in Sumer. Zum Gebrauch des Akkadischen und Sumerischen in der Verwaltungspraxis des Reiches von Akkad unter Narām-Sujēn und Šar-kali-šarrī. Revue d'assyriologie et d'archéologie orientale 108, 2014, 1–14.

Kienast 1973: B. Kienast, Der Weg zur Einheit Babyloniens unter staatsrechtlichen Aspekten. Orientalia nova series 42, 1973, 489–501.

Kienast/Sommerfeld 1994: B. Kienast/W. Sommerfeld, Glossar zu den altakkadischen Königsinschriften. Freiburger Altorientalische Studien 8 (Stuttgart 1994).

Kienast/Volk 1995: B. Kienast/K. Volk, Die sumerischen und akkadischen Briefe des III. Jahrtausends aus der Zeit vor der III. Dynastie von Ur (SAB). Freiburger Altorientalische Studien 19 (Stuttgart 1995).

Král 2010: P. Král, Naram-Sin's deification. In: K. Šašková/L. Pecha/P. Charvát (Hrsg.), Shepherds of the Black-Headed People. The Royal Office vis-à-vis Godhead in Ancient Mesopotamia (Plzeň 2010) 75–88.

Krecher 1972: J. Krecher, Rezension zu Gelb 1970. Zeitschrift für Assyriologie und Vorderasiatische Archäologie 62, 1972, 269–273.

Limet 1973: H. Limet, Étude de documents de la période d'Agadé appartenant à l'Université de Liège. Bibliothèque de la Faculté de Philosophie et Lettres de l'Université de Liège Fascicule 206 (Paris 1973).

Liverani 1993a: M. Liverani (Hrsg.), Akkad. The First World Empire. Structure, Ideology, Traditions. History of the Ancient Near East. Studies 5 (Padova 1993).

Liverani 1993b: M. Liverani, Model and Actualization. The Kings of Akkad in the Historical Tradition. In: M. Liverani (Hrsg.), Akkad. The First World Empire. Structure, Ideology, Traditions. History of the Ancient Near East. Studies 5 (Padova 1993) 41–67.

MAD 5: Textnummer bei Gelb 1970.

Maiocchi 2015: M. Maiocchi, From Stylus to Sign. A Sketch of Old Akkadian Palaeography. In: E. Devecchi/G. W. Müller/J. Mynářová (Hrsg.), Current Research in Cuneiform Palaeography. Proceedings of the Workshop Organised at the 60th Rencontre Assyriologique Internationale, Warsaw 2014 (Gladbeck 2015) 71–88.

Marchesi 2011: G. Marchesi, A New Historical Synchronism Relating to Sargon of Akkade. Studi Epigrafici e Linguistici sul Vicino Oriente antico 28, 2011, 16–24.

Marchesi 2015: G. Marchesi, Toward a Chronology of Early Dynastic Rulers in Mesopotamia. In: W. Sallaberger/I. Schrakamp (Hrsg.), History & Philology. Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean 3 (Turnhout 2015) 139–156.

Marchesi/Marchetti 2011: G. Marchesi/N. Marchetti, Royal Statuary of Early Dynastic Mesopotamia. Mesopotamian Civilizations 14 (Winona Lake 2011).

Markina 2010: E. Markina, "They embraced his feet, saying …" *śaʾpēn aḫāzum* and *śaʾpēn ezēbum* as Idioms of Loyalty and Defiance in Sargonic. Zeitschrift für Assyriologie und Vorderasiatische Archäologie 100, 2010, 165–168.

Markina 2012: E. Markina, Akkadian of the Me-ság archive, Babel und Bibel 6. Annual of Ancient Near Eastern, Old Testament, and Semitic Studies, 2012, 169–188.

MCS 9: Textnummer bei Donald 1964.

Michalowski 1981: P. Michalowski, Tudanapšum, Naram-Sin and Nippur. Revue d'assyriologie et d'archéologie orientale 75, 1981, 173–176.

Michalowski 1987: P. Michalowski, Charisma and Control. On Continuity and Change in Early Mesopotamian Bureaucratic Systems. In: M. Gibson/R. D. Biggs (Hrsg.), The Organization of Power. Aspects of Bureaucracy in the Ancient Near East. Studies in Ancient Oriental Civilization 46 (Chicago 1987) 55–68.

Michalowski 1993a: P. Michalowski, Letters from Early Mesopotamia. Society of Biblical Literature Writings from the Ancient World 3 (Atlanta 1993).

Michalowski 1993b: P. Michalowski, Memory and Deed. The Historiography of the Political Expansion of the Akkad State. In: M. Liverani (Hrsg.), Akkad. The First World Empire. Structure, Ideology, Traditions. History of the Ancient Near East. Studies 5 (Padova 1993) 69–90.

Michalowski 2008: P. Michalowski, The Mortal Kings of Ur. A Short Century of Divine Rule in Ancient Mesopotamia. In: N. Brisch (Hrsg.,), Religion and Power. Divine Kingship in the Ancient World and beyond. Oriental Institute Seminars 4 (Chicago 2008) 33–45.

Milano 2003: L. Milano, Sistemi finanziari in Mesopotamia e Siria nel III millennio a.C. In: L. Milano/N. Parise (Hrsg.), ll regolamento degli scambi nell'antichità (III–I millennio a.C.) (Roma 2003) 3–58.

Milano 2008: L. Milano, Regime fondiario e compravendite immobiliari nella Mesopotamia del III millennio. In: M. Liverani/C. Mora (Hrsg.), I diritti del mondo cuneiforme (Mesopotamia e regioni adiacenti, ca. 2500–500 a.C.) (Pavia 2008) 92–120.

Milano/Westenholz 2015: L. Milano/Westenholz, The "Šuilišu Archive" and Other Sargonic Texts in Akkadian. Cornell University Studies in Assyriology and Sumerology 27 (Bethesda 2015).

Milone 2002: M. E. Milone, Una tavoletta sargonica da Adab. Rivista degli Studi Orientali 75, 2002, 1–5.

Molina 1991: M. Molina, Tablillas sargónicas del Museo de Montserrat, Barcelona. Aula Orientalis 9, 1991, 137–153.

Molina 2014: M. Molina, Sargonic Cuneiform Tablets in the Real Academia de la Historia. The Carl L. Lippmann Collection. Catálogo del Gabinete de Antigüedades. Antigüedades I.1.6. (Madrid 2014).

Neumann 1987: H. Neumann, Politik und Religion in Mesopotamien zur Zeit der Entstehung von Stadt- und Territorialstaaten (3. Jahrtausend v. u. Z.). Klio 69, 1987, 297–307.

Neumann 1988: H. Neumann, Zum Problem des privaten Bodeneigentums in Mesopotamien (3. Jt. v. u. Z.). In: B. Brentjes (Hrsg.), Das Grundeigentum in Mesopotamien, Jahrbuch für Wirtschaftsgeschichte Sonderband 1987 (Berlin 1988) 29–48.

Neumann 1989: H. Neumann, Umma und Nippur in altakkadischer Zeit. Orientalistische Literaturzeitung 84, 1989, 517–527.

Neumann 1992: H. Neumann, Zur Problematik des subjektiven Faktors im Prozeß politischer Umwälzungen in Mesopotamien gegen Ende des 3. Jahrtausends v. u. Z. Archív Orientální 60, 1992, 234–250.

Neumann 2006: H. Neumann, Sumerische und akkadische Briefe des 3. Jt. v. Chr. In: B. Janowski/G. Wilhelm (Hrsg.), Briefe. Texte aus der Umwelt des Alten Testaments. Neue Folge 3 (Gütersloh 2006) 1–20.

Neumann 2014: H. Neumann, Altorientalische „Imperien" des 3. und frühen 2. Jahrtausends v. Chr. Historische Voraussetzungen und sozioökonomische Grundlagen. In: M. Gehler/R. Rollinger/S. Fick/S. Pittl (Hrsg.), Imperien und Reiche in der Weltgeschichte. Epochenübergreifende und globalhistorische Vergleiche (Wiesbaden 2014) 33–64.

Nigro 2001–03: L. Nigro, La stele di Rimush da Tello e l'indicazione del rango dei vinti nel rilievo reale accadico. Science dell'Antichità 11, 2001–03, 71–93.

Nik. 2: Textnummer bei Nikol'skij 1915.

Nikol'skij 1915: M. V. Nikol'skij, Dokumenty chozjajstvennoi otčetnosti drevnejšej ĕpochi Chaldei iz sobranija N. P. Lichačeva. Drevnosti Vostočnija 2. Ĕpocha dinastii Agade i ĕpocha dinastii Ura. Trudy Vostočnoj Komisii Imperatorskago Moskovskago Archeologičeskago Obščestva 5 (Moskau 1915).

OIP 104: Textnummer bei Gelb et al. 1991.

OSP 1: Textnummer bei Westenholz 1975a.

OSP 2: Textnummer bei Westenholz 1987.

Parpola et al. 1977: S. Parpola/A. Parpola/H. Brunswig, The Meluḫḫa Village. Evidence of Acculturation of Harappan Traders in Late Third Millennium Mesopotamia? Journal of the Economic and Social History of the Orient 20, 1977, 129–165.

Pomponio 2011: F. Pomponio, Quello che Accade (forse) dopo la morte di Šar-kali-šarrī. In: G. Barjamovic/J. L. Dahl/U. S. Koch/W. Sommerfeld/J. G. Westenholz (Hrsg.), Akkade is King. A Collection of Papers by Friends and Colleagues Presented to Aage Westenholz on the Occasion of His 70th Birthday, 15th of May 2009, PIHANS. Uitgaven van het Nederlands Instituut voor het Nabije Oosten te Leiden = Publications de l'institut historique-archéologique néerlandais de Stamboul 118 (Leiden 2011) 227–243.

Pomponio 2012: F. Pomponio, Some Considerations on Rīmuš. In: P. Notizia/F. Pomponio (Hrsg.), Scritti in onore di Pietro Mander. Annali dell'Università degli Studi di Napoli "L'Orientale" 72 (Napoli 2012) 99–111.

Pomponio 2015: F. Pomponio, The Rulers of Adab. In: W. Sallaberger/I. Schrakamp (Hrsg.), History & Philology. Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean 3 (Turnhout 2015) 191–195.

Pomponio/Visicato 2015: F. Pomponio/G. Visicato, Middle Sargonic Tablets Chiefly from Adab in the Cornell University Collections. Cornell University Studies in Assyriology and Sumerology 20 (Bethesda 2015).

Pomponio et al. 2006: F. Pomponio/G. Visicato/A. Westenholz, Le tavolette cuneiformi di Adab delle collezioni della Banca d'Italia (Roma 2006).

Postgate 1992: J. N. Postgate, Early Mesopotamia. Society and Economy at the Dawn of History (London 1992).

Potts 1994: T. F. Potts, Mesopotamia and the East. An Archaeological and Historical Study of Foreign Relations ca. 3400–2000 BC. Oxford University Committee for Archaeology 37 (Oxford 1994).

Powell 1975: M. A. Powell, Rezension zu Limet 1973. Journal of Cuneiform Studies 27, 1975, 180–188.

Powell 1978: M. A. Powell, Texts from the Time of Lugalzagesi. Problems and Perspectives in their Interpretation. Hebrew Union College Annual 49, 1978, 1–58.

Powell 1985: M. A. Powell, Rezension zu Foster 1982d. Journal of the American Oriental Society 105, 1985, 144–145.

Powell 1994: M. A. Powell, Elusive Eden. Private Property at the Dawn of History. Journal of Cuneiform Studies 46, 1994, 99–104.

Renger 1995: J. Renger, Institutional, Communal and Individual Ownership or Possession of Arable Land in Ancient Mesopotamia from the End of the Fourth to the End of the First Millennium B.C. Symposium on Ancient Law, Economics & Society Part 2, Chicago-Kent Law Review 71.1, 1995, 269–319.

Renger 2001: J. Renger, Aus-der-Geschichte-Lernen. Das en-Priesteramt von Ur unter den Dynastien von Akkade und Ur III. In: Th. Richter/D. Prechel/J. Klinger (Hrsg.), Kulturgeschichten. Altorientalistische Studien für Volkert Haas zum 65. Geburtstag (Saarbrücken 2001) 373–376.

RIM E1: Textnummer bei Frayne 2007.

RIM E2: Textnummer bei Frayne 1993.

Robson/Zólyomi 2014: E. Robson/G. Zólyomi, Mesag reports a murder. Cuneiform Tablets in the Collections of Norwich Castle Museum and Cambridge University Library. Iraq 76, 2014, 189–203.

Rohn 2011: K. Rohn, Beschriftete mesopotamische Siegel der Frühdynastischen und der Akkad-Zeit. Orbis Biblicus et Orientalis Series Archaeologica 32 (Fribourg/Schweiz 2011).

Römer 1993: W. H. P. Römer, Beiträge zum Lexikon des Sumerischen (4). Termini für Schiffe und Schiffahrt, Schiffsteile und Schiffszubehör – vor allem in sumerischen ‚literarischen' Texten. In: M. Dietrich/O. Loretz (Hrsg.), Mesopotamica – Ugaritica – Biblica. Festschrift für Kurt Bergerhof zur Vollendung seines 70. Lebensjahres am 7. Mai 1992. Alter Orient und Altes Testament 232 (Neukirchen-Vluyn 1993) 343–395.

Roth 1995: M. T. Roth, Law Collections from Mesopotamia and Asia Minor. Society of Biblical Literature Writings from the Ancient World 6 (Atlanta 1995).

RTC: Textnummer bei Thureau-Dangin 1903.

Salgues 2011: E. Salgues, Naram-Sin's Conquest of Subartu and Armanum. In: G. Barjamovic/J. L. Dahl/U. S. Koch/W. Sommerfeld/J. G. Westenholz (Hrsg.), Akkade is King. A Collection of Papers by Friends and Colleagues Presented to Aage Westenholz on the Occasion of His 70th Birthday, 15th of May 2009. PIHANS. Uitgaven van het Nederlands Instituut voor het Nabije Oosten te Leiden = Publications de l'institut historique-archéologique néerlandais de Stamboul 118 (Leiden 2011) 253–272.

Sallaberger 1997: W. Sallaberger, Nippur als religiöses Zentrum Mesopotamiens im historischen Wandel. In: G. Wilhelm (Hrsg.), Die orientalische Stadt. Kontinuität, Wandel, Bruch. 1. Internationales Colloquium der Deutschen Orient-Gesellschaft 9.–10. Mai 1996 in Halle/Salle. Colloquien der Deutschen Orient-Gesellschaft 1 (Saarbrücken 1997) 147–168.

Sallaberger 1998: W. Sallaberger, Ein Synchronismus der Urkunden von Tell Beydar mit Mari und Ebla? In: M. Lebeau (Hrsg.), About Subartu. Studies devoted to Upper Mesopotamia. Vol. 1 – Landscape, Archaeology, Settlement. Subartu 4.1 (Turnhout 1998) 23–39.

Sallaberger 1999: W. Sallaberger, Ur III-Zeit. In: P. Attinger/M. Wäfler (Hrsg.), Mesopotamien. Akkade-Zeit und Ur III-Zeit. Annäherungen 3. Orbis Biblicus et Orientalis 160.3 (Fribourg/Schweiz 1999) 119–390.

Sallaberger 2002: W. Sallaberger, Den Göttern nahe – und fern den Menschen? Formen der Sakralität des altmesopotamischen Menschen. In: F.-R. Erkens (Hrsg.), Die Sakralität von Herrschaft. Herrschaftslegitimierung im Wechsel der Zeiten und Räume. Fünfzehn interdisziplinäre Beiträge zu einem weltweiten und epochenübergreifenden Phänomen (Berlin 2002) 85–98.

Sallaberger 2003–05: W. Sallaberger, Palast. A. I. Mesopotamien im III. Jahrtausend. Reallexikon der Assyriologie und Vorderasiatischen Archäologie 10, 2003–05, 200–204.

Sallaberger 2004: W. Sallaberger, Relative Chronologie von der frühdynastischen bis zur altbabylonischen Zeit. In: J.-W. Meyer/W. Sommerfeld (Hrsg.), 2000 v. Chr. Politische, wirtschaftliche und kulturelle Entwicklung im Zeichen einer Jahrtausendwende. 3. Internationales Colloquium der Deutschen Orient-Gesellschaft 4.–7. April 2000 in Frankfurt/Main und Marburg/Lahn. Colloquien der Deutschen Orient-Gesellschaft 3 (Saarbücken 2004) 15–43.

Sallaberger 2007: W. Sallaberger, From Urban Culture to Nomadism. A History of Upper Mesopotamia in the Late Third Millennium. In: C. Kuzucuoğlu/C. Marro (Hrsg.), Sociétés humaines et changement climatique à la fin du troisième millénaire. Une crise a-t-elle eu lieu en Haute Mésopotamie? Actes du Colloque de Lyon, 5-8 décembre 2005. Varia Anatolica 19 (Paris 2007) 417–456.

Sallaberger 2006–08: W. Sallaberger, Provinz. A. Babylonien im 3. und 2. Jt. Reallexikon der Assyriologie und Vorderasiatischen Archäologie 11, 2006–08, 34–38.

Sallaberger 2013: The Management of the Royal Treasure. Palace Archives and Palatial Economy in the Ancient Near East. In: J. A. Hill/P. Jones/A. J. Morales (Hrsg.), Experiencing Power, Generating Authority. Cosmos, Politics, and the Ideology of Kingship in Ancient Egypt and Mesopotamia (Philadelphia 2013) 219–255.

Sallaberger 2015: W. Sallaberger, Ur-Namma. Reallexikon der Assyriologie und Vorderasiatischen Archäologie 14, 2015, 422–431.

Sallaberger/Schrakamp 2015a: W. Sallaberger/I. Schrakamp, Philological Data for a Historical Chronology of the Third Millennium. In: W. Sallaberger/I. Schrakamp (Hrsg.), History & Philology. Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean 3 (Turnhout 2015) 1–136.

Sallaberger/Schrakamp 2015b: W. Sallaberger/I. Schrakamp, Conclusion. In: W. Sallaberger/I. Schrakamp (Hrsg.), History & Philology. Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean 3 (Turnhout 2015) 297–304.

Sassmannshausen 2005: L. Sassmannshausen, Sumerians and "Akkadians" in the Akkadian Period. In: W. H. Van Soldt (Hrsg.), Ethnicity in Ancient Mesopotamia. Papers Read at the 48th Rencontre Assyriologique Internationale Leiden 1–4 July 2002. PIHANS. Uitgaven van het Nederlands Instituut voor het Nabije Oosten te Leiden = Publications de l'institut historique-archéologique néerlandais de Stamboul 102 (Leiden 2005) 333–339.

Sazonov 2007: V. Sazonov, Vergöttlichung der Könige von Akkade. In: Th. R. Kämmerer (Hrsg.), Studien zu Ritual und Sozialgeschichte im Alten Orient / Studies on Ritual and Society in the Ancient Near East. Tartuer Symposien 1998–2004. Beihefte zur Zeitschrift für die alttestamentliche Wissenschaft 374 (Berlin 2007) 325–342.

Schrakamp 2006: I. Schrakamp, Kommentar zu der altakkadischen „Rüstkammerurkunde" Erm. 14380. Babel und Bibel 3. Annual of Ancient Near Eastern, Old Testament, and Semitic Studies, 2006, 161–177.

Schrakamp 2010: I. Schrakamp, Krieger und Waffen im frühen Mesopotamien. Organisation und Bewaffnung des Militärs in frühdynastischer und sargonischer Zeit. Dissertation Philipps-Universität Marburg (Marburg 2010). <https://archiv.ub.uni-marburg.de/diss/z2010/0486/>.

Schrakamp 2013a: I. Schrakamp, Die „Sumerische Tempelstadt" heute. Die sozioökonomische Rolle eines Tempels in frühdynastischer Zeit. In: K. Kaniuth/A. Löhnert/J. M. Miller/A. Otto/M. Roaf/W. Sallaberger (Hrsg.), Tempel im Alten Orient. 7. Internationales Colloquium der Deutschen Orient-Gesellschaft 11.–13. Oktober 2009, München. Colloquien der Deutschen Orient-Gesellschaft 7 (Wiesbaden 2013) 445–465.

Schrakamp 2013b: I. Schrakamp, Zu den vor-Ur III-zeitlichen Keilschrifttexten des World Museum, Liverpool. Journal of Cuneiform Studies 64, 2013, 145–162.

Schrakamp 2014: I. Schrakamp, Krieger und Bauern. RU-lugal und aga$_3$/aga-us$_2$ im Militär des altsumerischen Lagaš. In: H. Neumann/R. Dittmann/S. Paulus/G. Neumann/A. Schuster-Brandis (Hrsg.), Krieg und Frieden im Alten Vorderasien. 52e Rencontre Assyriologique Internationale. International Congress of Assyriology and Near Eastern Archaeology Münster, 17.–21. Juli 2006. Alter Orient und Altes Testament 401 (Münster 2014) 691–724.

Schrakamp 2015a: I. Schrakamp, Geographical Horizons in Presargonic and Sargonic Archives. In: W. Sallaberger/I. Schrakamp (Hrsg.), History & Philology. Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean 3 (Turnhout 2015) 197–270.

Schrakamp 2015b: I. Schrakamp, „Urukagina, Sohn des Engilsa, des Stadtfürsten von Lagaš". Zur Herkunft des Urukagina, des letzten Herrschers der 1. Dynastie von Lagaš. Altorientalische Forschungen 42, 2015, 15–23.

Schrakamp 2015c: I. Schrakamp, Urukagina und die Geschichte von Lagaš am Ende der präsargonischen Zeit. In: G. J. Selz/R. Dittmann unter Mitarbeit von E. Rehm (Hrsg.), It's a Long Way to a Historiography of the Early Dynastic Period(s). Altertumskunde des Vorderen Orients. Archäologische Studien zur Kultur und Geschichte des Alten Orients 15 (Münster 2015) 303–386.

Schrakamp 2016a: I. Schrakamp, Akkadian Empire. In: J. MacKenzie (Hrsg.), The Encyclopedia of Empire (Chichester 2016) 50–59.

Schrakamp 2016b: I. Schrakamp, Warīum, Warûm. Reallexikon der Assyriologie und Vorderasiatischen Archäologie 14, 2016, 645–647.

Selz 1992: G. J. Selz, Enlil und Nippur nach präsargonischen Quellen. In: M. DeJong Ellis (Hrsg.), Nippur at the Centennial. Papers Read at the 35e Rencontre Assyriologique Internationale, Philadelphia 1988. Occasional Publications of the Samuel Noah Kramer Fund 14 (Philadelphia 1992) 189–225.

Selz 1995: G. J. Selz, Rezension zu Steinkeller 1992b. Die Welt des Orients 26, 1995, 193–198.

Selz 1998: G. J. Selz, Über mesopotamische Herrschaftskonzepte. Zu den Ursprüngen mesopotamischer Herrscherideologie im 3. Jahrtausend. In: M. Dietrich/O. Loretz (Hrsg.), dubsar anta-men. Studien zur Altorientalistik. Festschrift für Willem H. Ph. Römer zur Vollendung seines 70. Lebensjahres mit

Beiträgen von Freunden, Schülern und Kollegen. Alter Orient und Altes Testament 253 (Münster 1998) 281–343.

Selz 1999/2000: G. J. Selz, „Wirtschaftskrise – Legitimationskrise – Staatskrise“. Zur Genese mesopotamischer Rechtsvorstellungen zwischen Planwirtschaft und Eigentumsverfassung. Archiv für Orientforschung 46/47, 1999/2000, 1–44.

Selz 2002a: G. J. Selz, Die Königslisten als politische Tendenz-Werke? Freiburger Universitätsblätter 156, 2002, 21–30.

Selz 2002b: G. J. Selz, „Streit herrscht, Gewalt droht“ – Zu Konfliktregelung und Recht in der frühdynastischen und altakkadischen Zeit. Wiener Zeitschrift für die Kunde des Morgenlandes 92, 2002, 155–203.

Selz 2010: G. J. Selz, “He put in order the accounts …”. Remarks on the Early Dynastic Background of the Administrative Reorganisations in the Ur III State”. In: L. Kogan/N. Koslova/S. Loesov/S. Tishchenko (Hrsg.), City Administration in the Ancient Near East. Proceedings of the 53e Rencontre Assyriologique Internationale Vol. 2. Babel und Bibel 5. Annual of Ancient Near Eastern, Old Testament, and Semitic Studies (Winona Lake 2010) 5–30.

Selz 2011–13: G. J. Selz, Staat. A. In Mesopotamien. Reallexikon der Assyriologie und Vorderasiatischen Archäologie 13, 2011–13, 23–32.

Selz 2016: G. J. Selz, Vergöttlichung. A. In Mesopotamien. Reallexikon der Assyriologie und Vorderasiatischen Archäologie 14, 545–548.

Sollberger 1954–56: E. Sollberger, Sur la chronologie des rois d’Ur et quelque problèmes connexes. Archiv für Orientfoschung 17, 1954–56, 10–48.

Sollberger 1972: E. Sollberger, Pre-Sargonic and Sargonic Economic Texts. Cuneiform Texts from Babylonian Tablets in the British Museum Part 50 (London 1972).

Sommerfeld 1999: W. Sommerfeld, Die Texte der Akkade-Zeit 1. Das Dijala-Gebiet. Tutub. Imgula 3/1 (Münster 1999).

Sommerfeld 2000: W. Sommerfeld, Naram-Sin, die „Große Revolte“ und MAR.TU^{ki}. In: J. Marzahn/H. Neumann unter Mitarbeit von A. Fuchs (Hrsg.), Assyriologica et Semitica. Festschrift für Joachim Oelsner anläßlich seines 65. Geburtstages am 18. Februar 1997. Alter Orient und Altes Testament 252 (Münster 2000) 419–436.

Sommerfeld 2003: W. Sommerfeld, Bemerkungen zur Dialektgliederung Altakkadisch, Assyrisch und Babylonisch. In: G. J. Selz (Hrsg.), Festschrift für Burkhart Kienast zu seinem 70. Geburtstage dargebracht von Freunden, Schülern und Kollegen. Alter Orient und Altes Testament 274 (Münster 2003) 569–586.

Sommerfeld 2006a: W. Sommerfeld, Der Beginn des offiziellen Richteramtes im Alten Orient. In: J. Hengstl/U. Sick (Hrsg.), Recht gestern und heute. Festschrift zum 85. Geburtstag von Richard Haase. Philippika. Altertumswissenschaftliche Abhandlungen 13 (Wiesbaden 2006) 3–20.

Sommerfeld 2006b: W. Sommerfeld, Eine Sammeltafel der Akkade-Zeit aus der St. Petersburger Eremitage über die Ausgabe von Waffen. Babel und Bibel 3. Annual of Ancient Near Eastern, Old Testament, and Semitic Studies, 2006, 149–159.

Sommerfeld 2006–08: W. Sommerfeld, Rīmuš. Reallexikon der Assyriologie und Vorderasiatischen Archäologie 11, 2006–08, 372–375.

Sommerfeld 2008: W. Sommerfeld, Große Zahlen in den altakkadischen Königsinschriften. Altorientalische Forschungen 35, 2008, 220–237.

Sommerfeld 2010: W. Sommerfeld, Prä-Akkadisch. Die Vorläufer der „Sprache von Akkade“ in der frühdynastischen Zeit. In: L. Kogan/N. Koslova/S. Loesov/S. Tishchenko (Hrsg.), Language in the Ancient Near East. Proceedings of the 53e Rencontre Assyriologique Internationale Vol. 1, Part 1. Babel und Bibel 4/1. Annual of Ancient Near Eastern, Old Testament, and Semitic Studies (Winona Lake) 77–163.

Sommerfeld 2009–11: W. Sommerfeld, Sargon (*Śar-ru*-GI usw.). Begründer der Dynastie von Akkade. Reallexikon der Assyriologie und Vorderasiatischen Archäologie 12, 2009–11, 44–49.

Sommerfeld 2011a: W. Sommerfeld, Altakkadische Duelle. In: G. Barjamovic/J. L. Dahl/U. S. Koch/W. Sommerfeld/J. G. Westenholz (Hrsg.), Akkade is King. A Collection of Papers by Friends and Colleagues Presented to Aage Westenholz on the Occasion of His 70th Birthday, 15th of May 2009, PIHANS. Uitgaven van het Nederlands Instituut voor het Nabije Oosten te Leiden = Publications de l'institut historique-archéologique néerlandais de Stamboul 118 (Leiden 2011) 287–299.

Sommerfeld 2011b: W. Sommerfeld, Geschichte des Dijala-Gebietes in der Akkade-Zeit. In: P. A. Miglus/S. Mühl (Hrsg.), Between the Cultures. The Central Tigris Region from the 3rd to the 1st Millennium BC. Conference at Heidelberg January 22nd–24th, 2009. Heidelberger Studien zum Alten Orient 14 (Heidelberg 2011) 85–96.

Sommerfeld 2012: W. Sommerfeld, Hasselbach, Rebecca. Sargonic Akkadian. A Historical and Comparative Study of the Syllabic Texts. Ein Rezensionsartikel. Wiener Zeitschrift für die Kunde des Morgenlandes 102, 2012, 193–284.

Sommerfeld 2014: W. Sommerfeld, Die Lage von Akkade und die Dokumentation des 3. Jahrtausends. In: N. Ziegler/E. Cancik-Kirschbaum (Hrsg.), Entre les fleuves – II. D'Aššur à Mari et au-delà. Berliner Beiträge zum Vorderen Orient 24 (Berlin 2014) 151–175.

Sommerfeld 2015a: W. Sommerfeld, Girsu-Texte der Akkade-Zeit in Istanbul – eine Nachlese. In: A. Müller-Karpe/E. Rieken/W. Sommerfeld (Hrsg.), Saeculum. Gedenkschrift für Heinrich Otten anlässlich seines 100. Geburtstags. Studien zu den Boğazköy-Texten 58 (Wiesbaden 2015) 251–267.

Sommerfeld 2015b: W. Sommerfeld, The Transition from the Old Akkadian Period to Ur III in Lagash. In: W. Sallaberger/I. Schrakamp (Hrsg.), History & Philology. Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean 3 (Turnhout 2015) 271–279.

Steinkeller 1982: P. Steinkeller, The Question of Marḫaši. A Contribution to the Historical Geography of Iran in the Third Millennium B.C. Zeitschrift für Assyriologie und Vorderasiatische Archäologie 72, 1982, 237–265.

Steinkeller 1987a: P. Steinkeller, Rezension zu Foster 1982d. Wiener Zeitschrift für die Kunde des Morgenlandes 77, 1987, 182–195.

Steinkeller 1987b: P. Steinkeller 1987, The Administrative and Economic Organisation of the Ur III State: The Core and the Periphery. In: M. Gibson/R. D. Biggs (Hrsg.), The Organization of Power. Aspects of Bureaucracy in the Ancient Near East. Studies in Ancient Oriental Civilization 46 (Chicago 1987) 19–41.

Steinkeller 1988: P. Steinkeller, Grundeigentum in Babylonien von Uruk IV bis zur frühdynastischen Periode II. In: B. Brentjes (Hrsg.), Das Grundeigentum in Mesopotamien. Jahrbuch für Wirtschaftsgeschichte Sonderband 1987 (Berlin 1988) 11–27.

Steinkeller 1987–90: P. Steinkeller, Man-ištūšu. A. Philologisch. Reallexikon der Assyriologie und Vorderasiatischen Archäologie 7, 1987–90, 334–335.

Steinkeller 1992a: P. Steinkeller, Mesopotamia in the Third Millennium B.C. The Anchor Bible Dictionary 4, 1992, 724–732.

Steinkeller 1992b: P. Steinkeller, Third-Millennium Legal and Administrative Texts in the Iraq Museum, Baghdad. Mesopotamian Civilizations 4 (Winona Lake 1992).

Steinkeller 1993a: P. Steinkeller, Early Political Development in Mesopotamia and the Origins of the Sargonic Empire. In: M. Liverani (Hrsg.), Akkad. The First World Empire. Structure, Ideology, Traditions. History of the Ancient Near East/Studies 5 (Padua 1993) 107–129.

Steinkeller 1993b: P. Steinkeller, Rezension zu Westenholz 1987. Journal of Near Eastern Studies 52, 1993, 141–145.

Steinkeller 1999a: P. Steinkeller, Land-Tenure Conditions in Southern Babylonia under the Sargonic Dynasty. In: B. Böck/E. Cancik-Kirschbaum/Th. Richter (Hrsg.), Munuscula Mesopotamica. Festschrift für Johannes Renger. Alter Orient und Altes Testament 267 (Münster 1999) 553–571.

Steinkeller 1999b: P. Steinkeller, Land-Tenure Conditions in Third-Millennium Babylonia. The Problem of Regional Variation. In: M. Hudson/B. A. Levine (Hrsg.), Urbanization and Land Ownership in the Ancient Near East. A Colloquium Held at New York University, November 1996, and the Oriental Institute, St. Petersburg, Russia, May 1997. Peabody Museum Bulletin 7 (Cambridge 1999) 289–329.

Steinkeller 1999c: P. Steinkeller, On Rulers, Priests and Sacred Marriage. Tracing the Evolution of Early Sumerian Kingship. In: K. Watanabe (Hrsg.), Priests and Officials in the Ancient Near East. Papers of the Second Colloquium on the Ancient Near East – The City and its Life held at the Middle Eastern Culture Center in Japan (Mitaka, Tokyo) March 22–24, 1996 (Heidelberg 1999) 103–137.

Steinkeller 2003: P. Steinkeller, An Ur III Manuscript of the Sumerian King List. In: W. Sallaberger/K. Volk/A. Zgoll (Hrsg.), Literatur, Politik und Recht in Mesopotamien. Festschrift für Claus Wilcke. Orientalia Biblica et Christiana 14 (Wiesbaden 2003) 267–292.

Steinkeller 2007: P. Steinkeller, City and Countryside in Third-Millennium Southern Mesopotamia. In: E. C. Stone (Hrsg.), Settlement and Society. Essays Dedicated to Robert McC. Adams (Chicago 2007) 185–211.

Steinkeller 2013a: P. Steinkeller, An Archaic "Prisoner Plaque" from Kiš. Revue d'assyriologie et d'archéologie orientale 107, 2013, 131–157.

Steinkeller 2013b: P. Steinkeller, Corvée Labour in Ur III Times. In: S. Garfinkle/M. Molina (Hrsg.), From the 21st Century B.C to the 21st Century A.D. Proceedings of the International Conference of Neo-Sumerian Studies Held in Madrid, 22–24 July (Winona Lake 2013) 347–424.

Steinkeller 2015: P. Steinkeller, The Gutian Period in Chronological Perspective. In: W. Sallaberger/I. Schrakamp (Hrsg.), History & Philology. Associated Regional Chronologies for the Ancient Near East and the Eastern Mediterranean 3 (Turnhout 2015) 281–288.

Stępień 2009: M. Stępień, Why some Kings become Gods. The Deification of Narām-Sîn, the Ruler of the World. In: O. Drewnowska (Hrsg.), Here & There Across the Ancient Near East. Studies in Honor of Krystyna Lyczkowska (Warsaw 2009) 233–255.

STTI: Textnummer bei Donbaz/Foster 1982.

Such-Gutiérrez 2003: M. Such-Gutiérrez, Beiträge zum Pantheon von Nippur im 3. Jahrtausend. Materiali per il vocabulario sumerico 9 (Rom 2003).

Such-Gutiérrez 2015: M. Such-Gutiérrez, Der Übergang von der frühdynastischen Zeit in die altakkadische Periode anhand der Adab-Texte. In: G. J. Selz/R. Dittmann unter Mitarbeit von E. Rehm (Hrsg.), It's a Long Way to a Historiography of the Early Dynastic Period(s). Altertumskunde des Vorderen Orients. Archäologische Studien zur Kultur und Geschichte des Alten Orients 15 (Münster 2015) 433–451.

Tinney 1995: S. Tinney, A New Look at Naram-Sin and the "Great Rebellion". Journal of Cuneiform Studies 47, 1997, 1–14.

Thureau-Dangin 1903: F. Thureau-Dangin, Recueil de tablettes chaldéennes (Paris 1903).

Thureau-Dangin 1910: F. Thureau-Dangin, Inventaire des tablettes de Tello conservées au Musée Impérial Ottoman, Tome I. Textes de l'époque d'Agadé (Fouilles d'Ernest de Sarzec en 1895) (Paris 1910).

USP: Textnummer bei Foster 1982d.

UTI 6: Textnummer bei Yıldız/Ozaki 2001.

Van Driel 2000: G. Van Driel, Institutional and Non-Institutional Economy in Ancient Mesopotamia. In: A. C. V. Bogenaar (Hrsg.), Interdependency of Institutions and Private Entrepreneurs. Proceedings of the Second MOS Symposion. MOS Studies 2 (Leiden 2000) 5–23.

Veldhuis 2014a: N. Veldhuis, The Early Dynastic Kiš Tradition. In: L. Sassmannshausen/G. Neumann (Hrsg.), He Has Opened Nisaba's House of Learning. Studies in Honor of Åke Waldemar Sjöberg on the Occasion of His 89th Birthday on August 1st 2013 (Leiden 2014) 241–259.

Veldhuis 2014b: N. Veldhuis, History of the Cuneiform Lexical Tradition. Guides to the Mesopotamian Textual Record 6 (Münster 2014).

Visicato 2000: G. Visicato, The Power and the Writing. The Early Scribes of Mesopotamia (Bethesda 2000).

Visicato 2001: G. Visicato, The Journey of the Sargonic King to Assur and Gasur. In: T. Abusch/P.-A. Beaulieu/J. Huehnergard/P. Machinist/P. Steinkeller (Hrsg.), Proceedings of the XLVe Rencontre Assyriologique Internationale Part I. Historiography in the Cuneiform World (Bethesda 2001) 467–472.

Visicato 2010: G. Visicato, New Light from an Unpublished Archive of Meskigalla, Ensi of Adab, Housed in the Cornell University Collections. In: L. Kogan/N. Koslova/S. Loesov/S. Tishchenko (Hrsg.), City Administration in the Ancient Near East. Proceedings of the 53e Rencontre Assyriologique Internationale Vol. 2. Babel und Bibel 5. Annual of Ancient Near Eastern, Old Testament, and Semitic Studies (Winona Lake 2010) 263–271.

Visicato 2012: G. Visicato, Two Governors of Umma called Surus-kin in the Sargonic Period. In: P. Notizia/F. Pomponio (Hrsg.), Scritti in onore di Pietro Mander, Annali dell'Università degli Studi di Napoli "L'Orientale" 72 (Napoli 2012) 169–174.

Visicato/Westenholz 2006: G. Visicato/Westenholz, Le tavolette presargoniche e sargoniche. In: F. Pomponio/M. Stol/A. Westenholz (Hrsg.), Tavolette cuneiformi di varia provenienzia delle collenzioni della Banca d'Italia. Le tavolette cuneiformi delle collezione della Banca d'Italia 2 (Roma 2006) 11–67.

Visicato/Westenholz 2010: G. Visicato/Westenholz, Early Dynastic and Early Sargonic Tablets from Adab in the Cornell University Collections. Cornell University Studies in Assyriology and Sumerology 11 (Bethesda 2010).

Volk 1992: K. Volk, Puzur-Mama und die Reise des Königs. Zeitschrift für Assyriologie und Vorderasiatische Archäologie 82, 1992, 22–29.

Waetzoldt 1991: H. Waetzoldt, Rezension zu M. Gibson/R. D. Biggs (Hrsg.), The Organization of Power. Aspects of Bureaucracy in the Ancient Near East. Studies in Ancient Oriental Civilization 46 (Chicago 1987). Journal of the American Oriental Society 111, 1991, 637–641.

Weiershäuser 2008: F. Weiershäuser, Die königlichen Frauen der III. Dynastie von Ur. Göttinger Beiträge zum Alten Orient 1 (Göttingen 2008).

Westbrook 2005: R. Westbrook, Patronage in the Ancient Near East. Journal of the Economic and Social History of the Orient 48, 2005, 210–233.

Westenholz 1972: A. Westenholz, Rezension zu I. J. Gelb, Materials for the Assyrian Dictionary, No. 4. Sargonic Texts in the Louvre Museum and Materials for the Assyrian Dictionary, No. 5. Sargonic Texts in the Ashmolean Museum, Oxford (Chicago 1970). Journal of Near Eastern Studies 31, 1972, 380–382.

Westenholz 1974: A. Westenholz, Early Nippur Year Dates and the Sumerian King List. Journal of Cuneiform Studies 26, 1974, 154–156.

Westenholz 1975a: A. Westenholz, Old Sumerian and Old Akkadian Texts in Philadelphia Chiefly from Nippur. Part One. Literary and Lexical Texts and the Earliest Administrative Documents from Nippur. Bibliotheca Mesopotamia 1 (Malibu 1975).

Westenholz 1975b: A. Westenholz, Early Cuneiform Texts in Jena. Pre-Sargonic and Sargonic Documents from Nippur and Fara in the Hilprecht-Sammlung vorderasiatischer Altertümer Institut für Altertumswissenschaften der Friedrich-Schiller-Universität, Jena. Det Kongelige Danske Videnskabernes Selskab Historisk-Filosofiske Skrifter 7, 3 (København 1975).

Westenholz 1974–77: A. Westenholz, Old Akkadian School Texts. Some Goals of Sargonic Scribal Education. Archiv für Orientforschung 25, 1974–77, 95–110.

Westenholz 1979: A. Westenholz, The Old Akkadian Empire in Contemporary Opinion. In: M. T. Larsen (Hrsg.), Power and Propaganda. A Symposium on Ancient Empires. Mesopotamia 7 (Copenhagen 1979) 107–124.

Westenholz 1984a: A. Westenholz, The Sargonic Period. In: A. Archi (Hrsg.), Circulation of Goods in Non-palatial Context in the Ancient Near East. Proceedings of the International Conference Organized by the Instituto per gli studi Micenei ed Egeo-Anatolici. Incunabula Graeca 82 (Roma 1984) 17–30.

Westenholz 1984b: A. Westenholz, Rezension zu Foster 1982d, Archiv für Orientforschung 31, 1984, 76–81.

Westenholz 1987: A. Westenholz, Old Sumerian and Old Akkadian Texts in Philadelphia. Part Two: The 'Akkadian' Texts, the Enlilemaba Texts, and the Onion Archive (OSP 2). Carsten Niebuhr Institute Publications 3 (Copenhagen 1987).

Westenholz 1992: A. Westenholz, Rezension zu Glassner 1986. Orientalistische Literaturzeitung 87, 1992, 39–48.

Westenholz 1993: A. Westenholz, The World View of Sargonic Officials. Differences in Mentality between Sumerians and Akkadians. In: M. Liverani (Hrsg.), Akkad. The First World Empire. Structure, Ideology, Traditions. History of the Ancient Near East. Studies 5 (Padova 1993) 157–169.

Westenholz 1995: A. Westenholz, Rezension zu Steinkeller 1992b, Journal of the American Oriental Society 115, 1995, 535–537.

Westenholz 1999: A. Westenholz, The Old Akkadian Period. History and Culture. In: P. Attinger/M. Wäfler (Hrsg.), Mesopotamien. Akkade-Zeit und Ur III-Zeit. Annäherungen 3. Orbis Biblicus et Orientalis 160/3 (Fribourg/Schweiz 1999) 15–117.

Westenholz 2000: A. Westenholz, Assyriologists, Ancient and Modern, on Naramsin and Sharkalisharri. In: J. Marzahn/H. Neumann unter Mitarbeit von A. Fuchs (Hrsg.), Festschrift für Joachim Oelsner anläßlich seines 65. Geburtstages am 18. Februar 1997. Alter Orient und Altes Testament 252 (Münster 2002) 545–556.

Westenholz 2002: A. Westenholz, The Sumerian City-State. In: M. H. Hansen (Hrsg.), A Comparative Study of Six City-State Cultures. An Investigation Conducted by the Copenhagen Polis Centre (Copenhagen 2002) 23–42.

Westenholz 2004: A. Westenholz, "Have you been near Prof. Larsen too long?" In: J. G. Dercksen (Hrsg.), Assyria and Beyond. Studies Presented to Mogens Trolle Larsen. PIHANS. Uitgaven van het Nederlands Instituut voor het Naabije Oosten te Leiden = Publications de l'institut historique-archéologique néerlandais de Stamboul 100 (Leiden 2004) 599–606.

Westenholz 2010: A. Westenholz, What's New in Town? In: S. C. Melville/A. L. Slotsky (Hrsg.), Opening the Tablet Box. Near Eastern Studies in Honor of Benjamin R. Foster. Culture and History of the Ancient Near East 42 (Leiden 2010) 453–462.

Westenholz 2009–11: A. Westenholz, Šar-kali-šarrī. Reallexikon der Assyriologie und Vorderasiatischen Archäologie 12, 2009–11, 64–65.

Westenholz 2014: A. Westenholz, A Third-Millennium Miscellany of Cuneiform Texts. Cornell University Studies in Assyriology and Sumerology 26 (Bethesda 2014).

Westenholz/Westenholz 1983: A. Westenholz/J. G. Westenholz, Die Prinzessin Tutanapsum. Altorientalische Forschungen 10, 1983, 387–388.

J. G. Westenholz 1997: J. G. Westenholz, Legends of the Kings of Akkade. The Texts. Mesopotamian Civilizations 7 (Winona Lake 1997).

J. G. Westenholz 2000: J. G. Westenholz, The King, the Emperor, and the Empire. Continuity and Discontinuity of Royal Representation in Text and Image. In: S. Aro/R. M. Whiting (Hrsg.), The Heirs of Assyria. Proceedings of the Opening Symposium of the Assyrian and Babylonian Intellectual Heritage Project held in Tvärminne, Finland, October 8–11, 1998. Melammu Symposia 1 (Helsinki 2000) 99–125.

Wilcke 1988: C. Wilcke, Die sumerische Königsliste und erzählte Vergangenheit. In: J. von Ungern-Sternberg/H. Reinau (Hrsg.), Vergangenheit in mündlicher Überlieferung. Colloquium Rauricum 1 (Stuttgart 1988) 113–140.

Wilcke 1989: C. Wilcke, Genealogical and Geographical Thought in the Sumerian Kings List. In: H. Behrens/D. Loding/M. T. Roth (Hrsg.), Dumu E_2-dub-ba-a. Studies in Honor of Åke W. Sjöberg. Occasional Publications of the Samuel Noah Kramer Fund 11 (Philadelphia 1989) 557–571.

Wilcke 1993: C. Wilcke, Politik im Spiegel der Literatur, Literatur als Mittel der Politik im älteren Babyonien. In: K. Raaflaub (Hrsg.), Anfänge politischen Denkens in der Antike. Die nahöstlichen Kulturen und die Griechen. Schriften des Historischen Kollegs, Kolloquien 24 (München 1993) 29–75.

Wilcke 1997: C. Wilcke, Amar-girids Revolte gegen Narām-Su'en. Zeitschrift für Assyriologie und Vorderasiatische Archäologie 87, 1997, 11–32.

Wilcke 2002: C. Wilcke, Der Kodex Urnamma (CU). Versuch einer Rekonstruktion. In: T. Abusch (Hrsg.), Riches Hidden in Secret Places. Ancient Near Eastern Studies in Memory of Thorkild Jacobsen (Winona Lake 2002) 291–333.

Wilcke 2007: C. Wilcke, Early Ancient Near Eastern Law. A History of its Beginnings. The Early Dynastic and Sargonic Periods. Revised Edition (Winona Lake 2007).

Wilson 2012: K. L. Wilson, Bismaya. Recovering the Lost City of Adab. Oriental Institute Publications 138 (Chicago 2012).

Yang 1988: Z. Yang, The Excavations of Adab. Journal of Ancient Civilizations 3, 1988, 1–21.

Yang 1989: Z. Yang, Sargonic Inscriptions from Adab. Periodic Publications on Ancient Civilizations 1 (Changchun 1989).

Yıldız/Ozaki 2001: F. Yıldız/T. Ozaki, Die Umma-Texte aus den Archäologischen Museen zu Istanbul 6 (Bethesda 2001).

Yoffee 1995: N. Yoffee, Political Economy in Early Mesopotamian States. Annual Review of Anthropology 2, 1995, 281–311.

Zettler 1977: R. Zettler, The Sargonic Royal Seal. A Consideration of Sealing in Mesopotamia. In: M. Gibson/R. D. Biggs (Hrsg.), Seals and Sealing in the Ancient Near East. Bibliotheca Mesopotamica 6 (Malibu 1977) 33–39.

Zgoll 1997: A. Zgoll, Der Rechtsfall der En-ḫedu-ana im Lied nin-me-šara. Alter Orient und Altes Testament 246 (Münster 1997).

DANIEL T. POTTS

Resource Origins and Resource Movement in and around the Persian Gulf

Keywords: Mesopotamia, Persian Gulf, pearls, copper, timber, softstone, ivory, linen, carnelian

Abstract

Natural resources consumed by the urban population of southern Mesopotamia during the Bronze Age both originated in and passed through the Persian Gulf region. This paper provides a survey of some of the most important commodities, both organic and inorganic, that were traded, with comments on their sources, uses and significance. Particular attention is paid to pearls, timber, ivory, carnelian, dates, copper, aromatics and softstone. Evidence of these goods from both archaeological excavations and cuneiform texts is presented. The goods that may have been traded in exchange for such foreign commodities are also discussed. While the commodities considered here are most often viewed as luxury or exotic goods that functioned to underpin the increasingly stratified society of southern Mesopotamia, the consumption of the very same sorts of commodities by the less complex societies of the Persian Gulf littoral is also emphasised. In this respect, a desire for exotica appears to be both more deep-seated and widely distributed amongst socially distinctive groups than might have been realised prior to the expansion of excavations in eastern Arabia and the Oman peninsula during the past few decades.

Introduction

Mesopotamian cuneiform sources of the mid-3rd to early 2nd mill. BC contain scattered references to a number of natural resources associated with the Persian Gulf, eastern Arabia, the Bahrain islands and the Oman peninsula (Heimpel 1987). Some of these were indigenous to the region, while others originated further east and were consumed or transformed there. Some – both indigenous and exogenous – were sold on by merchants to consumers further west. That the association of these resources with the Persian Gulf in cuneiform sources was not merely a product of fantasy has been confirmed by documents attesting to their acquisition and use stretching back to the 16th cent. That they were important in the deep past, moreover, has been demonstrated by decades of archaeological excavation and geological survey. Pearls and copper head the list of indigenous resources, while fish and dates should be mentioned as well. The non-indigenous resources of greatest importance include exotic timbers, carnelian and ivory from the Indian sub-continent, which were both consumed in the Persian Gulf and traded onwards towards the west. In addition, gold, lapis lazuli, tin, and aromatics, among other things, passed through the Persian Gulf region at different times. The tyranny of the cuneiform record is such that we often view the Persian Gulf as little more than a funnel or conduit for natural resources from South Asia, southeastern Iran and the Oman peninsula, ignoring the communities that lived there, mined the copper, dove for the pearls and managed the vessels, crews and cargoes that carried copper ingots, ivory, carnelian, dates, linen, timber and other commodities and finished products to southern Mesopotamian cities like Ur and Lagash. We should not, however, forget, that the indigenous communities in Oman and eastern Arabia, unknown to us until the past few decades of archaeological research brought them to light, consumed the very same goods that we often tend to associate with the urban elite of Mesopotamia. In this brief paper each of the most important resources

associated with the Persian Gulf, both indigenous and exogenous, will be presented, roughly in the order in which they appear in the prehistoric and historic record.

Pearls

Prior to the invention of the cultured pearl in 1913 (Jameson 1921, 396) and the discovery of oil on Bahrain in the spring of 1932 (Ferrier 1982, 570), by far the most lucrative resource in the Persian Gulf region was the pearl. This formed the bedrock upon which fortunes were made from Bahrain to Ras al-Khaimah, in many cases giving families the financial foundation, which launched many of the large trading firms still active in the region today (Carter 2005). Historically, the most important pearling areas extended roughly from the waters off the coast of Qatif, in the Eastern Province of Saudi Arabia, southward and eastward to Dubai. They were densest north of Bahrain and Qatar, and east of Qatar or north of western Abu Dhabi.

Archaeological excavations on the island of Akab in the lagoon of Umm al-Qaiwain, on the coast of the northern United Arab Emirates, have revealed the world's earliest pearl, dating to the mid-6th mill. calBC (Charpentier/Méry 2008, fig. 13; Charpentier et al. 2012), while excavations in the slightly later cemetery at Jabal al-Buhais, in the interior of Sharjah (United Arab Emirates), have revealed over 60 pearls (Kiesewetter et al. 2000, 140 f., 143; Beauclair 2008, table 2). These finds are important because, even if the population was transhumant, moving seasonally between the coast and the interior, the pearls at Jabal al-Buhais are clear testimony to the circulation of this important coastal resource amongst the communities of the Persian Gulf itself, even if they have not yet been discovered at contemporary sites in Mesopotamia, where in fact very few excavations, in the south, have reached stratigraphically intact early levels of the 6th mill. BC.

The geographically closest find to Mesopotamia of such early date comes from the site of H3 in Kuwait where a drilled pearl was found (Carter/Crawford 2002, 8) of similar date to the examples from Jabal Buhais.

Timber

A well-known text from the middle of the 3rd mill. BC records the boast of Ur-Nanshe, king of the city-state of Lagash, that ships from Dilmun brought him timber qualified as being 'from foreign lands' (Sollberger/Kupper 1971, s.v. IC3c 12–17). Dilmun, although commonly identified with Bahrain, was probably based on the mainland at this early date (Potts 2007a, 136; Potts 2009, 31). Of those species used for timber growing in the Persian Gulf region, we might think of the date palm (*Phoenix dactylifera*), black mangrove (*Avicennia marina*) or Christ's thorn (*Ziziphus spina-christi*), none of which is particularly exotic, from a Mesopotamian point of view, even if serviceable for a variety of uses (Heimpel 1987, 56–58). But the Ur-Nanshe inscription might have been alluding to timber from the Indian sub-continent, such as Indian cedar, reportedly discovered at Borsippa in Iraq in the 19th cent. by Hormuzd Rassam and later displayed in the British Museum (Kennedy 1898, 266; Potts 2007b, 122 f.); teak, 'two rough logs' of which were said to have been found in the Nanna-Ningal temple complex at Ur during Colonel Taylor's early excavations in the 19th cent. (Kennedy 1898, 267); or *sissoo*, also known as Pakistani rosewood, which was the ancient Sumerian ^{giš}mes-magan-na, associated with Magan, or the Oman peninsula (Heimpel 1987, 62), but which could have come from there or from further afield, in Baluchistan or the Indus River region (Tengberg/Potts 1999, 130 f.; Tengberg 2002, 75–77). The notion that timber from as far away as the Indus Valley was being imported into southern Mesopotamia via the Persian Gulf in the mid-3rd mill. BC of course presumes a certain level of competence in sailing (Potts 1995), even if the vessels involved stayed close to the coasts of Baluchistan, Oman, southern Iran and eastern Arabia, avoiding crossing large expanses of open water.

Unfortunately, excavations in the Indus Valley itself have yielded just a few representations of watercraft, at least two of which, lacking masts and sails, resemble ferries propelled by punting poles that are used on rivers rather than vessels intended for sailing on a large body of water (Potts 1995, figs. 1–3). In the Persian Gulf itself the situation is much better, beginning with an Ubaid-type boat

model and the image of a masted vessel from the site of H3 in Kuwait, dated to ca. 6000 BC, painted on a sherd (Carter 2002). Later images found on stamp seals from Failaka island, off the coast of Kuwait, while surely indicative of an evolution in the design of sailing craft, date to the early 2nd mill. BC and are thus 600 or 700 years later than the reference to the transport of timber in Dilmunite vessels (Potts 1995, figs. 5–11). The resemblance of the sterns on these vessels to a modern Kumzari *batil* from the Musandam peninsula in northern Oman is striking (Potts 1995, figs. 12–13). Be that as it may, an eastern origin for the timber mentioned in Ur-Nanshe's inscription might also be supported by the early movement of another commodity associated specifically with the area of Khambat or Cambay in Gujarat, namely carnelian.

Carnelian

So-called etched carnelian beads, a specialty of the region, were decorated with linear patterns by applying plant soda on the surface of the bead and briefly exposing it to heat. This technique, practiced until the 1930s, is specific to western India (Allchin 1974; Tosi 1980, 448–452). Several dozen etched carnelian beads have been found at sites in the Persian Gulf (De Waele/Haerinck 2006) but in Mesopotamia, where examples have also been found, the preference, at least as exemplified by the finds from the Royal Cemetery at Ur, was for the larger, barrel-shaped beads (Reade 1979; Heimpel 1987, 51).

Ivory

In addition to timber and carnelian, the Indus Valley, and possibly Central Asia, was a source of ivory, another commodity attested in the cuneiform sources of the late 3rd mill. (Heimpel 1987, 28, 54 f.; Potts 1997, 260–262). Although the media attention paid to illegal killing of elephants and illicit trade in ivory tends to focus on Africa, we should not of course forget that ivory carving was a well-developed craft in India as well. In the late 3rd mill. BC ivory objects from Meluhha, conventionally identified with the Harappan or Indus Valley civilisation,

Fig. 1. Ivory comb (TA 2206) from the late 3rd mill. BC collective tomb at Tell Abraq (9.5 x 7.5 cm; coord. 74.88/116.78, elev. 7.48 m.) (Photo by Daniel T. Potts).

Fig. 2. Ivory comb (TA 2207) from the late 3rd mill. BC collective tomb at Tell Abraq (9.5 x 6.3 cm; coord. 74.95/116.90, elev. 748 m.) (Photo by Daniel T. Potts).

were being imported at Ur in southern Mesopotamia via Magan, the Oman peninsula. Among the objects recorded are ivory birds of Meluhha (dar-me-luḫ-ḫa; Heimpel 1987, 55), which might have been analogous to an ivory tufted duck (*Aythya fuligula*) on a carved base found from a collective tomb at Tell Abraq datable to ca. 2100–2000 BC in the United Arab Emirates (Potts 2000, 131). Also found in the tomb were over a dozen ivory combs (*figs. 1–2*). Most of these are presumed to have come from the Indus Valley, while the examples with incised tulips, find close iconographic parallels on soft-stone flasks from Bactria, in Central Asia, both from excavations at Gonur Depe in Turkmenistan and from the art market (Potts 1993; 1994a). Moreover, that these combs were being worn by individuals when they were interred in the tomb, and not merely deposited as funerary offerings, is shown clearly by the positions of several of the combs, close to or adhering to the cranium (Potts 2000, 126 f.).

Dates

In 1925 the Sumerologist Anton Deimel published a copy of a letter from the mid-3rd mill. found at Telloh, ancient Girsu, and housed in the Pergamon Museum, Berlin. Recently re-edited by Gianni Marchesi, the text records the delivery of three commodities – dates, linen garments and copper – sent

by an unnamed queen of Dilmun to the queen of the city-state Lagash (Marchesi 2011). The letter is interesting in many respects but here I shall limit myself to a few remarks on the resources it mentions. Dates are attested as early as 6000 BC on the Persian Gulf coast, where the earliest carbonised date stones from an archaeological context were discovered at a prehistoric site on the island of Dalma, off the coast of Abu Dhabi (Beech/Shepherd 2001; Tengberg 2012a, 196; 2012b, 142). The nutritional value and calorific contribution of dates to the diet are well-known and date stones have traditionally been used as animal fodder (Potts 2002, 13; 2003, 33 f.) in the region as well. The foliage, in the form of palm fronds, has a wide variety of uses from the manufacture of mats and baskets to houses, while the fibre can be used to make rope (Landsberger 1967). Datepalm cultivation was widely practiced in ancient Mesopotamia as well (Potts 1997, 71 f.; Tengberg 2012a, 192–198), however, and thus the idea of sending dates from Dilmun to Lagash may seem like a case of sending coals to Newcastle. Nevertheless, the symbolic value of the gift (Méry/Tengberg 2009) may have been as important as the nutritional, let alone the 'novelty' factor. Surely the queen of Lagash was familiar with dates, yet the gesture of sending her dates by the queen of Dilmun may have carried special meaning.

Linen

The three linen garments sent to the queen of Lagash are something of a mystery. Despite the importance of linen in Egypt, and its use by elites in Mesopotamia (Waetzoldt 1983), the cultivation of flax for the manufacture of linen is poorly known (for full references to cases cited below see Reade/Potts 1993). Very early flax domestication was demonstrated by Hans Helbaek in his work on the plant remains from Çayönü in southeastern Turkey, dating to ca. 7000 BC, while a fragment of linen was recovered in the Royal Cemetery of Ur, dating to the mid-3rd mill. BC. In the Ur III period, ca. 2100–2000 BC, linen accounted for about 10% of all textile production at Ur and Lagash (Waetzoldt 1983). Was linen produced in the Indus Valley at this early date, or in the Persian Gulf (Boivin/Fuller 2009, 162)? Paleobotanical evidence of the cultivation of *linum* has been found at Miri Qalat in Baluchistan (Tengberg 1999, 8), and at Nausharo and Rojdi, but no macro-remains of linen have been found at Harappan sites (Fuller 2008, Table 2). Linseed oil, rather than textile production has been assumed for both the Indus Valley and early northern Mesopotamia, but Hartmut Waetzoldt noted many years ago that linseed oil becomes rancid very easily in the heat, and therefore flax was probably cultivated in order to manufacture textiles, not oil (Waetzoldt 1985, 77, 85; Potts 1997, 66 f.). We have evidence of linen preserved on the blade of a bronze dagger from Tell Abraq, dating to ca. 2100–2000 BC (*fig. 3*), where its destruction was prevented by the biocidal effects of the corrosion products on the metal (Reade/Potts 1993). Still, this does not tell us whether flax was grown locally or linen was spun locally. For the moment, all we can say is that linen circulated in the Persian Gulf and southern Mesopotamia. Its places of origin remain unidentified.

Fig. 3. Detail of copper-bronze spearhead (TA 1648) from the late 3rd mill. BC collective tomb at Tell Abraq showing a small fragment of woven linen adhering to the corrosion products on its surface (Photo by Daniel T. Potts).

Copper

The third commodity mentioned in the letter from the queen of Dilmun is copper. The copper deposits of the Oman ophiolite have been intensively studied in recent years (*fig. 4*), and in fact as early the 10th cent., the geographer and historian al-Masudi

Fig. 4. Copper smelting ovens in the Wadi Madhhab, Fujairah (United Arab Emirates). Date uncertain but probably from the Islamic era (Photo by Daniel T. Potts).

acknowledged that Oman was a source of copper (Sprenger 1841, 269). Although Carsten Niebuhr heard of a copper mine near Qurayat when he was at Muscat in 1765 (Potts 1990, 114 with refs.), it was not until 1835/6 that J. R. Wellsted visited one in operation at Khadra bin Daffa (Wellsted 1838, 315). In fact, Wellsted's testimony was cited by the Hungarian Orientalist Mihaly Kmoskó when, in 1917, he first suggested that the ancient land of Magan, known to have supplied copper to Ur in the late 3rd mill. BC, should be identified with the Oman peninsula (Kmoskó 1917, 63). The Ur III texts, and particularly the records of the merchant Lu-Enlilla, give us clear evidence of the import of copper from Magan at that time (Heimpel 1987, 52 f.). A couple of centuries later, however, the supplier of copper was Dilmun – the very land from which the queen of Lagash received her copper around 2400 BC – but as Bahrain and eastern Saudi Arabia have no copper deposits, most scholars believe that the source of this copper was not Dilmun itself but continued to be Oman, i.e. Magan, even if Dilmunite middlemen were now the purveyors of it to Mesopotamian buyers (Potts 2007a, 126).

Of course, the copper in question was already refined and was sent in the form of ingots. Nobody was sending tons and tons of unrefined ore by boat from Oman to Mesopotamia. Although ingots are still quite rare in archaeological excavations, a cache of them was found by the late Gerd Weisgerber and the Deutsches Bergbau Museum Bochum expedition at Maysar in the early 1980s (Weisgerber 1980, Abb. 74; Hauptmann et al. 1988, 41 f.; Begemann et al. 2010, 137), while my team recovered a flat-topped, pyramidal ingot in an early 2nd mill. BC context at Tell Abraq in the late 1980s (Potts 2000, 76).

Aromatics

The Mesopotamian and later Greek and Latin sources associate aromatics with Arabia, though principally southwestern Arabia or the area of Yemen, the Horn of Africa (Bron 1985; Beeston 2005) and to a certain extent with India and Baluchistan (Bretzl 1903). Ordinarily, therefore, the Persian Gulf is not thought of as a source or even as a middleman in the aromatics trade. That aromatics may have been used in the region, albeit on the southern edge of it, is, however, demonstrated by the discovery of a rectangular stone incense burner with a clear patch of burnt organic material in the centre of the bowl (Cleuziou 2003, fig. 5). Remarkably, although this was discovered by the joint Italian-French mission at Ras al-Jinz, directed by Maurizio Tosi and the late Serge Cleuziou, no analysis of the burnt residue has ever been undertaken, so that it is impossible to say whether it was frankincense, myrrh or another substance. It is also interesting to recall that, much later, in 7th cent. BC, during the reign of the Assyrian king Assurbanipal, the Assyrian general Bel-Ibni, prosecuting a war against rebels in southern Babylonia led by Nabu-bel-šumate (Harper 1902, no. 791), seized a large quantity, 176 talents or 5280 kg, of a substance, apparently obtained from Dilmun which was identified by Benno Landsberger as bdellium (Landsberger 1967, 50), an aromatic resembling myrrh. In fact, the Akkadian name for this substance, *guhlu*, is cognate with Sanskrit *guggulu* and the Sanskrit term for the resin of *Commiphora mukul* or *guggul* is almost certainly borrowed from the Akkadian (Potts et al. 1996, 301).

Softstone

Finally, although it may seem like a non-sequitur, the subject of aromatics and unguents brings us to the subject of stone vessels, particularly those made of softstone. Many years ago it was recognised that

a particular type of deeply carved, soft-stone vessel, known from sites in Mesopotamia, eastern Saudi Arabia and Iran, and found as far afield as Soch in the Ferghana Valley of Uzbekistan and Palmyra in Syria, was in fact manufactured in southeastern Iran, where evidence of production was found at Tepe Yahya, in Kerman province (Kohl 1978; Lamberg-Karlovsky 1988). About 15 years ago, looting revealed a wealth of comparable vessels further east in the Jiroft (Majidzadeh 2003). More recently, a different genre of soft-stone, with distinctive dotted-double or single circle decoration, which has a similarly wide distribution, from Mesopotamia, Kuwait, Bahrain, eastern Arabia and Iran to Gonur Depe in Turkmenistan and Mohenjo-Daro in Pakistan in Turkmenistan (Potts 2008) has been recognised as a product of Magan, the Oman peninsula, in the late 3rd mill. BC, where hundreds of such vessels, in a wide range of shapes, have been found. I raise the stone vessel industry in conjunction with aromatics and unguents because I firmly believe that neither the deeply carved vessels from southeastern Iran, nor the simpler ones from the Oman peninsula, were in and of themselves objects of great value in antiquity, or at least not in the first instance. Rather, on analogy with later *unguentaria* (Hassell 1997), I suggest that they were valuable principally for their contents. Bulk export of aromatics probably occurred in sacks of cloth or hide, but smaller quantities of valuable unguents or aromatic oils may well have moved around in decorated stone containers. Their association with valuable oils or unguents might also explain why most of the soft-stone vessels known from Jiroft and the Oman peninsula were discovered in tombs, not in settlement contexts.

Balance of payments

Many scholars have speculated on what goods or commodities might have been exchanged for copper but the idea that foodstuffs were being shipped in bulk should certainly be abandoned. The inhabitants of both the interior and the coast practiced date palm cultivation, cultivating wheat and barley in the shade of the canopy (Potts 1994b), and herding sheep, goat and cattle (Uerpmann 2001). Along the coast fish and shellfish were abundant (Potts 2001, tables 4 and 6). In fact, the texts concerning Lu-Enlilla's import of copper at Ur are very specific. He was issued with textiles, invariably of an inferior quality (Waetzoldt 1972), to exchange for copper (Heimpel 1987, 53). Southern Mesopotamia generated large surpluses of both foodstuffs and textiles, but in the former case these were exhausted by the enormous numbers of dependent laborers who received rations. Textile factories at cities like Lagash, Ur and Girsu produced thousands of garments and, presumably, bolts of cloth, each year, and we have precise records of Lu-Enlilla receiving textiles to pay for copper destined for the temple household of Nanna, the chief deity at Ur, and his consort Ningal. Sesame oil (Waetzoldt 1985, 87; Potts 1997, 67 f.) may also have been shipped from southern Mesopotamia to the Oman peninsula in order to pay for goods, but for the moment it must be said that the sort of torpedo-based storage vessels that might have been used to transport oil in bulk have a very limited distribution and are confined almost entirely to the coastal settlement of Umm an-Nar, near modern Abu Dhabi, and to a very early period, around 2400 BC (Potts 2001, 42 f., fig. 7). Perhaps oil was traded at an early date, before textiles and finished garments began to be used as a medium of exchange.

Conclusions

In conclusion, it is clear that the Persian Gulf was both a source of valuable natural resources, and a conduit for resources coming from further east and, possibly, further south. Apart from the sparse records of commodities like ivory or copper that entered the temple, royal households or trading houses of cities like Ur and Girsu, we can only learn about the further life of these things through archaeological excavation or chance encounters with them, for example, in records of dowries or inheritance. That they functioned in Mesopotamia to sustain and reinforce the status of elites seems clear, at least in the case of goods like ivory, while copper was surely used to manufacture all manner of tools and utilitarian items, including weaponry, which enjoyed wider circulation. Less often commented upon in the archaeological literature is

the significance of the same goods for the societies inhabiting the interior of Oman and the coast of Arabia, but as contents of the numerous collective burials of late 3rd and early 2nd mill. BC date that have been excavated in the United Arab Emirates and Oman demonstrate, items made of copper, ivory, linen, carnelian and other exotic materials, did not merely pass through the Persian Gulf region, but were consumed there as well. This does not necessarily mean that the social structures of the societies that availed themselves of this supply were comparable to those of Mesopotamia, but it does mean that the appetite for what might seem like non-essential goods, goods that functioned symbolically above and beyond what was needed to feed and clothe a population, were as valued there as they were in the more urbanised societies of the north.

Daniel T. Potts
Institute for the Study of the Ancient World
New York University
15 E. 84th St.
New York NY 10028
daniel.potts@nyu.edu

Bibliography

Allchin 1974: F. R. Allchin, The Agate and Carnelian Industry of Western India and Pakistan. In: J. E. van Lohuizen de Leeuw (ed.), South Asian Archaeology 1973. Held in the University of Amsterdam (Leiden 1974) 91–105.

Beauclair 2008: R. de Beauclair, Funerary Rites in a Neolithic Nomad Community in Southeastern Arabia. The Case of al-Buhais 18. Documenta Praehistorica 35, 2008, 143–152.

Beech/Shepherd 2001: M. Beech/E. Shepherd, Archaeobotanical Evidence for Early Date Consumption on Dalma Island, United Arab Emirates. Antiquity 75, 2001, 83–89.

Beeston 2005: A. F. L. Beeston, The Arabian Aromatics Trade in Antiquity. In: M. C. A. Macdonald/C. S. Phillips (eds.) A. F. L. Beeston and the Arabian Seminar and Other Papers. Including a Personal Reminiscence by W. W. Müller (Oxford 2005) 53–64.

Begemann et al. 2010: F. Begemann/A. Hauptmann/S. Schmitt-Strecker/G. Weisgerber, Lead Isotope and Chemical Signature of Copper from Oman and Its Occurrence in Mesopotamia and Sites on the Arabian Gulf Coast. Arabian Archaeology and Epigraphy 21, 2010, 135–169.

Boivin/Fuller 2009: N. Boivin/D. Q. Fuller, Shell Middens, Ships and Seeds. Exploring Coastal Subsistence, Maritime Trade and the Dispersal of Domesticates in and around the Ancient Arabian Peninsula. Journal of World Prehistory 22, 2009, 113–180.

Bretzl 1903: H. Bretzl, Botanische Untersuchungen des Alexanderzuges (Leipzig 1903).

Bron 1985: F. Bron, De quelques noms d'aromates chez Pline l'Ancien. Museum Helveticum 43, 1986, 131–134.

Carter 2002: R. Carter, Ubaid-period Boat Remains from As-Sabiyah. Excavations by the British Archaeological Expedition to Kuwait. In: M. C. A. McDonald (ed.), Papers from the Thirty-Fifth Meeting of the Seminar for Arabian Studies. Held in Edinburgh, 19–21 July 2001. Proceedings of the Seminar for Arabian Studies 32 (Brepols 2002) 13–30.

Carter 2005: R. Carter, The History and Prehistory of Pearling in the Persian Gulf. Journal of the Economic and Social History of the Orient 48, 2005, 139–209.

Carter/Crawford 2002: R. Carter/H. Crawford, The Kuwait-British Archaeological Expedition to As-Sabiyah. Report on the Third Season's Work. Iraq 64, 2002, 1–13.

Charpentier/Méry 2008: V. Charpentier/S. Méry, A Neolithic Settlement Near the Strait of Hormuz. Akab Island, United Arab Emirates. Proceedings of the Seminar for Arabian Studies 38, 2008, 117–136.

Charpentier et al. 2012: V. Charpentier/C. S. Phillips/S. Méry, Pearl Fishing in the Ancient World. 7500 BP. Arabian Archaeology and Epigraphy 23, 2012, 1–6.

Cleuziou 2003: S. Cleuziou, Early Bronze Age Trade in the Gulf and the Arabian Sea. The Society Behind the Boats. In: D. T. Potts/H. A. Naboodah/P. Hellyer (eds.), Archaeology of the United Arab Emirates. Proceedings of the First International Conference on the Archaeology of the U.A.E. (London 2003) 134–149.

De Waele/Haerinck 2006: A. De Waele/E. Haerinck, Etched (Carnelian) Beads from Northeast and Southeast Arabia. Arabian Archaeology and Epigraphy 17, 2006, 31–40.

Ferrier 1982: R. W. Ferrier, The History of the British Petroleum Company, I. The Developing Years, 1901–1932 (Cambridge 1982).

Fuller 2008: D. Fuller, The Spread of Textile Production and Textile Crops in India Beyond the Harappan Zone. An Aspect of the Emergence of Craft Specialization and Systematic Trade. In: T. Osada/A. Uesugi (eds.), Linguistics, Archaeology and the Human Past. Research Institute for Humanity and Nature Occasional Paper 3 (Kyoto 2008) 1–26.

Harper 1902: R. F. Harper, Assyrian and Babylonian letters belonging to the Kouyunjik Collections of the British Museum, Part 8, Chicago.

Hassell 1997: J. Hassell, Alabaster Beehive-Shaped Vessels from the Arabian Peninsula. Interpretations from a Comparative Study of Characteristics, Contexts and Associated Finds. Arabian Archaeology and Epigraphy 8, 1997, 245–281.

Hauptmann et al. 1988: A. Hauptmann/G. Weisgerber/H.G. Bachmann, Early Copper Metallurgy in Oman. In: R. Maddin (ed.), The Beginning of the Use of Metals and Alloys. Papers from the Second International Conference on the Beginning of the Use of Metals and Alloys, Zhengzhou, China, 21–26 October 1986 (Cambridge 1988) 34–51.

Heimpel 1987: W. Heimpel, Das Untere Meer. Zeitschrift für Assyriologie 77, 1987, 22–91.

Jameson 1921: H. L. Jameson, The Japanese Artificially Induced Pearl. Nature 107, 1921, 396–398.

Kennedy 1898: J. Kennedy, The Early Commerce of Babylon with India. 700–300 BC. Journal of the Royal Asiatic Society for 1898, 1898, 241–288.

Kiesewetter/Uerpmann/Jasim 2000: H. Kiesewetter/H.-P. Uerpmann/S. A. Jasim, Neolithic Jewellery from Jebel al-Buhais 18. Proceedings of the Seminar for Arabian Studies 30, 2000, 137–146.

Kmoskó 1917: M. Kmoskó, Beiträge zur Erklärung der Inschriften Gudeas. Zeitschrift für Assyriologie 31, 1917, 58–90.

Kohl 1978: P. L. Kohl, The Balance of Trade in Southwestern Asia in the Mid-Third Millennium BC. Current Anthropology 19, 1978, 463–492.

Lamberg-Karlovsky 1988: C. C. Lamberg-Karlovsky, The 'Intercultural Style' Carved Vessels. Iranica Antiqua 23, 1988, 45–95.

Landsberger 1967: B. Landsberger, The Date-Palm and Its By-Products According to the Cuneiform Sources. Archiv für Orientforschung. Beiheft 17 (Graz 1967).

Majidzadeh 2003: Y. Majidzadeh, Jiroft. The Earliest Oriental Civilization (Tehran 2003).

Marchesi 2011: G. Marchesi, Goods from the Queen of Tilmun. In: G. Barjamovic/J. L. Dahl/U. S. Koch/W. Sommerfeld/J. G. Westenholz (eds.), Akkade is King. A Collection of Papers by Friends and Colleagues Presented to Aage Westenholz on the Occasion of his 70th Birthday 15th of May 2009. Uitgaven van het Nederlands Instituut voor het Nabije Oosten te Leiden 118 (Leiden 2011) 189–199.

Méry/Tengberg 2009: S. Méry/M. Tengberg, Food for Eternity? The Analysis of a Date Offering from a 3rd Millennium BC Grave at Hili N, Abu Dhabi (United Arab Emirates). Journal of Archaeological Science 36, 2009, 2012–2017.

Potts 1990: D. T. Potts, The Arabian Gulf in Antiquity, I (Oxford 1990).

Potts 1993: D. T. Potts, A new Bactrian Find from Southeastern Arabia. Antiquity 67, 1993, 591–596.

Potts 1994a: D. T. Potts, South and Central Asian Elements at Tell Abraq (Emirate of Umm al-Qaiwain, United Arab Emirates), c. 2200 BC – AD 400. In: A. Parpola/P. Koskikallio (eds.), South Asian Archaeology 1993, II. Annales Academiæ Scientiarum Fennicæ. Series B 271 (Helsinki 1994) 615–628.

Potts 1994b: D. T. Potts, Contributions to the Agrarian History of Eastern Arabia, II. The Cultivars. Arabian Archaeology and Epigraphy 5, 1994, 236–275.

Potts 1995: D. T. Potts, Watercraft of the Lower Sea. In: U. Finkbeiner/R. Dittmann/H. Hauptmann (eds.), Beiträge zur Kulturgeschichte Vorderasiens. Festschrift für Rainer Michael Boehmer (Mainz 1995) 559–571.

Potts 1997: D. T. Potts, Mesopotamian Civilization. The Material Foundations (London 1997).

Potts 2000: D. T. Potts, Ancient Magan. The Secrets of Tell Abraq (London 2000).

Potts 2001: D. T. Potts, Before the Emirates. An Archaeological and Historical Account. In: I. Al Abed/P. Hellyer (eds.), United Arab Emirates. A New Perspective (London 2001) 28–69.

Potts 2002: D. T. Potts, Feast of Dates (London 2002).

Potts 2003: D. T. Potts, Date Palms and Date Consumption in Eastern Arabia During the Bronze Age. In: Emirates Center for Strategic Studies and Research (ed.), The Date Palm. From Traditional Resource to Green Wealth (Abu Dhabi 2003) 33–50.

Potts 2007a: D. T. Potts, Babylonian Sources of Exotic Raw Materials. In: G. Leick (ed.), The Babylonian World (New York 2007) 124–140.

Potts 2007b: D. T. Potts, Differing Modes of Contact Between India and the West. Some Achaemenid and Seleucid Examples. In: H. P. Ray/D. T. Potts (eds.), Memory as History. The Legacy of Alexander in Asia (New Delhi 2007) 122–130.

Potts 2008: D. T. Potts, An Umm an-Nar-type Compartmented Soft-Stone Vessel from Gonur Depe, Turkmenistan. Arabian Archaeology and Epigraphy 18, 2008, 167–180.

Potts 2009: D. T. Potts, The Archaeology and Early History of the Persian Gulf. In: L. G. Potter (ed.), The Persian Gulf in History (London 2009) 27–56.

Potts et al. 1996: D. T. Potts/A. Parpola/S. Parpola/J. Tidmarsh, Guḫlu and Guggulu. Wiener Zeitschrift für die Kunde des Morgenlandes 86, 1996, 291–305.

Reade 1979: J. E. Reade, Early Etched Beads and the Indus-Mesopotamia Trade (London 1979).

Reade/Potts 1993: W. J. Reade/D. T. Potts, New Evidence for Late Third Millennium Linen from Tell Abraq, Umm Al-Qaiwain, UAE. Paléorient 19, 1993, 99–106.

Sollberger/Kupper 1971: E. Sollberger and J. R. Kupper, Inscriptions Royales Sumériennes et Akkadiennes. Littératures anciennes du Proche-Orient 3 (Paris 1971).

Sprenger 1841: A. Sprenger, El-Mas'údí's Historical Encyclopædia, Entitled "Meadows of gold and mines of gems", I (London 1841).

Tengberg 1999: M. Tengberg, Crop Husbandry at Miri Qalat, Makran, SW Pakistan (4000–2000 B.C.). Vegetation History and Archaeobotany 8, 1999, 3–12.

Tengberg 2002: M. Tengberg, The Importation of Wood to the Arabian Gulf in Antiquity. The Evidence from Charcoal Analysis. Proceedings of the Seminar for Arabian Studies 32, 2002, 75–81.

Tengberg 2012a: M. Tengberg, Fruit-Growing. In: D. T. Potts (ed.), A Companion to the Archaeology of the Ancient Near East, I (Malden 2012) 181–200.

Tengberg 2012b: M. Tengberg, Beginnings and Early History of Date Palm Garden Cultivation in the Middle East. Journal of Arid Environments 86, 2012, 139–147.

Tengberg/Potts 1999: M. Tengberg/D. T. Potts, ^{giš}mes.má-gan-na (Dalbergia sissoo Roxb.) at Tell Abraq. Arabian Archaeology and Epigraphy 10, 1999, 129–133.

Tosi 1980: M. Tosi, Karneol. In: D. O. Edzard (ed.), Reallexikon der Assyriologie und vorderasiatischen Archäologie V (Berlin 1980) 448–452.

Uerpmann 2001: M. Uerpmann, Remarks on the Animal Economy of Tell Abraq (Emirates of Sharjah and Umm al-Qaywayn, UAE). Proceedings of the Seminar for Arabian Studies 31, 2001, 227–233.

Waetzoldt 1972: H. Waetzoldt, Untersuchungen zur neusumerischen Textilindustrie. Studi Economici e Tecnologici 1 (Rome 1972).

Waetzoldt 1983: H. Waetzoldt, Leinen. In: D. O. Edzard (ed.), Reallexikon der Assyriologie und vorderasiatischen Archäologie VI (Berlin 1983) 583–594.

Waetzoldt 1985: H. Waetzoldt, Ölpflanzen und Pflanzenöl. Bulletin on Sumerian Agriculture 2, 1985, 77–96.

Weisgerber 1980: G. Weisgerber, "…und Kupfer in Oman" – Das Oman-Projekt des Deutschen Bergbau-Museums. Der Anschnitt 32.2/3, 1980, 62–110.

Wellsted 1838: J. R. Wellsted, Travels in Arabia, I (London 1838).

TOBIAS L. KIENLIN

World Systems and the Structuring Potential of Foreign-Derived (Prestige) Goods

On Modelling Bronze Age Economy and Society

Keywords: Bronze Age, prestige goods, economy, society, World System Theory, Europe and the Mediterranean, Postcolonial Studies

Abstract

In this paper an attempt is made to deconstruct some widely held notions in Bronze Age research that each involve bridging the gap between socially and culturally distinct societies widely set apart in space and/or in time in order to produce the unified Bronze Age narrative so widely accepted. It is argued, instead, for an approach that leaves behind essentialising concepts of 'core' and 'periphery' and allows for the variability and historicity of potentially interacting local groups – both from the Bronze Age Mediterranean and from 'Barbarian' Europe. It is argued, furthermore, that a narrow set of ethnographic analogies, such as the notorious Hawaiian chiefdoms, are wrongly imposed upon Bronze Age archaeology as a universal stage of social evolution, when in fact they represent an extreme and historically specific example of 'political economy' only.

Introduction

The 'Bronze Age' under scrutinity in this paper is the one qualitatively different from the preceding Neolithic and historically unique on a pan-European scale (e.g. Kristiansen 1998; Earle 2002; Kristiansen/Larsson 2005; Earle/Kristiansen 2010):[1] The 'Bronze Age' characterised by the emergence of (proto-)urban settlements drawing an agricultural surplus from their surroundings, featuring craft production and exercising control of exchange with commodities, raw materials and exotic objects from abroad; the period, when there were first peasants, craft specialists and those in charge – a warrior elite that developed new forms of male habitual expression, amongst others by their command of shining bronze weaponry; aggrandisers whose competitiveness propelled Bronze Age society onto a new stage of social evolution ultimately in likeness of the urban centres of the ancient Near East or the palaces of the Bronze Age Aegean.

Since with various brands of 'Neo-Diffusionism' we currently see the return of grand narratives that have us believe in the dependency of European societies of the Bronze Age on the Mediterranean, we will turn to the dangers involved in this kind of reasoning first (see also Harding 2013; Kienlin 2015b). Derived from either traditional diffusionist approaches or a reading of World System Theory (WST) and its modifications, in such studies regional variability in both the 'core' and the 'periphery' is ignored and subsumed to the grand narrative given without actually producing evidence to support far-reaching claims of dependency or convergence. This kind of theorising falls short of more recent interaction studies, for example in Mediterranean Archaeology, and at no

1 For additional references, the theoretical context of this debate and the approach advocated here the reader is referred to Kienlin (2012a; 2012b; 2015a; 2015b).

point attention is drawn to the differential outcomes of contact and exchange depending on local valuations, specific historical trajectories and peripheral choice or agency opposite outside 'influence'.

Part and parcel of such WST-derived reasoning (and of course beyond) is an emphasis put on the economic impact of long-distance trade in metal and other commodities, and/or the pervasive use of various brands of ethnographically documented 'prestige goods economies' to account for the emergence of inequality in prehistoric Europe. Here, it is the expansionist and competitive nature of such systems that has much too long been accepted as a wholesale explanation of social change and political differentiation – change observed, or in fact just assumed because so neatly 'predicted' by the model applied. The structuring potential of foreign derived (prestige) goods on social relations has much too long gone without critical revision (cf. Kienlin 1999; Kümmel 2001). In fact, it is entirely unclear why all such exchange of valuables as gifts for extending alliances, for display and feasting etc. should carry an inherent asymmetry. The model falls short of a more complex ancient reality of valuation and exchange by collapsing all kinds of production (agriculture/subsistence, crafts) and consumption into ultimately just one system, the reproduction of political order and inequality (see Barrett 2012).

We are thinking and analysing then, in terms of the same supposedly universal categories applied to entirely different prehistoric societies. We end up, for example, with the 'chiefly courts' of the Bronze Age tell cultures in the Carpathian Basin (e.g. Kristiansen/Larsson 2005, 167) conceptualised in broadly the same terms as the later Mycenaean palaces – which they thus come to reflect albeit in a somewhat less perfect manner and on a smaller scale. We are essentialising from a rich and diverse evidence however indirect of past knowledges, actions and intentionality. And we are equating cultural manifestations that are historically unique and the material possibilities they provided, when instead we should be trying to develop an understanding of what is specific about each situation (cf. Barrett 1994, 1–6). Archaeology is called upon to study such historically specific constellations, not to reduce them to a cyclical pattern of more or less successful onsets towards the same 'type' of hierarchical society. It is certainly important to know who (or what group of persons) was in charge of the Vatya period tell of Százhalombatta-Földvár on the Danube or Mycenae in the Argolid respectively; which kind of authority and/or power he, she or they were in command of; and if it was derived from control over agricultural surplus, craft production and/or control of prestige goods etc. Yet, the application in this context of such supposedly timeless or universal concepts such as 'chiefs', 'redistribution', 'wealth finance' or 'prestige goods exchange' falls short of an appropriate understanding of the historically specific quality of each situation under study; an understanding of this **specific** way of living and its material remains as a medium of social action by past human beings, and their social and cultural 'reality' thus created.

(Prestige) Goods in Motion: Transfer of Meaning, Value by Exchange?

'World System Theory' outlined by I. Wallerstein in 1974 was an attempt to account for the emergence of underdevelopment in the wake of European colonisation and imperialism in terms of structured interaction, systemic (economic) dependency, geographical division of labour and unequal exchange (e.g. Wallerstein 2011, xvii–xxx, 3–17, 347–357). It was supposed that all of these were to the disadvantage of peripheral societies which were confronted with an industrialised, politically 'superior' European core area represented by colonial powers such as Spain, Portugal, France and in particular Great Britain.[2] As to earlier, pre-modern periods Wallerstein (2011, 15–129, 162, 301–344) made it quite clear that he regarded his World System the consequence of a historically specific constellation, i.e. industrialisation and the development of capitalism in the modern West.

2 For criticism aimed at the adequacy of World System Theory to understand the structure and development of modern core and periphery relations themselves, see e.g. Wolf (2010, 22 f., 297 f.), Sahlins (1994, 412–416) and Kümmel (2001, 23 f.); on the problem of morally 'well-meant' Orientalism (Washbrook 1990, 492), because Wallerstein's periphery is assigned the role of a passive victim to European expansion, see Sahlins (1994, 412 f.) and Stein (1999a, 16–23; 1999b, 154–157).

In pre-modern times, he claimed at best political structures or 'world empires' may have evolved. These were lacking, however, the technological and organisational potential to establish stable structures of economic domination that extended over wider areas for any extended period of time (Wallerstein 2011, 15–17, 348–351; see also Champion 1989b, 6). That is to say, with regard to most of history and all of prehistory Wallerstein's position was akin to substantivism in that he thought such economies and their potential interaction qualitatively different from modern times.[3]

In view of these self-imposed limitations, it is somewhat surprising that Wallerstein's World System Theory was – in certain quarters – readily accepted into archaeological discourse. Its impact on archaeological thought during the late 1970s and '80s can only be understood as a response to the then prevalent Processual Archaeology with its heavy emphasis on local causality (be it demographic, environmental etc.) in the explanation of socio-political change. Against this background, WST was adopted by some to shift back focus to the importance of long-distance interaction, interregional exchange and the effect this may have had on local systems (e.g. Rowlands 1987, 3–11; Champion 1989b, 1 f.). Given Wallerstein's own reluctance in these matters, an important strand of this debate was concerned to establish the applicability of WST to pre-modern groups. The solution offered comprised merging the interest in structured supra-regional interaction adopted from Wallerstein to a specific notion of the emergence of economic, social and political inequality derived from the increasingly popular ethnographic concept of a 'prestige goods economy'.[4] Thus, for example, J. Schneider (1991) in her influential review of Wallerstein claimed that he had unduly limited the range of his own model by denying the exchange of luxury goods a similar impact on local economy and society as postulated for bulk exchange of raw materials and industrial goods in the modern World System. Following this line of argument, archaeology ever since has seen a pervasive use of ethnographic analogies from the field of 'prestige goods economies' (such as the *kula* or *potlatch*) in order to account for the emergence of political hierarchisation. As often as not this is linked to specific notions of the prehistoric society under discussion (in particular Bronze or Iron Age examples) being situated on the 'periphery' of a Mediterranean or Near Eastern civilisation or 'core' area.[5]

In this context, a number of unwarranted assumptions entered archaeological discourse, now widely held if rarely reflected upon, all broadly related to the supposedly competitive nature of such systems and the conviction that the exchange and consumption of foreign-derived (prestige) goods structured the reproduction of social relations and political economy (cf. Barrett/Damilati 2004, 150–162; Barrett 2012, 8–12). It is thus, we got used to the notion of an inherent asymmetry of exchange on all levels from the individual household or lineage establishing marriage alliances for biological reproduction, to the chief channelling local economic surplus and foreign derived commodities or prestige goods into the reproduction of his political authority by means of conspicuous consumption, sumptuary display, feasting or gift-giving etc. It is thus too, that a specific set of ([neo-]marxist) readings of a specific choice of ethnographic analogies became accepted as the true representation of a broader ethnographic 'reality'. In parallel, quite specific modernist conceptions of human motivations in the past became predominant,[6] and our notion of prehistoric man's incentives and options to act ('economically', 'politically' etc.) are largely unmediated by traditions, norms and values that may have been entirely different from our own expectations projected on prehistory (cf. Kienlin 2012a; Brück/Fontijn 2013, 201–204). We see therefore, alpha males and aggrandisers all over prehistoric time and place, entertaining exploitative relationships with their fellow man, bending all aspects of production – be it agriculture or different 'crafts' – and exchange towards the expansion

3 Rowlands 1987, 3; Kohl 1987, 13 f.; Champion 1989b, 5–8; Galaty 2011, 9.

4 E.g. Friedman/Rowlands 1977; Frankenstein/Rowlands 1978; Shennan 1982a; 1982b; Kristiansen 1987.

5 E.g. Kristiansen 1987; 1994; 1998; Chase-Dunn/Hall 1991; Hall/Chase-Dunn 1993; Frank 1993; Sherratt 1993a; 1993b; 1994; 1997; Parkinson/Galaty 2009.

6 'The Bronze Age is often thought to have seen a dramatic increase in the exploitation of natural resources, competition over trade routes, and maximisation of agricultural productivity (e.g. Earle 2002) to finance elite political ambitions; as such, much of the literature retains a distinctly rational-economist tone.' (Brück/Fontijn 2013, 202).

of their alliances and networks of indebtedness or patronage. Aggrandisers who presumably were driving forward society as a whole towards institutionalised ranking firmly grounded in asymmetric systems of exchange, control of production and consumption.[7]

It is certainly true that prehistoric groups must not be studied in isolation, if we want to come up with a realistic understanding of their development. It is also true that evidence for trade or exchange and the presence of foreign (prestigious) objects need to be accounted for, and their significance for local people and economy has to be evaluated. Yet, if WST and encapsulated notions of prestige goods economy may theoretically hold promise to explain at least some such constellations, in practice their explanatory power is severely hampered by the common failure to demonstrate systemic interlinkage and the validity of the mechanisms and the causality of sociopolitical change thought to have been involved. Such problems have, of course been noted for some time now.[8] They refer to key assumptions of the model and may be summarised as follows:

a) problems of definition and delimiting perceived 'core' area(s) and 'peripheries' including problems of demonstrating structural difference between the two in aspects relevant to the operation of the system (e.g. Kohl 1987, 16–18; 2011, 81–85);
b) failure to demonstrate **structured** interaction and **systemic** (economic) dependency between perceived core and periphery (instead of mere contemporaneity, general contact and exchange);
c) partly related to points a) and b) failure to demonstrate asymmetry in structured interaction to the disadvantage of the periphery (e.g. division of labour and terms of trade favouring the core) and consequent dominance of core polities and elites over peripheral groups (e.g. Kohl 1987, 16; Stein 1999a, 23 f.; 1999b, 155–159; 2002, 904 f.); and
d) failure to establish why (and how) 'asymmetric' exchange – as defined by the contemporary archaeological observer – should always translate into growing disparity between core and periphery (Kümmel 2001, 86–88; Dietler 1990, 353–358; 2005, 59–61; 2010, 48 f.). This latter point, of course, refers to the unproven assumption that peripheral prestige goods economies will politically end up in competition and 'spiralling asymmetries', while economically specialisation to serve unequal exchange will in the long-run have a devastating effect on peripheral society and cause decline relative to the core of the system.

It is telling that much of this criticism was launched early on in Near Eastern Archaeology (e.g. Kohl 1987; 2011; Stein 1999a; 1999b; 2002; 2005b; 2005c) – i.e. in an area where the outside observer would have expected comparatively little difficulties in the application of WST (e.g. Algaze 2005; Beaujard 2011). If anywhere in prehistory, should not the emergent urban centres of Mesopotamia or the Egyptian civilisation qualify as core areas? Should they not have dominated their respective peripheries, such as Anatolia or the Zagros mountains, in economic terms by supplying elaborately crafted goods and textiles in return for raw materials such as metal, stone or wood that were not available on the floodplains? And should not this constellation bear the greatest potential to resemble a modern colonial encounter with its systemic interdependence and exchange to the disadvantage of less developed peripheral groups? Yet, it is here that some of the more prominent critiques of World System Theory took their onset, and a growing number of authors from Mediterranean Archaeology seek to integrate interaction studies with a broader postcolonial concern (e.g. Said 2003; Bhabha 2004) with agency and the negotiation of local identities in specific historical contexts.

Drawing on the early recognition that in prehistory even politically centralised and economically strong 'core' states lacked the technological and infrastructural ability to project their power

7 See Barrett (2012, 13) for the outline of an alternative approach: 'This argument displaces the cycle of production and exchange from its centrality to economic analysis and recognises that value, traditionally identified with values found in exchange and use, arises at a base level in the experiences (practical and material) which gave security to human existence. In other words, some material conditions were valued because they were manifestations of the forces that made the world for humanity.'

8 E.g. Rowlands 1987, 3, 11; Kohl 1987; 2011; Champion 1989b, 14 f., 18; Sahlins 1994; Stein 1999a; 1999b 2002; 2005a; Gosden 2001; Kümmel 2001; Dietler 2005; 2010; van Dommelen 2005; 2006; 2011; Galaty 2011; Harding 2013; Ulf 2014; Galaty et al. 2014.

over large distances (Stein 1999a, 55–64; 1999b, 160–165), there is a growing awareness that culture, too, in the form of local traditions, local values, systems of knowledge or notions of the world and society may delay or forestall core dominance over peripheral groups (e.g. Gosden 2001, 243; Wengrow 2011, 136 f., 141; Bachhuber 2011, 164–171).[9] Without denying contact and interaction, it is found difficult to demonstrate systemic dependency as previously postulated, and one turns away from the study of interaction in mere economic terms (see van Dommelen 2005, 113–115). Instead, attention is drawn to the differential outcomes of contact and exchange depending on local valuations, specific historical trajectories and peripheral choice or agency opposite outside 'influence'.[10] It is increasingly agreed upon, that neither comprehensive concepts such as an ideology of legitimate political power, social strategies and practices, nor symbolically charged objects such as valuables or prestige goods are likely to remain unaffected in their specific meaning and potential to be drawn upon in local discourse when transferred from 'core' to 'periphery'.[11] Rather, there is an active choice in selecting concepts or objects that 'fit' into existing notions of the world or social strategies.[12] Any foreign element, therefore, that makes its way into a new context, is likely to undergo an act of 'translation', i.e. an active reinterpretation of its meaning and an effective re-contextualisation to establish its specific positioning and role in local practice and discourse.[13] Hence for example, it cannot be taken for granted that some foreign 'prestigious' or 'sacral' objects automatically received the same appreciation in peripheral groups and were drawn upon to support elite claims to exotic foreign knowledge.[14] This is all the more true, when such objects had 'dripped' down some contingent line of exchange rather than being handed over directly with an accompanying narrative to support their significance (Bachhuber 2011, 166; Legarra Herrero 2011, 274). Both 'import' by whatever means and local emulation involve a transformation of meaning (e.g. Stein 1999a, 66), and neither systemic interdependence nor asymmetry of exchange is an indispensable consequence of contact (e.g. Dietler 1989, 135 f.; Stein 1999b, 157; 2002, 907 f.; Kohl 2011, 80 f.). The effect of contact and exchange, that is to say, must not be taken for granted. The occurrence of foreign derived immaterial notions and material culture has to be studied by reference to their actual use in a new context. Foreign elements have to be understood in terms of their specific reworking by local communities and individuals. Their potential to destabilise local traditions and social order must not be unduly emphasised.

Bronze Age Europe and the Mediterranean

Unfortunately, with few exceptions little of this theoretical development has so far been applied to the prehistoric European 'periphery' of a postulated Mediterranean 'core' area.[15] This is particularly true for Bronze Age research, which in

9 That is to say – following Dietler (2005, 56; 2010, 46) – 'superior' high culture does not in every case, like water, flow downhill.

10 E.g. Dietler 1989, 127 f., 134–136; 1998, 297–301; 2005, 61–67; 2006, 224–227; 2010, 50–53; Gosden 2001, 242–249; van Dommelen 2005, 116–118; Broodbank 2011, 28–29; Galaty et al. 2014, 158–162, 170 f.; cf. Sahlins 1994, 414–416.

11 E.g. Dietler 2006, 228–229; Knapp/van Dommelen 2010, 5–8; Legarra Herrero 2011, 268 f., 276 f.; Maran 2011, 282–284.

12 See, for example, Dietler (1989, 134–136; 1998, 303–307; 2006, 232–235) on the selective acceptance of Mediterranean imports – wine and high-status drinking gear – into the Hallstatt area and their incorporation in local political strategies and feasting practices.

13 Dietler (2006, 225): '[...] cross-cultural consumption is a continual process of selective appropriation and creative assimilation according to local logics that is also a way of continually (re)constructing culture.' See also Dietler 2005, 62–64; 2010, 53; Greenberg 2011, 232 f.; Bachhuber 2011, 164–171; Legarra Herrero 2011, 269–273; van Dommelen/Rowlands 2012, 21–27 and Knapp 2012, 43–46.

14 See Bachhuber (2011, 160): 'We are [...] at risk of imposing archaeological knowledge of the origins of exotic objects and materials onto the knowledge of the ancient consumers of exotic objects and materials [...]'. In a similar vein, see also Panagiotopoulos (2012) showing that the exotic 'otherness' of foreign objects may have worn off rather quickly, and they actually were held in esteem for quite different reasons in their new local context.

15 A prominent example is, of course, the work of M. Dietler (e.g. 1989; 1990; 1997; 1998; 2005; 2006; 2010) who has repeatedly shown that the potential of Mediterranean influence and imports to bring about social and economic change in its 'hinterland' including Early Iron Age Hallstatt Europe is overemphasised by the advocates of core and periphery models (see also above). See also papers in Knapp/van Dommelen (2014) and, for example, Găvan/Gogâltan (2014) who set out to test applicability of World System Theory on the Bronze Age Carpathian Basin.

the wake of spectacular finds like the Nebra disc rather sees a return to the old *ex oriente lux* paradigm in recent years.[16] To many, of course, who never subscribed to the processual paradigm of autochthonous development, this is simply the return to what they have known all along.[17] Popular volumes like 'Europe before History' (Kristiansen 1998) or 'The Rise of Bronze Age Society' (Kristiansen/Larsson 2005) are hailed for their elegant and comprehensive review of our perceived state of knowledge (see also, of course, the work of A. Sherratt e.g. 1993a; 1993b; 1994; 1997).[18] They carry forward the conviction that somehow 'contact' makes a difference and will affect culture and society on the periphery. Inspired by WST we still see here an interest in systemic dependency, unbalanced exchange and cyclical evolutionary patterns (e.g. Kristiansen 1998, 50–53, 407–417). Besides, more recently there is a distinct shift towards the 'intangible' (Harding 2013, 383 f.; see also Galaty et al. 2014), since centres and peripheries are now understood to be linked not merely by economy or politics but by ritual, esoteric knowledge and foreign objects which travelling elites derived from abroad (e.g. Kristiansen/Larsson 2005, 4–7, 10–13, 20–31; Kristiansen 2010; 2011). This reasoning partly leaves behind WST, most clearly in that concern is not so much with dependency any more, but rather with convergence, since in the end it is fundamentally the same Bronze Age ideology with its accompanying symbols and institutions that is detected all over the Old World during the Bronze Age (e.g. Kristiansen/Larsson 2005, 142–250).

The resulting kind of narrative is often catchy and invites one to ignore the pitfalls involved in this kind of reasoning. The current modelling of the 'chiefly courts' of the Bronze Age tell communities already mentioned provides a fairly good example. These groups certainly seem to be located on the south-eastern European 'margin' of presumably more 'advanced' societies of the Mediterranean. They have, in any case, been discussed in this context, whereby different approaches can be observed: The economic impact of long-distance trade in metal and other commodities may be stressed, or the social dynamics of prestige goods exchange drawing on exotic foreign material culture.[19] More often than not this involves the de-contextualisation of foreign elements, if any are present at all. Their use and meaning is taken for granted, and the 'findings' of this kind of analysis attain the status of confirmed historical 'fact' when actually they run counter to a broader contextual examination of the groups under discussion (cf. Kienlin 2012b; 2015a). Just consider the following passage:

'Visitors to the chiefly courts in the north-western Carpathians during the seventeenth and sixteenth centuries BC would have met a shining world of painted/decorated houses in east Mediterranean imitation, chariots, new weapons and new exotic rituals of drinking and feasting [...] The chiefly courts of the tell cultures combined a strong innovative local tradition in pottery and metalwork with exotic cultural traits from the Minoans and Mycenaeans, whom they met regularly at some of the trading points. Even script – the mysterious powerful script – did they want to adopt. Not for recording their possessions or tribute payments [...] but as a powerful, esoteric ritual.' (Kristiansen/Larsson 2005, 167).

All of this is problematic since the grand scale of the narrative and its distance from the evidence on the ground tend to immunise underlying assumptions against critical assessment, and most of the general criticism still applies that was directed against archaeological reasoning inspired by WST during the last decades (cf. Harding 2013). What chiefly courts, one may ask then, and what evidence of script, but let us dwell instead on the

16 See, for example, papers in Meller (2004), Meller/Bertemes (2010) or Bergerbrant/Sabatini (2013).

17 This group can also be characterised by their attempts to reconcile traditional chronological links between Europe and the Mediterranean with the long radiocarbon chronology – most prominent perhaps in the meticulous studies by S. Gerloff (1993; 2007; 2010). See also Schauer 1984 or papers in Kolloquium Mainz 1990.

18 Interestingly, in archaeometallurgy there is a similar reaction to processual claims for an autochthonous development of metallurgy, for example, on the Balkans (e.g. Renfrew 1969). A younger generation now argues in favour of diffusion and single core development on the basis of a review of relevant finds which accumulated throughout Eurasia since Renfrew's original studies (e.g. Roberts et al. 2009). On the other hand, there are still those who use new excavation data and scientific analyses to argue against diffusion and for multiple core development (e.g. Radivojević et al. 2010).

19 E.g. Sherratt 1993a; Kristiansen 1998; Kristiansen/Larsson 2005; O'Shea 2011; Kristiansen/Suchowska-Ducke 2015.

supposed implications of this 'finding': Bronze Age communities in the Carpathian Basin are thought to have adopted fundamental institutions of Minoan/Mycenaean civilisation, such as 'exotic rituals of drinking and feasting'. Other elements, such as writing and script are thought to have been adapted to local context and somehow transformed to a 'powerful, esoteric ritual' (Kristiansen/Larsson 2005, 167). Yet in total, it is suggested, we see a process of adoption and convergence, and this 'shining world' in 'Mediterranean imitation' is clearly thought to have seen the direct transmission of religious and social institutions (e.g. Kristiansen/Larsson 2005, 150–167). Now one might argue that even if the tell communities under discussion had in fact used Mediterranean script, this use as 'mysterious signs of powerful and esoteric ritual' would point to the exact opposite of what is suggested: namely re-contextualisation and appropriation into a local context and local practices different from the Mediterranean rather than the transmission of institutions such as true Mycenaean palace administration.

Apart from essentialising groups like the 'Minoans' and the 'Mycenaeans' and overt simplification in the presentation of Mediterranean and European sequences, there is no demonstration other than broad contemporaneity why and by what mechanism change in one part of the 'system' should have affected society in another. The re-contextualisation of foreign elements – material or immaterial – and the actual strategies of their use in the periphery are not explicated in any detail. Instead, by and large the meaning of foreign objects and goods is taken for granted (e.g. Kristiansen/Larsson 2005, 29, 142–150). Given the approaches in Mediterranean and Near Eastern Archaeology mentioned above, such convergence and largely identical meanings should come as a surprise. In any case, this assumption would require careful demonstration. The same holds true for the claim that social 'institutions' can be identified from their (symbolic) material remains (e.g. Kristiansen/Larsson 2005, 10–31), and that the intact transmission of such symbolic structures or institutions is actually easier the more complex the package of related knowledge and skills is (e.g. Kristiansen/Larsson 2005, 21 f., 28 f.). Rather the opposite seems likely with regard to current approaches that stress the renegotiation and the transformation of identities, of meaning and practice in contact situations. We are confronted, essentially, with an invitation to **believe** in identical meanings and institutions throughout Bronze Age centre and periphery. Adherents of postcolonial studies, on the other hand, would stress the 'hybridity' or rather the process of 'hybridisation' of material culture and social practices as a result of contact and interaction.[20] Either way, this has to be demonstrated by reference to specific situations of contact and by a careful examination of the archaeological evidence, rather than taking refuge in empathy and authoritative statement (e.g. Kristiansen/Larsson 2005, 43). Yet, the latter still prevails. And this is why it can still be said that the presence of a Mycenaean sword or spiral motive in the Carpathian Basin equals the adoption of Mycenaean warrior ideology (e.g. Kristiansen/Larsson 2005, 128–132), while, for example, in Minoan studies Egyptian scarabs etc. in Cretan tombs are understood to be drawn upon in a specifically Minoan way to express local identities and negotiate social power.[21]

Turning back finally to the legacy of 'original' WST, it is the lasting failure to demonstrate systemic dependency between Europe and the Mediterranean or between different parts of Europe that requires some additional comment. Instead, the existence of a system is proclaimed, and its development through time and its specific regional expressions are discussed in terms of the internal logic of the approach taken (e.g. Kristiansen 1998, 13 f., 52, 56, 359–394). The same applies to 'world economy' and asymmetric exchange, and one may

20 Compare, for example, van Dommelen (2005, 116–118, 136–140; 2006, 118 f.), Dietler (2010, 51–53), van Dommelen/Rowlands (2012, 25, 27 f.), Knapp (2012, 33), Ackermann (2012, 11–14), Stockhammer (2012; 2013) and Silliman (2013, 489–491, 495–497) on the usefulness of concepts like 'hybridity', 'hybridisation' or 'creolisation' in archaeological research. Dietler (2010, 52 f.), for example, warns us that simply classifying an object as 'hybrid' is not an analytical operation, but that the postcolonial emphasis on agency enriched by an explicit concern with materiality may help to advance our understanding '[...] how and why some practices and goods were absorbed into the everyday lives of people, while others were rejected or turned into arenas of contest, and how those objects or practices triggered a process of cultural entanglement and transformation.'

21 E.g. Wengrow (2009, 147–150) and Legarra Herrero (2011, 269–271); see also Maran's (2013) paper drawn upon below on the Mycenaean appropriation of amber.

ask to the contrary, which Bronze Age polities in Europe beyond the Mycenaean palaces themselves had ever obtained territorial control and did exert military and economic power beyond that territory, thus constituting an early economic system (e.g. Kristiansen 1998, 56–62)? On a more fundamental level, one has to ask, why exchange between such 'cores' and 'peripheries', if any, should have been asymmetric (e.g. Kristiansen 1998, 252)? This point had already been raised in the debate following Wallerstein's original publication, and the same criticism applies to WST's archaeological variant with prestige goods exchange supposedly drawing peripheries into a spiral of elite competition and growing dependency on core valuables.[22]

Thus, for example, peripheral elites in the Carpathian Basin may well have been drawing on Mycenaean ornaments and armour. Yet, (early) Mycenaean elites themselves had come to depend for their social reproduction, for instance, on amber from the north and in part elaborately crafted exotic objects from Minoan Crete (e.g. Maran 2011, 284–289; Rutter 2012, 79–82). It is entirely unclear, if in such exchange any side would have been in a stronger position, or if this is the right question to ask at all. For Mycenae it has been shown that amber objects which ultimately derived from Wessex were put to different uses other than just jewellery like in their country of origin. The meanings ascribed to them where different, possibly magic or apotropaic. We see evidence of a complex process of 'translation', which also affected Minoan derived objects, rather than just simple transmission of foreign objects and their associated meanings (Maran 2011, 289; 2013, 147–151, 157–159, 161). The same applies to 'Barbarian' Europe. The movement of goods and objects is the result of the negotiation of specific needs and interests on both sides involved in exchange. These interests may be economically, socially and/or culturally motivated. We do not know how these motivations were distributed on the 'core' and 'periphery' sides respectively. We cannot be sure that our perception of 'asymmetry' in such systems adequately reflects emic notions that both 'partners' held of the relative 'success' of exchange, and their respective 'gain' drawn from contact and the objects, knowledge etc. they had obtained. We see relatively few groups of exotic objects and materials moving to and fro in Europe. On this basis, it has been called into question, whether social reproduction is likely to have come to depend on such exchange (Dietler 1998, 297; Kümmel 2001, 87 f.). Under prehistoric conditions interaction is contingent upon innumerable imponderables, and the consumption of foreign objects may have unintended consequences beyond the foresight of social actors (Dietler 2006, 229 f.). Hence, there has to be positive evidence that it was possible to rely on outside contacts – be it bulk trade or exchange in valuables – for the social reproduction of local systems. In prehistoric Europe, at least, this would seem a risky business (Dietler 1989, 132).

More importantly however, the entire rationale underlying this argument may be misguided,[23] if rather than (only) acquiring value in (asymmetrical) exchange, objects were (also) perceived as the material manifestation of traditional values and spiritual forces 'given and manifestly inalienable' (Barrett 2012, 14),[24] and their circulation was not structuring the reproduction of political economy at all in the way we tend to expect (Barrett 2012, 12–15; Brück/Fontijn 2013, 201–204). Rather than projecting our own logic of exchange, value and human motivations onto the past, we may be well advised considering an ancient reality in which these were firmly embedded in and linked to wider

22 See Dietler (1998, 298) on the Iron Age situation: '[...] it is a serious analytical error to assume that asymmetrical relations or structures of power that ultimately appeared in later periods were necessarily a feature of the first stages of the encounter rather than a product of a subsequent complex history of interaction and entanglement.' For sure, this also applies to earlier Bronze Age Europe, when evidence of contact and exchange with the Mediterranean is much weaker and even less likely to have been 'systemic' than during the Iron Ages. See also Dietler 1989, 130, 135; 1990, 357 f.; 2005, 60 f.; Kümmel 2001, 23, 87 f.; Barrett/Damilati 2004, 150–162 and Barrett 2012, 8–15.

23 See also Brück/Fontijn (2013, 202): 'In discussions of Bronze Age exchange, objects are acquired, accumulated, and disposed of at will by prestigious individuals who wield power over their ultimate fate. Like money in a capitalist economy, they become undifferentiated and anonymous: their quantity and economic potential is prioritized over their qualities and social efficacy.'

24 See, for example, Barrett (2012, 12 f.): 'Inalienable objects are treated as the materialisation of the historical and spiritual values, and persons and communities live out those values by the care they bestow upon that particular portion of material world. The values thus expressed are the base or foundational values against which exchanges and alliances may be negotiated.'

notions of identity, the reproduction of community and cosmological order.[25] That is to say, there may be good reason to altogether abandon the model of prestige goods economy for large parts of prehistoric temperate Europe (Barrett 2012, 12, 14).

Conclusions

It is not argued here that the impact of interregional exchange on local systems is irrelevant. Yet, surely, in order to produce meaningful statements on past culture contact and interaction said impact has to be demonstrated rather than just assumed, and it is only one facet of a more complex ancient reality. Whether in a more traditional sense the economic impact of long-distance trade in metal and other commodities or instead the social dynamics of prestige goods exchange drawing on exotic objects are stressed, advocates of Neo-Diffusionism have us believe in social and cultural dynamics and ultimately in convergence in consequence of contact and exchange. That is to say, they use the evidence of personal mobility and/or objects moving to and fro to bridge the gap between structurally different communities and societies, in our case between the Bronze Age Aegean or the wider eastern Mediterranean and the 'Barbarian' hinterland of prehistoric Europe. This approach has to be balanced by an awareness of the complex processes involved in the re-contextualisation of exotic foreign objects. Particular attention must be paid to the ways these were actually drawn upon by social actors in specific local contexts.

Beyond local meanings and uses of foreign objects, however, the more general implication of this critique is that we are clearly entitled to assume long-term stability of local traditions and the continued co-existence of structurally different societies and cultures even if some kind of contact and/or exchange between them can be established (Barrett 2012, 15; Kienlin 2015a, 71–91). Often there is a misfit here between the prehistoric situation under study and the ethnographic model applied – such as when we attempt to study 'tell society' characterised exactly by its long-term stability and reference back to ancestral place instead of by rapid change in terms of ethnographically derived 'prestige goods economies', some of which, such as the *potlatch*, are quite uniquely competitive and the direct result of early modern colonial encounters between indigenous groups and the industrialised 'West'.

Quite to the contrary, every occasional import find of Mycenaean origin which may come to light in Bronze Age groups to the north must not be used to overcome the fundamental divide that sets palatial society of the Aegean Bronze Age apart from such segmentary 'tribal' groups. Rather than being a weak reflection of palatial society, and like the Mediterranean sequence itself, Bronze Age settlement in the Carpathian Basin is a complex and variable phenomenon – in chronological and regional terms as well as in socio-political and cultural ones. This tends to be ignored when likeness with Mediterranean developments is expected and in the words of M. Dietler (1998, 297) '[...] otherwise sensible scholars [start] to see things that are not there and to ignore crucial developments [...] in an effort to impose [*foreign*; *TLK*] structures [...].' Any perception of such long-lived settlement mounds in prehistoric 'tribal' communities, which is solely derived from a narrow view of Mediterranean prototypes and has us focus on economic competition and/or political dominance is reductionist and misleading.

Both areas, the Mediterranean and 'Barbarian' Europe, feature complex societies and cultural complexity. Yet, it is only in the Mediterranean that with the Late Helladic Mycenaean palaces there is evidence of the emergence of explicitly politically differentiated societies (e.g. Galaty/Parkinson 2007; Shelmerdine/Bennet 2008). Even in the Mediterranean, however, this development did not take the form of linear socio-political evolution from simple to most complex and hierarchically structured societies. Rather, starting with the Early Bronze Age (Early Helladic II) corridor houses (e.g. Hägg/Konsola 1986), for example the House of the Tiles at Lerna in the Argolid (Wiencke 2000), we witness the possibility of quite distinct forms of social (and political) complexity and historically

25 'We can now understand that the labour of economic activity could only have produced and exchanged the materials required both for sustenance and for social prestige, if it was also embedded in moralities of identity and purpose. It follows that economic continuity requires the continuity of the forces and conditions upon which that morality of existence was founded' (Barrett 2012, 13).

specific notions of community and decision making (Peperaki 2004; 2010; Weiberg 2007; Pullen 2008; 2011). By contrast, the European sequence may expose more of a continuous development. Far into the Iron Age 'Barbarian' Europe may have seen 'tribal cycling' (cf. Parkinson 2002; 2006) rather than upward bound 'social evolution'. In any case, there is no overarching pattern or logic of development that binds both regions – Bronze Age Europe and the Mediterranean – together. Approaches that have us believe so impoverish our understanding of prehistoric Europe and the Mediterranean respectively.

Tobias L. Kienlin
Institut für Ur- und Frühgeschichte
Universität zu Köln
Weyertal 125
D-50931 Köln
tkienlin@uni-koeln.de

Bibliography

Ackermann 2012: A. Ackermann, Cultural Hybridity. Between Metaphor and Empiricism. In: P. W. Stockhammer (ed.), Conceptualizing Cultural Hybridization. A Transdisciplinary Approach (Heidelberg 2012) 5–25.

Algaze 2005: G. Algaze, The Uruk World System (Chicago 2005).

Bachhuber 2011: C. Bachhuber, Negotiating Metal and the Metal Form in the Royal Tombs of Alacahöyük in North-Central Anatolia. In: Wilkinsons et al. 2011, 158–174.

Barrett 1994: J. C. Barrett, Fragments from Antiquity. An Archaeology of Social Life in Britain, 2900–1200 BC. Social Archaeology (Oxford 1994).

Barrett 2012: J. C. Barrett, Are Models of Prestige Goods Economies and Conspicuous Consumption Applicable to the Archaeology of the Bronze to Iron Age Transition in Britain? In: A. M. Jones/J. Pollard/M. J. Allen/J. Gardiner (eds.), Image, Memory and Monumentality. Archaeological Engagements with the Material World. Prehistoric Society Research Paper 5 (Oxford 2012) 6–17.

Barrett/Damilati 2004: J. C. Barrett/K. Damilati, 'Some Light on the Early Origins of Them All'. Generalization and the Explanation of Civilization Revisited. In: J. C. Barrett/P. Halstead (eds.), The Emergence of Civilisation Revisited. Sheffield Studies in Aegean Archaeology 6 (Oxford 2004) 145–169.

Beaujard 2011: P. Beaujard, Evolutions and Temporal Delimitations of Bronze Age World-Systems in Western Asia and the Mediterranean. In: Wilkinsons et al. 2011, 7–26.

Bergerbrant/Sabatini 2013: S. Bergerbrant/S. Sabatini (eds.), Counterpoint: Essays in Archaeology and Heritage Studies in Honour of Professor Kristian Kristiansen. British Archaeological Reports. International Series 2508 (Oxford 2013).

Bhabha 2004: H. K. Bhabha, The Location of Culture. Routledge Classics (London 2004).

Broodbank 2011: C. Broodbank, The Mediterranean and the Mediterranean World in the Age of Andrew Sherratt. In: Wilkinsons et al. 2011, 27–36.

Brück/Fontijn 2013: J. Brück/D. Fontijn, The Myth of the Chief. Prestige Goods, Power, and Personhood in the European Bronze Age. In: H. Fokkens/A. Harding (eds.), The Oxford Handbook of the European Bronze Age (Oxford 2013) 197–215.

Champion 1989a: T. C. Champion (ed.), Centre and Periphery. Comparative Studies in Archaeology. One World Archaeology (London 1989).

Champion 1989b: T. C. Champion, Introduction. In: Champion 1989a, 1–21.

Chase-Dunn/Hall 1991: C. Chase-Dunn/T. D. Hall (eds.), Core/Periphery Relations in Precapitalist Worlds (Boulder 1991).

Dietler 1989: M. Dietler, Greeks, Etruscans, and Thirsty Barbarians. Early Iron Age Interaction in the Rhône Basin of France. In: Champion 1989a, 127–141.

Dietler 1990: M. Dietler, Driven by Drink. The Role of Drinking in the Political Economy and the Case of Early Iron Age France. Journal of Anthropological Archaeology 9, 1990, 352–406.

Dietler 1997: M. Dietler, The Iron Age in Mediterranean France. Colonial Encounters, Entanglements, and Transformations. Journal of World Prehistory 11, 1997, 269–358.

Dietler 1998: M. Dietler, Consumption, Agency, and Cultural Entanglement: Theoretical Implications of a Mediterranean Colonial Encounter. In: J. G. Cusick (ed.), Studies in Culture Contact. Interaction, Culture Change, and Archaeology. Centre for Archaeological Investigations, Occasional Paper 25 (Carbondale 1998) 288–315.

Dietler 2005: M. Dietler, The Archaeology of Colonization and the Colonization of Archaeology. Theoretical Challenges from an Ancient Mediterranean Colonial Encounter. In: G. J. Stein (ed.), The Archaeology of Colonial Encounters. Comparative Perspectives. School of American Research Advanced Seminar Series (Santa Fe 2005) 33–68.

Dietler 2006: M. Dietler, Culinary Encounters: Food, Identity, and Colonialism. In: K. C. Twiss (ed.), The Archaeology of Food and Identity. Centre for Archaeological Investigations, Occasional Paper 34 (Carbondale 2006) 218–242.

Dietler 2010: M. Dietler, Archaeologies of Colonialism. Consumption, Entanglement, and Violence in Ancient Mediterranean France (Berkeley 2010).

van Dommelen 2005: P. van Dommelen, Colonial Interactions and Hybrid Practices. Phoenician and Carthaginian Settlement in the Ancient Mediterranean. In: G. J. Stein (ed.), The Archaeology of Colonial Encounters. Comparative Perspectives. School of American Research Advanced Seminar Series (Santa Fe 2005) 109–141.

van Dommelen 2006: P. van Dommelen, Colonial Matters. Material Culture and Postcolonial Theory in Colonial Situations. In: Ch. Tilley/W. Keane/S. Küchler/M. Rowlands/P. Spyer (eds.), Handbook of Material Culture (London 2006) 104–124.

van Dommelen 2011: P. van Dommelen, Postcolonial Archaeologies between Discourse and Practice. World Archaeology 43, 2011, 1–6.

van Dommelen/Rowlands 2012: P. van Dommelen/M. Rowlands, Material Concerns and Colonial Encounters. In: J. Maran/P. W. Stockhammer (eds.), Materiality and Social Practice. Transformative Capacities of Intercultural Encounters (Oxford 2012) 20–31.

Earle 2002: T. Earle, Bronze Age Economics. The Beginnings of Political Economies (Boulder 2002).

Earle/Kristiansen 2010: T. Earle/K. Kristiansen (eds.), Organizing Bronze Age Societies. The Mediterranean, Central Europe and Scandinavia Compared (Cambridge 2010).

Frank 1993: A. G. Frank, Bronze Age World System Cycles. Current Anthropology 34, 1993, 383–429.

Frankenstein/Rowlands 1978: S. Frankenstein/M. J. Rowlands, The Internal Structure and Regional Context of Early Iron Age Society in South-Western Germany. Bulletin of the Institute of Archaeology London 15, 1978, 73–112.

Friedman/Rowlands 1977: J. Friedman/M. J. Rowlands, Notes Towards an Epigenetic Model of the Evolution of ‚Civilisation'. In: J. Friedman/M. J. Rowlands (eds.), The Evolution of Social Systems (London 1977) 201–276.

Galaty 2011: M. L. Galaty, World-Systems Analysis and Anthropology. A New Détente? Reviews in Anthropology 40, 2011, 3–26.

Galaty/Parkinson 2007: M. L. Galaty/W. A. Parkinson (eds.), Rethinking Mycenaean Palaces II. Revised and Expanded Second Edition (Los Angeles 2007).

Galaty et al. 2014: M. L. Galaty/H. Tomas/W. A. Parkinson, Bronze Age European Elites. From the Aegean to the Adriatic and Back Again. In: A. B. Knapp/P. van Dommelen (eds.), The Cambridge Prehistory of the Bronze and Iron Age Mediterranean (Cambridge 2014) 157–177.

Găvan/Gogâltan 2014: A. Găvan/F. Gogâltan, „Zentrum und Peripherie“? Der bronzezeitliche Tell von Pecica „Şanţul Mare” (Kreis Arad, Rumänien). In: B. Nessel/I. Heske/D. Brandherm (eds.), Ressourcen und Rohstoffe in der Bronzezeit. Nutzung – Distribution – Kontrolle. Arbeitsberichte zur Bodendenkmalpflege in Brandenburg 26 (Wünsdorf 2014) 28–36.

Gerloff 1993: S. Gerloff, Zu Fragen mittelmeerländischer Kontakte und absoluter Chronologie der Frühbronzezeit in Mittel- und Westeuropa. Prähistorische Zeitschrift 68, 1993, 58–102.

Gerloff 2007: S. Gerloff, Reinecke’s ABC and the Chronology of the British Bronze Age. In: C. Burgess/P. Topping/F. Lynch (eds), Beyond Stonehenge. Essays on the Bronze Age in Honour of Colin Burgess (Oxford 2007) 117–161.

Gerloff 2010: S. Gerloff, Von Troja an die Saale, von Wessex nach Mykene – Chronologie, Fernverbindungen und Zinnrouten der Frühbronzezeit Mittel- und Westeuropas. In: Meller/Bertemes 2010, 603–639.

Gosden 2001: Ch. Gosden, Postcolonial Archaeology. Issues of Culture, Identity, and Knowledge. In: I. Hodder (ed.), Archaeological Theory Today (Cambridge 2001) 241–261.

Greenberg 2011: R. Greenberg, Travelling in (World) Time. Transformation, Commoditization, and the Beginnings of Urbanism in the Southern Levant. In: Wilkinsons et al. 2011, 231–242.

Hägg/Konsola 1986: R. Hägg/D. Konsola (eds.), Early Helladic Architecture and Urbanization. Proceedings of a Seminar Held at the Swedish Institute in Athens, June 8, 1985 (Göteborg 1986).

Hall/Chase-Dunn 1993: T. D. Hall/C. Chase-Dunn, The World-Systems Perspective and Archaeology. Forward into the Past. Journal of Archaeological Research 1, 1993, 121–143.

Harding 2013: A. Harding, World Systems, Cores, and Peripheries in Prehistoric Europe. European Journal of Archaeology 16, 2013, 378–400.

Kienlin 1999: T. L. Kienlin, Vom Stein zur Bronze. Zur soziokulturellen Deutung früher Metallurgie in der englischen Theoriediskussion. Tübinger Texte 2 (Rahden/Westf. 1999).

Kienlin 2012a: T. L. Kienlin, Beyond Elites. An Introduction. In: Kienlin/Zimmermann 2012, 15–32.

Kienlin 2012b: T. L. Kienlin, Patterns of Change, or: Perceptions Deceived? Comments on the Interpretation of Late Neolithic and Bronze Age Tell Settlement in the Carpathian Basin. In: Kienlin/Zimmermann 2012, 251–310.

Kienlin 2015a: T. L. Kienlin, Bronze Age Tell Communities in Context – An Exploration Into Culture, Society, and the Study of European Prehistory, I. Critique. Europe and the Mediterranean. Archaeopress Archaeology (Oxford 2015).

Kienlin 2015b: T. L. Kienlin, All Heroes in Their Armour Bright and Shinning? Comments on the Bronze Age ‘Other’. In: T. L. Kienlin (ed.), Fremdheit – Perspektiven auf das Andere. Kölner Beiträge zu Archäologie und Kulturwissenschaften. Cologne Contributions to Archaeology and Cultural Studies 1 = Universitätsforschungen zur prähistorischen Archäologie 264 (Bonn 2015) 153–193.

Kienlin/Zimmermann 2012: T. L. Kienlin/A. Zimmermann (eds.), Beyond Elites. Alternatives to Hierarchical Systems in Modelling Social Formations. International Conference at the Ruhr-Universität Bochum, Germany, October 22.–24. 2009. Universitätsforschungen zur prähistorischen Archäologie 215 (Bonn 2012).

Knapp 2012: A. B. Knapp, Matter of Fact: Transcultural Contacts in the Late Bronze Age Eastern Mediterranean. In: J. Maran/P. W. Stockhammer (eds.), Materiality and Social Practice. Transformative Capacities of Intercultural Encounters (Oxford 2012) 32–50.

Knapp/van Dommelen 2010: A. B. Knapp/P. van Dommelen, Material Connections. Mobility, Materiality and Mediterranean Identities. In: P. van Dommelen/A. B. Knapp (eds.), Material Connections in the Ancient Mediterranean. Mobility, Materiality and Mediterranean Identities (London 2010) 1–18.

Knapp/van Dommelen 2014: A. B. Knapp/P. van Dommelen (eds.), The Cambridge Prehistory of the Bronze and Iron Age Mediterranean (Cambridge 2014).

Kohl 1987: P. L. Kohl, The Ancient Economy, Transferable Technologies and the Bronze Age World-System. A View from the Northeastern Frontier of the Ancient Near East. In: M. Rowlands/M. Larsen/K. Kristiansen (eds.), Centre and Periphery in the Ancient World. New Directions in Archaeology (Cambridge 1987) 13–24.

Kohl 2011: P. L. Kohl, World-Systems and Modelling Macro-Historical Processes in Later Prehistory. An Examination of Old and a Search for New Perspectives. In: Wilkinsons et al. 2011, 77–86.

Kolloquium Mainz 1990: Orientalisch-ägäische Einflüsse in der europäischen Bronzezeit. Ergebnisse eines Kolloquiums. Römisch-Germanisches Zentralmuseum Monographien 15 (Bonn 1990).

Kristiansen 1987: K. Kristiansen, Center and Periphery in Bronze Age Scandinavia. In: M. Rowlands/M. Larsen/K. Kristiansen (eds.), Centre and Periphery in the Ancient World. New Directions in Archaeology (Cambridge 1987) 74–85.

Kristiansen 1994: K. Kristiansen, The Emergence of the European World System in the Bronze Age. Divergence, Convergence and Social Evolution During the First and Second Millennia BC in Europe. In: K. Kristiansen/J. Jensen (eds.), Europe in the First Millennium B.C. Sheffield Archaeological Monographs 6 (Sheffield 1994) 7–30.

Kristiansen 1998: K. Kristiansen, Europe before History. New Studies in Archaeology (Cambridge 1998).

Kristiansen 2010: K. Kristiansen, The Nebra Find and Early Indo-European Religion. In: Meller/Bertemes 2010, 431–437.

Kristiansen 2011: K. Kristiansen, Bridging India and Scandinavia. Institutional Transmission and Elite Conquest During the Bronze Age. In: Wilkinsons et al. 2011, 243–265.

Kristiansen/Larsson 2005: K. Kristiansen/T. B. Larsson, The Rise of Bronze Age Society. Travels, Transmissions and Transformations (Cambridge 2005).

Kristiansen/Suchowska-Ducke 2015: K. Kristiansen/P. Suchowska-Ducke, Connected Histories. The Dynamics of Bronze Age Interaction and Trade 1500–1100 BC. Proceedings of the Prehistoric Society 81, 2015, 361–392.

Kümmel 2001: Ch. Kümmel, Frühe Weltsysteme. Zentrum und Peripherie-Modelle in der Archäologie. Tübinger Texte 4 (Rahden/Westf. 2001).

Legarra Herrero 2011: B. Legarra Herrero, New Kid on the Block. The Nature of the First Systemic Contacts between Crete and the Eastern Mediterranean around 2000 BC. In: Wilkinsons et al. 2011, 266–281.

Maran 2011: J. Maran, Lost in Translation: the Emergence of Mycenaean Culture as a Phenomenon of Globalization. In: Wilkinsons et al. 2011, 282–294.

Maran 2013: J. Maran, Bright as the Sun. The Appropriation of Amber Objects in Mycenaean Greece. In: H. P. Hahn/H. Weiss (eds.). Mobility, Meaning and the Transformations of Things (Oxford 2013) 147–169.

Meller 2004: H. Meller (ed.), Der geschmiedete Himmel. Die weite Welt im Herzen Europas vor 3600 Jahren (Halle 2004).

Meller/Bertemes 2010: H. Meller/F. Bertemes (eds.), Der Griff nach den Sternen. Wie Europas Eliten zu Macht und Reichtum kamen. Internationales Symposium in Halle (Saale) 16.–21. Februar 2005. Tagungen des Landesmuseums für Vorgeschichte Halle 5.2 (Halle 2010).

O'Shea 2011: J. M. O'Shea, A River Runs through it. Landscape and the Evolution of Bronze Age Networks in the Carpathian Basin. Journal of World Prehistory 24, 2011, 161–174.

Panagiotopoulos 2012: D. Panagiotopoulos, Encountering the Foreign. (De-)Constructing Alterity in the Archaeologies of the Bronze Age Mediterranean. In: J. Maran/P. W. Stockhammer (eds.), Materiality and Social Practice. Transformative Capacities of Intercultural Encounters (Oxford 2012) 51–60.

Parkinson 2002: W. A. Parkinson, Integration, Interaction, and Tribal 'Cycling': The Transition to the Copper Age on the Great Hungarian Plain. In: W. A. Parkinson (ed.), The Archaeology of Tribal Societies. Archaeological Series 15 (Ann Arbor 2002) 391–438.

Parkinson 2006: W. A. Parkinson, The Social Organization of Early Copper Age Tribes on the Great Hungarian Plain. BAR International Series 1573 (Oxford 2006).

Parkinson/Galaty 2009: W. A. Parkinson/M. L. Galaty (eds.), Archaic State Interaction. The Eastern Mediterranean in the Bronze Age (Santa Fe 2009).

Peperaki 2004: O. Peperaki, The House of Tiles at Lerna. Dimensions of 'Social Complexity'. In: J. C. Barrett/P. Halstead (eds.), The Emergence of Civilisation Revisited. Sheffield Studies in Aegean Archaeology 6 (Oxford 2004) 214–231.

Peperaki 2010: O. Peperaki, Models of Relatedness and Early Helladic Architecture. Unpacking the Early Helladic II Hearth Room. Journal of Mediterranean Archaeology 23, 2010, 245–264.

Pullen 2008: D. Pullen, The Early Bronze Age in Greece. In: Shelmerdine 2008, 19–46.

Pullen 2011: D. J. Pullen, Picking out Pots in Patterns. Feasting in Early Helladic Greece. In: W. Gauß/M. Lindblom/R. A. K. Smith/J. C. Wright (eds.), Our Cups are Full. Pottery and Society in the Aegean Bronze Age. Papers Presented to Jeremy B. Rutter on the Occasion of his 65th Birthday (Oxford 2011) 217–226.

Radivojević et al. 2010 : M. Radivojević/Th. Rehren/E. Pernicka/D. Šljivar/M. Brauns/D. Borić, On the Origins of Extractive Metallurgy. New Evidence from Europe. Journal of Archaeological Science 37, 2010, 2775–2787.

Renfrew 1969: C. Renfrew, The Autonomy of the South-East European Copper Age. Proceedings of the Prehistoric Society 35, 1969, 12–47.

Roberts et al. 2009: B. W. Roberts/Ch. P. Thornton/V. C. Pigott, Development of Metallurgy in Eurasia. Antiquity 83, 2009, 1012–1022.

Rowlands 1987: M. Rowlands, Centre and Periphery. A Review of a Concept. In: M. Rowlands/M. Larsen/K. Kristiansen (eds.), Centre and Periphery in the Ancient World. New Directions in Archaeology (Cambridge 1987) 1–11.

Rutter 2012: J. B. Rutter, Migrant Drinking Assemblages in Aegean Bronze Age Settings. In: J. Maran/P. W. Stockhammer (eds.), Materiality and Social Practice. Transformative Capacities of Intercultural Encounters (Oxford 2012) 73–88.

Sahlins 1994: M. Sahlins, Cosmologies of Capitalism. The Trans-Pacific Sector of "The World System". In: N. B. Dirks/G. Eley/S. B. Ortner (eds.), Culture/Power/History. A Reader in Contemporary Social Theory (Princeton 1994) 412–455.

Said 2003: E. W. Said, Orientalism (London 2003).

Schauer 1984: P. Schauer, Spuren minoisch-mykenischen und orientalischen Einflusses im atlantischen Westeuropa. Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 31, 1984, 137–186.

Schneider 1991: J. Schneider, Was There a Precapitalist World System? In: Ch. Chase-Dunn/T. D. Hall (eds.), Core/Periphery Relations in Precapitalist Worlds (Boulder 1991) 45–66.

Shelmerdine 2008: C. W. Shelmerdine (eds.), The Cambridge Companion to the Aegean Bronze Age (Cambridge 2008).

Shelmerdine/Bennet 2008: C. W. Shelmerdine/J. Bennet, Mycenaean States: Economy and Administration. In: Shelmerdine 2008, 289–309.

Shennan 1982a: S. J. Shennan, Ideology, Change and the European Early Bronze Age. In: I. Hodder (ed.), Symbolic and Structural Archaeology. New Directions in Archaeology (Cambridge 1982) 155–161.

Shennan 1982b: S. J. Shennan, Exchange and Ranking: The Role of Amber in the Earlier Bronze Age of Europe. In: C. Renfrew/S. J. Shennan (eds.), Ranking, Resource and Exchange. Aspects of the Archaeology of Early European Society. New Directions in Archaeology (Cambridge 1982) 33–45.

Sherratt 1993a: A. Sherratt, What Would a Bronze-Age World System Look Like? Relations Between Temperate Europe and the Mediterranean in Later Prehistory. Journal of European Archaeology 1, 1993, 1–57.

Sherratt 1993b: A. Sherratt, 'Who are you Calling Peripheral?' Dependence and Independence in European Prehistory. In: C. Scarre/F. Healy (eds.), Trade and Exchange in Prehistoric Europe. Proceedings of a Conference Held at the University of Bristol, April 1992 (Oxford 1993) 245–255.

Sherratt 1994: A. G. Sherratt, Core, Periphery and Margin. Perspectives on the Bronze Age. In: C. Mathers/S. Stoddart (eds.), Development and Decline in the Mediterranean Bronze Age. Sheffield Archaeological Monographs 8 (Sheffield 1994) 335–345.

Sherratt 1997: A. G. Sherratt, Economy and Society in Prehistoric Europe. Changing Perspectives (Edinburgh 1997).

Silliman 2013: S. W. Silliman, What, Where, and When is Hybridity. In: J. J. Card (ed.), The Archaeology of Hybrid Material Culture (Carbondale 2013) 486–500.

Stein 1999a: G. J. Stein, Rethinking World-Systems. Diasporas, Colonies, and Interaction in Uruk Mesopotamia (Tucson 1999).

Stein 1999b: G. J. Stein, Rethinking World-Systems. Power, Distance, and Diasporas in the Dynamics of Interregional Interaction. In: P. N. Kardulias (ed.), World-Systems Theory in Practice. Leadership, Production, and Exchange (Lanham 1999) 153–177.

Stein 2002: G. J. Stein, From Passive Periphery to Active Agents. Emerging Perspectives in the Archaeology of Interregional Interaction. American Anthropologist 104, 2002, 903–916.

Stein 2005a: G. J. Stein (ed.), The Archaeology of Colonial Encounters. Comparative Perspectives. School of American Research Advanced Seminar Series (Santa Fe 2005).

Stein 2005b: G. J. Stein, Introduction: The Comparative Archaeology of Colonial Encounters. In: Stein 2005a, 3–31.

Stein 2005c: G. J. Stein, The Political Economy of Mesopotamian Colonial Encounters. In: Stein 2005a, 143–171.

Stockhammer 2012: P. W. Stockhammer, Conceptualizing Cultural Hybridization in Archaeology. In: P. W. Stockhammer (ed.), Conceptualizing Cultural Hybridization. A Transdisciplinary Approach (Heidelberg 2012) 43–58.

Stockhammer 2013: P. W. Stockhammer, From Hybridity to Entanglement, From Essentialism to Practice. Archaeological Review from Cambridge 28, 2013, 11–28.

Ulf 2014: Ch. Ulf, Eine Typologie von kulturellen Kontaktzonen ("Fernverhältnisse" – *Middle Grounds* – Dichte Kontaktzonen), oder: *Rethinking Cultural Contacts* auf dem Prüfstand. In: R. Rollinger/K. Schnegg (eds.), Kulturkontakte in antiken Welten. Vom Denkmodell zum Fallbeispiel (Leuven 2014) 469–504.

Wallerstein 2011: I. Wallerstein, The Modern World-System, I. Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century (Berkeley 2011).

Washbrook 1990: D. Washbrook, South Asia, the World System, and World Capitalism. Journal of Asian Studies 49, 1990, 479–508.

Weiberg 2007: E. Weiberg, Thinking the Bronze Age. Life and Death in Early Helladic Greece. Boreas 29 (Uppsala 2007).

Wengrow 2009: D. Wengrow, The Voyages of Europa. Ritual and Trade in the Eastern Mediterranean circa 2300–1850 BC. In: W. A. Parkinson/M. L. Galaty (eds.), Archaic State Interaction. The Eastern Mediterranean in the Bronze Age (Santa Fe 2009) 141–160.

Wengrow 2011: D. Wengrow, 'Archival' and 'Sacrificial' Economies in Bronze Age Eurasia: an Interactionist Approach to the Hoarding of Metals. In: Wilkinsons et al. 2011, 135–144.

Wiencke 2000: M. H. Wiencke, Lerna IV. The Architecture, Stratification, and Pottery of Lerna III. Princeton: American School of Classical Studies at Athens 2000.

Wilkinsons et al. 2011: T. C. Wilkinson/S. Sherratt/J. Bennet (eds.), Interweaving Worlds. Systemic Interactions in Eurasia, 7th to 1st Millennia BC (Oxford 2011).

Wolf 2010: E. R. Wolf, Europe and the People without History (Berkeley 2010).

ERICH KISTLER, BIRGIT ÖHLINGER, THOMAS DAUTH, RUTH IROVEC AND BENJAMIN WIMMER

Archaika as a Resource
The Production of Locality and Colonial Empowerment on Monte Iato (Western Sicily) around 500 BC

Keywords: old-fashioned pottery, imagined traditionalism, cultic leadership, Monte Iato, archaic Sicily

Acknowledgements

This article is based on the research 'Between Aphrodite Temple and Late Archaic House' funded by the Austrian Science Fund (P 22642 and P 27073). For enabling us to conduct the fieldwork, we are extremely grateful to the director and co-director of the Ietas-Excavations of the University of Zurich, Christoph Reusser and Martin Mohr, as well as the directors of the archaeological park of Monte Iato, Ferdinando Maurici and Enrico Caruso. We also want to express our gratitude to Sabrina Fusetti and Christoph Ulf for their help, insightful comments and suggestions during the completion of this manuscript.

Abstract

With respect to the circulation and consumption of tangible and intangible resources, it is not enough to pin the factor of time solely to a horizontal axis in the sense of the speed of circulations. Time must also be understood as a factor that moves along a vertical axis. It is along this vertical movement of time that traditions are formed, which are deeply embedded in the identitary layers of local authenticity. And yet, the rituals associated with them may not reach as far back in time at all, even if *archaika*, or 'antiques' and old-fashioned items are used in their execution. The vertical circulation of such *archaika* that becomes tangible in this way is consequently never a testimony to the long duration of a cultural heritage. It is rather more indicative of an intangible resource: By using 'archaic' or archaising requisites that allegedly originated in the world of the ancestors, the cultural and temporal depths of a local original history are imagined. Equally on Monte Iato this imagination lends newly invented rituals and retro-enactments of a 'pre-colonial' era the historicity they need to be considered as authentic testimonies of locality – caused by the colonial empowerment of local leaders in the indigenous interior of Western Sicily in the 6th and early 5th cent. BC.

Introduction

The Production of Locality and *Archaika* as a Local Resource

In his seminal work 'Modernity at Large', Arjun Appadurai exposes locality as something that is formed neither by landscape nor culture, and has not been in existence since time immemorial. On the contrary: Locality is forever being reconstructed and reconstituted through complex cultural practices as a means of providing local subjects

with a common resource for creating identity and a sense of community. Appadurai continues that rituals play a crucial role in creating this construct. It is only through such rituals – celebrated and given out as age-old traditions – that *ad-hoc* locality becomes culturalised and historicised, thus creating an homogeneous block that appears to have been in place since time began. In this way, the distant past, which often started with an imagined 'big bang', is presented as the community's own history. This heritage has to be celebrated cyclically in a foundation ritual in order to create the necessary social cement to bind together a community that has supposedly existed since time immemorial.

Appadurai asserts that locality and neighbourhood are always bound within time and context. Consequently, neither are static blocks but are rather fluid '-scapes', that respond sensitively to the dialectic interplay between the formation of local groups and (proto)-global networking. As a result, the production of locality is particularly challenged when a community as an existing social construct is in danger of being eroded or even of imploding through exposure to global pressures. From this perspective, the production of locality is therefore a central resource of local communal life: It is what makes processes of global networking and cultural transformation socially acceptable and therefore, assimilable within the local social fabric (Appadurai 1981; 1996, 178–199; 2001 esp. 48; see also on this topic: Brown/Hamilakis 2003; Van Dyke/Alcock 2003; Alroth/Scheffer 2014; Schweizer 2014; Fejfer et al. 2015).

Central vehicles that are repeatedly used in the production of locality are so-called *archaika* or *Altstücke* (Mehling 1998; Guggisberg 2004). These resources refer not only to 'antiques' that are already hundreds of years old at the time of their usage, but also to 'antiqued' items that have been created, for example, to perform foundational rituals. Such *archaika*, which are often presented to the community as its heritage from the world of ancestors, lend an apparent 'archaeological' authenticity and thus also a supposed prehistoric depth to an imagined locality. Thus, the materiality of the genuine or alleged age of the *archaika* allows the foundational discourses about empowerment, provoked by foreign cultural or even colonial contacts within

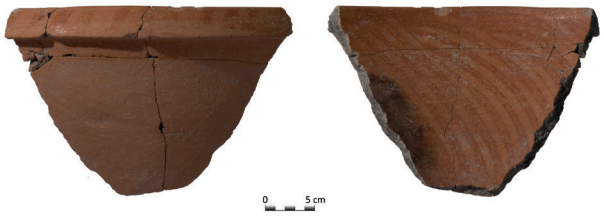


Fig. 1. *Piumata* bowl I-K 2250.

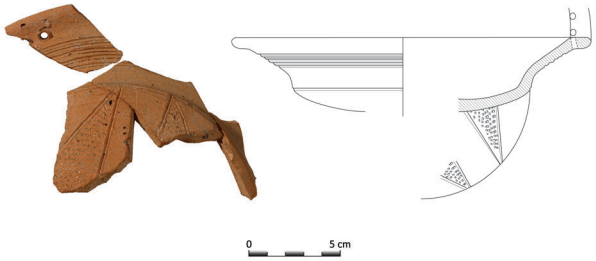


Fig. 2. *Attingitoio* K 26018.

the local group, to be projected back to a founding period in the distant past and translated into *archaioi logoi,* or in other words, seemingly ancient rites and manners of discourse (Foucault 1972, esp. 131). It is precisely at these moments that locality and neighbourhood are experienced as something that has been handed down over the centuries, thus becoming particularly powerful as a fundamental, common identity resource among local subjects (Rowlands 1993; Lillios 1999; Jones 2007; Lillios/Tsamis 2010; Jones/Russell 2012, 275–278; Mühlenbock 2013; 2015).

To what extent can these reflections on locality, community and *archaika*, borrowed from Appadurai's 'Modernity at Large' and from recent papers in the field of Material Culture Studies, benefit the discussion on ResourceCultures? To what degree can they shed new light on the role of resources in the formation of complex societies, above all, in colonial zones of contact (Ulf 2009; 2015, 874–878, 881–884)?

The following will take a closer look at these two questions using as examples two *archaika* – an idiosyncratically decorated pottery bowl and an incised ladling and drinking vessel (*fig. 1* and *2*). Both were unearthed on Monte Iato in occupation layers dating from the late 6th and early 5th cent. BC. During this period, the hilltop settlement was the scene of intense colonial contacts, which challenged the question of locality as a basic resource for common identity. Prior to describing in greater

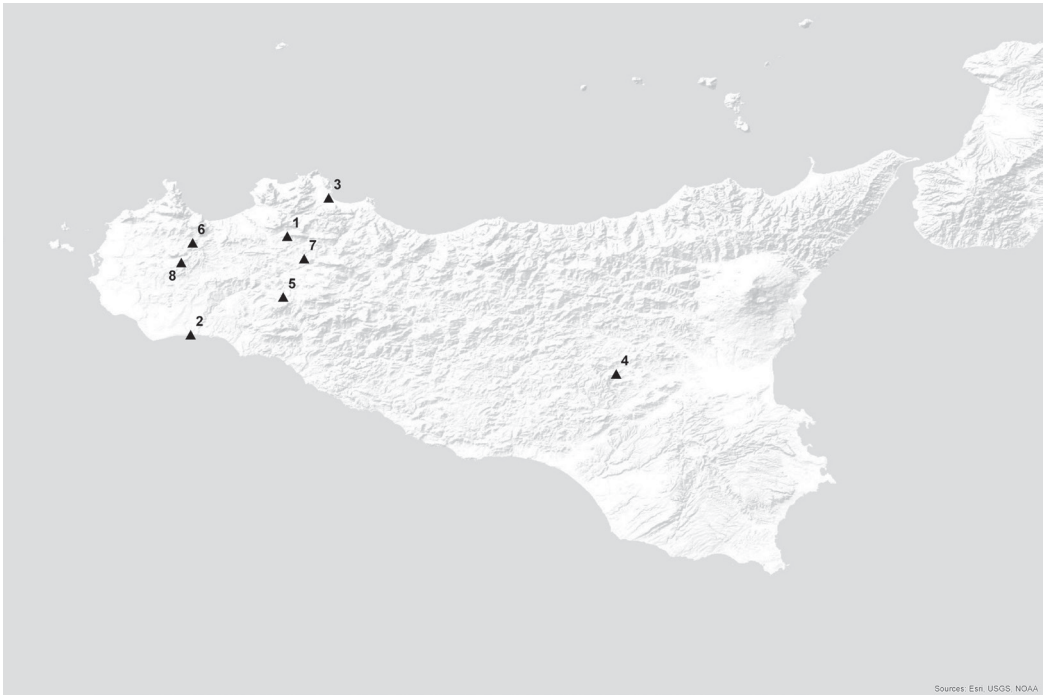


Fig. 3. Map of Sicily with sites mentioned in the text. 1: Monte Iato, 2: Selinous, 3: Palermo, 4: Morgantina, 5: Entella, 6: Segesta, 7: Monte Maranfusa, 8: Monte Polizzo.

detail the two *archaika* and to identifying their value as local resources, it would be useful to give a short introduction about the location in which they were found, namely Archaic Monte Iato.

Monte Iato in the 6th and Early 5th Cent. BC

Monte Iato lies about 30 kilometres south-west of Palermo in the heart of the west Sicilian interior (*fig. 3:1*). With its steep rocky cliffs, it towers majestically over the basin 400m below. The latter, via the 35km Iato River, had natural access to the north-west coast of Sicily at the Gulf of Castellammare; while via the Belice River, it was possible to reach the ports of Selinous, some 77km away on the south-west coast. Due to the advantages of this central position in terms of travel and transport routes, Monte Iato was settled at the latest in the early 7th cent. BC; by the early 5th cent. BC, the settlement had flourished into a centre of interregional importance (Isler 2009; Kistler 2015, 202–209; Spatafora 2015a; 2015b, 112–114). The close contacts and intense interaction with the Greek coastal cities in general and Selinous in particular are documented by numerous ceramic imports but also and perhaps most importantly by the Aphrodite Temple built in the style of a Greek *oikos*, the Late Archaic House with its upper-storey *klinai* rooms and the rectangular residential houses on the southern edge of the later Agora (*fig. 4–6*; with further references: Isler et al. 1984, 11–106, esp. 58; Isler 2009, 167–174; Kistler 2014, 91–99, esp. 95; Perifanakis 2014; Öhlinger 2015, 140–149; Kistler/Mohr 2015, 386, 388–390; 2016; Kistler et al. in preparation).

In the research literature, Archaic Iato is cited as an example of a Greek *enoikismos* in the indigenous interior. Accordingly, it is claimed that the Greeks, mainly specialised craftsmen, settled here from 550 BC, building their new oblong homes alongside the residential constructions of the locals, and erecting their first common religious edifice, the Aphrodite Temple, between 550 and 525 BC. It is also argued that as the cultural dominance of the Greeks increased the indigenous population on Monte Iato soon became completely Hellenised, resulting in the utter eradication of their original culture by the mid-5th cent. BC (Isler 2009, esp. 135 f., 219).

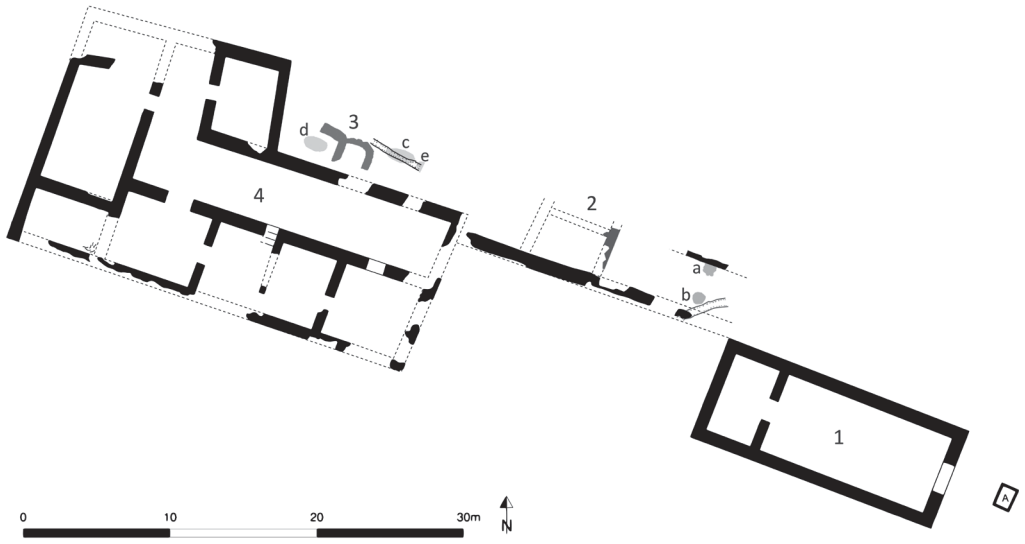


Fig. 4. Schematic plan of the archaic phases (grey: phases before 500 BC no. 2–3; black: phases around 500 BC no. 1, 4). 1: Aphrodite Temple, 2: Oikos-building, 3: proto-historical dwelling, 4: Late Archaic House, a: hearth with stone slabs, b: terracotta hearth, c: deposit found in 2012, d: deposit found in 2014, e: deposit found in 2015.

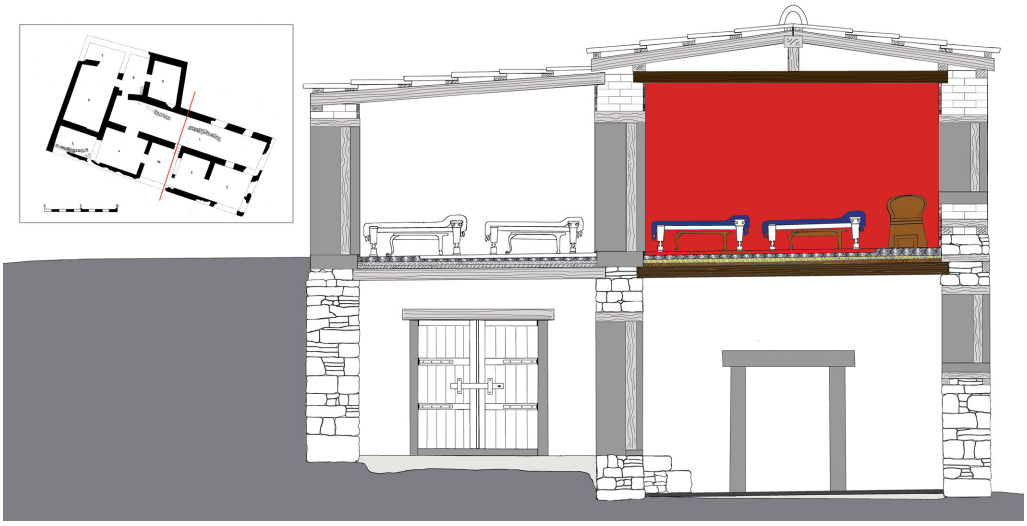


Fig. 5. Reconstruction of the interior of the Late Archaic House.

The *Piumata* Bowl I-K 2250 and the Production of a Local Tradition

The recent find of the thick-walled bowl I-K 2250[1] (*fig. 1* and *7*) radically casts doubt on whether the indigenous population of Monte Iato was really Hellenised to such an extreme degree. To understand why this is so, it is necessary to study this bowl in greater detail. Only then will it be possible in a second step to consider the implications their association with other material in the archaeological record has in respect of the production of locality.

Perhaps the most striking feature of the I-K 2250 bowl is the unusual red interior decoration that is remotely reminiscent of bird feathers. Consequently, ceramics decorated in this way are also referred to in the research literature on Sicily as

1 H. 17,8cm; diam. of the mouth 44,4cm.

Fig. 6. Archaic settlement on the southern edge of the Hellenistic Agora. Plan of the first (around 550 BC, above) and the second (around 500 BC, below) archaic phase (Zürcher Ietas-Grabung).

ceramica piumata. This kind of ceramics has been found in only a few places in western Sicily.[2] Originating from eastern Sicily, it can be traced back to a Late Bronze Age tradition, and is located primarily in the proto-historical layers of the 10th to the 8th cent. BC (Albanese Procelli 2003, 85; Leighton 2014, 67, 71 f., 76). With the exception of a few late examples dating into the 7th cent. BC (Ross Holloway 1991, 91; Leighton 2014, 61, 124 f.; Albanese Procelli 2003, 88), the production of *piumata* pottery ends in the east of the island with the arrival of the Greeks in the second half of the 8th and/or early 7th cent. BC (Ross Holloway 1991, 88, 91; Leighton 2014, 68; Panvini et al. 2009, 14, 18, 25, 27, 28, 30, 31, 32, 104, 106, 163, 196 and esp. 298).

These plumed ceramics from eastern Sicily are generally wheel-thrown (Leighton 2014, 63; Di Noto 1995, 105 note 79; Albanese Procelli 2003, 85). The colouring of the decoration – which is sometimes combined with bands and lines around the rim – varies from red to grey depending on the level of heat exposure during firing (Leighton 2014, 50 and 63). A typical feature of east Sicilian vessels is the shaping of the rim that stems from a Late Bronze and Early Iron Age tradition. For instance, the rims of the bowls were usually designed with

2 Agrigento (Cooper 2007, 95 f.); Caltabellotta (Cooper 2007, 95); Montagnoli di Marineo (Spatafora 2000, 903); Monte Bonifato, Alcamo (Filippi 2014, 84); Monte Maranfusa (Spatafora 2003, 107 f.); Monte Castellazzo di Poggioreale (Cerniglia et al. 2012, 246); Mozia (Cooper 2007, 95-96); Rocca di Ferro (Spatafora 2000, 915); Scrinida (Leighton 1999, 193); Stretto, Partanna (Nicoletti/Tusa 2012, 119).

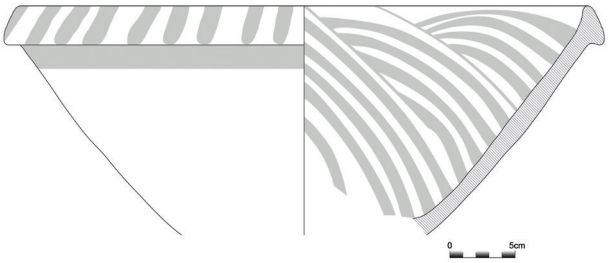


Fig. 7. *Piumata* bowl I-K 2250 (profile).

a relatively severe inward kink which could be of varying thicknesses on the interior (*fig. 8*; see Leighton 2014, pl. 82:144, 91:190, 94:214 and 215, 98:245, 105:288 and 289, 121:410, 147:589). These bowls are additionally embellished with the eponymous feather-like decoration on the exterior and interior or just on the exterior (Leighton 2014, 63 f., 67, 69). By contrast, the *piumata* bowls unearthed on Monte Iato in layers dating from the 7th to the 5th cent. BC, were adorned with plumes on the interior but not the exterior.[3] Furthermore, the way in which the plumed vessels from Iato have been made appears to be far less proto-historical than their east Sicilian counterparts: The fabric is surprisingly fine and the firing is even and hard. In addition, the interiors are burnished more smoothly and the application of the slip is extremely thin.[4] However, above all it is the moulding of the rims that indicates that they could not have been created before the 6th cent. BC (*fig. 9*). The rims of these bowls fundamentally differ from the rims typically associated with the east Sicilian *piumata* of the Late Bronze and Early Iron Ages, reflecting instead the rim shapes of the matt-painted and monochrome ceramics of western Sicily of the 6th and early 5th cent. BC (Trombi 2015, 49 [DB2], 55 [BBA2]; Hoernes in preparation [O1.2]).

Retrospectively, this suggests that the west Sicilian production of *piumata* pottery started in the 8th or early 7th cent. BC with reproductions of east Sicilian imports which particularly in the case of the bowls increasingly started to resemble the repertoire of shapes typical of west Sicilian ware.

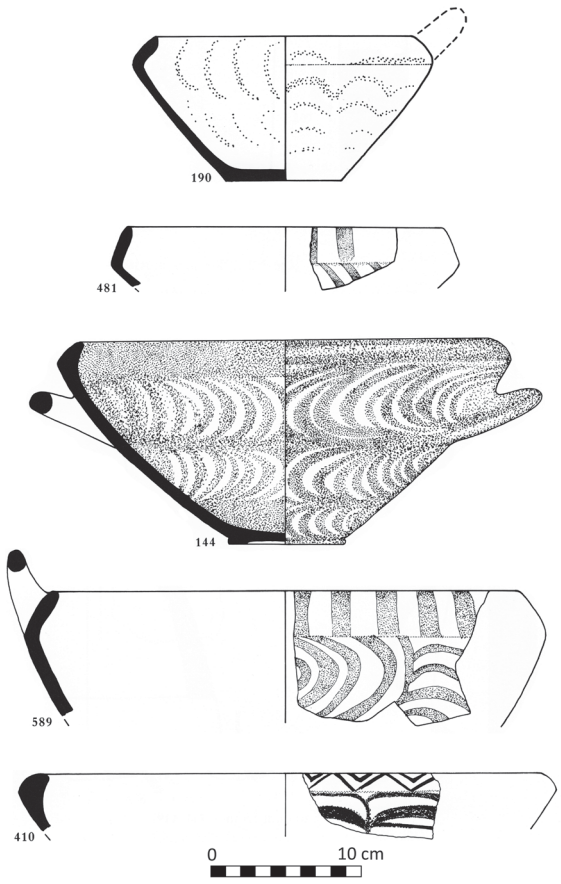


Fig. 8. East Sicilian *Piumata* bowls, 9th cent. BC. (Leighton 2014, no. 144: Pl. 82; no. 190: Pl. 91; 410 no.: Pl. 121; no. 481: Pl. 131; no. 589: Pl. 147).

Furthermore, quite in contrast to the east Sicilian equivalent (Leighton 2014, 63: Pithoi, amphorae, bowls, carinated cups and jugs), the west Sicilian *piumata* production at Monte Iato[5] appears to have been restricted mainly to jugs and bowls.[6]

Moreover, on Iato they were not found in tombs and houses as was the case in eastern Sicily (Ross Holloway 1991, 89; Leighton 1999, 251), but were found almost exclusively in cultic contexts (see Isler 1992, 34, 37 Abb. 42, 38; 1994, 33 f.; 1995, 30; Kistler et al. 2015b).

3 I-K 1849, I-K 2250, I-K 2576, I-K 2603, I-K 3866, I-K 3910, I-K 3926, I-K 3952, I-K 3990, I-K 4017, I-K 4067, I-K 4262, I-K 4269, I-K 4270, I-K 4272, I-K 4472, I-K 4475,I-K 4615, I-K 4627, I-K 4655, I-K 4732, I-K 4737, I-K 4751, I-K 4948, I-K 4971, I-K 5015, I-K 5050, I-K 5112, I-K 5160, I-K 5161, I-K 5179.

4 For instance: I-K 2576, I-K 4067, I-K 4270, I-K 4272, I-K 4475, I-K 4615.

5 The local production of *piumata* pottery on the Monte Iato is now attested on the basis of Neutron Activation Analysis by H. Mommsen. By a sample of 13 fragments of *Piumata* vessels 11 examples could be attributed to the local NAA-fingerprint X090. These results will be published in the dissertation of Kai Riehle (Riehle, Im Westen was Anderes?! – Ressourcensuche und die Gründung griechischer Pflanzstädte in der Magna Graecia).

6 Since today there are only two fragments of pithoi (I-K 4444 and I-K4 258), attested as a local *Piumata* (NAA-fingerprint X090).

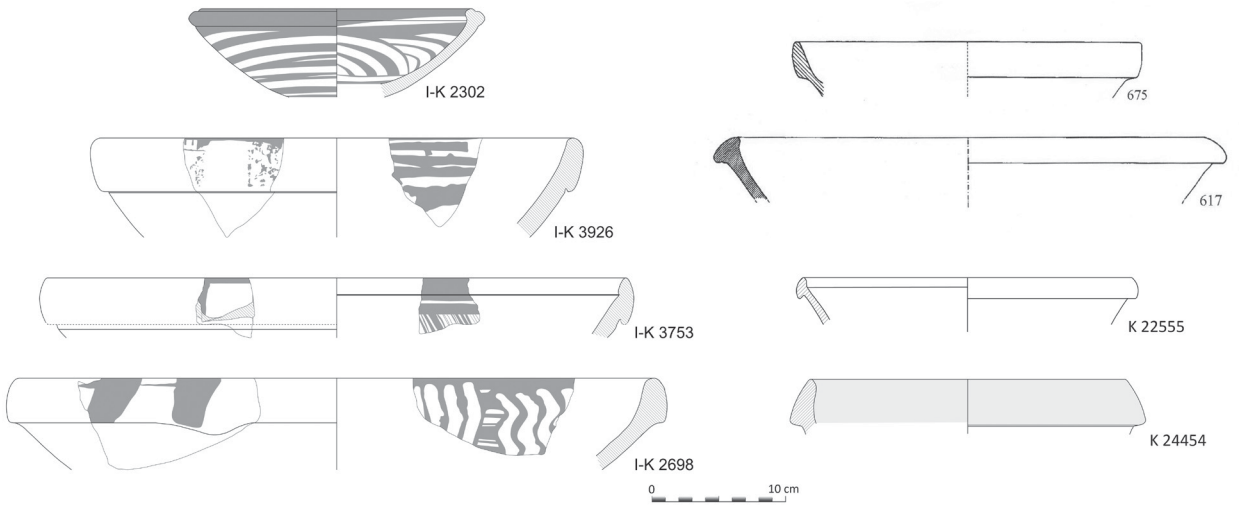


Fig. 9. Left: Ceramica *Piumata* from Monte Iato, 6th – early 5th cent. BC. Right: Monochrome and matt-painted pottery from Western Sicily, 6th – early 5th cent. BC (no. 617 and 675: Trombi 2015, 457, Tav. LVII; no. 427, Tav. XXVII; Hoernes in preparation).

Of course, the ways in which west Sicilian *piumata* deviated from the east Sicilian examples – which retrospectively is quite obvious to modern-day archaeologists – are unlikely to have been at all present in the minds of the people of Monte Iato in the second half of the 6th cent. BC. It is just as improbable that the knowledge of the east Sicilian origins of this plumed ware was preserved from the 8th into the 6th cent. BC. It seems most likely that the local population would merely have been aware of the following: This striking pottery with the plumed decor is always found during building projects in the context of the colonial hype – which assumed ever larger dimensions after 550 BC – and is located in the *in situ* layers that did not yet contain any colonial imports (for instance, to the east of the Peristyle House 1, see Isler 2005, 106; 2006, 67 f.; 2009, 142–144). Therefore, in the eyes of the then inhabitants of Monte Iato this *piumata* ware must have belonged to a pre-colonial era and, consequently be indicative of a local pre-Greek authenticity.[7]

To reinforce the impression of pre-colonial production, bowl I-K 2250 was tellingly not wheel-thrown like its east Sicilian precursors but simply drawn up from a trough-like sandy hollow, used as a mould, as can be identified by the slightly roughened exterior surface.[8] This suggests that the bowl was purposely 'antiqued', lending this piece from the mid to late 6th cent. BC the appearance of a much older *archaikum* that referred back to a pre-colonial time before the potter's wheel had been introduced. Accordingly, bowl I-K 2250 along with the other *piumata* retro-bowls renders a specific cultural technique archaeologically tangible: Using requisites that have intentionally been made to look old, it is possible to lend newly constructed rites considerable archaic depth (Jones 2007, 61–67, 84, 158). In this way, these rites are identified as a traditional heritage branded with local authenticity.

The *piumata* bowl I-K 2250 was found to the north of the Late Archaic House, in a proto-historical dwelling (*fig. 4* and *10*). The latter consists of a square main room and a rounded annex (Kistler et al. 2014, 178 f.; Kistler et al. in preparation). Beneath the collapsed annex walls the burned clay of a hearth came to light, suggesting that the annex was used to prepare and cook food and drinks[9]. Of the once existing pottery, which was removed when the building was abandoned, merely the

7 On the reverse phenomenon of the local adaption and production of the west Sicilian *ceramica incisa ed impressa* at Morgantina in Eastern Sicily during the 6th and the early 5th cent. BC see Antonaccio 2015, 60–67.

8 Concerning an eventually similar technique at Morgantina see Leighton 2014, 67.

9 A related annex to the cult and banqueting room F in the hut complex 2 on Monte Maranfusa was endowed with a corresponding terracotta hearth, see Spatafora 2003, 50 f.

Fig. 10. Interior of the annex (from south). 1: north- and east-wall of the main room, 2: north- and east-wall of the annex, 3: *Piumata* bowl I-K 2250, 4: hearth.

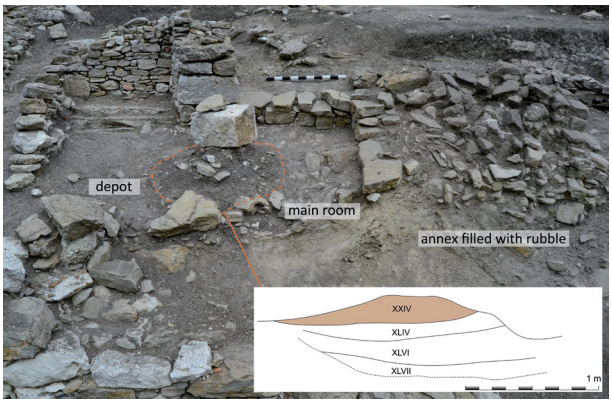


Fig. 11. Deposit in the main room of the proto-historical dwelling *in situ* and schematic profile.

sherds of I-K 2250 were discovered in the occupation layer of the annex, along with just a few incised and matt-painted fragments.[10]

In contrast to the annex, there was no wall rubble in the main room of the proto-historical dwelling. Here, immediately beneath the remains of an Early Hellenistic house, a trough-like pit was found, dug in the floor and sub-packing of the proto-historical building and clad mainly with *pithos* fragments (*fig. 11*). This pit was filled with four layers of deposits consisting of ceramics and bones, which – as the sherd-links of a *dipinta* jug (I-K 2838) and a *pithos* (I-K 2686) illustrate – originated from a single act of 'thesaurising' the ceremonial waste from a sacrificial feast. This garbage includes fragments of indigenous coarse and fine ware, rubbing stones as well as 124 bones of cattle, sheep, goats, pigs and deer (Kistler et al. 2015b, 142–149). The fact that this deposit coincided with the demolition of the annex is indicated by the sherds of a monochrome jug (I-K 2837 A) and a *pithos* (I-K 2686), which came to light both in the deposits in the main room and in the rubble of the oval annex (*fig. 12*). Also, sherds from a closed storage vessel with a stamped decoration (I-K 1139) document that the building was vacated and demolished just as the Late Archaic House was being erected around 500 BC. After all, fragments of this vessel appeared in the deposit as well as in the levelling of the outer square, granting ground-floor access from the north to the upper storey of the Late Archaic house.

Interestingly, the fragments in the deposit in the building's main room did not contain any sherds of colonial imports, even though such fragments could be found in significant quantities in contemporaneous layers on Monte Iato (see Kistler/Mohr 2015; 2016). The absence of Greek ceramics in this deposit – and in the area surrounding the proto-historical dwelling – must therefore be the consequence of intentional behaviour. The exclusion of colonial ceramics has already been observed in the occupation layer of the outer square situated in front of the north façade of the upper storey of the Late Archaic house (Kistler/Mohr 2016, 91 with fig. 15). It was here that a deposit containing cultic waste was discovered, featuring only selected fragments of incised ceremonial pottery and matt-painted ceramics dating from the late 7th and early 6th cent. BC (*fig. 4c*). The sherd of an Attic red-figure Nikosthenic *pyxis* (I-K 1058) that came to light in the layer immediately below the deposit, demonstrates that the intentional shattering of this centuries-old pottery must have occurred at the very earliest around 500 BC during a sacrificial feast (in more detail and with further references see Kistler/Mohr 2016, 89–92).

Overall, the proto-historical, two-roomed building and the two deposits (*fig. 4c* and *d*) conjure up images of a material world emanating from a pre-colonial, or in other words, pre-Greek era. This, however, was now only celebrated as such in the realm of cult. Greek consumption goods were already being used on a daily basis in the households of the local elites in the early 6th cent.

10 I-K 2246, I-K 2247, I-K 2248, I-K 2301.

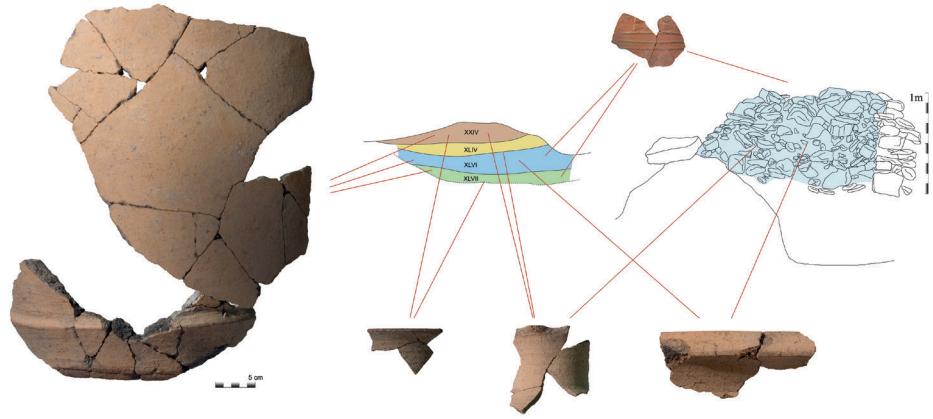


Fig. 12. Sherd-links from several vessels found in different layers of the deposit in the main room, the annex and the late archaic filling.

Fig. 13. Deposit in the main room of the proto-historical dwelling with deer antler and horn core of a ram on top of the stone packing.

BC (Kistler/Mohr 2016, 83–87). This is corroborated by the sherds of an Ionian cup type B1 and a Middle Corinthian *kotyle* retrieved from the debris of a residential construction, ceremoniously destroyed in the later Hellenistic eastern quarter of Iaitas around 575 BC (Isler 2009, 152). Similarly in the stratified fill dating from the first half of the 6th cent. BC on the southern edge of the later Agora, the many indigenous ceramics were found together with fragments of a *bucchero kantharos* and several Greek imports (Kistler/Mohr 2016, 83 f. with fig. 5). Around 460 BC, conspicuous drinking took place in Agora House I, a practice carried out chiefly with colonial pottery (Kistler/Mohr 2016, 85–87 with fig. 6). The same incidentally applies to the Late Archaic house where only Greek fragments were found in the field of activity related to drinking (Kistler/Mohr 2015, 388–391 with fig. 22.11 and 22.13).

Given the dominance of Greek drinking vessels in the homes of the local elite, the complete exclusion of Greek imports from the deposits and the area surrounding the proto-historical dwelling becomes all the more significant[11]. The absence of Greek imports clearly reflects a very specific consumption behaviour that celebrated a pre-Greek locality and authenticity. Moreover, this appears to have been restricted to the cultic area between the Late Archaic House and the Aphrodite Temple (Kistler et al. 2013, 253 f.; Kistler 2015, 207–209; Kistler/Mohr 2016, 91–93; Kistler et al. 2015b).

In the case of the sacrificial pit in the main room of the proto-historical 'hut', this retro-enactment of the pre-colonial world of forebears is inextricably connected to the construction of the Late Archaic house. This is not only because the older dwelling was demolished to erect the new building but also because the perpendicular bisector to the corridor of the Late Archaic house comes to rest precisely on the packing of stones that represented the over-ground marker of the deposit in the main room of the 'hut' (*fig. 13*). This central vertical axis created a link from the two-storey banqueting wing of the Late Archaic house back to the proto-historical dwelling as its immediate predecessor (*fig. 14*). In this context, vertical should be understood not only in terms of space but also time. After all, the vertical reference axis extending from the Late Archaic house to the deposit and the act of closing down the proto-historical 'hut', likewise, comprises a projection of time back into the past. Within this, the matrix of locality and 'indigeneity'

11 Even in the occupation layer of the outer square of the Late Archaic house only 11 sherds of colonial imports were found alongside the 330 fragments of incised, matt-painted or monochrome (regional or local) pottery (Kistler/Mohr 2016, 91 with fig. 19).

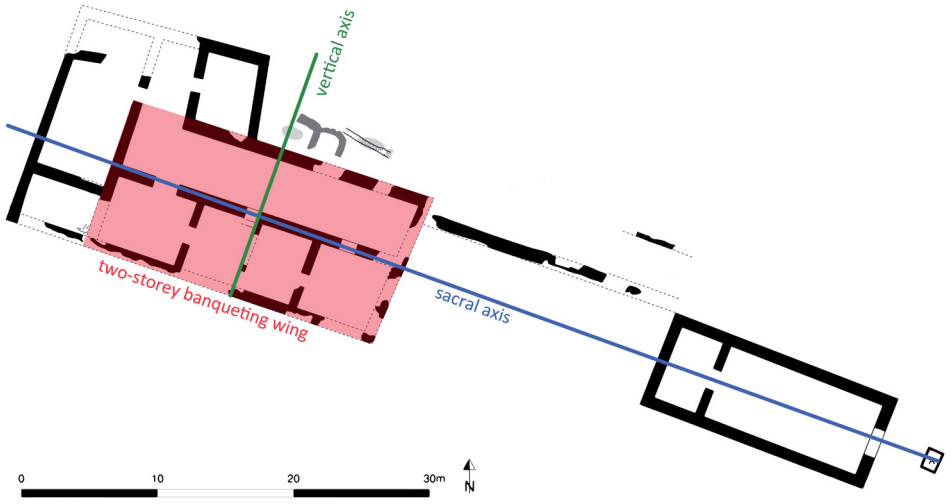


Fig. 14. Deposit in the main room of the proto-historical dwelling as vertical fixed-point for the planning and construction of the banqueting wing of the Late Archaic house.

(Antonaccio 2015, 60–62) arising from the identitarian constraints ensuing from the colonial situation around 500 BC, was projected back to the ritually demolished building ruin as an authentic relic from an imagined and unadulterated time prior to foreign contact (Kistler 2015, 200 f., 208 f.). Therefore, a foundation ritual was initiated with the ceremonial closure of the proto-historical dwelling and the building of the Late Archaic house. In this way, the new Greek high-tech building, which was seen as a monumental manifestation of colonial reward power (Kistler 2014, 91–99), was embedded within a landscape of religion and remembrance, which was interpreted and appropriately staged as the legacy of a pre-colonial past through the exclusion of all that is Greek (Kistler/Mohr 2016, 91 f.).

The Attingitoio K 26018[12] and Empowerment through the Production of Locality

It is interesting to note that *archaika* were used on Monte Iato not only in ritual settings that focused on the retro-enactment of a pre-colonial world through the exclusion of colonial imports. The sherds of a ladling and drinking vessel (K 26018)[13] of proto-historical appearance (*fig. 2*), for example, were located directly next to those of an Attic black-figure *skyphos* (I-K 666) in the demolition rubble of the Late Archaic house around 460 BC (Kistler et al. 2013, 249–254). This kind of receptacle, which tended to feature an incised and stamped decoration is actually based on prototypes dating from the Late Bronze and Early Iron Age (Mühlenbock 2015, 252). Referred to in Italian research as *attingitoio*, this type has so far been found in the west Sicilian context in Entella and Segesta as well as on Monte Maranfusa and Monte Polizzo (Balco 2012, 150). Based on these finds, Christian Mühlenbock draws the conclusion that such *attingitoi*, whose handles were sometimes therio- or anthropomorphic, were primarily used in indigenous rituals that played an important role in the redistribution of food and drink (Mühlenbock 2015, 254).

It is probable that the *attingitoio* on proto-historical Monte Iato fulfilled a similar function (Kistler et al. 2015b, esp. 140–142.). In several cases, fragments of such biconical vessels with single handles were found as *pars-pro-toto* pieces together with specifically selected bones in cultic waste deposits from a time before the construction of the Aphrodite Temple[14]. Some of the bones displayed traces of chopping and cutting that leave no doubt that these were the bones of animals that had been sacrificed and consumed (Kistler et al. 2015b, 153, 159 f.). These sherds of *attingitoi* frequently display distinct traces of secondary exposure to fire, which indicates that these vessels were

12 2012 supplemented by the matching sherds I-K 418, 460 and 494.
13 H. 5,0cm; diam. of the mouth 24,0cm.
14 I-K 4332, I-K 4336, I-K 4337, I-K 4338, I-K 4339, I-K 4394, I-K 4427, I-K 4473, I-K 4688, I-K 4705, I-K 4790, I-K 4902, K 1795.

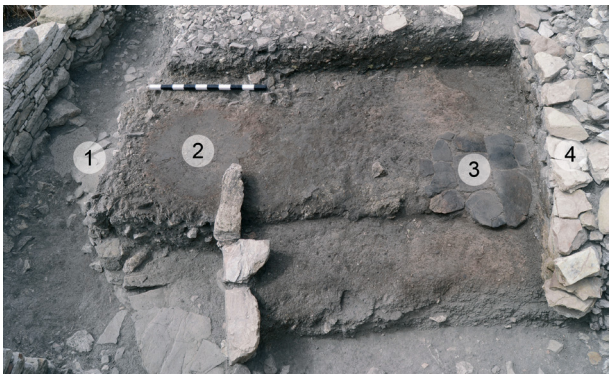


Fig. 15. Area northwest of the Aphrodite Temple (from east, see Fig. 4, a–b). 1: archaic canal, 2: round clay slab (fireplace), 3: hearth, 4: north wall of the ramp between the Late Archaic House and the Aphrodite Temple.

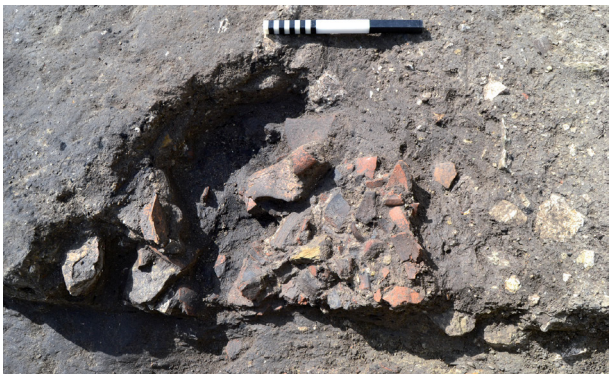


Fig. 17. Ritual deposit with miniature vessels with incised and stamped decoration dug into the outdoor level of the proto-historical dwelling.

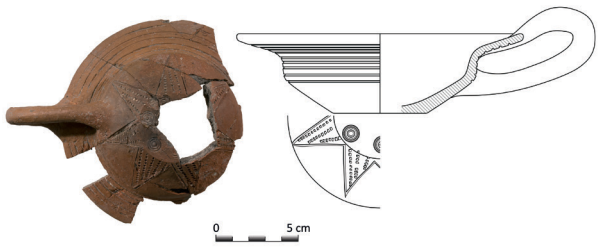


Fig. 16. *Attingitoio* I-K 2405.

Fig. 18. Fragments of the miniature *Attingitoio* from the ritual deposit dug into the outdoor level of the proto-historical dwelling.

intentionally destroyed as part of a ritual.[15] In two instances, *in-situ*-finds confirm that this kind of intentional shattering did indeed take place.

In one such case, the fragments are from the archaic-looking, one-handle biconical vessel I-K 2405[16] (*fig. 4*, *15* and *16*). They were found in a layer containing charcoal above a round clay slab, which served as a hearth and was exposed to secondary firing through the heat created when burning the wood. Tellingly, this hearth, which was most probably a place of sacrifice, demarcates the end of the first building phase of the ramp between the Aphrodite Temple and the Late Archaic house. As the associated ritual was brought to a close, the *attingitoio* I-K 2405 was intentionally shattered, with many of its fragments falling into the layer of ash in the hearth (Kistler et al. 2015b, 132, 140–142.).

In the second instance, at least six miniaturised biconical bowls with single handles[17] were likewise purposely destroyed during a ritual, mixed with jug fragments, and deposited in a sacrificial pit, dug in the corresponding outdoor level around 5m to the east of the proto-historical dwelling (*fig. 4e*, *17* and *18*).

As already discussed, the sherds of the *attingitoio* K 26018 came to light in the upper storey rubble of the Late Archaic house. This suggests that, unlike the majority of other proto-historical ladling and drinking vessels, K 26018 did not originate directly from a context of ritual usage. As described in considerable detail elsewhere, the fragments of this *attingitoio* were brought into the upper-storey *klinai* rooms of the Late Archaic house (*fig. 5*) around 460/450 BC when the house was being

15 I-K 4332, I-K 4336, I-K 4337, I-K 4338, I-K 4339, I-K 4394, I-K 4427, I-K 4473.

16 H. with handle 6,4cm; diam. of the mouth 17,4cm; diam. of the base 5,8cm.

17 I-K4317: H. 3,5cm; diam. of the mouth 13,0cm I-K; 4332: diam. n/a; I-K 4336: H. 3,9cm; diam. of the mouth 14,0cm; I-K 4337: diam. n/a; I-K 4338: H. 5,7cm; diam. of the mouth 13,5cm; I-K 4339: H. 2,4cm; diam. of the base 3,0cm; I-K 4394: diam. n/a.

ritually terminated (Kistler et al. 2013, 252–254). However, the remains of this *attingitoio*, comprising four fragments, do not constitute the most dominant group of single fragments deposited in the banqueting rooms as *pars pro toto* pieces during the termination ritual. Based on its state of preservation K 26018 should rather be allocated to a group of vessels, sherds of which were found in the upper-storey debris, which in many cases could be linked together to recreate at least half, if not two-thirds of the whole (see also Öhlinger 2015, 164 f.) (*fig. 19*).

The differing condition of the ceramics found in the debris of the Late Archaic House bears a striking resemblance to the sherds of vessels unearthed in a deposit dating from the late 5th cent. BC, located at the *heroon* in the agora of Selinous (*fig. 20*). In the case of the deposit in Selinous, it is assumed that similar rituals and festivities were staged for the closure of the tomb ascribed to the founder of the *apoikia* when the Carthaginians conquered Selinous in 409 BC (Mertens *et al.* 2012, 153–165, see also Öhlinger 2015, 171 f.).

In both instances, it seems likely that these better preserved vessels were the 'personal' property of the *heroon*- or house-owners. The two ceramic assemblages are therefore not so much indicative of the pottery inventory used at banquets but rather of a material-symbolic coding of social identity, such as was communicated to funeral guests by placing corresponding ceramic banqueting services in the tombs of Greek and indigenous members of the elite (Albanese Procelli 1996; Hodos 2006, 113–121; Hofmann 2009; Burkhardt 2013, 121–129; Sheperd 2013). Particularly when drawing comparisons with the *heroon* in Selinous, it becomes evident that references to the local and traditional were apparently of great importance to the owners of the Late Archaic house even though they were highly Hellenised (Kistler 2015, 202–209; Kistler/Mohr 2015, 394–398). This is underlined, for example, by the 15 matt-painted *kraters* bearing an indigenous decorative syntax and retrieved from the upper-storey debris.[18]

However, the incised ladling and drinking vessel K 26018 illustrates even more clearly than

Fig. 19. (a) Assemblages of vessels found in the upper storey debris (Zürcher Ietas-Grabung); (b) *pars pro toto* pieces found in the upper storey debris; (c) miniature colonette krater K 17310.

these *kraters* the material-symbolic reference to a retrospectively imagined, pre-colonial world. After all, the fine tempering of the clay,[19] the exceptionally hard and even firing and the tectonic shaping are indicative of a level of craftsmanship that would not have been possible without the pottery technology of the late 6th/early 5th cent. BC, with its rapidly turning potter's wheel and firing kiln (Kistler/Mohr 2016, 89).

As in the case of the *piumata* bowl I-K 2550, the *attingitoio* K 26018 was also a retro-look ritual instrument, whose precursor would already have played a central role in the practice of cultic rule in the pre-Greek age. However, in contrast to the *piumata* bowl, *archaikum* K 26018 was not embedded in an 'antiqued' cult that blocked out anything and everything that was Greek. Instead, the *attingitoio* is integrated as an *archaikum* in the social field of a banqueting culture that was strongly influenced by Greek customs (Isler 2009, 176–182; Kistler 2015, 202–204). Consequently, in this particular instance, the imagined pre-colonial traditionalism with which the ancient-looking vessel would have been associated is brought together with the

18 I-K 299, I-K 308, I-K 577, K 10769, K 13011, K 18583, K 18823, K 16786, K 19201, K 19206, K 23376, K 23698, K 23761, K 24509, K 26020.

19 Neutron activation analysis of the clay showed a classification to group X090, which proves a local production of K 26018.

Fig. 20. Ritual deposit of the Heroon on the Agora of Selinous, late 5th cent. BC (Mertens et al. 2012, 157, Fig. 41).

pronounced consumption of Greek cultural goods (Kistler/Mohr 2016, 87–89). For the owners of the Late Archaic house, both can be said to be symptomatic and a clear expression of their social identity: In their role as the new leaders, they were building up their superiority on the back of colonial reward power, whilst simultaneously having to convince those around them that they were descended from a legitimate local (fictitious?) authority (Kistler/Mohr 2016, 92 f.).

Conclusion: Locality, Colonial Empowerment and new Masters on Monte Iato

Based on the concept of the 'Production of Locality' by Arjun Appadurai (1996, 178–199), the two *archaika* K 26018 and I-K 2250 were examined in greater detail in terms of their production and the location in which they were found on the Late Archaic Monte Iato. This showed that the hilltop population of the day was not as strongly Hellenised as older finds had led many to believe, even to this day. In spite of the strikingly intense circulation of Greek cultural goods, cultic zones still existed on Monte Iato, even around 500 BC, in which nothing Greek was consumed. Rather than imports, these cultic consumptionscapes feature genuine and faked *archaika*, through which the invented memory of a pre-colonial past, under constant reconstruction, is celebrated as an unbroken tradition. These retro-constructions of locality, portrayed as an originally indigenous *Lebensraum*, thus become ritual *loci* of indigenous self-localisation (*fig. 4b*, *c* and *d*).

These consumeristic arenas of re-enacted pre-colonial locality do not however represent an exaggerated form of conservatism.[20] They rather emanate from an indigenous defensive reaction, which would have been triggered by the start of colonial contacts. These retro-enactments are indeed more of a social technique for the production of locality that Appadurai fittingly describes as a colonisation (Appadurai 1996, 183) or reclamation of the past with a view to claiming ownership of local history (Kistler et al. 2015a, 522–524 with further references). This technique would have been used on Monte Iato particularly at that moment when elite status was being expressed to an ever increasing

20 Regarding the suggested 'resistant' aspects of ancient indigenous religion see Urquhart 2010, 16–19, 86–87.

degree through the demonstrative consumption of Greek architecture and symposium pottery. Had it not been for the colonial situation, the return to the suggested world of ancestors would never have been as virulent or opportune. However, this imagined world was not about creating an individual psychological balance between the indigenous and the colonial. It rather served to promote a targeted policy of empowerment: By turning the termination festivities for the proto-historical dwelling into the retro-enactment of pre-local authenticity in the guise of a foundation ritual, the Late Archaic house is declared the immediate successor to the proto-historic building. Furthermore, by creating this new succession, the new house owners placed themselves in an ancestral line with the former heads of the previous household in the dwelling, upon which their claim to cultic leadership between the Late Archaic house and the Aphrodite Temple ultimately rested. Precisely this authority is embodied in the incised ladling and drinking vessel K 26018 in the ceramic assemblage from the upper-storey debris of the Late Archaic house. This objectivisation of an imagined pre-colonial tradition and indigeneity was the only way to gain acceptance for the colonial within the local group, thus paving the way for the new elites on Iato to distinguish themselves culturally from the 'Elders' of the pre-Greek period, whilst bringing them culturally a step closer to their Greek guest-friends. Without the production of locality, which raised colonial *loci* to places of self-localisation through retro-enactments and *archaika*, the colonial hype on Monte Iato during the late 6th and early 5th cent. BC could never have assumed such dimensions. Locality is thus a central basic resource that permits empowerment and can promote the formation of complex societies in colonial zones of contact.

Erich Kistler
(Erich.Kistler@uibk.ac.at)

Birgit Öhlinger
(Birgit.Oehlinger@uibk.ac.at)

Thomas Dauth
(Thomas.Dauth@student.uibk.ac.at)

Ruth Irovec
(Ruth.Irovec@student.uibk.ac.at)

Benjamin Wimmer
(Benjamin.Wimmer@student.uibk.ac.at)

Institut für Archäologien
Klassische und Provinzialrömische Archäologie
Zentrum für Alte Kulturen
Leopold-Franzens-Universität Innsbruck
Langer Weg 11
A-6020 Innsbruck

Bibliography

Albanese Procelli 1996: R. M. Albanese Procelli, Importazioni greche nei centri interni della Sicilia in Età Arcaica. Aspetti dell'«acculturazione». In: I vasi attici ed altre ceramiche coeve in Sicilia. Atti del convegno internazionale: Catania, Camarina, Gela, Vittoria, 28 marzo–1 aprile 1990, II (Catania 1996) 97–111.

Albanese Procelli 2003: R. M. Albanese Procelli, Sicani, Siculi, Elimi. Forme di identità, modi di contatto e processi di trasformazione (Milano 2003).

Alroth/Scheffer 2014: B. Alroth/C. Scheffer, Attitudes towards the Past in Antiquity. Creating Identities. Proceedings of an International Conference Held at Stockholm University, 15–17 May 2009. Stockholm Studies in Classical Archaeology 14 (Stockholm 2014).

Antonaccio 2015: C. M. Antonaccio, Re-Excavating Morgantina. In: C. M. Antonaccio/D. Haggis (eds.), Classical Archaeology in Context. Theory and Practice in Excavation in the Greek World (Berlin2015) 1–21.

Appaduari 1981: A. Appadurai, The Past as a Scarce Resource. Man, New Series 16.2, 1981, 201–219.

Appadurai 1996: A. Appadurai, Modernity at Large. Cultural Dimensions of Globalization (Minneapolis 1996).

Appadurai 2001: A. Appadurai, The Globalization of Archaeology and Heritage. A Discussion with Arjun Appadurai. Journal of Social Archaeology 1.1, 2001, 35–49.

Balco 2012: W. Balco, Material Expressions of Social Change. Indigenous Sicilian Responses to External Influences in the First Millennium B.C. (PhD-Thesis University of Wisconsins Milwaukee 2012).

Brown/Hamilakis 2003: K. S. Brown/Y. Hamilakis, The Cupboard of Yesterdays. Critical Perspectives on the Usable Past. In: K. S. Brown/Y. Hamilakis (eds.), The Usable Past. Greek Metahistories (Lanham 2003).

Burkhardt 2013: N. Burkhardt, Bestattungssitten zwischen Tradition und Modifikation. Italikà 2 (Wiesbaden 2013).

Cerniglia et al. 2012: R. Cerniglia/G. Falsone/P. Sconzo, Nuove Ricerche a Castellazzo di Poggioreale. Campagne 2008–2009. In: Atti delle Settime Giornate Internazionali di Studi sull'Area Elima e la Sicilia Occidentale nel contesto mediterraneo (Pisa 2012) 239–250.

Cooper 2007: J. M. Cooper, Traditions in Profile. A Chronological Sequence of Western Sicilian Ceramics. 7th – 6th c. BC (PhD-Thesis State University of New York at Buffalo 2007).

van Dyke/Alcock: R. Van Dyke/S. Alcock, Archaeologies of Memory. An Introduction. In: R. Van Dyke/S. Alcock (eds.) Archaeologies of Memory (Oxford 2003) 1–13.

Di Noto 1995: C. A. Di Noto, La ceramica indigena a decorazione geometrica incisa e impressa. In: G. Nenci (ed.), Entella I (Pisa 1995) 77–110.

Fejfer et al. 2015: J. Fejfer/M. Moltesen/A. Rathje (eds.), Tradition. Transmission of Culture in the Ancient World. Acta Hyperborea 14 (Kopenhagen 2015).

Filippi 2014: A. Filippi, Preistoria e protostoria trapanese (Erice 2014).

Foucault 1972: M. Foucault, The Archaeology of Knowledge and the Discourse of Languages. Translated from the French by A. M. Shridan Smith (New York 1972).

Guggisberg 2004: M. Guggisberg, Keimelia. Altstücke in fürstlichen Gräbern diesseits und jenseits der Alpen. In: M. Guggisberg (ed.), Die Hydria von Grächwil. Zur Funktion und Rezeption mediterraner Importe in Mitteleuropa im 6. und 5. Jahrhundert v. Chr. Akten Internationales Kolloquium anlässlich des 150. Jahrestages der Entdeckung der Hydria von Grächwil, 12.–13. Oktober 2001. Schriften Bernisches Historisches Museum 5 (Bern 2004) 175–192.

Hodos 2006: T. Hodos, Local Responses to Colonization in the Iron Age Mediterranean (London 2006).

Hoernes in preparation: M. Hoernes, Die Dipinta-Keramik. In: Kistler et al. in preparation.

Hofmann 2009: K. Hofmann, Totenrituale und Akkulturation. Zum Kulturwandel in Südostsizilien unter den Einflüssen der Griechen im 8.–5. Jh. v. Chr. In: P. Trebsche/I. Balzer/Ch. Eggl/J. Fries-Knoblach/J. K. Koch/J. Wiethold (eds.), Architektur. Funktion und Rekonstruktion. Beiträge zur Sitzung der AG Eisenzeit während des 6. Deutschen Archäologie-Kongresses in Mannheim 2008. Beiträge zur Ur- und Frühgeschichte Mitteleuropas 55 (Langenweissbach 2009) 189–201.

Isler et al. 1984: H. P. Isler/C. Isler-Kerényi/A. Lezzi-Hafter, Der Tempel der Aphrodite. La ceramica proveniente dall'insediamento medievale. Cenni e osservazioni preliminari. Studia Ietina 2 (Zurich 1984).

Isler 1992: H. P. Isler, Monte Iato. La ventunesima campagna di scavo, Sicilia Archeologica 25.78–79, 1992, 7–43.

Isler 1994: H. P. Isler, Monte Iato. La ventiquattresima campagna di scavo, Sicilia Archeologica 27.85–86, 1994, 27–47.

Isler 1995: H. P. Isler, Grabungen auf dem Monte Iato 1994, Antike Kunst 38, 1995, 26–37.

Isler 2005: H. P. Isler, Grabungen auf dem Monte Iato 2004, Antike Kunst 48, 2005, 103–111.

Isler 2006: H. P. Isler, Grabungen auf dem Monte Iato 2005, Antike Kunst 49, 2006, 65–76.

Isler 2009: H. P. Isler, Die Siedlung auf dem Monte Iato in archaischer Zeit. Jahrbuch des Deutschen Archäologischen Instituts 124, 2009, 135–222.

Jones 2007: A. Jones, Memory and Material Culture (Cambridge 2007).

Jones/Russell 2012: S. Jones/L. Russell, Archaeology, Memory and Oral Tradition. An Introduction, International Journal of Historical Archaeology 16, 2012, 267–283.

Kistler 2014: E. Kistler, Die Phönizier sind Händler, die Griechen aber Kolonisatoren. Zwei alte Klischees, Ulfs Kulturkontaktmodell und das archaische Westsizilien. In: R. Rollinger/K. Schnegg (eds.), Kulturkontakte in antiken Welten. Vom Denkmodell zum Fallbeispiel. Proceedings des internationalen Kolloquiums aus Anlass des 60. Geburtstages von Christoph Ulf (Innsbruck, 26. bis 30. Januar 2009). Colloqiua Antiqua 10 (Leuven 2014) 67–108.

Kistler 2015: E. Kistler, Zwischen Lokalität und Kolonialität – alternative Konzepte und Thesen zur Archäologie eines indigenen Kultplatzes auf dem Monte Iato. In: T. L. Kienlin (ed.), Fremdheit – Perspektiven auf das Andere. Kölner Beiträge zu Archäologie und Kulturwissenschaften 1 (Bonn 2015) 195–218.

Kistler/Mohr 2015: E. Kistler/M. Mohr, Monte Iato. Two Late Archaic Feasting Places between the Local and Global. In: Kistler et al. 2015, 385–415.

Kistler/Mohr 2016: E. Kistler/M. Mohr, The Archaic Monte Iato. Between Coloniality and Locality. In: H. Baitinger (ed.), Materielle Kultur und Identität im Spannungsfeld zwischen mediterraner Welt und Mitteleuropa. Material Culture and Identity between the Mediterranean World and Central Europe. Akten der Internationalen Tagung am Römisch-Germanischen Zentralmuseum Mainz, 22.–24. Oktober 2014. RGZM Tagungen 27 (Mainz 2016) 81–98.

Kistler et al. 2013: E. Kistler/B. Öhlinger/M. Steger, „Zwischen Aphrodite-Tempel und spätarchaischem Haus.“ Die Innsbrucker Kampagne 2011 auf dem Monte Iato (Sizilien), Jahreshefte des Österreichischen Archäologischen Institutes in Wien 82, 2013, 229–258.

Kistler et al. 2014: E. Kistler/B. Öhlinger/N. Mölk/M. Steger, „Zwischen Aphrodite-Tempel und spätarchaischem Haus.“ Die Innsbrucker Kampagnen 2012 und 2013 auf dem Monte Iato (Sizilien), Jahreshefte des Österreichischen Archäologischen Institutes in Wien 83, 2014, 157–200.

Kistler et al. 2015a: E. Kistler/B. Öhlinger/M. Mohr/M. Hoernes (eds.), Sanctuaries and the Power of Consumption. Networking and the Formation of Elites in the Archaic Western Mediterranean World. Proceedings of the International Conference in Innsbruck, 20th–23rd March 2012 (Wiesbaden 2015).

Kistler et al. 2015b: E. Kistler/B. Öhlinger/T. Dauth/R. Irovec/B. Wimmer/G. Slepecki, „Zwischen Aphrodite-Tempel und spätarchaischem Haus II“. Die Innsbrucker Kampagne 2014 auf dem Monte Iato (Sizilien), Jahreshefte des Österreichischen Archäologischen Institutes in Wien 84, 2015, 129–164.

Kistler et al. in preparation: E. Kistler/B. Öhlinger/M. Hoernes (eds.), Das spätarchaische Haus auf dem Monte Iato. Architektur, Keramik und Kleinfunde, Studia Ietinia 10 (in preparation).

Leighton 1999: R. Leighton, Sicily before History (New York 1999).

Leighton 2014: R. Leighton, The Protohistoric Settlement on the Cittadella, Morgantina Studies 4 (Princeton 2014 [1993]).

Lillios 1999: K. T. Lillios, Objects of Memory. The Ethnography and Archaeology of Heirlooms, Journal of Archaeological Method and Theory 6.3, 1999, 235–262.

Lillios/Tsamis 2010: K. T. Lillios/V. Tsamis (eds.), Material Mnemonic. Everyday Memory in Prehistoric Europe (Oxford 2010).

Mehling 1998: A. Mehling, Archaika als Grabbeigaben. Studien an merowingerzeitlichen Gräberfeldern. Tübinger Texte 1 (Rahden/Westf. 1998).

Mertens et al. 2012: D. Mertens/A. Thomsen/M. Jonasch/L. Adorno/R. Attula/J. M. Müller/A. Bischoff/M. L. Lazzarini, Die Agora von Selinunt. Der Platz und die Halle. Mitteilungen des Deutschen Archäologischen Instituts. Römische Abteilung 118, 2012, 51–178.

Mühlenbock 2013: C. Mühlenbock, Having an Axe to Grind. An Examination of Tradition in the Sicilian Iron Age. In: S. Bergenbrant/S. Sabatini (eds.), Counterpoint. Essays in Archaeology and Heritage Studies in Honour of Professor Kristian Kristiansen. BAR International Series 2508 (Oxford 2013) 401–409.

Mühlenbock 2015: C. Mühlenbock, Expanding the Circle of Trust. Tradition and Change in Iron Age Communities in Western Sicily. In: Fejfer et al. 2015, 239–268.

Nicoletti/Tusa 2012: F. Nicoletti/S. Tusa, L'età del Bronzo nella Sicilia occidentale. In: Atti della XLI Riunione scientifica. Dai ciclopi agli ecisti. Società e territorio nella Sicilia preistorica e protostorica, San Cipirello (PA), 16–19 novembre 2006 (Firenze 2012) 105–130.

Öhlinger 2015: B. Öhlinger, Ritual und Religion im archaischen Sizilien. Formations- und Transformationsprozesse binnenländischer Kultorte im Kontext kultureller Kontakte. Italiká 4 (Wiesbaden 2015).

Panvini et al. 2009: R. Panvini/C. Guzzone/D. Palermo (eds.), Polizzello. Scavi del 2004 nell'area del santuario arcaico dell'acropoli (Viterbo 2009).

Perifanakis 2014: J. Perifanakis, Westquartier. Bereich der Sondage 480. In: C. Reusser/L. Cappuccini/J. Perifanakis/C. Russenberger/M. Mohr/T. Badertscher, Forschungen auf dem Monte Iato 2013, Antike Kunst 57, 2014, 97–100.

Ross Holloway 1991: R. Ross Holloway, The Archaeology of Ancient Sicily (London 1991).

Rowlands 1993: M. Rowlands, The Role of Memory in the Transmission of Culture, World Archaeology 25.2, 1993, 141–151.

Schweizer 2014: B. Schweizer, Zur Authentizität archäologischer Stätten. Vergangenheit als Ressource. In: M. Fitzenreiter (ed.), Authentizität – Artefakt und Versprechen in der Archäologie, Workshop vom 10. bis 12. Mai 2013, Ägyptisches Museum der Universität Bonn. Internet-Beiträge zur Ägyptologie und Sudanarchäologie 15 (London 2014) 123–137.

Sheperd 2013: G. Sheperd, Difference, Similarity, and Code-Switching in Ancient Sicily and South Italy, HEROM. Journal on Hellenistic and Roman Material Culture 2.1, 2013, 75–95.

Spatafora 2000: F. Spatafora, Indigeni, Punici e Greci in età arcaica e tardo-arcaica sulla Montagnola di Marineo nella valle dell'Eleuterio. In: Terze Giornate Internazionali di studi sull'area elima, Gibellina-Erice Contessa Entellina, 23–26 ottobre 1997. Atti, II (Pisa 2000) 895–918.

Spatafora 2003: F. Spatafora (ed.), Monte Maranfusa. Un insediamento nella media Valle del Belice. L'abitato indigeno (Palermo 2003).

Spatafora 2015a: F. Spatafora, Santuari e luoghi sacri in un'area di frontiera: la valle del Belice tra elimi, sicani, punici e greci. In: Kistler et al. 2015a, 287–301.

Spatafora 2015b: F. Spatafora, Set cerimoniali e offerte nei luoghi di culto indigeni della Sicilia occidentale. In: R. Roure (ed.), Contacts et acculturations en Méditerranée Occidentale. Hommages à Michel Bats. Actes du colloque de Hyères, 15–18 septembre 2011. Bibliothèque d'Archéologie Méditerranéenne et Africaine 15 (Aix-en-Provence 2015) 111–120.

Trombi 2015: C. Trombi, La ceramica indigena decorata della Sicilia occidentale. Tipologia e produzione (Mantova 2015).

Ulf 2009: C. Ulf, Rethinking Cultural Contacts, Ancient West & East 8, 2009, 81–131.

Ulf 2015: C. Ulf, Gesellschaft und Herrschaft. In: A.-M. Wittke (ed.), Frühgeschichte der Mittelmeerkulturen. Historisch-archäologisches Handbuch. Der Neue Pauly, Supplemente 10 (Suttgart 2015) 853–888.

Urquhart 2010: L. Urquhart, Colonial Religion and Indigenous Society in the Archaic West Mediterranean. c. 750–400 BC (PhD-Thesis Stanford University 2010).

III. Resources and Spatial Development

MARTINA NEUBURGER

Geographical Approaches on Territorialities, Resources and Frontiers

Keywords: territory, resources, frontier concept, coloniality of science, German geography, history of frontier research

Abstract

The 'frontier' concept was a very powerful approach in politics, society and science with changing meanings in specific historical and regional contexts. Mainly in geography, studies on the development of settlements in different regions and historical phases have used and are still using this concept to explain expansion processes. While frontier concepts of the early 20th century were based on the construction of natural spaces with unused or underused natural resources newer approaches integrated critical perspectives and contextualised the regional development within national and global contexts of incorporation into capitalistic centre-periphery and unequal power relations. However, colonial ideas in the construction of 'free' land remain in these studies. The author will give a critical overview of these historical studies and more recent works with a focus on literature about South American 'frontiers'. Based on the rejection of the 'frontier' concept in its' coloniality, she will develop an alternative approach with the idea of territorialities and their dynamics by conceptualising the frontier as area of very dynamic de-territorialisation and re-territorialisation processes and of spaces of multiterritoriality.

1. Introduction

The use of resources and the intertwined sociocultural dynamics are changing in a very specific way in so called 'frontier' regions. 'Frontiers' are – as Turner defined in his historical study on settlement expansion processes in the West of North America – 'the outer margin of the 'settled area'' which 'lies at the hither edge of free land' (Turner 1920, 3). In this historical context the study of Turner can be understood as creation of a colonial narrative of the North American nation building process through the dissemination of the concept of 'frontier', which legitimated the displacement of First Nations by European settlers in the 17th and 18th century in what are today the USA and Canada.

Despite the very specific historical and scientific context, the 'frontier' concept became a very powerful approach not only in politics and society but as well in scientific discourses. Mainly in geography, studies on the development of settlements in different regions and historical phases have used and are still using this concept to explain expansion processes. Based on the original idea of Turner in these studies, 'frontier' regions are characterised by high immigration rates, the formation of new settlements and the introduction of new land use systems. Findings state that individuals and social groups enter into an unsettled area – a 'free land' – and bear different types of natural resource use. In the process of 'frontier' formation the actors form new identities and create a 'new' society with specific power relations. Thus, specific sociocultural dynamics and intertwined man-nature-relationships are constitutive elements of 'frontier' regions.

The following paper concentrates on the 'frontier' concept as it was and still is applied by German spoken geographers in their extensive research on settlement expansion and the question of the limits of settlement boundaries, the limits between the so called *Ökumene* and *Anökumene*. The author will give a critical overview of historical studies and more recent works, of which she

herself is part, with a focus on literature about South American 'frontiers'. Based on the rejection of the 'frontier' concept in its coloniality, she will develop an alternative approach with the idea of territorialities and their dynamics.

2. 'Frontiers' and Settlement Boundaries in German Geography

2.1. The Colonial Origins of the 'Frontier' Concept

Since the beginning of Geography as institutionalised university discipline in the 19th century German geographers deal with settlements, their spatial distribution and their internal structure. Within this academic field, issues of settlement boundaries, their character, dynamic and the factors for their existence were of main importance. Friedrich Ratzel (1844–1904), considered as one of the 'fathers' of Geography, defined in his programmatic book 'Anthropogeographie' ('Human Geography') settlement boundaries as limit between *Naturvölker* (natural peoples) and *Kulturvölker* (cultural peoples) that is the limit between non-sedentary and sedentary peoples respectively (Ratzel 1891). The concepts of *Ökumene* (ecumenical area) and *Anökumene* (non-ecumenical area) added a societal dimension to this differentiation by integrating the sedentary people into the human (Christian) community, while all other people are excluded. This Darwinian and dichotomising approach was followed by Robert Gradmann (1865–1950), who in his studies on prehistoric settlement expansion in today Southwest Germany distinguished the so called *Altsiedelland* (anciently settled land) from *Neusiedelland* (newly settled land) using ecological factors as soil fertility and vegetation formation to explain the establishment of human communities (Gradmann 1913).[1]

Both – Ratzel and Gradmann – only considered sedentary settlements with cultivation activities as relevant force to transform 'natural landscapes' into 'cultural landscapes'. They ignored the probable occupation of these areas by non-sedentary peoples with extractive and nomadic practices. Consequently, declaring 'natural landscapes' as unused spaces they legitimised the expansion of permanent settlement into these areas. These studies of early Geography provided important conceptual framings for later German geographical research on settlement expansion all over the world (see Mackenroth 1953; Czajka 1953) – not least for the scientific legitimisation of expansive politics of national-socialist Germany (Bock 2005).

In the same decades Frederick Jackson Turner (1861–1932) and Isaiah Bowman (1878–1950) played a similar role in the North American context of studies on (European) settlement expansion into Western regions). Similar to the evolutionary approach of Ratzel and Gradmann, but with a more sociocultural focus, Turner created the 'frontier' concept as 'meeting point between savagery and civilization' (Turner 1920, 3), where 'wilderness' is transformed. Through the definition of 'free land' as 'public land' he passed the control over this land to the US American state and opened the option for the European settlers to occupy it without any restrictions (Turner 1920, 2). He distinguishes different types of 'frontiers' depending on the dominant immigrant group each searching for specific resources: hunters and traders look for wild, ranchers for grass land, miners for mineral resources, farmers for virgin soils (Turner 1920, 12, 18).

However, Turner didn't ignore the presence of First Nations. He conceptualised the 'frontier' as 'belt' where 'primitive Indian life' has been influenced by traders and hunters (Turner 1902, 3, 13). On the basis of this observation Bowman (1931) conceptualised some decades later the area of frontier dynamics as 'pioneer fringe'. In this approach different phases of immigration into the 'frontier' region characterise the further development. Starting with hunters and traders, so called pioneers constitute the first wave of immigration, followed by founders of counties and eventually by capitalised farmers and enterprises. With each immigration wave the agricultural system becomes more modernised and the complexity of local society increases. Furthermore, as important aspect of 'frontier' society, Turner observes that early settlers have strong ties to the 'Old World' – Europe and the coast – and with the advance of the 'frontier' these ties get weaker giving the space to create

1 The theory of Gradmann, that areas with open vegetation formation and easily workable soils were settled first in prehistoric times, was disproved in more recent studies.

a new American society (Turner 1902, 17–23). The concept completes the American myth of melting pot by the observation that 'frontier' regions constitute a space of individualism, where 'immigrants were Americanized, liberated, and fused into a mixed race, English in neither nationality nor characteristics' (Turner 1920, 23). This individualism is – in the view of Turner – the fundament of democracy, due to the fact that in 'frontier' societies the primitive organisation based on the family and individualism provides equal rights and duties for all in a self-organising process.

We can constitute a common idea of Ratzel, Gradmann, Bowman, and Turner in their approaches on settlement boundaries and 'frontiers'. All define 'natural landscape' or 'free land' as areas to be occupied by sedentary settlers to develop the region economically and socioculturally by using the before unused or underused natural resources and by civilising 'wild' society. In this conceptual framing advancing 'frontiers' intensify the use of natural resources – sometimes until their degradation – by the incoming and outgoing of actors searching for different natural resources. Furthermore, societal structures become more complex: the initial wilderness characterised by individualism is gradually substituted by identity dynamics, democracy and nation building processes. Thus, intangible resources like knowledge about adapted agricultural practices, democratic structures, social networks between settlers and collective identity stepwise complete the tangible resources of soil, wildlife, wood, water, mineral resources etc.

2.2. Research of German Geographers on 'Frontiers' in Latin America

While the studies of Ratzel and Gradmann gave impulses for the studies in geography on settlement dynamic in a more general way, Turner's 'frontier' concept entered into research on settlement expansion processes more specifically (Nitz 1976a). German geographers took both approaches and merged them in more recent studies on settlement expansion in Latin America. And this was not by chance, but reflects the personal life courses of the involved German geographers in the early twentieth century. Almost all geographers named in the following chapter, who published about settlement expansion in Latin American contexts, had personal connections to each other by orientation of doctoral thesis, by professor-assistant relations etc. in their respective decade forming a specific type of genealogy of 'frontier' geography in Latin American studies.[2] We concentrate our analysis on the main conceptual lines and transformations of 'frontier' approaches with regard to resource use and sociocultural dynamics.

2.2.1. German and European Settlements in Latin America as Focus of German Geographers

Leo Waibel (1888–1951) and Oskar Schmieder (1891–1980) can be considered as first generation of German geographers who carried out expeditions to so-called 'frontier' regions in Latin America after the First World War focusing their research on settlement of German migrants, their folklore (*Volkstum*) and agricultural practices. While the former realised extensive studies on agrarian colonisation in Brazil by European immigrants in the 19th century as main research topic during his stay in Brazil from 1946 to 1950, for the latter the studies on mainly German colonised areas represented an integrated issue of the regional geography of the La Plata region that he realised jointly with his assistant Herbert Wilhelmy (1910–2003) in the 1930s some years after his professorship in Córdoba, Argentina (Pfeifer/Kohlhepp 1984; Schmieder 1932; Schmieder/Wilhelmy 1938). All three geographers – Waibel,[3] Schmieder, Wilhelmy – did their research in a more or less direct linkage to nationalist and National Socialist thinking about the 'problem' of living space (*Lebensraum*) for European and German population (Bock 2005; Etges 2000): the expansion of mainly German

2 In the near future the author plans to write a paper on the interconnections and continuities of geographers and their research on Latin American settlement processes analysing the life courses and careers and their role in the colonial framing of Latin American geography of today.

3 In contrast to the others, Leo Waibel dissociated from the nationalist ideas after being forced to migrate to USA by the Nazi regime (Etges 2000, Kohlhepp 2013). He started his research on the basis of an order of the US government to identify regions for settlement of potential refugees of the Nazi regime (Nitz 1976b).

settlements beyond national borders was thought as proliferation of the 'high culture' and 'highly developed' economy of Germany to bring progress to other parts of the World. Thus, the integration or assimilation of German settlers into the respective national society never was planned, but on the contrary was seen as risk in the process of migration. The main focus of all these studies was to develop an applied concept for settlement politics with guidelines for governments and settlement planners (Nitz 1976b).

Following the concept of Turner, all studies on German and European settlements in Latin America characterise 'frontier' regions as formerly unused areas of grass or forest land where indigenous peoples lived. Contacts or conflicts with them are rarely mentioned, at the most to emphasise the heroism of the European settlers in fighting against them or to position the indigenous as trading partners or as helpful consultant for environmental issues. However, Waibel commented the presence of indigenous people within the 'frontier' zones in later phases of the European settlement expansion and defined a pre-phase of the 'real frontier' as occupation of the 'free' area by European-born traditional groups of hunters, gatherers, and cattle ranchers, so-called *caboclos* or 'frontiersmen' (Waibel 1955, 79). Nevertheless, ignoring the property rights of the indigenous peoples completely, the spatial advance of 'frontiers' is seen by the Geographers as civilising process for the respective regions and societies, as transformation of natural landscapes into cultural landscapes, and as legitimate interest of the young Latin American states to guarantee the control over its' territory (Waibel 1948; 1955; Schmieder/Wilhelmy 1938; Wilhelmy 1940; 1954). Consequently, the state was the main actor to initiate colonisation processes either on its own or by contracting colonisation enterprises to execute this task, while migrants from Europe faced these socioeconomic and political processes as actors on the ground.

In the opening phase of 'frontiers' indigenous or cattle drive trails, roads, and railways were the lines along which the settlement process was started. But in most cases, neither the access to the area by transport means nor adequate ecological conditions for agriculture were sufficient for the further development of a 'frontier'. The decisive factor was the availability of 'free' and cheap land, so that partially areas without adequate ecological or access properties for agriculture were occupied (Schmieder/Wilhelmy 1938; Waibel 1955). The most important act to transform the 'wilderness' into 'civilisation' was deforestation and agricultural production – that means: the destruction of forest resources – wood, fruits, wildlife etc. – and the intensive and permanent use of soil and water. But the abundance of the tangible resource land – not always in good quality for agricultural use – was contrasted by the lack of intangible resources: the new settlers struggled with the lack of knowledge about the local ecosystem and the adequate handling of agricultural products, social networks and communities of common beliefs and practices were not existent, while feelings of homesickness made the emergence of a localised collective identity difficult.[4] Furthermore, in Argentine and South-Brazilian contexts the farmers suffered general societal disregard and discrimination by cattle breeders, who saw them as 'starveling' (*Hungerleider*) and 'poor devil' (*armer Teufel*) (Schmieder/Wilhelmy 1938, 24). Observing these processes, German geographers interpreted it as cultural degradation and primitive life style, when German language and Christian rituals were not practiced (Schmieder/Wilhelmy 1938; Wilhelmy 1940; Waibel 1948). In their (nationalist) view, only if religiously, ethnically or ideologically homogeneous groups decided to migrate and settle jointly in 'frontier' regions, the 'risk' of integration and assimilation into Latin American societies was alleviated and the cultural 'level' could be preserved.

These sociocultural dynamics in the opening phase of a 'frontier' are – as conceptualised in German geographical studies – one of the main factors for the further development in 'frontier' regions. Other factors, but tightly linked with the former, are adequate agricultural practices, technological progress, access to internal and external markets, and environmental conditions like climatic parameters, soil quality, water availability etc. Social crises are manifest when settlers do not create an emotional linkage to their land and consequently

4 This idea follows the concept of Turner, but Turner interpreted the formation of new identities starting from individualism in 'frontier' situation as positive Americanising and as nation building process (Turner 1920).

do not care about resource-friendly agricultural practices (Wilhelmy 1940). The introduction of new technologies – at that time the iron plough – and success in agricultural production depends on the social and cultural origin of the settlers and the presence of leader personalities (Schmieder/Wilhelmy 1938; Waibel 1948). Environmental conditions such as fertile soils and sufficient precipitation are important for subsistence production in a first phase, but need to be completed by export opportunities to national or international markets for agricultural success in a second phase. Finally, the authors mention the role of the state in conceding tax reduction and implementing infrastructure like roads, railways, water supply, education and health institutions.

Based on these paradigms, Waibel developed a 'frontier' model with three stages: the pioneer stage, the cultural stage and the mature stage, each characterised by the combination of an agricultural production system with specific housing types and sociocultural situations (Waibel 1948).[5] The first, most 'primitive' stage is characterised by the agricultural system of simple land rotation and subsistence production, huts of wood and palm leafs without windows and a 'low level' of cultural (religious) and social (education) life. Local society consists of poor settler families and one enriching intermediary, who has the powerful position to organise the exchange of goods with the 'outer world'. In the second stage agriculture develops to an improved land rotation system with higher technological equipment and the introduction of European food and staple crops. Roads and the establishment of commercial centres guarantee the access to markets, housing constructions show the ethno-cultural background of the settlers, and economic sectors diversify with the craftsmen, traders etc. Living standard increases and basic education is amplified. Finally, in the mature stage the 'frontier' region reaches a socioeconomic structure comparable to agrarian regions of Europe and USA with fully developed agriculture, diversified urban centres and a 'high level' of social, cultural and religious life (Waibel 1955). Even though the idea of 'frontier' development in form of historically successive stages follows the evolutionist thinking of Rostow, Waibel states the possibility of stagnation in former stages before reaching the final phase. More generally spoken, the 'frontier' model of Waibel considers the 'frontier' development as process of intensifying natural resource use, economic growth, technological progress, increasing social and cultural complexity and spatial diversification. All elements are interlinked, so that for example 'primitive' agricultural practices damage cultural and social life and vice versa (Waibel 1948).

This basic model of 'frontier' development in form of stages each with specific economic, sociocultural and spatial characteristics was quiet omnipresent in the German geographical literature of the 1930s to the 1950s. Schmieder/Wilhelmy (1938) and Wilhelmy (1940; 1954) analysed the German and European settlements in Argentina and Paraguay confirming the thesis, that 'frontier' processes may stop in early stages by ecological (degradation of natural resources and subsequent decrease of agricultural productivity), sociocultural (lack of knowledge on environmental conditions and subsequent inadequate production systems), or economic (insufficient transport infrastructure, low market prices and subsequent difficulties in commercialisation of agricultural products) factors. Stagnation in 'frontier' regions means emigration and decay of settlements. The lack of land reserves for succeeding generations or the heritage system of estate distribution could represent another reason for emigration, but not necessarily means the stagnation of 'frontier' regions. Nevertheless, the emigration out of 'frontier' regions is seen as main source of population migrating to 'new frontier' regions into the interior of a state – that means: the still 'free' land – resulting in the further expansion of the 'frontier' zone (Waibel 1955).

The scholars of these authors followed the basic arguments in their research on German and European settlers in Latin America. Pfeifer (1973) as doctoral student of Waibel worked on German settlements in Southern Brazil (Pfeifer 1973), while Kohlhepp (1968), doctoral student of Pfeifer, initiated his research in Brazil concentrating on the industrial development of a German-Brazilian settlement area – so to speak: analysing the final

5 The same framing Waibel uses for his concept of 'economic formation' or 'economic landscape', which he developed based on a regional study of the Sierra Madre de Chiapas in Mexico (Waibel 1933a; 1933b; Etges 2000; Kohlhepp 2013).

phase of the 'frontier' development in Santa Catarina (Kohlhepp 1968).[6] Another type of final phase his doctoral student Lücker (1986; 1989) analysed in Southern Brazil, pointing out the importance of the ethnic origin for the development of modernised soybean production in Rio Grande do Sul (Lücker 1986; 1989), which Kohlhepp extended with his study on Danube Swabian settlements in the Brazilian coffee region of Paraná (Kohlhepp 1989a). In a similar conceptual framing, but within another line of research on European and German settlements in Latin America, several geographers concentrated their studies on ethnic dimensions of 'frontier' development in various regional contexts: German and Italian settlers in Espírito Santo, Brazil (Sabelberg 1989; Struck 1992; 1997), German settlements in Southern Chile (Golte 1989) and Mennonite colonisation in Santa Cruz de la Sierra, Bolivia (Schoop 1970). All emphasise the importance of ethnic and social origin of the settlers, but as well that of environmental conditions and economic structures for agricultural practices, housing and social networks.

2.2.2. Conceptualising 'Frontier' Development in German Geography

In sequence to these studies focused on German and European settlements in Latin America, the in a way second generation of 'frontier' studies in German geography dealt with settlement expansion in forest areas mainly in the context of agrarian colonisation processes. While the first publications about the colonisation of forest areas in South America by Wilhelmy (1940) still had the aim to explore regions as potential settlement areas for refugees of the Second World War, the studies of the post-war time tried to understand socioeconomic and environmental processes in frontier regions in order to detect faults of planning to eventually give recommendations for successful colonisation – of course without any doubts that the expansion of settlements into 'new land' is legitimised by regional development goals. Sandner (1961) analysed the colonisation processes in Costa Rica and showed that spontaneous migration to forest areas was supported by juridical rules, which guaranteed land ownership to each person who proves the long year use of a certain plot. Only in the second phase ecological factors, access to markets and private initiative to build up infrastructure and services were relevant for the development of frontier regions. Like his colleague Sandner, Nuhn (1976) in Hamburg focused on planned colonisation in Central American forests and emphasised the importance of the type of colonising institution – private or public – and its long lasting interest as well as the importance of the personal conditions of settlers – agricultural experience, adaptability, motivation. As external factors he mentioned mainly land speculation and spontaneous immigration which contributed to increasing land prices and population pressure with consequential ecological degradation respectively. At the university of Aachen Monheim (1965; 1976; 1977) and later Schoop (1970) dealt with the colonisation of Eastern Bolivian lowlands by Andean population describing public and private colonisation projects and their development depending on ecological conditions, plots sizes and adaptability of the settlers to the new environment.

Starting with his studies on German settlements in Southern Brazil and 'following' these settlers in their search for new 'free' land, Kohlhepp built up a research group who worked on colonisation processes in the Brazilian Amazon region. Still before 'arriving' scientifically in Amazonia, Kohlhepp analysed in his habilitation thesis published in 1975 the so called coffee frontier in the southern state of Paraná, where the ethnic dimension remains mentioned, but environmental and agro-social dynamics came into the foreground (Kohlhepp 1975; 1989b; 1990). The phases of frontier development are characterised by the dominance of different agricultural products – coffee, cattle ranching, soybean and wheat – and triggered by environmental degradation and development of external markets. Successful adaptation strategies depend on sociocultural factors like readiness for innovation, agro-technical knowledge und access to capital. Furthermore, Kohlhepp discovered that specific migrant groups – farm workers, tenants, contractors etc. – in their way from the oldest to

6 Later Kohlhepp and his scholars turned the focus of their analysis to the 'frontier' development in Amazonia (see next chapter).

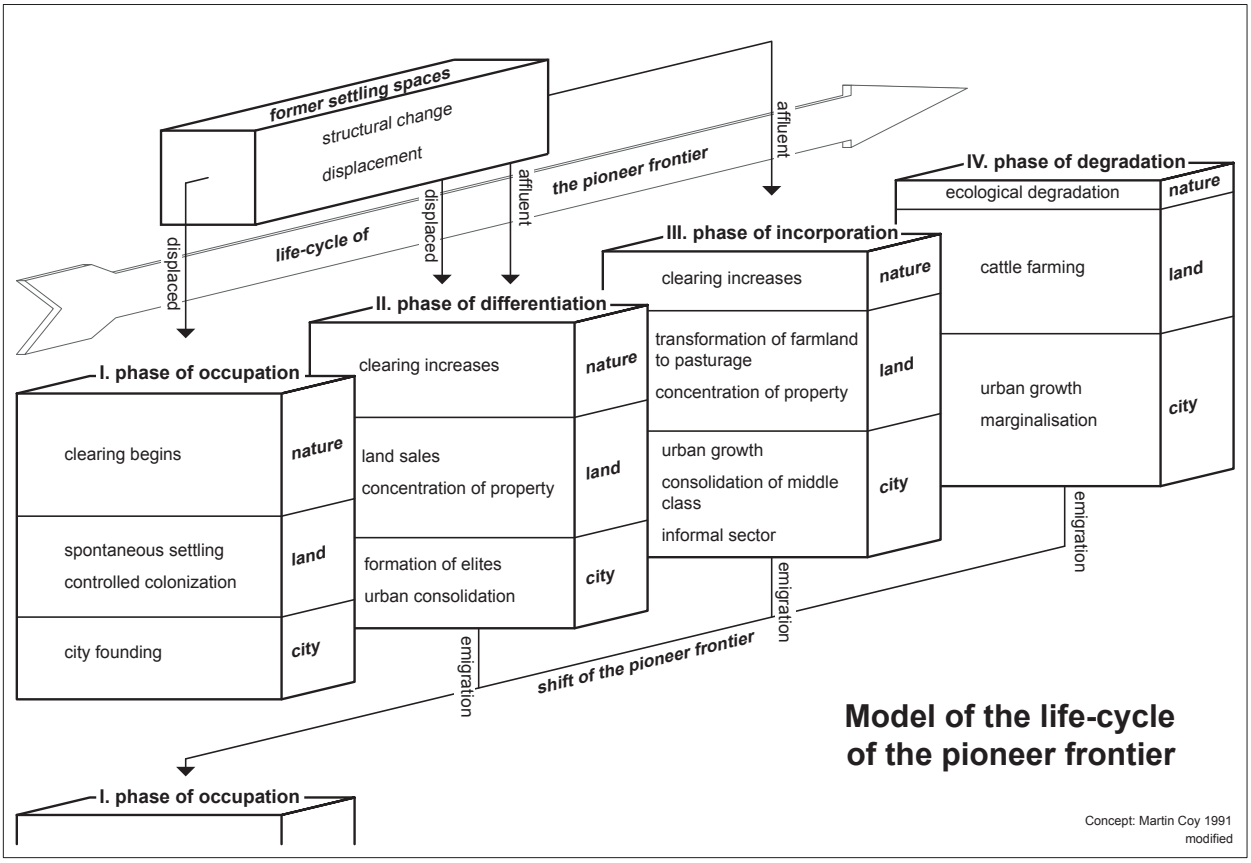


Fig. 1. Model of frontier life cycle.

the newest frontier region have the opportunity to advance socially. The following studies of the research group of Kohlhepp on Amazonian frontiers can be seen as logic sequence of these studies, as all these frontiers are considered as agrarian colonisation of forest regions and as the settlers of these frontiers originate – at least partly – from the Brazilian coffee regions.

The perspective on frontier development focusing on environmental and socioeconomic dynamics continues in the studies on Amazonian frontiers. Besides Kohlhepp the younger members of his team Henkel, Lücker, and Coy – all as doctoral students orientated by him – dealt with the development of settlement expansion areas in Amazonia. In the Amazonian case studies Kohlhepp maintained his focus on the role of the Brazilian state and national politics in frontier dynamics complemented by the description of environmental conditions, population dynamics and changes in the agricultural system (Kohlhepp 1976; 1979; 1980; 1987b; 1987c). As new factor for failing 'successful' frontier development he mentioned the centre-oriented political programs of colonisation and agrarian support, which resulted in environmental degradation, economic recession, out-migration, and land conflicts. Henkel (1987; 1994) specified the internal migration processes on 'degrading' frontier regions at the example of the Brazilian state of Pará. All these studies on colonisation in forest areas conceptualised the development in frontier regions as process of sequential phases with characteristic socioeconomic, spatial and ecological structures, but stayed in a widely descriptive level.

Only Coy and Lücker introduced a new theoretically based quality of studies on the Amazonian frontiers (Coy 1987; 1988; Coy/Lücker 1993; Kohlhepp/Coy 1986). In their analysis they interpreted the formation and dynamic of the frontier region within the perspective of the centre-periphery model. With this conceptual framing, the process of settlement expansion represents the incorporation of the Amazonian periphery – the 'new' land – into the centre-dominated capitalistic system. The frontier regions exercise their peripheral functions

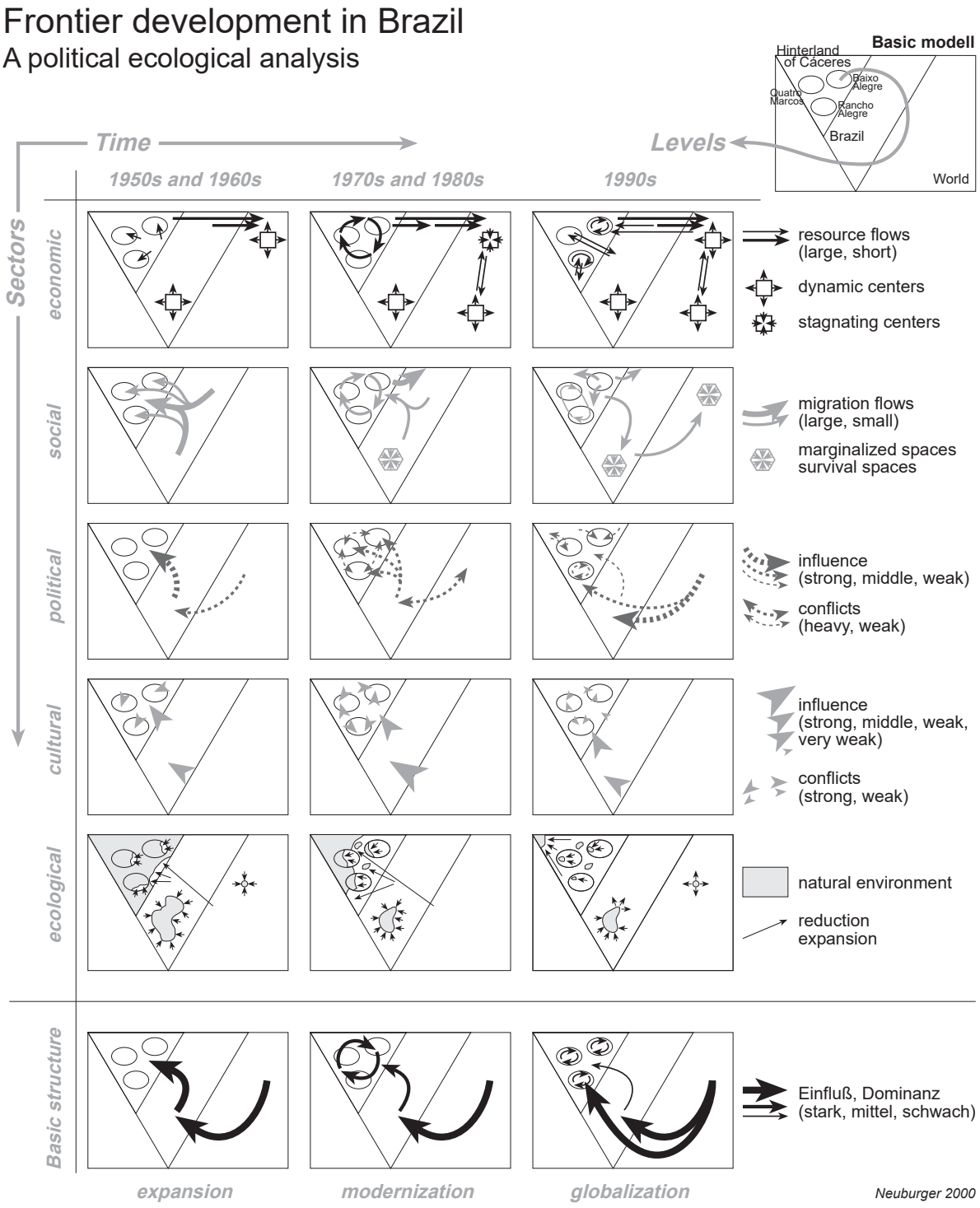


Fig. 2. Frontier development in Brazil – a political ecological analysis.

first as survival space for marginalised people of the centre – here the South Brazilian regions of highly capitalised agriculture – followed by the function as resource basis for economic growth by investments of powerful actors. The continuing displacement processes of the first settlers are interpreted as peripherisation of marginalised social groups within a structurally heterogeneous society triggered by increasing and persistent dependencies. In the comparative study of several frontier regions in the Midwest of Brazil, Coy and Lücker worked out this model combining it with

the concept of social space (Coy/Lücker 1993). Following the ideas of former studies, they developed a model of frontier life cycle defining four distinct phases: occupation, differentiation, incorporation and degradation (see *fig. 1*). All phases are characterised by specific migration dynamics and migrant groups as well as by different spatial divisions between nature, rural and urban areas each of them with specific internal structures. In the following years, Coy continued his studies on the Amazonian region and on the internal dynamics of frontier regions, focusing on the formation and competition of different frontier types – extractive, productive and urban – as well as on the functions of cities and urban development in frontier regions (Coy 1990; Coy/Neuburger 2002).

In the most recent studies on the Amazonian frontier the author – doctoral student of Kohlhepp – and Klingler – doctoral student of Coy – developed a political ecology approach on their research (Neuburger 2002; 2004; 2005; Neuburger/Coy 2008; Coy/Klingler 2014). They integrated the dimension of power and power relations into their analysis and explained not only the settlement expansion to the Amazonian region as appropriation process by which powerful actors occupy and use natural resources in frontier regions for their purposes displacing other less powerful actors. In addition, they conceptualised frontier internal processes like soil degradation, decreasing productivity and out-migration as result of specific actor constellations within unequal power relations. Following the idea of the political ecology approach that environmental processes are understood as materialisation of power relations, they interpret the expansion of settlements of the dominant society as act of ignorance of other existing property rights, as disappropriation of marginalised groups and occupation of natural resources by powerful actors. Within a frontier region dominant actors are able to reserve those resources, which are important for their purposes, in their best quality – forests, soils, water, mineral resources etc. – while other actors remain with minor qualities or are displaced. In this framework, the state is one of the most powerful actors in the region, but at the same time reproduces the inequalities of society. Some actors on the regional – so called place-based actors – national and international level – so called non-place-based actors – form interest coalitions to act jointly in the frontier region. Thus, unequal power relations in national and international contexts are reproduced on the specific local level of frontiers. Furthermore, deforestation, soil degradation and water pollution are results of profit oriented exploitation of high quality natural resources by powerful actors or of survival oriented overuse of scarce resources by marginalised actors. The embeddedness of frontier regions and societies into national and global processes is a constitutive element of this approach (*fig. 2*). Klingler continued these ideas by defining a post-frontier characterised not as place, but as object of multi-scalar negotiation process of societal priorities (Coy/Klingler 2011; Coy et al. 2016).

To sum up, we can observe that all studies on frontier development in Latin American forest areas understand frontiers as timely and spatially clearly defined regions with natural or quasi natural – only extensively and sporadically used by traditional groups – characteristics which are transformed to a intensively and permanently used area by social groups who newly came into the region. This assumption is common for all studies of German geographers. All conceptual framings divide the settlement expansion process into phases – in the most models into occupation, differentiation and consolidation or degradation. In the first phase, natural – tangible – resources for agricultural or extractive use are abundant. Different actors struggle over the access to these resources – land, water, wood, mineral resources etc. In the newer studies, access and systems of production or extraction depend on the effective property rights and power relations between the involved actors. Additionally, in the centre-periphery and the political ecology approach structural heterogeneity and power inequalities at national and global level constitute an important dimension of the resource dynamic in frontier regions. Internal societal processes, which are relevant for the availability and dynamic of intangible resources, in this framing are interlinked and mostly entangled with external development: knowledge about local ecological conditions, social networks and political influence potentials are characterised by the peripheral position of frontier societies. Thus, in the first phase marginalised social groups have little access to

intangible resources and suffer displacement in an early stage of frontier development.

This is the starting point of the second phase, when the forests are opened and land is 'prepared' for market oriented agricultural use with defined institutional rules for land and resource access, with good developed commercial infrastructure and consolidated public services. New actors come into the region with economic – profit oriented – interests, so that regional society is getting more diverse. In political ecology and centre-periphery approach this is interpreted as incorporation phase in which peripheral regions and societies are integrated into centre directed commodity chains and political decisions. While in the first phase natural resources are relevant for survival purposes in the second phase the interest gets increasingly economised and natural resources commodified. Forests are cut down and high quality soils and access to water replace the function of the Former.

The following phases are – in most of the models – characterised by increasing degradation or – in successful cases – by maximum use of natural resources and full integration in national economic and political contexts. As far as intangible resources are concerned, knowledge of local ecosystems is fully developed, but social networks are destroyed due to the fact, that important persons of these networks migrate to other frontier regions or to cities. At the same time in 'successful' regions like the soybean frontiers in Mato Grosso the influence on political decisions on national level increases.

While all the concepts show – in comparison with the first studies in the early 20th century – a sophistication of analytical view, the colonial character of the frontier concept with the thinking about an – more or less – unoccupied natural space, which is occupied by frontier development, remains integral of the concepts. Nevertheless, we can observe an important advancement in frontier issues since the last decades. Most of the German geographical studies before the 1980s understood frontier regions as container with clearly defined natural resources, population, which increases by immigration, and specific land use systems, which are intensified through time. As logic consequence natural resources degrade by increasing population pressure and overexploitation of resources. Newer studies such as centre-periphery and political ecology approaches explain the processes in frontier regions as dependent on inequality structures and power relations on national and even on global level. Consequently, frontiers are seen as embedded in higher-level processes in the socio-economic and political spheres and their development cannot be understood without considering this contexts.

3. Territorialities and Resources: Some Ideas to Reconceptualise the Frontier

Now the question is how to deal with the remaining coloniality of the frontier concept? We propose here the integration of some ideas of the Brazilian geographer Rogério Haesbaert, who developed the concept of territoriality (Haesbaert 1997; 2013; Haesbaert/Araújo 2007). To explain the multifaceted aspects of territory he detects the following concepts of territory useful for our search for an alternative concept of frontier:

- Territory as natural resource and functional place
- Territory as relational space, as part of society inseparable from social relations
- Territory as controlled space
- Territory as representation in its symbolic dimension, which gives spatial orientation for identities
- Territory as culturally defined value

Furthermore Haesbaert characterises territory in a spatial context with specific mobilities:

- Territory and network
- Centripetal and centrifugal
- Areas, zones and point, lines
- Borders, limits and cross-border
- Rooted and rootless

For analytical purposes he detects a specific relation between time and space:

- Simultaneous and sequential
- Process and moment
- Time oriented or space oriented

In the concept of Haesbaert, territory is not stable but continuously dynamic and moving due to the fact, that territories are a product of constant de-territorialisation and re-territorialisation processes. These territorialisation processes are on the

one hand a result of the dominance and control of space by hegemonic groups that means a functional territorialisation. On the other hand, subaltern groups appropriate space symbolically and by this put territorialisation into practice. In the concept of Haesbaert, we observe simultaneity and continuum of dominance and appropriation in a very dynamic process, in which territorial representation not necessarily needs a concrete territory, while no territory can exist without any territoriality. Additionally, symbolic territorialisation may be embedded in several territories – Haesbaert speaks about multitterritoriality – while functional territoriality needs one territory as spatial anchor. In the dynamic movement of territorialities several territories and territorialities of different actors are superposed in time and space. Mobility – in this concept – is understood as continuous process of de-territorialisation and re-territorialisation. Manly network-like territories may overlap without any connection with each other. However, territorialities are not equitable since power relations define their position and hegemony within specific time-space contexts. Even though mobile, powerful actors stay in their specific logic of territoriality by creating respective territories in other regions. Marginalised actors are forced to integrate into existing territorialities with their own logics.

If we use these ideas of Haesbaert to reconceptualise the frontier, we first of all should consider the specific situation of a frontier region. If no territory exists without any territoriality than we can state, that the so called natural 'free' land in a frontier region has several territorialities: using the case of the Amazonian frontier, the territoriality of indigenous people has functional aspects by using territory and natural resources for hunting, gathering and – in small plots – agricultural production. This territoriality is very fluid because most of the indigenous people do not have fixed settlements and plots for agricultural use, but develop a very flexible, sporadic territoriality of networks with centripetal and centrifugal dynamics by their agricultural – e.g. shifting cultivation – and extractive practices – hunting, gathering, creation of resource islands. Nevertheless, symbolic territories like ancestor locations and ritual places may be more stable. Assuming that in the Amazonian regions many indigenous people live each with their specific territorialities, competing with and replacing each other, the so called 'free' land represents a region of dense territorialities, but negated by dominant actors. The definition of this region as natural land without population means, that dominant discourses of external actors appropriate symbolically the region and expand their territoriality to the respective region.

In case of the settlement expansion into the 'free' land, the symbolic territoriality is transformed into a functional territoriality by occupying and appropriating the natural resources of the 'free' land. This re-territorialisation of dominant actors means at the same time the de-territorialisation of subaltern – here of indigenous – people. While the diverse symbolic territorialisations of indigenous people – ancestors, rituals, identity – and settlers – frontier myth, new identity – may exist simultaneously, the functional territorialisation of settlers – intensive, large scale agricultural use, exploitation of mineral resources – replaces the indigenous territoriality. In this moment of the so called 'occupation' phase the first settlers, even marginalised people in the dominant society – land less people, land workers etc. – get the hegemonic group in the region who have the power to de-territorialise the subaltern indigenous people.

In the following time other actors – more powerful than the first settlers – continuously extend their territories into the frontier region. Prior to this act of functional re-territorialisation with the appropriation of natural resources a symbolic territorialisation by recognising the frontier region as space of interest for economic profit and political strengthening. Powerful actors like cattle ranchers or soybean producers are able to create new territorialities by continuing their own logic. They reproduce the same production system – modernised, mechanised, market and profit oriented etc. – and the same cultural spaces by founding cultural associations to cultivate traditions and rituals. Subaltern or marginalised groups are de-territorialised and flee to new 'free' land areas or retreat to marginal areas within the frontier regions. Thus, they have to change continuously the logics of their territorialities – small-scale farmers, land workers, urban poor etc. – depending on the niches left by the dominant actors. We observe a time in which de-territorialisation and re-territorialisation

processes are very dynamic and territorialities overlap in time and space.

Multiterritoriality represents a constitutive feature in frontier societies due to the fact, that migration and mobility are present in all time and spatial scales. Migrants in their way pass through different concrete territories experiencing different family, work, leisure etc. contexts. The identities and feelings they develop in and with each of these places form a multiple basis for their territorial orientation. Different references and symbolic appropriation of territories are present in their identical orientation and define the multiterritoriality.

Concluding we can observe that frontiers are characterised by a symbolic territorialisation of dominant actors who have the power to negate other territorialities. These territorialities construct the frontier region as 'free' natural space and thus legitimise the functional re-territorialisation and expansion of settlement, agricultural use and resource exploitation. The high mobility of all actors is responsible for the simultaneous de-territorialisation and re-territorialisation processes.

4. Conclusion

The traditional frontier studies reproduced the coloniality of the concept through the construction of natural spaces with unused or underused natural resources. Within the container concept of the frontier region natural resources degraded when population grows and agricultural production intensifies. Recommendations of sustainable resource use and 'better' planning instruments are mostly the consequent recommendations. Furthermore, advancements in frontier studies integrated critical perspectives and contextualised the regional development within national and global contexts of incorporation into capitalistic centre-periphery and unequal power relations. However, colonial ideas in the construction of 'free' land remain in these studies. The concept of territoriality may help to overcome this problem by conceptualising the frontier as area of very dynamic de-territorialisation and re-territorialisation processes and of space of multiterritoriality.

Martina Neuburger
Critical Geographies of Global Inequalities
Institute of Geography
University of Hamburg
Bundesstrasse 55
D-20146 Hamburg
martina.neuburger@uni-hamburg.de

Bibliography

Bock 2005: U. Bock, Deutsche Lateinamerikaforschung im Nationalsozialismus. Ansätze zu einer wissenschaftshistorischen Perspektive. In: S. Carreras (ed.), Der Nationalsozialismus und Lateinamerika. I. Institutionen – Repräsentationen – Wissenskonstrukte. Ibero-Online.de 3/I (Berlin 2005) 7–22.

Bowman 1931: I. Bowman, The Pioneer Fringe (New York 1931).

Coy 1987: M. Coy, Junge Pionierfrontentwicklung in Amazonien. Rondônia. Ursachen und Konsequenzen des neuen „Marcha para Oeste". In: Kohlhepp 1987a, 275–302.

Coy 1988: M. Coy, Regionalentwicklung und regionale Entwicklungsplanung an der Peripherie in Amazonien. Probleme und Interessenkonflikte bei der Erschließung einer jungen Pionierfront am Beispiel des brasilianischen Bundesstaates Rondônia. Tübinger Geographische Studien 97 (Tübingen 1988).

Coy 1990: M. Coy, Pionierfront und Stadtentwicklung. Sozial- und wirtschaftsräumliche Differenzierung der Pionierstädte in Nord Mato Grosso (Brasilien). Geographische Zeitschrift 78.2, 1990, 115–135.

Coy/Klingler 2011: M. Coy/M. Klingler, Pionierfronten im brasilianischen Amazonien zwischen alten Problemen und neuen Dynamiken. Das Beispiel des „Entwicklungskorridors" Cuiabá (Mato Grosso) – Santarém (Pará). In: Innsbrucker Geographische Gesellschaft (ed.), Innsbrucker Jahresbericht 2008–2010 (Innsbruck 2015) 109–129.

Coy/Klingler 2014: M. Coy/M. Klingler, Frentes pioneiras em tranformação: o eixo da BR-163 e os desafios socioambientais. Revista Territórios e Fronteiras 7.1, 2014, 1–26.

Coy et al. 2016: M. Coy/M. Klingler/G. Kohlhepp, Von der Frontier zur Post-Frontier: Pionierregionen in Brasilien im zeitlich-räumlichen und sozialökologischen Transformationsprozess. In: Die Welt verstehen – eine geographische Herausforderung. Eine Festschrift der Geographie Innsbruck für Axel Borsdorf. Innsbrucker Geographische Studien 40 (Innsbruck 2016) 325–376.

Coy/Lücker 1993: M. Coy/R. Lücker, Der brasilianischen Mittelwesten. Wirtschafts- und sozialgeographischer Wandel eines peripheren Agrarraumes. Tübinger Geographische Studien 108 (Tübingen 1993).

Coy/Neuburger 2002: M. Coy/M. Neuburger, Brasilianisches Amazonien. Chancen und Grenzen nachhaltiger Regionalentwicklung. Geographische Rundschau 54.11, 2002, 12–20.

Czajka 1953: W. Czajka, Lebensformen und Pionierarbeit an der Siedlungsgrenze. Einführungen in die Kulturgeographie. Die Bewohnte Erde 1 (Hannover 1953).

Etges 2000: V. E. Etges, Geografia Agrária. A contribuição de Leo Waibel (Santa Cruz do Sul 2000).

Golte 1989: W. Golte, Die deutsche Kolonisation in Südchile. In: K. Rother (ed.), Europäische Ethnien im ländlichen Raum der Neuen Welt. Passauer Schriften zur Geographie 7 (Passau 1989) 87–98.

Gradmann 1913: R. Gradmann, Das ländliche Siedlungswesen des Königreichs Württemberg. Forschungen zur deutschen Landes- und Volkskunde 11 (Stuttgart 1913).

Haesbaert 1997: R. Haesbaert, Des-territorialização e Identidade: a rede "gaúcha" no Nordeste (Niterói 1997).

Haesbaert 2013: R. Haesbaert, Del mito de la desterritorialización a la multiterritorialidad. Cultura y Representaciones Sociales 8.15, 9–42.

Haesbaert/Araújo 2007: R. Haesbaert/F. de Araújo (Harg.), Identidades Territoriais. Questões e olhares contemporâneos (Rio de Janeiro 2007).

Henkel 1987: K. Henkel, Agrarräumliche Entwicklungen im östlichen Pará (Amazonien), unter besonderer Berücksichtigung kleinbäuerlicher Landwirtschaft. In: Kohlhepp 1987a, 255–273.

Henkel 1994: K. Henkel, Agrarstrukturwandel und Migration im östlichen Amazonie (Pará, Brasilien). Tübinger Geographische Studien 112 (Tübingen 1994).

Kohlhepp 1968: G. Kohlhepp, Industriegeographie des nordöstlichen Santa Catarina (Südbrasilien). Ein Beitrag zur Geographie eines deutschbrasilianischen Siedlungsgebietes. Heidelberger Geographische Arbeiten 21 (Heidelberg 1968).

Kohlhepp 1975: G. Kohlhepp, Agrarkolonisation in Nord Paraná. Wirtschafts und sozial-geographische Entwicklungsprozesse einer randtropischen Pionierzone Brasiliens unter dem Einfluß des Kaffeeanbaus. Heidelberger Geographische Arbeiten 41 (Wiesbaden 1975).

Kohlhepp 1976: G. Kohlhepp, Planung und heutige Situation staatlicher kleinbäuerlicher Kolonisationsprojekte an der Transamazônica. Geographischen Zeitschrift 64.3, 1976, 171–211.

Kohlhepp 1979: G. Kohlhepp, Brasiliens problematische Antithese zur Agrarreform. Agrarkolonisation in Amazonien. In: H. Elsenhans (ed.), Agrarreform in der Dritten Welt (Frankfurt am Main 1979) 471–504.

Kohlhepp 1980: G. Kohlhepp, Amazonien – gelenkte und spontane Entwicklungsprozesse an der brasilianischen Peripherie. In: K.E. Fick (ed.), Festschrift zur 140-Jahrfeier der Frankfurter Geographischen Gesellschaft. Frankfurter Geographischen Hefte 53 (Frankfurt 1980) 99–112.

Kohlhepp 1987a: G. Kohlhepp, Brasilien. Beiträge zur regionalen Struktur- und Entwicklungsforschung. Tübinger Geographische Studien 93 (Tübingen 1987).

Kohlhepp 1987b: G. Kohlhepp, Wirtschafts- und sozialräumliche Auswirkungen der Weltmarktintegration Ost-Amazoniens. Zur Bewertung der regionalen Entwicklungsplanung im Grande Carajás-Programm in Pará und Maranhão. In: Kohlhepp 1987a, 213–254.

Kohlhepp 1987c: G. Kohlhepp, Amazonien: Regionalentwicklung im Spannungsfeld ökonomischer Interessen sowie sozialer und ökologischer Notwendigkeiten. Problemräume der Welt 8 (Köln 1987).

Kohlhepp 1989a: G. Kohlhepp, Raumwirksame Tätigkeit ethnosozialer Gruppen in Brasilien. Am Beispiel donauschwäbischer Siedler in Entre Rios/Paraná. In: K. Rother (ed.), Europäische Ethnien im ländlichen Raum der Neuen Welt. Passauer Schriften zur Geographie 7 (Passau 1989) 31–46.

Kohlhepp 1989b: G. Kohlhepp, Strukturwandlungen in der Landwirtschaft und Mobilität der ländlichen Bevölkerung in Nord-Paraná (Südbrasilien). Geographische Zeitschrift 77.1, 1989, 42–62.

Kohlhepp 1990: G. Kohlhepp, Landnutzungs-Sukzessionen im nördlichen Paraná (Südbrasilien). Am Beispiel regionaler und betrieblicher Strukturwandlungen. In: Räumliche Strukturen im Wandel. Festschrift für W.-D. SICK. Teil B: Beiträge zur Agrarwirtschaft der Tropen. Freiburger Geographische Hefte 30 (Freiburg im Breisbau 1990) 45–68.

Kohlhepp 2013: G. Kohlhepp, A importância de Leo Waibel para a geografia brasileira e o início das relações científicas entre o Brasil e a Alemanha no campo da geografia. Revista Brasileira de Desenvolvimento Regional 1.2, 2013, 29–75.

Kohlhepp/Coy 1986: G. Kohlhepp/M. Coy, Conflicts of Interests and Regional Development Planning in Colonizing the Brazilian Amazon. The case of Rondônia. In: J.M.G. Kleinpenning (ed.), Competition for Rural and Urban Space in Latin America. Its Consequences for Low Income Groups. Nederlandse Geografische Studies 25 (Nijmegen 1986) 61–75.

Lücker 1986: R. Lücker, Agrarräumliche Entwicklungsprozesse im Alto-Uruguai-Gebiet (Südbrasilien). Analyse eines randtropischen Neusiedlungsgebietes unter Berücksichtigung von Diffusionsprozessen im Rahmen modernisierender Entwicklung. Tübinger Geographische Studien 94 (Tübingen 1986).

Lücker 1989: R. Lücker, Räumlicher Wandel europäischer Kolonisationsgebiete in Südbrasilien. Innovation und Dynamik durch ethnische Gruppen? In: K. Rother (ed.), Europäische Ethnien im ländlichen Raum der Neuen Welt. Passauer Schriften zur Geographie 7 (Passau 1989) 47–59.

Mackenroth 1953: G. Mackenroth, Bevölkerungslehre. Theorie, Soziologie und Statistik der Bevölkerung (Berlin 1953).

Monheim 1965: F. Monheim, Junge Indianersiedlungen in den Tiefländern Ostboliviens (Braunschweig 1965).

Monheim 1976: F. Monheim, Geplante Waldhufensiedlungen in Ostbolivien und ihre spontane Weiterentwicklung. In: Nitz 1976a, 55–69.

Monheim 1977: F. Monheim, 20 Jahre Indianerkolonisation in den Tiefländern Ostboliviens. Erdkundliches Wissen 48 (Wiesbaden 1977).

Neuburger 2002: M. Neuburger, Pionierfrontentwicklung im Hinterland von Cáceres (Mato Grosso, Brasilien). Tübinger Geographische Studien 135 (Tübingen 2002).

Neuburger 2004: M. Neuburger, Smallholder Vulnerability in Degraded Areas. The Political Ecology of Pioneer Frontier Processes in Brazil. Geographische Zeitschrift (Special Issue) 2004, 58–72.

Neuburger 2005: M. Neuburger, Pionierfronten in Brasilien. Eine politisch-ökologische Analyse. Zeitschrift für Weltgeschichte 6.1, 2005, 77–89.

Neuburger/Coy 2008: M. Neuburger/M. Coy, Amazonien. Straße Cuiabá - Santarém. Ein Großprojekt im politisch-ökologischen Kontext. Geographische Rundschau 60.12, 2008, 10–17.

Nitz 1976a: H.-J. Nitz, Landerschließung und Kulturlandschaftswandel an den Siedlungsgrenzen der Erde. Symposium anlässlich des 75. Geburtstages von Prof. Dr. Willi Czajka vom 9. –11. November 1973 im Geographischen Institut der Universität Göttingen. Göttinger Geographische Abhandlungen 66 (Göttingen 1976).

Nitz 1976b: H.-J. Nitz, Landerschließung und Kulturlandschaftswandel an den Siedlungsgrenzen der Erde – Wege und Themen der Forschung. In: Nitz 1976a, 11–24.

Nuhn 1976: H. Nuhn, Gelenkte Agrarkolonisation an der Siedlungsgrenze im tropischen Regenwald Zentralamerikas. In: Nitz 1976a, 25–53.

Pfeifer 1973: G. Pfeifer, Deutsche bäuerliche Kolonisation in den Vereinigten Staaten und Brasilien – Konvergenzen und Kontraste. In: Im Dienste der Geographie und Kartographie. Symposium Emil Meynen. Kölner Geographische Arbeiten 30 (Köln 1973) 37–54.

Pfeifer/Kohlhepp 1984: G. Pfeifer/G. Kohlhepp (ed.), Leo Waibel als Forscher und Planer in Brasilien. Vier Beiträge aus der Forschungstätigkeit 1947–1950 in Übersetzung. Erdkundliches Wissen 71 (Stuttgart 1984).

Ratzel 1891: F. Ratzel, Anthropogeographie. Zweiter Teil: Die geographische Verbreitung des Menschen (Stuttgart 1891).

Sabelberg 1989: E. Sabelberg, Landnahme und Eigentumsveränderungen im italienischen Kolonisationsgebiet von Ibiraçu/Espírito Santo (Brasilien). In: K. Rother (ed.), Europäische Ethnien im ländlichen Raum der Neuen Welt. Passauer Schriften zur Geographie 7 (Passau 1989) 75–86.

Sandner 1961: G. Sandner, Das Valle General. Landeskundliche Skizze eines jungen Rodungsgebietes in Costa Rica. In: W. Lauer (ed.), Beiträge zur Geographie der Neuen Welt. Oskar Schmieder zum 70. Geburtstag. Schriften des Geographischen Instituts der Universität Kiel 20 (Kiel 1961) 125–165.

Schmieder 1932: O. Schmieder, Länderkunde Südamerikas (Leipzig 1932).

Schmieder/Wilhelmy 1938: O. Schmieder/H. Wilhelmy, Deutsche Ackerbausiedlungen im südamerikanischen Grasland, Pampa und Gran Chaco. Deutsches Museum für Länderkunde. Wissenschaftliche Veröffentlichungen. Neue Folge 6 (Leipzig 1938).

Schoop 1970: W. Schoop, Vergleichende Untersuchungen zur Agrarkolonisation der Hochlandindianer am Andenabfall und im Tiefland Ostboliviens. Aachener Geographische Arbeiten 4 (Aachen 1970).

Struck 1992: E. Struck, Mittelpunktssiedlungen in Brasilien. Entwicklung und Struktur in drei Siedlungsräumen Espírito Santos. Passauer Schriften zu Geographie 11 (Passau 1992).

Struck 1997: E. Struck, Das sozio-ökonomische System der Teilpacht in der Landwirtschaft eines brasilianischen Peripherieraumes. Eine sozialgeographische Untersuchung deutschstämmiger Bauernfamilien im Bergland Espírito Santos. In: T. Breuer (ed.), Geographische Forschung im Mittelmeerraum und in der Neuen Welt. Klaus Rother zum 65. Geburtstag. Passauer Schriften der Geographie 15 (Passau 1997) 99–108.

Turner 1920 [2010]: F. J. Turner, The Frontier in American History. Dover Edition (New York 1920 [2010]).

Waibel 1933a: L. Waibel, Die Sierra Madre de Chiapas. Mitteilungen der Geographischen Gesellschaft Hamburg 43 (Hamburg 1933) 12–162.

Waibel 1933b: L. Waibel, Probleme der Landwirtschaftsgeographie (Breslau 1933).

Waibel 1948 [1984]: L. Waibel, Die Grundlagen der europäischen Kolonisation in Südbrasilien. In: G. Pfeifer/G. Kohlhepp 1984, 33–76.

Waibel 1955 [1984]: L. Waibel, Die Pionierzonen Brasilien. In: G. Pfeifer/G. Kohlhepp 1984, 77–104.

Wilhelmy 1940: H. Wilhelmy, Probleme der Urwaldkolonisation in Südamerika. Zeitschrift der Gesellschaft für Erdkunde zu Berlin 5.6, 1940, 303–314.

Wilhelmy 1954: H. Wilhelmy, Neu-Karlsruhe (Liebig). Ein warnendes Beispiel gescheiterter Genossenschaftssiedlungen im nördlichen Argentinien. In: G. Kohlhepp (ed.), Geographische Forschungen in Südamerika. Ausgewählte Beiträge von Herbert Wilhelmy. Kleine Geographische Schriften 1 (Berlin 1980) 86–104.

GISELA GRUPE, STEFAN HÖLZL, BALAZS KOCSIS, PEER KRÖGER, MARKUS MAUDER, CHRISTOPH MAYR, EIRINI NTOUTSI, WOLFGANG SCHMAHL, FRANK SÖLLNER, ANITA TONCALA AND DOMINIKA WYCISK

Isotopic Mapping and Migration Research Based on Bioarchaeological Finds

The Interdisciplinary Project 'Transalpine Mobility and Culture Transfer'[1]

Keywords: stable isotopes, Sr, Pb, bioapatite, provenance analysis, cremation, European Alps

Abstract

The desire to better understand past human and animal mobility and patterning in prehistoric and historic times has benefited substantially from developments especially in the field of radiogenic isotope research (stable strontium and lead isotopic ratios). While the definition of non-local finds can be rather easy by use of the exclusion principle, definition of place of origin is still frequently fraught with ambiguity, be it due to an overall geographical redundancy of isotopic ratios, or an overwhelming imprint of a few edibles only on the isotopic composition of the consumer's skeleton. Moreover, the eminent danger of false positive results brought about by diagenetic signals overprinting the original, biological signal remains. As a result, the question arises whether 'isotopic landscapes' in bioarchaeology do exist at all – are we dealing with an ecogeographical reality, or rather with a concept, and is this concept really a 'silver bullet'?

For a definition of local bio-available isotopic ratios and related cut-off values to neighbouring regions, isotopic mapping is very informative, however not trivial. The interdisciplinary DFG Research Unit 'Transalpine Mobility and Culture Transfer' aims at breaking new methodological grounds including modern data mining by computer scientists to cope with multiple isotopic signatures, and a systematic mineralogical characterisation of the skeletal finds for validation of the isotopic signatures. A reference region of eminent archaeological importance is specifically targeted, namely the transalpine Inn-Eisack-Adige passage over the Brenner Pass. This paper introduces aims and scopes of the research group and summarises the results achieved in the course of the first three years of the project. In particular, a novel approach for interpreting a multi-isotope fingerprint has been worked out by computer scientists, and we show the applicability of stable isotopic analysis for provenancing cremated finds in the reference region studied.

Isotopic Mapping and Isotopic Landscapes in Bioarchaeology

Stable isotope analysis of archaeological skeletal finds has become an indispensable tool for the detection of non-local individuals on a site, be it a

1 This project is financially supported by the Deutsche Forschungsgemeinschaft (DFG).

burial site or a settlement. The number of primarily non-local individuals gives important clues to the extent of human migration and population admixture in the past, to animal import, domestication processes, or the size of the catchment areas of hunted game. Stable strontium isotope analysis ($^{87}Sr/^{86}Sr$) in bone or dental enamel has become that fashion in the course of the last two decades that this method is sometimes labelled as sort of 'prime silver bullet' for an evaluation of human and animal migration behaviour. The underlying concept is indeed very easy: While it is a fact that alkaline earth elements such as strontium, which readily fits into the apatite crystal lattice, tend to heavily contaminate a skeleton in the course of long inhumation periods, a stable strontium isotopic signature that is not compatible with the overall local such signature in soil, water and vegetation cannot be due to contamination but must indicate a different region of origin of the individual in question. If a 'foreign' $^{87}Sr/^{86}Sr$ isotopic ratio is measured in tooth enamel that precipitates during childhood and juvenile age and is not remodelled thereafter, this particular individual must have grown up elsewhere and is therefore primarily not local to the site of its recovery. A 'foreign' isotopic signature in bone indicates a 'late immigrant' to the site. Following this exclusion principle, valuable information about the extent of mobility/migration/import is quickly obtained. Let alone that the question from where this 'foreigner' originated is less readily answered, provenancing bioarchaeological finds by stable isotope analysis is definitely not that easy.

Today, stable strontium isotope analysis aiming at the reconstruction of place of origin and migration of modern and past humans and animals is firmly included into the methodological catalogue of ecological and bioarchaeological sciences (e.g. Bentley 2006; Crowley et al. 2015). Out of the four stable strontium isotopes, ^{84}Sr, ^{86}Sr, and ^{88}Sr have gained constant abundances in the course of the earth's history, while ^{87}Sr is a radiogenic isotope and the decay product of ^{87}Rb ($t_{½} = 48.8 \times 10^{-9}$ years). Therefore, geologists use to measure $^{87}Sr/^{86}Sr$ in rock for dating purposes since the abundance of ^{87}Sr is both a function of the initial Rb content of rock and its age (Faure/Mensing 2004). As a result, old and Rb-rich continental rocks typically exhibit high $^{87}Sr/^{86}Sr$ ratios > 0.71, while young volcanic rocks have significantly lower ratios around 0.703. Ocean water has a relatively constant $^{87}Sr/^{86}Sr$ isotopic ratio of 0.7092 worldwide due to global mixing with a slight variability related to salinity (Andersson et al. 1992). Soils are generated through the weathering of parent rock, and a geological map may give useful hints for the expected range of local stable strontium isotope ratios in skeletal finds. But already at this early point, the 'prime silver bullet' for provenance analysis becomes less trivial because it can be very difficult to define the 'local' isotopic signature of the foodweb that is a requisite for a recognition of an isotopic outlier and hence a 'non-local' signature. Bioavailable strontium that enters the biosphere and is incorporated into the consumer's skeleton can significantly differ in its isotopic composition from the underlying bedrock (Beard/Johnson 2000), some soils are windblown or were introduced into the region by glaciations and are not at all related to the local parent rock, and since rubidium (an alkali metal) behaves differently in geological reactions than strontium, also differences in the Rb/Sr ratio of rocks are responsible for variations of $^{87}Sr/^{86}Sr$ isotopic signatures in ecosystems (Capo et al. 1998; Porcelli/Baskaran 2012). Regions that do not differ much in terms of the baseline $^{87}Sr/^{86}Sr$ ratios in the environment will lead to very similar isotopic signatures in the consumers' tissues, such as areas dominated by loess. These fertile soils have been sought after since the beginnings of agriculture, but any movement of people and animals 'from loess to loess' will remain undetected by stable strontium isotope analysis. This implies that stable isotopes can be spatially redundant and that the number of immigrant individuals identified by the exclusion principle only provides a minimum value of non-local individuals at a site. For several regions and times, this underestimation of mobile people may be critical.

Another crucial aspect, which has been overlooked for long and is still frequently neglected in bioarchaeology, is the physiology of the former living individuals and their feeding preferences. Strontium enters the organism by ingesting food and water. The majority of this ingested non-essential trace element is excreted, the remaining atoms are sequestered into the mineralised hard tissues. Burton and Price (2013) recently pinpointed that

95% of the $^{87}Sr/^{86}Sr$ isotopic ratios measured in 4885 human dental enamel samples originating from six continents fall within the narrow range between 0.7047 and 0.7190, what implies that the worldwide variability of stable strontium isotopic signatures in humans is significantly compressed with regard to the geological variability at any site (Burton/Hahn 2016). Strontium is always associated with calcium in nature, therefore, a few calcium-rich food items will dominate the consumer's $^{87}Sr/^{86}Sr$ signature (see also Meiggs 2007; Fenner/Wright 2014). This renders the definition of a 'local' isotopic signature the more complicated, and cut-off values between 'local' and 'non-local' often remain arbitrary. Several attempts have been made for an assessment of local stable strontium isotopic ratios for archaeological strata, whereby the co-analysis of residential vertebrate remains as suggested by Price et al. (2002) is still the most reliable method because these vertebrates integrate the regional small-scale isotopic variability at a site. Also, approximating the local isotopic signature by sampling modern reference material (e.g. soil, water, and flora) has been attempted (e.g. Frei/Frei 2011; Maurer et al. 2012). Quite recently, the importance of strontium in the local water sources for the $^{87}Sr/^{86}Sr$ ratios in mammalian skeletons was stressed (Crowley et al. 2015; Söllner et al. 2016).

Despite of the fact that bioarchaeology has highly benefited from radiogenic stable isotopes for provenance analyses, the limitations of this method are still persistent. Bioarchaeologists have learned much more about both the small-scale variability and geographic redundancy of stable strontium isotopic ratios, and 'outliers' are less readily labelled 'immigrants' because the evaluation of the genesis of an isotopic signal in biological tissue is performed more cautiously. At present, specific regions of interest (for Europe, the Mediterranean and the Americas see Slovak/Paytan 2012) are isotopically mapped by investigating as many accompanying archaeological and modern reference samples from this region as possible. The resulting isotopic map gives clues to the spatial variability of the isotopic ratios, but does not yet fulfil the criteria for an 'isotopic landscape' which is characterised by model predictions coupled with probabilities (Bowen 2010). While there is no doubt that these empirically gathered data for an isotopic map are requisite for the generation of model predictions, it has also been commonly agreed upon that the measurement of a single isotopic system alone is insufficient because of its geographic redundancy. Bioarchaeological strontium isotope maps are very useful for supporting or rejecting an archaeological hypothesis about the possible place of origin of immigrants to a site, but still cannot predict provenance with a certain probability. Multi-isotope 'fingerprints' will be necessary in the majority of provenance studies, what implies that simple univariate statistics will no longer be capable of extracting the necessary information (see e.g. hierarchical cluster analysis performed by Turner et al. 2009). Since the vast majority of bioarchaeological finds is made up of vertebrate skeletal remains including humans, other isotopic signatures augmenting $^{87}Sr/^{86}Sr$ in the bioapatite are $\delta^{18}O_{phosphate}$ because of its known ecogeographic variability (see e.g. Vitvar et al. 2007; Aggarwal et al. 2010), and to a much lesser extent (mostly due to technical problems caused by the low skeletal lead content of prehistoric vertebrates and the low abundance of the non-radiogenic isotope ^{204}Pb) the lead isotopic ratios $^{208}Pb/^{204}Pb$, $^{207}Pb/^{204}Pb$, and $^{206}Pb/^{204}Pb$. Since the radiogenic lead isotopes are the products of three different decay series ($^{238}U \rightarrow {}^{206}Pb$, $^{235}U \rightarrow {}^{207}Pb$, and $^{232}Th \rightarrow {}^{208}Pb$), their variability in rocks by far exceeds the variability of $^{87}Sr/^{86}Sr$ (Bullen/Kendall 1998). Provenancing metal objects with lead isotopes is successfully performed since long and led to an accumulation of extensive databases (for Europe see Durali-Mueller et al. 2007; Stos-Gale/Gale 2009). Reimann et al. (2012) recently published a map of lead isotopes in European agricultural soils.

Across the Alps: The Interdisciplinary Project 'Transalpine Mobility and Culture Transfer'

The research group 'Transalpine Mobility and Culture Transfer'[2], financially supported by the German Science Foundation, aims to contribute to the

2 <www.for1670-transalpine.uni-muenchen.de> (last access 28.11.2016).

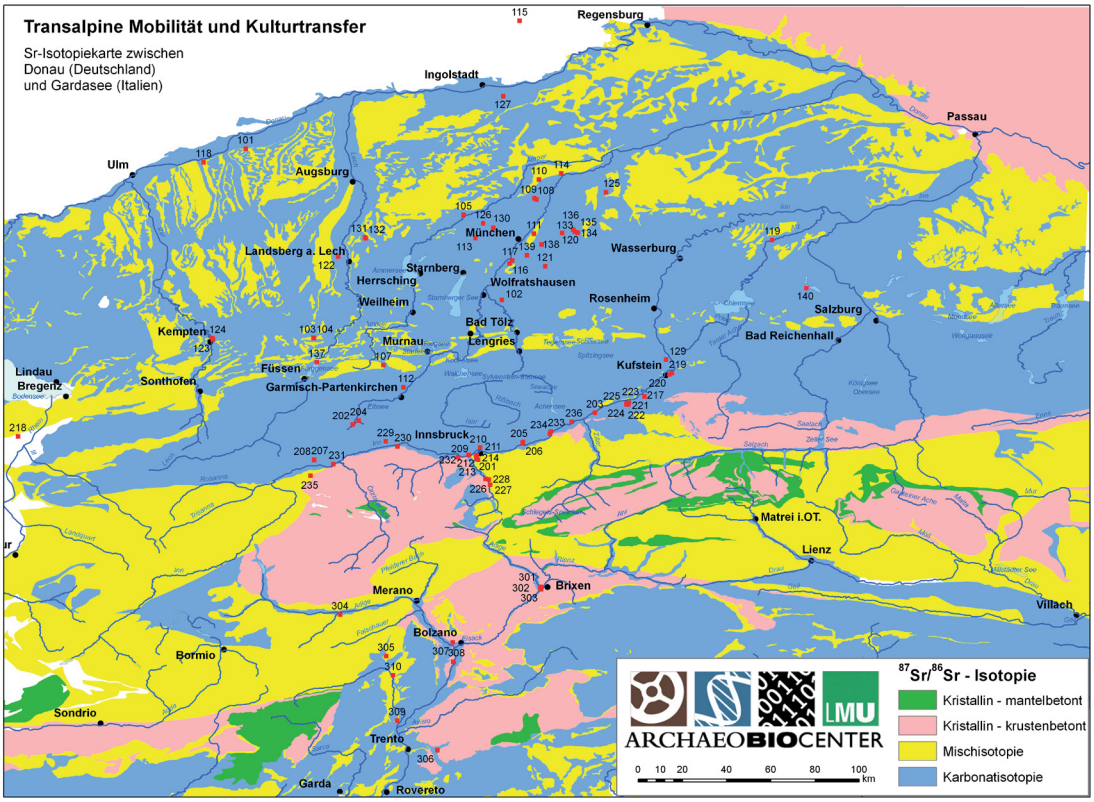


Fig. 1. Gross geological map of $^{87}Sr/^{86}Sr$ ratios in the region between the Danube River (Germany) and the Lago di Garda (Italy). Green: crystalline rock, mantle dominated; pink: crystalline, crust dominated; yellow: mixed isotopic ratios; blue: carbonate rock. Red dots: sites investigated in the project (Figure by Frank Söllner).

current research efforts aiming at a refinement of provenance analysis by use of a multi-isotope fingerprint in archaeological skeletal finds. Up to now, the majority of such investigations was dedicated to a particular site and the establishment of an 'isotopic map' by evaluating the spatial distribution of stable strontium, oxygen, and lead isotopes in potential source materials. An isotopic mapping for the scope of applying this map for archaeological finds to come, in other words a map which will be applicable to the majority or even all archaeological strata, is still the exception to the rule (e.g. Price/Gestsdóttir 2006; Gillmaier et al. 2009; Nafplioti 2011; Voerkelius et al. 2010; Frei/Frei 2011; Brems et al. 2013; Willmes et al. 2014). In our project, a specific transect across the European Alps is studied, namely the Inn-Eisack-Adige passage via the Brenner Pass. Abundant archaeological finds are proof for a regular use of this transect since the 9th mill. BC. Although the Brenner Pass is the lowest pass of the European Alps with an altitude of only 1370m a.s.l., the mountains did constitute a geographical boundary which, however, did not prevent its intensive exploitation and the transfer of humans and animals from north to south and *vice versa*. It can be depicted from the gross geological map (*fig. 1*) that carbonate soils dominate the northern and southern Alpine foothills, which exhibit very similar $^{87}Sr/^{86}Sr$ isotopic ratios. The Central Alps are characterised by crystalline material and mixed isotopic ratios. Therefore, any immigrant from the north to the south and *vice versa* cannot be detected by measuring a stable strontium isotopic ratio in bioarchaeological finds only. The application of a multi-isotope fingerprint for this reference region is necessary.

The aims and scopes of the project in particular are as follows:

– Evaluation of the spatial variability of stable strontium, oxygen, and lead isotopes in the bioapatite of residential vertebrates recovered at particular archaeological sites along the Inn-Eisack-Adige-Brenner passage.

- Purification of the bioapatite from compact bone and teeth from cattle (*Bos taurus*), pigs (*Sus domesticus*), and red deer (*Cervus elaphus*) and mineralogical characterisation of the purified apatite for a validation of the isotopic data. This in-depth mineralogical investigation serves for the formulation of a catalogue of authentication criteria for stable isotopes in archaeological bioapatite.
- To extract the spatial information hidden in the isotopic fingerprint, a Gaussian Mixture Model, which fits a number of multi-variate normal distributions over the given data set, was generated using the Expectation-Maximization Algorithm. A focus was on a ranking of the different features (isotopic ratios), in particular with regard to the relative structural relevance (a single feature's contribution to a reference clustering) versus structural redundancy (the capability of the other features to capture the reference structure clustering) of $\delta^{18}O_{phosphate}$. Since $\delta^{18}O$ is thermally less stable than the isotopic ratios of the heavier elements strontium and lead, the spatial information of $\delta^{18}O_{phosphate}$ of cremated finds is not reliable. Thus, the quality of isotopic maps for provenance analysis including and excluding $\delta^{18}O$ needs to be tested.
- Application of the generated isotopic map to persistent archaeological questions related to prehistoric mobility/migration will focus on periods between the Urnfield Period and Imperial Roman Times when cremation was the major if not exclusive burial practice. A systematic study of population admixture and culture transfer based on cremations will be performed for the first time. The four archaeological subprojects concern in particular the topics 'Mobility and social dynamics in Southern Bavaria, the North Tyrolean Inn Valley and the Salzach Valley during the Urnfield Period – copper as catalyst for migration and social acceleration?', 'Migration or acculturation – the genesis and spread of the early Fritzens-Sanzeno Culture (5th/4th cent. BC)', 'Transalpine culture transfer: Population and domesticates of the Raetian Alps and alpine foothills in the 1st cent. AD', and 'Gontia as melting pot? The Imperial Roman population at Günzburg reflected by the burials. A model for Raetia' (for details and the responsible principal investigators see the project's website).[3]
- Finally, the complete database will be made public by use of a suitable platform for a world wide data sharing.

While the research group does not claim to solve every open problem of provenance analysis by stable isotopes, it nevertheless aims at a significant contribution with regard to the chosen reference area and archaeological strata. The network, the general structure of which is outlined in fig. 2, involves scientists from the fields of anthropology, archaeology, archaeozoology, computer sciences, crystallography, and geology.

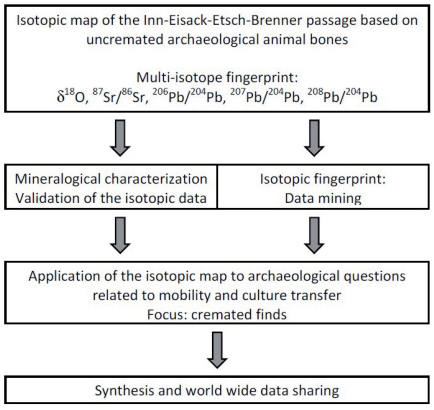


Fig. 2. General structure of the project.

The project is subdivided into two phases, whereby the first three-year phase has just come to an end. In the course of this first phase, the isotopic map has been created, a mineralogical catalogue for the authentication of isotopic signatures measured in archaeological bioapatite has been established, and the suitable data mining methods have been worked out. Also, first analyses of a large sample of human cremations from the Urnfield Period and the Fritzens-Sanzeno Culture have been completed. The involved archaeologists have completed the find analyses and documentations, and the cremation samples are ready for analysis in the second project phase. This manuscript will present an overview of the results achieved so far in the

3 See <www.for1670-transalpine.uni-muenchen.de> (last access 28.11.2016).

form of a 'proof of concept' and 'state of the art report'. A monograph mostly summarising the work of the natural sciences, which is indispensable for a successful accomplishment of the project's second phase that is mainly dedicated to the social sciences of the network, will be published soon (Grupe et al. 2017).

Isotopic Mapping of the Inn-Eisack-Adige-Brenner Passage across the Alps

For the establishment of the isotopic map, 217 animal bone samples were analysed in terms of stable strontium, lead, and oxygen isotopes in the bioapatite (method details and all raw data see Toncala et al. in press). Care was taken to sample at least three individuals of each species per site, if available. This was possible in most cases, however, at a few sites, the appropriate material was limited.

Modern groundwater and vegetation samples (α-cellulose) served for a control of the ecogeographical variability of $\delta^{18}O$ along the alpine transect, in particular in terms of the expected altitude effect. As expected, a positive correlation between modern $\delta^{18}O_{cellulose}$ and both latitude and altitude exists, whereby the Austrian wood samples exhibited significantly lower $\delta^{18}O_{cellulose}$ (and also $\delta^{18}O_{water}$) values than the Italian ones. Species-specific differences between the wood samples also followed expectations. Since hazelnut trees were available at almost every site and also develop roots which reach below the agricultural horizon, further comparison was restricted to hazelnut α-cellulose (n = 15) and the significance of the detected ecogeographical variability in Germany and Austria increased (correlation coefficient between $\delta^{18}O_{cellulose}$ and latitude: -0.80, and -0.45 between $\delta^{18}O_{cellulose}$ and altitude) (Göhring et al. 2015). The average altitude gradient of $\delta^{18}O$ of -0.18‰ per 100m corresponds with the average altitude gradient of $\delta^{18}O_{precipitation}$ for the region (-0.16‰ per 100m) as published by Humer et al. (1995).

To check whether the results obtained by the modern reference samples could be translated to archaeological vertebrate bone samples, a subsample of the latter specimens (36 cattle, 35 pigs, and 20 red deer, total = 91) were analysed in terms of both $\delta^{18}O_{phosphate}$ and $\delta^{18}O_{carbonate}$ in the bioapatite. As expected, $\delta^{18}O_{phosphate}$ values turned out to be more reliable than $\delta^{18}O_{carbonate}$ values (Lihl 2014). After transformation of the $\delta^{18}O_{phosphate}$ of an even larger subsample (47 cattle, 45 pigs, 26 red deer, total = 118) into $\delta^{18}O_{water}$ by use of published species-specific correlations, the data obtained from the archaeological specimens plotted exactly on the regression between $\delta^{18}O_{precipitation}$ and altitude in the European Alps as published by Kern et al. (2014) (Mayr et al. 2016). Therefore, the choice of animal bone samples for the isotopic map was appropriate. However, data from one site (Zambana) had to be excluded mainly due to the pigs' $\delta^{18}O_{phosphate}$ values there. We speculate that the pigs at this site could have been bred close to the river Adige, which is in close vicinity of the archaeological site. If so, they rather incorporated the river catchment than the local isotopic composition and thus reflect an apparent altitude not representative for the site.

An indispensable prerequisite for mobility research in prehistory by use of stable isotope analysis of bioarchaeological finds is the authentication of the measured isotopic ratios.

Skeletal tissue is prone to diagenesis and contamination in the course of long inhumation periods, and no catalogue of authentication criteria for the integrity of extracted bioapatite that is commonly agreed upon is available so far. This contrasts with the analysis of preserved biomolecules such as bone collagen where the necessary authentication criteria (e.g. protein amino acid profiles) are at hand since long. In this respect, a regrettable knowledge gap still exists which needs to be closed especially when cremated finds shall be forwarded to analysis. In this case, not only diagenetic, but also possible thermally induced alterations of the skeletal mineral phase need detection and quantification. A subsample of 63 cremated and uncremated animal bone samples, augmented by experimentally cremated modern animal bones, were investigated by X-ray diffraction to determine crystallite size and unit cell volume, among other crystallographic parameters, and by FTIR with regard to the chemistry (CO_3^{2-}, HPO_4^{-}, OH^{-}, H_2O, etc.). The results were correlated with archaeological parameters. The purified apatite was of nanocrystalline size and mostly consisted of a single mineral phase only, namely carbonated hydroxyapatite. In only 20% of all samples, calcite

was detected as a second phase. XRD line width of the calcite crystallites also indicated a nanocrystalline size in the order of some tens of nanometers. We interpret this in terms of a decomposition of the original bioapatite rather than a contamination from the burial environment. In the latter case, the calcite crystals would have been definitely much larger and of a size in the µm and even mm range. In experimentally cremated bones, also no other mineral phases besides hydroxyapatite were found. We conclude that the laboratory processing methods for the purification of bioapatite from the bioarchaeological finds was successful and that the measured isotopic data are original biological signals rather than diagenetic alterations. To validate stable isotope ratios from archaeological bioapatite, a characterisation of the finds in terms of mineral phases, crystallite size, crystallite unit cell volume, and microstrain are suggested as authentication criteria (Schmahl et al. 2016).

While the removal of contaminating Sr from an archaeological bone is meanwhile performed by use of established lab protocols, a *caveat* still concerns lead isotopes because of the worldwide contamination of the environment with industrial lead. In Europe, contaminated soils typically exhibit a $^{206}Pb/^{207}Pb$ isotopic ratio < 1.16, uncontaminated soils a ratio > 1.20. The archaeological specimens investigated in the frame of the transalpine project do not show any remnants of this anthropogenic Pb contamination after laboratory processing, what holds also for all isotopic ratios related to the non-radiogenic ^{204}Pb. All measured stable lead isotopic ratios are in agreement with the respective pre-industrial variability (Kamenov/Gulson 2014). Subsamples have also been investigated in terms of Pb concentrations which are all by far lower than 1ppm (in agreement with e.g. Drasch 1982; Grupe 1991; Fergusson 1990). We therefore conclude that the measurement of uncontaminated stable lead isotopic ratios was successful.

A bivariate plot of stable strontium and lead isotopes in the animal bone finds by country clearly shows the spatial redundancy of single isotopic ratios in the reference area which is only partly overcome by analysing more than one isotopic ratio (*fig. 3*, see also Toncala et al. in press). While $^{87}Sr/^{86}Sr$ isotopic ratios > 0.713 are restricted

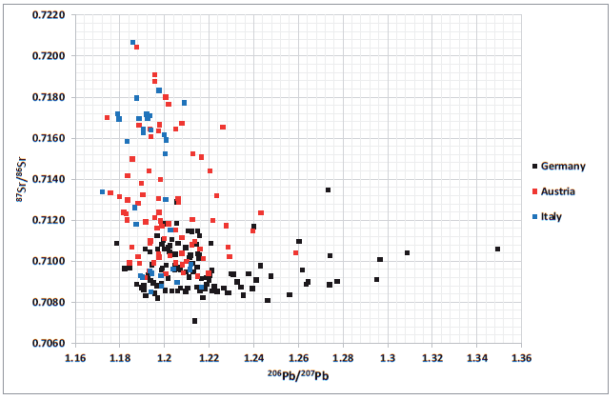


Fig. 3. Bivariate plot of $^{87}Sr/^{86}Sr$ versus $^{206}Pb/^{207}Pb$ of 217 animal bones from the Alpine transect by country.

to the inneralpine and southern Alpine regions, values between 0.709 and 0.713 are found nearly everywhere along the studied reference areas. None of the Italian samples exhibits $^{206}Pb/^{207}Pb$ isotopic ratios > 1.230, but ratios between 1.170 and 1.230 also occur almost everywhere. The picture does neither change in bivariate plots using different isotopic ratios, nor on a smaller-scale inspection (Grupe et al. 2015). While it is out of question that single prominent outliers will be detectable by the exclusion principle, the limitations of this conservative data interpretation are obvious.

To overcome the spatial redundancies, two novel approaches were chosen: The evaluation of the structure of the data set by modern data mining methods (see below), and an attempt to model the local, bioavailable $^{87}Sr/^{86}Sr$ isotopic ratios at a site by use of modern reference material. The latter was assumed to be a necessity because an isotopic map based on skeletal finds of residential fauna is not totally free of ambiguities: while the overall assumption that cattle and pigs were kept in the vicinity of human settlements is plausible, it can never be decided with certainty that every individual was indeed local to the site. The Alpine transect studied in our project is a transition zone, and animals or preserved edible parts of them might well have been transported to the site of their recovery from elsewhere. It is also a matter of herding management whether the animals, especially cattle, were kept at a larger or shorter distance from the human dwellings. With regard to game, red deer is assumed to be quite residential, but the catchment area of former herds might have been larger than today. This way, deer might integrate bioavailable

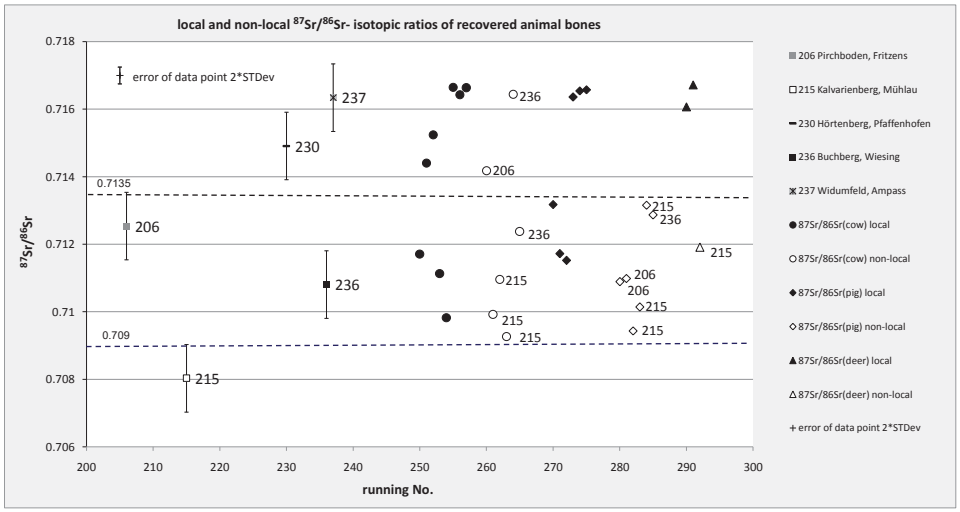


Fig. 4. Modelled local geodependent $^{87}Sr/^{86}Sr$ isotopic ratios at five sites in the Inn Valley are marked by site code numbers and cut-off error bars (± 0.001). Marked domains (see text) are separated by horizontal dashed lines. Mathematically non-local individual animals are plotted with open symbols (Figure by F. Söllner).

strontium with its respective signatures that differs from the bioavailable strontium in the micro region inhabited by humans.

A model of the strontium flux through the biosphere with resulting estimations of local, bioavailable stable strontium isotopic ratios was developed based on common geological mixing diagrams where $^{87}Sr/^{86}Sr$ is plotted against the reciprocal strontium content of the samples. This way, the relative contributions of total ingested strontium by water, soil, and vegetation is taken into account. Since a river valley permits for considerable isotopic mixing (sediment charge, erosion, mud slides, precipitation run-off etc.), the Inn River valley was targeted first and the reference samples were taken at five selected archaeological sites. The Inn River valley separates the Northern Calcareous Alps with $^{87}Sr/^{86}Sr$ isotopic ratios between 0.707 and 0.709 from the Central Alps which are mainly made up of crust dominated crystalline rocks with $^{87}Sr/^{86}Sr > 0.71$. Moraine and fluviatile sediments of the Inn valley are mostly enriched with crystalline rocks and exhibit mixed stable strontium isotopic ratios < 0.709 until 0.7135. During field excursions in the years 2013 and 2014, groundwater from neighbouring springs or wells, 'weathered soil' (comparable to leached soil, see Drouet et al. 2005), and vegetation (wood with deep-reaching roots, see above) were collected (for details see Söllner et al. 2016). Modelled local bioavailable $^{87}Sr/^{86}Sr$ ratios in the frame of this small pilot study resulted in three distinct geological domains, namely: Brown, calcareous soil and rendzina: $^{87}Sr/^{86}Sr < 0.709$; moraine soil, coarse detrital and mostly crystalline material: $0.709 \leq {}^{87}Sr/^{86}Sr \leq 0.7135$; and fluviolacustrine sediments, $^{87}Sr/^{86}Sr \geq 0.7135$. As preliminary cut-off value for a differentiation between local and non-local individuals, $^{87}Sr/^{86}Sr \pm 0.001$ was conservatively defined (Söllner et al. 2016). Measured stable strontium isotopic ratios in the animal bone finds were then compared with the modelled, expected values with a very good overall agreement. Not unexpected, several individuals which had *a priori* been assumed to be local to a site turned out to be no more local mathematically (*fig. 4*). Since the distance covered between the most western and most eastern sampling site in the valley approximates only 70 km, it is a matter of the underlying concept according to time, culture, and archaeological findings whether these mathematical differences are significant in terms of animal import, or in terms of the normal mobility within the limits of a micro region. Nevertheless, comparison of expected and modelled isotopic ratios constitutes crucial information for the investigation of the multi-isotopic fingerprint by computer scientists (see below).

One important outcome of this pilot study was that at certain sites, consumer $^{87}Sr/^{86}Sr$ isotopic ratio was strongly related to the respective isotopic ratio in soil, but was nearly exclusively related to the strontium isotopic ratio of water at a single site (Pfaffenhofen/Inn, Austria; Söllner et al. 2016). This was primarily unexpected but in agreement with the results obtained by Crowley et al. (2015) for a number of sites in the US. During the current second phase of our project, modern reference samples from at least 30 other selected sites along

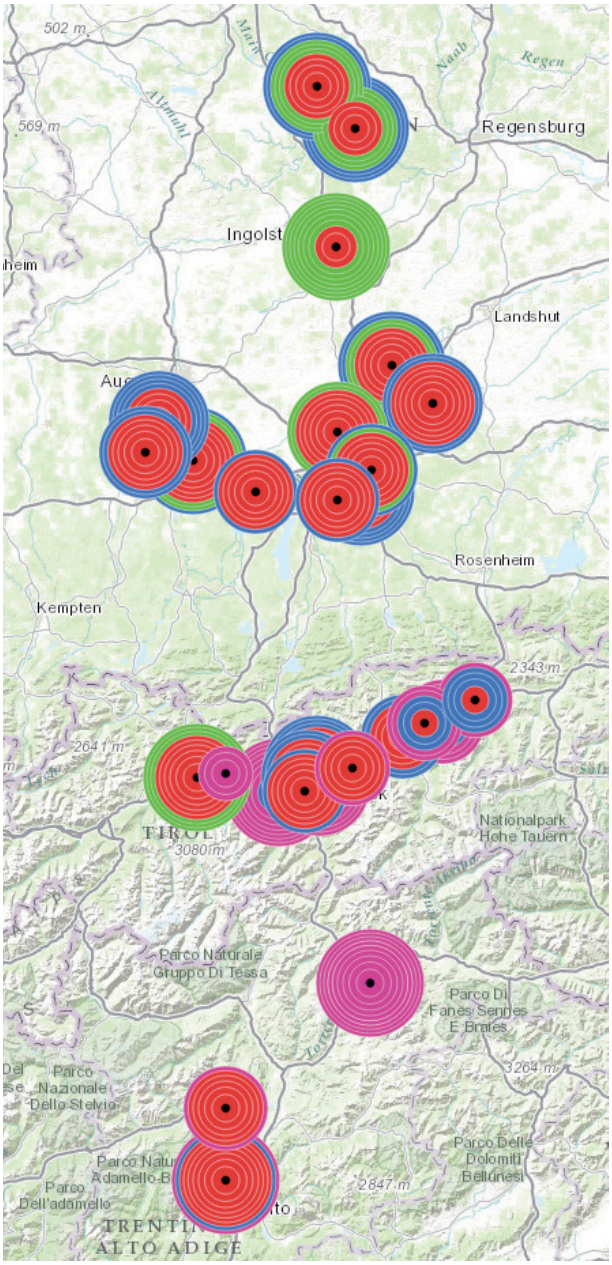


Fig. 5. EM clustering of isotopic fingerprints (stable Sr, Pb, and O isotopes) of 217 animal bones. Colours indicate the membership to a cluster, each circle represents one individual (Figure by M. Mauder).

the alpine transect will be analysed aiming at modelling the local, bioavailable isotopic ratios.

Data Mining and Provenance Analysis

The interpretation of a multi-isotope fingerprint for provenance analysis by data mining methods is challenging for obvious reasons since neither a ground truth, nor any class labels are available. This implies that the investigation needs to make and use its own references, i.e. that the data structure has to be learned by an unsupervised learning process. To extract the relevant structure from the available data, the data-driven approach of GMM clustering using the EM algorithm was chosen (Mauder et al. 2016) to unravel the information entrapped in a 7-dimensional isotopic fingerprint consisting of $^{87}Sr/^{86}Sr$, $^{208}Pb/^{204}Pb$, $^{207}Pb/^{204}Pb$, $^{206}Pb/^{204}Pb$, $^{208}Pb/^{207}Pb$, $^{206}Pb/^{207}Pb$, and $\delta^{18}O_{water}$ (the latter assessed from $\delta^{18}O_{phosphate}$, see above).

The spatial distribution of the maximum likelihood clusters is visualised in fig. 5, which clearly shows the advantages of provenancing individual skeletal finds by a multi-isotope fingerprint over single or two stable isotopic systems. The majority of individual animals is captured by the red cluster, which is distributed all over the reference area under study. At this stage of the project, however, we cannot exclude that a further refinement of the method could lead to a better differentiation between the members of this red cluster. In contrast, the green cluster is restricted to the northern Alpine foothills with a few individuals on the northern mountain slopes, and the pink cluster is restricted to the Inn River valley and the southern mountain slopes with only two individuals that plot in the southern Alpine foothills. The blue cluster is found in the Inn River valley and to the north of the Alps, but not in the south. In contrast to an attempt of defining local isotopic signatures by a single stable isotopic ratios such as $^{87}Sr/^{86}Sr$ (see *fig. 1*), the northern and southern Alpine foothills are clearly distinguishable by the multi-isotope fingerprint. In the transition region of the Inn valley, animal bones which belong to every cluster were excavated. Whether this is due to animal mobility or the result of naturally occurring isotopic mixtures (see above) still needs to be checked and cannot be decided by the isotopic signatures alone. The next step of the evaluation necessitates an osteological re-assessment of individual animals of each species which are captured by different clusters to decide whether e.g. cattle from different clusters do also differ in terms of size, shape, age or sex.

Another important question concerns the ranking of the isotopic systems in terms of structural relevance and redundancy. By comparison of the data sets with or without certain attributes (e.g. with

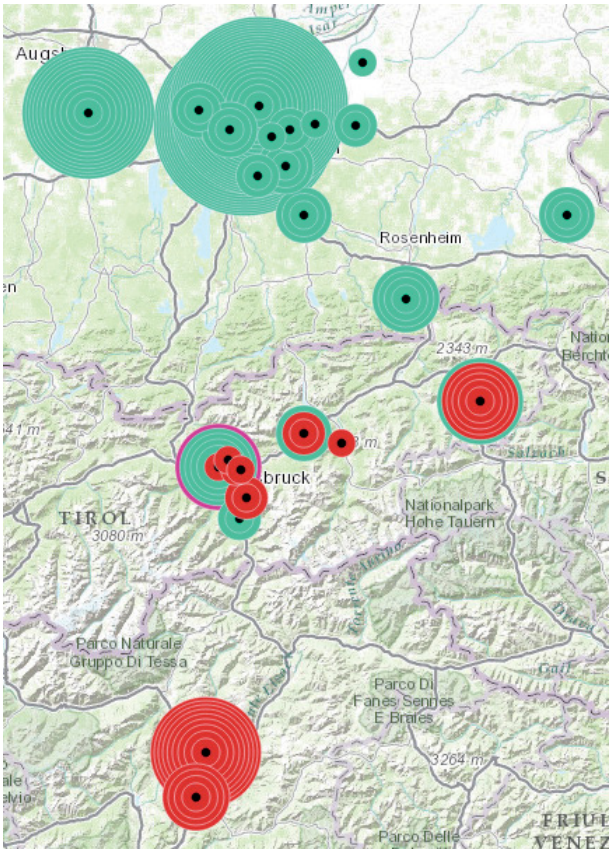


Fig. 6. EM clustering of isotopic ingerprints (stable Sr and Pb isotopes) of 200 human cremations from the Urnfield and Fritzens-Sanzeno Culture, with a single outlier (pink) (Figure by M. Mauder).

and without $\delta^{18}O$, or by addition of spatial information such as latitude, longitude and altitude), stable strontium and lead isotopes turned out to be the top structural attributes with the exception of the $^{208}Pb/^{204}Pb$ ratio which was of very low relevance. But also $\delta^{18}O$ has a low relevance score despite the altitude effect (see above; Mauder et al. 2016). This is a significant result for the reference area studied, because this implies that an omission of $\delta^{18}O$ from the fingerprint will not significantly diminish the results. This is important, as only stable strontium and lead isotopic ratios are applicable for provenance studies based on cremated finds.

At this stage of the project, 200 human cremations from the Urnfield and the Fritzens-Sanzeno Culture have been analysed in terms of stable strontium and lead isotopes (*fig. 6*). Again, the northern and southern Alpine foothills appear in rather distinct clusters (green and red) and are suggestive of reasonable micro regions. Just as in the case of the animals, these two clusters seem to mix in the Inn Valley and again, this result needs to be cross-checked with the archaeological evidence. A single outlier with an isotopic fingerprint that did not match the others was identified. Since no dental enamel or dentine was available from the studied cremations, this outlier is definitely a late immigrant to the site of its recovery. With a very high probability, this individual did not originate from any of the micro regions sampled along the reference area.

In sum, the mathematical analysis showed that none of the seven isotopic ratios included in the fingerprint alone reflects the structure of the measurement data, implying that univariate statistics will not be capable of extracting the relevant spatial information (Mauder et al. 2016).

Conclusion

At this stage of our project, we can conclude that the archaeological human and animal skeletal samples, no matter whether cremated or not, were successfully decontaminated and the isotopic ratios measured in the bioapatite therefore validated. A catalogue of mineralogical/crystallographical quality criteria for the state of integrity of processed archaeological bioapatite is suggested. Comparison with modern reference samples showed that the choice of animal bone samples for the generation of the isotopic map was appropriate. A major and promising result for future research is that despite the vertical stratification of the reference area, an isotopic map consisting of stable strontium and lead isotopes only is applicable to cremated finds for the scope of provenance analysis. Interpretation of the isotopic fingerprint benefited substantially from the novel approach of GMM clustering, because a large proportion of the spatial redundancy of single isotopic ratios has been overcome, and because the relevance of specific isotopic systems in a reference area can be defined. The next step will afford similarity search to find solutions to at least two questions. First, since stable isotope ratios in the consumers' skeletons are diet dependent, it cannot be expected that local human isotopic signatures are identical with local animal isotopic signatures, although they should be similar and somehow matching. How 'similar' human

and animal isotopic fingerprints need to be to confirm the notion of 'local' versus 'non-local' requires further investigation. After this will be achieved, stable isotope analyses combined with data mining methods will be capable of answering persistent questions posed by archaeologists with regard to human migration and animal import/export as for example: 'Given a human/animal skeletal find X, find all skeletal finds with similar isotopic fingerprints within a distance of Y km, which are of the same archaeological age, and which belong to the same species'.

Gisela Grupe
Anita Toncala
Dominika Wycisk
Biozentrum der
Ludwig-Maximilians-Universität
Anthropologie und Umweltgeschichte
Grosshaderner Str. 2
D-82152 Martinsried

Stefan Hölzl
RiesKraterMuseum Nördlingen
Eugene-Shoemaker-Platz 1
D-86720 Nördlingen

Balazs Kocsis
Wolfgang Schmahl
Ludwig-Maximilians.Universität München
Department für Geo- und
Umweltwissenschaften
Lehrstuhl für anorganische und biogene
Geomaterialien
Theresienstr. 41
D-80333 München

Peer Kröger
Markus Mauder
Eirini Ntoutsi
Lehr- und Forschungseinheit für
Datenbanksysteme
Ludwig-Maximilians-Universität München
Oettingenstraße 67
D-80538 München

Christoph Mayr
Institut für Geographie
Friedrich-Alexander Universität
Erlangen-Nürnberg
Wetterkreuz 15
D-91058 Erlangen
Department für Geo- und
Umweltwissenschaften
Paläontologie und Geobiologie
Ludwig-Maximilians-Universität
Richard-Wagner-Str. 10
D-80333 München

Frank Söllner
Department für Geo- und
Umweltwissenschaften
Ludwig-Maximilians-Universität
Luisenstr. 37
D-80333 München

Corresponding author
Prof. Dr. Gisela Grupe
Biozentrum der
Ludwig-Maximilians-Universität
Anthropologie und Umweltgeschichte
Grosshaderner Str. 2
D-82152 Martinsried
G.Grupe@lrz.uni-muenchen.de

Bibliography

Aggarwal et al. 2010: P. K. Aggarwal/L. J. Araguás-Aragás/M. Groening/K. M. Kulkarni/T. Kurttas/B. D. Newman/T. Vitvar, Global Hydrological Isotope Data and Data Networks. In: J. B. West/G. J. Bowen/T. E. Dawson/K. P. Tu (eds.), Isoscapes. Understanding Movement, Pattern, and Process on Earth through Isotope Mapping (Dordrecht 2010) 33–50.

Andersson et al. 1992: P. S. Andersson/G.-J. Wasserburg/J. Ingri, The Sources and Transport of Sr and Nd Isotopes in the Baltic Sea. Earth and Planetary Science Letters 113, 1992, 459–472.

Beard/Johnson 2000: B. I. Beard/C. M. Johnson, Strontium Isotope Composition of Skeletal Material can Determine the Birth Place and Geographic Mobility of Humans and Animals. Journal of Forensic Sciences 45, 2000, 1049–1061.

Bentley 2006: R. A. Bentley, Strontium Isotopes from the Earth to the Archaeological Skeleton. A Review. Journal of Archaeological Method and Theory 13, 2006, 135–187.

Bowen 2010: G. J. Bowen, Isoscapes. Spatial Pattern in Osotopic Biogeochemistry. Annual Reviews of Earth and Planetary Science 38, 2010, 161–187.

Brems et al. 2013: D. Brems/M. Ganio/K. Latruwe/L. Balcaen/M. Carremans/D. Gimeno/A. Silvestri/F. Vanhaecke/P. Muchez/P. Degryse, Isotopes on the Beach, I. Strontium Isotope Ratios as Provenance Indicator for Lime as Raw Materials used in Roman Glass-Making. Archaeometry 55, 2013, 214–234.

Bullen/Kendall 1998: T. D. Bullen/C. Kendall, Tracing of Weathering Reactions and Water Fowpaths. A Multi-Isotope Approach. In: C. Kendall/J. J. Mc Donnell (eds.), Isotope Tracers in Catchment Hydrology (Amsterdam 1998) 611–646.

Burton/Hahn 2016: J. H. Burton/R. Hahn, Assessing the 'Local' $^{87}Sr/^{86}Sr$ Ratio for Humans. In: G. Grupe/G. C. McGlynn (eds.), Isotopic Landscapes in Bioarchaeology (Berlin 2016) 113–121.

Burton/Price 2013: J. H. Burton/T. D. Price TD, Seeking the Local $^{87}Sr/^{86}Sr$ Ratio to Determine Geographic Origins of Humans. No Easy Answers. In: R. A. Armitage/J. H. Burton (eds.), Archaeological Chemistry VIII (Washington 2013) 309–320.

Capo et al. 1998: R. C. Capo/B. W. Stewart/O. A. Chadwick, Strontium Isotopes as Tracers of Ecosystem Processes. Theory and Methods. Geoderma 82 (1998) 197–225.

Crowley et al. 2015: B. E. Crowley/J. H. Miller/C. P. Bataille, Strontium Isotopes ($^{87}Sr/^{86}Sr$) in Terrestrial Ecological and Palaeoecological Research. Empirical Efforts and Recent Advances in Continental-Scale Models. Biological Reviews, DOI: 10.1111/brv.12217.

Drasch 1982: G. A. Drasch, Lead Burden in Prehistorical, Historical, and Modern Human Bones. The Science of the Total Environment 24, 1982, 199–231.

Drouet et al. 2005: T. Drouet/J. Herbauts/W. Gruber/D. Demaiffe, Strontium Isotope Composition as a Tracer of Calcium Sources in two Forest Ecosystems in Belgium. Geoderma 126, 2005, 203–223.

Durali-Mueller et al. 2007: S. Durali-Mueller/G. P. Brey/D. Wigg-Wolf/Y. Lahaye, Roman Lead Mining in Germany. Its Origin and Development through Time Deduced from Lead Isotope Provenance Studies. Journal of Archaeological Science 34, 2007, 1555–1567.

Faure/Mensing 2004: G. Faure/T. M. Mensing, Isotopes. Principles and Applications (Hoboken 2004).

Fenner/Wright 2014: J. N. Fenner/L. E. Wright, Revisiting the Strontium Contribution of Sea Salt in the Human Diet. Journal of Archaeological Science 44, 2014, 99–103.

Fergusson 1990: J. E. Fergusson, The Heavy Elements. Chemistry, Environmental Impact and Health Effects (Oxford 1990).

Frei/Frei 2011: K. M. Frei/R. Frei, The Geographic Distribution of Strontium Isotopes in Danish Surface Waters – A Base for Provenance Studies in Archaeology, Hydrology and Agriculture. Applied Geochemistry 26, 2011, 326–240.

Gillmaier et al. 2009: N. Gillmaier/C. Kronseder/G. Grupe/C. von Carnap-Bornheim/F. Söllner/M. Schweissing, The Strontium Isotope Project of the International Sachsensymposion. Beiträge zur Archäozoologie und Prähistorischen Anthropologie 7, 2009, 133–142.

Göhring et al. 2015: A. B. Göhring/A. Toncala A/C. Mayr/F. Söllner/G. Grupe, Stable Oxygen Isotope Mapping of the Transalpine Inn-Eisack-Etsch Passage Based on Modern α-Cellulose and Water. Documenta Archaeobiologiae 12, 2015, 53–80.

Grupe 1991: G. Grupe, Anthropogene Schwermetallkonzentration in menschlichen Skelettfunden als Monitor früher Umweltbelastungen. USW-Zeitschrift für Umweltchemie und Ökotoxikologie 3, 1991, 226–229.

Grupe et al. in press: G. Grupe/A. Grigat/G. C. McGlynn (eds.), Across the Alps in Prehistory (Berlin in press).

Grupe et al. 2015: G. Grupe/M. Grünewald/M. Gschwind/S. Hölzl/C. Mayr/G. C. McGlynn/C. Metzner-Nebelsick/E. Ntoutsi/J. Peters/M. Renz/S. Reuß/W. W. Schmahl/F. Söllner/C. S. Sommer/B. Steidl/A. Toncala/D. Wycisk, Networking in Bioarchaeology. The Example of the DFG Research Group FOR 1670 'Transalpine Mobility and Culture Transfer'. Documenta Archaeobiologiae 12, 2015, 13–51.

Grupe/McGlynn 2016: G. Grupe/G. C. McGlynn (eds.), Isotopic Landscapes in Bioarchaeology (Berlin 2016).

Humer et al. 1995: G. Humer/D. Rank/W. Stichler, Niederschlagsisotopennetzwerk Österreich. Monographien des Bundesministeriums für Umwelt 52 (Wien 1995).

Kamenov/Gulson 2014: G. D. Kamenov/B. L. Gulson, The Pb Isotopic Record of Historical to Modern Human Lead Exposure. Science of the Total Environment 490, 2014, 861–870.

Kern et al. 2014: Z. Kern/B. Kohán, M. Leuenberger, Precipitation Isoscape of High Reliefs. Interpolation Scheme Designed and Tested for Monthly Resolved Precipitation Oxygen Isotope Records of an Alpine Domain. Atmospheric Chemistry and Physics 14, 2014, 1897–1907.

Lihl 2014: C. M. Lihl, Relation zwischen stabilen Sauerstoffisotopen im Phosphat und im strukturellen Karbonat von Tierknochen verschiedener Taxa. Unpublished MSc Thesis (Muenchen 2014).

Mauder et al. 2016: M. Mauder/E. Ntoutsi/P. Kröger/C. Mayr/G. Grupe/A. Toncala/S. Hölzl, Applying Data Mining Methods for the Analysis of Stable Isotope Data in Bioarchaeology. IEEE 12th International Conference on eScience, Baltimore, Maryland, USA, October 23–27, 2016.

Maurer et al. 2012: A.-F. Maurer/S. J. G. Galer/C. Knipper/I. Beierlein/E. V. Nunn/D. Peters/T. Tütken/K. W. Alt/B.R. Schöne, Bioavailable $^{87}Sr/^{86}Sr$ in Different Environmental Samples. Effects of Anthropogenic Contamination and Implications for Isoscapes in Past Migration Studies. Science of the Total Environment 433, 2012, 216–229.

Mayr et al. 2016: C. Mayr/G. Grupe/C. Lihl C/A. Toncala, Linking Oxygen Isotopes of Animal-Bone Phosphate with Altimetry – Results from Archaeological Finds from a Transect in the Alps. In: Grupe/McGlynn 2016, 157–172.

Meiggs 2007: D. C. Meiggs, Visualizing the Seasonal Round. A Theoretical Experiment with Strontium Isotope Profiles in Ovicaprine Teeth. Anthropozoologica 42, 2007, 107–127.

Nafplioti 2011: A. Nafplioti, Tracing Population Mobility in the Aegean Using Isotope Geochemistry. A First Map of Locally Bioavailable $^{87}Sr/^{86}Sr$ Signatures. Journal of Archaeological Science 38, 2011, 1560–1570.

Porcelli/Baskaran 2012: D. Porcelli/M. Baskaran, An Overview of Isotope Geochemistry in Environmental Studies. In: M. Baskaran (ed.), Handbook of Environmental Isotope Geochemistry (Springer 2012) 11–32.

Price et al. 2002: T. D. Price/J. H. Burton/R. A. Bentley, The Characterization of Biologically Available Strontium Isotope Ratios for the Study of Prehistoric Migration. Archaeometry 44, 2002, 117–135.

Price/Gestsdóttir 2006: T. D. Price/H. Gestsdóttir, The First Settlers of Iceland. An Isotopic Approach to Colonization. Antiquity 80, 2006, 130–144.

Reimann et al. 2012: C. Reimann/B. Flem/K. Fabian/M. Birke/A. Ladenberger/P. Négrel/A. Demetriades/J. Hoogewerff/The GEMAS Project Team, Lead and Lead Isotopes in Agricultural Soils of Europe – The Continental Perspective. Applied Geochemistry 27, 2012, 532–542.

Schmahl et al. 2016: W. Schmahl/B. Kocsis/A. Toncala/G. Grupe, Mineralogic Characterisation of Archaeological Bone. In: Grupe/McGlynn 2016, 91–100.

Slovak/Paytan 2012: N. M. Slovak/A. Paytan, Applications of Sr Isotopes in Archaeology. In: M. Baskaran (ed.), Handbook of Environmental Isotope Geochemistry (Springer 2012) 743–768.

Söllner et al. 2016: F. Söllner/A. Toncala/S. Hölzl/G. Grupe, Determination of Geo-Dependent Bioavailable $^{87}Sr/^{86}Sr$ Isotopic Ratios for Archaeological Sites from the Inn Valley (Austria). A Model Calculation. In: Grupe/McGlynn 2016, 123–140.

Stos-Gale/Gale 2009: Z. A. Stos-Gale/N. H. Gale, Metal Provenancing Using Isotopes and the Oxford Archaeological Lead Isotope Database (OXALID). Archaeological and Anthropological Sciences 1, 2009, 195–213.

Toncala et al. in press: A. Toncala/F. Söllner/S. Hölzl/C. Mayr/K. Heck/D. Wycisk/G. Grupe, Isotopic Map of the Inn-Eisack-Etsch-Brenner Passage. In: G. Grupe/A. Grigat/G.C. McGlynn (eds.), Across the Alps in Prehistory (Berlin, in press).

Turner et al. 2009: B. L. Turner/G. D. Kamenov/J. D. Kingston/G. J. Armelagos, Insights into Immigration and Social Class at Macchu Picchu, Peru Based on Oxygen, Strontium, and Lead Isotopic Analysis. Journal of Archaeological Science 36, 2009, 317–332.

Vitvar et al. 2007: T. Vitvar/P. K. Aggarwal/A. L. Herczeg, Global Network is Launched to Monitor Isotopes in Rivers. Eos. Transactions, American Geophysical Union 88, 2007, 325–326.

Voerkelius et al. 2010: S. Voerkelius/G. D. Lorenz/S. Rummel/C. R. Quétel/G. Heiss/M. Baxter/C. Brach-Papa/P. Deters-Itzelberger/S. Hölzl/J. Hoogewerff/E. Ponzevera/M. VanBocxstaele/H. Ueckermann, Strontium Isotopic Signatures of Natural Mineral Waters, the Reference to a Simple Geological Map and Its Potential for Authentification of Food. Food Chemistry 118, 2010, 993–940.

Willmes et al 2014: M. Willmes/L. McMorrow/L. Kinsley/R. Armstrong/M. Aubert/S. Eggins/C. Falguères/B. Maureille/I. Moffat/R. Grün, The IRHUM (Isotopic Reconstruction of Human Migration) Database – Bioavailable Strontium Isotope Ratios for Geochemical Fingerprinting in France. Earth Systems Science Data 6, 2014, 117–122.

JADRANKA VERDONKSCHOT

The (Dis-) Advantages of a Flood in Your Living Room

Landscape as a Decisive Factor for Wetland Settling in Neolithic Europe

Keywords: lakeside settlements, neolithic, resources, theory, northern Alps, Egolzwil 3, Hörnle IA

Acknowledgements

My sincere gratitude goes out to both of my supervisors, Prof. Dr. P. Bueno Ramirez and Prof. Dr. M. Bartelheim, without whose guidance this project would be impossible. I am also very thankful to Dr. K. Schmidt for his help in the geographical aspects of this work and the elaboration of maps. I would also like to thank the anonymous peer reviewer for the comments made on my work.

This research project was partially supported by the SFB 1070 RessourcenKulturen as a Pilot Project and by the DAAD with a scholarship.

Abstract

The present article is part of a broader research project. The PhD project it pertains to assesses Neolithic lakeside settlements from different European regions. By studying different sites' resource management it is hoped to shed light on the initial motives of people to settle wetland areas, and whether these could have been similar or interconnected in different areas.

What is understood by 'resources' in this case is comprised by a dichotomy of 'direct' resources, such as lithics or clay, and 'indirect' resources, which are closer to the ideological and symbolical importance of for example ritual and landscape. The first are studied with the help of data analyses and GIS mapping. The second part is not so straightforward, therefore relying strongly on a theoretical approach.

The different regions are comprised of the northern Alps, southern Alps, the Mediterranean area and the Balkan/Greece area. Each case is supported by two elaborated case studies and a regional overview of the development of settling in that area. In this article the first region, the northern Alps, will be presented with the case studies of Egolzwil 3 (Kanton Luzern, Switzerland) and Hörnle IA (Lake Constance, Germany). Adapting to the framework of this volume and the SFB several aspects concerning the interdisciplinarity of research and theoretical reflections have been included in this work.

1. Introduction

The present article is the result of the Pilot Project carried out for the Collaborative research Centre SFB 1070 RessourcenKulturen of Tübingen University. The goal of this project was to develop a framework for a series of case studies that assess the reasons people in Neolithic Europe had to build and live in pile dwellings, and to carry out the first case study. The aim was to evaluate the possibilities of applying interdisciplinary methods and theories to an archaeological hypothesis. Therefore, part of this article consists of research history and the discussing of theoretical matters. Then, in order to contribute to new visions and not merely write a literature study, this was applied to two case studies, comprising the first study region of this research

project. Apart from this, it is also a small overview of the work achieved so far for the first part of my Doctorate Thesis, carried out in a cotutelle agreement between Tübingen University (Germany) and Alcalá University (Spain). This thesis will consist of the mentioned series of case studies and a full assessment of the hypothesis. Therefore, everything written here should be understood in the light of this double function of the current article.

The simplified question that stands at the very beginning of this project is 'why did people start living in lakeside settlements?' Pile dwellings, and other lakeside settlements, have been studied for over 150 years now. Mainly in the circum-Alpine area, in Central Europe, and Great Britain. But more recently evidences of wetland settlements has been found in Southern Europe too. No direct links have been made as there is a rather wide chronological gap between the settlements in central and in southern Europe. Apart from that, no effort should even be made to try and categorise the inhabitants of these settlements into a single cultural group. This diffusionistic approach, common during the very beginning of pile dwelling research, is neither currently used nor desirable.

Reasons people could have to settle in wetlands and near lakes have been summarised in very simple statements. It has been agreed generally that advantages should be the fertile soil surrounding the site, the proximity of water enabling intensive fishing or the defensive aspect of living in elevated buildings, often on the water. Apart from this, the trading aspect should not be ignored either. It is very probable that pile dwellers had boats to their disposition, found also in the Mediterranean and later Alpine sites. This would highly facilitate transport and enable people to travel considerable distances easily. Nevertheless, these reasons 'in favour' of wetland settling are not more sophisticated or relying on actual evidence than the reasons 'against', such as the humidity and constant need to re-build the short-lived wooden constructions.

Therefore, the aim of the current research project is not to pinpoint a single, specific reason why people decided to settle in wetlands. This would ignore a complex reality, which is made up of many different pieces of information. All we can do is try and reconstruct as many pieces as possible and try to gain some insight into the situation as a whole. As mentioned before, the case studies discussed here are the first of a bigger project. The lakeside settlement of Egolzwil 3, which can be found in the Swiss Luzern Kanton, was chosen because it is one of the oldest known lakeside settlements of Central Europe. The second case study is the slightly later site of Hörnle IA, located on the western side of Lake Constance in Germany. Together they comprise the first region of study: the northern Alps. The other regions that will be added in a later stage of this project are dated back to the Early Neolithic and include the first pile dwelling sites to be found in those areas, this being the southern Alps, the Mediterranean area and the Balkans/Greece. Although Egolzwil 3 and Hörnle IA are later, they represent some of the oldest sites in the circum-Alpine area. In this sense, the sites are connected as they all represent the first evidence of pile dwellings in their respective regions.

2. Research History and the Current State of Investigation

The research history plays a crucial role as pile dwellings have been the subject of research for well over 150 years and have been dealt with in many different ways by researchers in a variety of countries. The research history of this topic has been addressed in many books, such as F. Menotti's 'Living on the Lake in Prehistoric Europe' (Menotti 2004), or other books on pile dwellings (Schlichtherle 1997; Schlichtherle/Wahlster 1986; Grünig et al. 2013).

It was the Swiss school teacher Johannes Aeppli who decided to report the Ober-Meilen site to the Antiquarian Association in Zürich when the lake level dropped in the cold winter of 1853, revealing wooden remains (Menotti 2004). Ferdinand Keller took on the investigation and published the report which would set everything in motion: *Die keltischen Pfahlbauten in den Schweizerseen* (Keller 1854). In this report pile dwellings, which later turned out not to be quite as Celtic as Keller had assumed, were compared to contemporary settlements in New Guinea and New Zealand. Illustrations showed artistic interpretations of small wooden villages elevated on platforms right above the water. This romantic image inspired scholars

and looters both, and together they plunged into the so-called lake-dwelling fever (Menotti 2004).

The prehistoric remains 'hidden' in lakes around the Alps and other parts of Europe were in fact known to many local people. But as we know to be true in archaeology; not only do you always find what you look for, it works the same the other way around. You do not find what you are not looking for. When the research interest became official, many people decided to have a second look at materials that had been discarded earlier.

The level and quality of research at this point varies in every area. As prehistoric archaeology was not a very well developed discipline at the time research was mainly led by motivated amateurs. Any excavating methods were invented on the spot or often even reduced to anyone owning a shovel digging away in the lakemarl. Looters, plundering the sites, formed a big part of the beginning research. This is something we can still notice nowadays in museum archives. Pile dwelling materials were abundant and well preserved, at the same time their discovery coincided with/led to an increased interest in prehistory. As a result, many museums decided that they needed to incorporate more prehistoric material into their collection, and even now many museums still possess impressive amounts of de-contextualised and often random material (Arnold 2012).

Around the time that pile dwellings were first discovered, in 1848, the Helvetic Confederation, made place for the brand new nation-state of Switzerland. Joining different cantons into a single nation was not only a matter of re-drawing borders, the ideological issue was of great importance here too. What the Swiss were missing was an official national discourse. Merging scraps and bits of land where people spoke three different languages and had very varying backgrounds is not all that simple. For obvious reasons it was in the nation's interest to create a common factor, a discourse everybody could get behind so that a common identity could be created. The fact that the pile dwellings finally got their share of attention all around Switzerland in the 1850s and found themselves in the spotlight of the scientific community shortly afterwards seems only logical.

After the fruitful first days of pile dwelling research, it suffered a big blow when the First World War swept across Europe. In most countries research was called to a halt. Even though there are some stories of investigation during the period from the beginning of the First World War to the end of the Second World War, the general image is that this was neither a priority nor a possibility. However, to mention one of the exceptions, pile dwelling research in Germany flourished around this time. Professional excavations were carried out by the newly founded Institute of Prehistoric Research from Tübingen University at the Federsee in 1919. An important figure in research around this time was Hans Reinerth. He dedicated a considerable part of his time and efforts to the study of the Higher Nordic Culture, trying with all his efforts to prove that a more primitive 'West' culture had been replaced by stronger and superior northern people (Keller-Tarnuzzer/Reinerth 1925).

Even after 1945 it took some time before research was back on track in most Central European countries. Nevertheless, afterwards it saw a big boost, which lasts until today. From the second half of the 20th century onwards pile dwelling settlements started to be explored to their full potential. Research methods, as was the tendency in other fields of archaeology too, became more and more scientific (Menotti/O'Sullivan 2013). Especially in wetland archaeology the possibilities of implementing scientific methods are very extensive. Some examples are the very advanced use of dendrochronology, reconstructing the environment with archaeobotanical evidence, isotope-, fitolite- and strontium-analyses, and many more.

The first published finds in Switzerland were the impulse for other countries nearby to start searching for similar lake-dwelling settlements too. This confirms the archaeological rule that have mentioned before, that one will always find what one is looking for. I will also repeat the logical counter-truth to this, stating that if one does not search for something, one will not find it. This simple statement would explain the presumed absence of pile dwelling settlements from other parts of Europe. However, against these odds, in the late 20th cent. pile dwellings were found in Northern Spain (Bosch-Lloret et al. 2011; Tarrús 2008), Central Italy (Fugazzolla Delpino 2004; Fugazzolla Delpino et al. 1993; Fugazzolla Delpino/Mineo 1995), Northern Greece (Facorellis et al. 2014) and the Balkans too.

These Southern European settlements present a different chronology compared to the Central European pile dwellings, being roughly 1000 years older. As they were discovered rather late they have a big advantage, because they were investigated and excavated with advanced technologies. Therefore, these sites provide us with unique information and materials. Apart from this, the fact that these settlements, which are similar in many ways, have been discovered in different parts of Europe and from different chronologies certainly calls for attention. In what ways exactly they are similar will be discussed in a more advanced stage of the present research project.

In the year 2011 pile dwellings were put on the map when the circum-Alpine *Pfahlbauten* were recognised as UNESCO world heritage (Palafittes 2010). Even before this research had reached a very advanced stage, but the combination of the effort that has gone into the preparation of the candidateship and the ideological value of being recognised as world heritage has lifted pile dwelling research to the next level. Apart from this, the fact that they were recognised did not come with ideological value and recognition alone, but also with financial means enabling even more extensive and better research and impulsing many related projects. The results of this are directly reflected in the number of excavations being carried out in the Central European area and the many recent publications (Hafner 2010; Jennings 2014).

However, this fact also deepened the abyss between lakeside settlements research north of the Alps and in the south of Europe. Indulging in the abundance of materials, projects and possibilities the 'Alpine' researchers generally have adopted a very passive position towards the other, earlier, pile dwellings that are known a bit further to the south. On the other hand, said Southern sites also focus on regional developments for a great deal. Although there have been certain initiatives, for example the 'Balkan and Central European lakeside settlements. Sharing old and new archaeological data' project between Greece and Switzerland, the interest and possibilities of combining different research areas could still be explored further. It is, however, a valuable line of investigation, as I hope to illustrate in the following chapters.

3. Methodology

The current project is structured around several case studies. In this article the first two, representing the first research region, are presented. Nevertheless, the inclusion of more regions will follow, leading to a broader overview. For the first part of this study it was important to assess the research history. Taking both previous research and previous research interests into account was deemed important. According to this and with the hypothesis in mind the necessary methodology was developed. For this study no new archaeological data has been collected by excavation or survey, it is based on published data. Though no new archaeological data is presented, an innovative methodological approach is applied. This and the broad geographical frame can be considered the project's main strengths.

As was mentioned before, the Case Studies form the spine of the project, as they provide the opportunity to assess several regions both on a general scale and provide elaborated insights. By studying different sites' environment, set-up and resource management it is hoped to shed light on the initial motives of people to settle wetland areas, and whether these could have been similar or interconnected in different areas. What is understood by 'resources' in this case is comprised by a dichotomy of 'direct' resources, such as lithics or clay, and 'indirect' resources, which are closer to the ideological and symbolical importance of for example ritual and landscape. The first are studied with the help of data analyses and GIS mapping. Different categories are established, such as diet, ceramics, wood, stone and bone. These rely on data collected from literature, which then is assessed and, if possible, evaluated with the help of geographical programs and archaeological methods. When these categories are established it gets slightly trickier, because the 'indirect' resources come into focus: the categories of landscape and ritual and their intangible but palpable effect on the pile dwellers are discussed. For this part, obviously, databases and geographical methods fell short, therefore it was necessary to dig deep into theory and ethnological comparisons. Developing the current study was a process which is too long to describe

here, but it is necessary to dedicate some words at least to the explanation of the used approaches, the importance of interdisciplinarity and this project's take on it.

It has to be said that interdisciplinarity seems to be a rather fashionable topic nowadays, but it also seems to have been elevated from a means of producing new forms of knowledge to an explicit end in itself (Garrow/Yarrow 2010). In many approaches that call themselves interdisciplinary one can recognise a certain unease. Disciplines turn out to have fuzzy borders and the attempt to define one's own discipline and describe what specific aspects of another could contribute to useful results is counterproductive.

Take the troubled relationship of archaeology and anthropology. They are not easily separated as in an academic form they stem from a very similar tradition which only started drawing up borders after the institutionalisation in the beginning of the 20th cent. Not to mention the differences between what is conceived as 'Anthropology' in the North American and the British traditions (Garrow/Yarrow 2010; Gosden 1999). Many anthropologists still seem to be convinced that their discipline is of use for archaeologists, but do not find this relation to be reciprocal (Gosden 1999) as archaeologists are still often thought to be 'out of the scope' (Leach 1973). By not being able to access the same sources of information, archaeology is seen as a restricted practice. This idea has also extended to archaeologists themselves, in the belief that anthropological research can get closer to societies than archaeology ever could, or in the application of scientific methods to justify the science in social sciences.

In the processual tradition archaeologists have 'used' ethnology, mainly 'filling the gaps' of archaeological research (Binford 1962) defining archaeology through anthropological models of society. Also later, the post-processualists have considered ethnoarchaeology useful: 'in order to clothe the skeleton remains of the past in the flesh and blood of living, functioning, acting people' (Hodder 1982, 12).

This type of relationship stems from the previously mentioned belief that an asymmetry exists due to unequal access to data. At the base of all this lies the erroneous assumption, maintained by some, that anthropology, for the simple merit of being able to see and talk to its subjects, has a better chance of understanding. However, this too is a flawed discourse, as the information about underlying symbolic systems one can retrieve from an excavation or from an encounter with an informant is constructed inferentially in both cases (Thomas 2010). It is not archaeology's deficit, but the different approach and framework which define the difference between the disciplines. What is defining is the way archaeology deals with its data. But the fact that past societies can be studied archaeologically, sometimes even exclusively archaeologically, like the prehistoric societies, does not mean archaeology is only relevant for past societies. '... the difference between material culture in an archaeological as opposed to a strictly ethnographic context, revolves around how this issue of temporal fracture between researcher and their subject [...] The difference lies not so much in the temporal fracture between the researcher and their object, but in the temporal fracture within the object itself in archaeology: these remains exist in the present but they are also of the past.' (Lucas 2010, 34 f.).

An example to illustrate this is the Garbage Project, carried out by W. Rathje and C. Murphy. At the University of Arizona a group of researchers decided to systematically, following an archaeological approach, excavate, sift, classify and document garbage dumps (Rathje/Murphy 2001). They were able to carry out an inspiring project, which demonstrates archaeology's relevance in modern society and questions or own methodological and interpretative bases.

An important tendency in archaeology nowadays is the ontological turn, also called the (re)turn to things or symmetrical archaeology (Witmore 2007). Interestingly, also a symmetrical anthropology is on the rise. This development could be used to illustrate the dawning of a new period of research, in which archaeology and anthropology can cooperate in an unexpectedly parallel manner. Breaking through the hierarchy imposed by the object-subject relation and defying the supposedly asymmetrical relation between things (also between anthropology and archaeology) by recognising different ontologies is a development which brings different disciplines and thoughts closer and enables us to

develop a qualitative approach in which actual interdisciplinarity is possible and fruitful.

The use of geographical methods in archaeological research is of a different kind. Without intending to simplify, one could say that geographical methods are in a sense an innate part of archaeology. It provides us with possibilities to map, display and project data as well as aiding with their interpretation. It is a very closely knit relationship which does not struggle with the more identitarian issues all things archaeology and anthropology have. Since the 1960s '[…] a striking series of parallels and convergences have taken place in human geography and archaeology.' (Tilley 1994). Books named 'Geography and Archaeology', and reactions to them called 'Archaeology and Geography', engaging in a subtle discussion with slightly passive-aggressive hints, are absent. They seem to be sufficiently separated not to stand in each other's way and any cooperation seems 'natural'. Nowadays the importance of geography is only growing as archaeology is discovering the value of geographical methods such as GIS.

4. Case Study 1: Egolzwil 3

Similar to how the first pile dwelling site was discovered in Switzerland, also Egolzwil 3 was first found by an interested local. In 1929 Anton Graf from the nearby village Schötz noticed some piles sticking out of the *Wauwilermoos*. Since then the site was subjected to sample drillings in 1932 and excavation and more sample drillings in 1933 (Greber 1951). The first big excavations took place in 1950 and 1952, led by Emil Vogt, who wanted to prove that pile dwelling sites were placed on the lake shore and not in the water (Vogt 1951). This was an important discussion, the *Pfahlbauproblem*, in the mid-20th cent., inspiring a lot of pile dwelling research (Wyss 1989). The site of Egolzwil 3 was used as an example of a lakeshore settlement as the layers of birch underneath houses and the presence of hearths indicated that houses were built directly on ground level (Böllinger 1994). 1952 was an important year too because the first dendrochronological studies of the site were carried out, making it one of the first Swiss sites to have dendro datings. After that research ceased until the *Landesmuseum* initiated further excavations from 1985–1988 (Wyss 1989). Recently, in 2007/2008 Egolzwil 3 was studied again with the help of test drillings and test trenches, checking the state of preservation and gathering new samples for dendrochronology (Capitani 2013). This long and diverse research history has led to a wide diversity of literature. For this case study it was necessary to assess this mosaic and piece together many different accounts.

Thanks to the latest dendrochronology results we know that Egolzwil 3 existed for a timespan of 9 years, sometime between 4280 and 4250 calBC (Capitani 2013). Early excavations already showed that the site had only one period of occupation, this was later confirmed by its short lifespan. Lakeside settlements rarely have long, continuous chronologies in the circum-Alpine area. To explain this, it has been suggested that they were perhaps used as seasonal settlements. However, this has never been proven. Even the evidence from Egolzwil 3, which would seem to be a viable candidate, is not conclusive and rather suggests a short-lived but continuous occupation (Böllinger 1992). The short duration of the settlement is an interesting future point of discussion. However, more case studies are required for the comparison and assessment of this point.

The lay-out of the village has been traced through several excavation campaigns. So far it is assumed that the houses of the settlement were aligned in parallel lines, along streets. This has been deducted mainly by the positioning of the fireplaces and piles. The settlement was delimited by a wooden fence, found by Vogt during his excavations in the 50s. This fence did not seem to serve any defensive purposes as it was rather low and not at all that robust. It rather seems to delimit the settlement and perhaps prevent wild animals from wandering in (Vogt 1951). Egolzwil 3 does not seem to have a central gathering space or any outstanding buildings, serving perhaps ritual or more common social purposes.

4.1. 'Direct' Resources

In this part of the text we will have a look at what could be called the 'direct' resources. In other

words: the raw materials and other practical resources that the inhabitants of Egolzwil 3 had access to. In previous literature the settlement's surroundings have been dubbed as favourable with nearby hunting grounds, fertile lands and grazing lands (Böllinger 1992). This argument of 'favourable' conditions has been used repeatedly to explain people settling in wetlands, together with the assumed 'defensive' value of these sites (Pétrequin 2016). The objective of the following text is to have a closer look at these assumptions and draw some new conclusions if necessary.

4.1.1. Diet

First off is the diet of the Egolzwilers. The animals present on the site were ovicaprides, pigs (of mixed wild and domesticated features), few cattle and wild game such as deer. The ratio of domesticated and wild animals has been calculated as 55,5% - 44,5% (Wyss 1994). In previous literature it has been suggested often that the site represents a mixture of Neolithic and Mesolithic features regarding diet, finding a 'blend of mesolithic hunting and intrusive methods of stock rearing and agriculture' (Higham 1967). These interpretations show the same interpretation tendencies as the research project from the late 20th century, led by René Wyss. He hoped to shed light on the Neolithic transition in that area. However, although Egolzwil 3 had been taken as a flagship example of a Mesolithic lifestyle site with Neoltihic influences, nowadays some researchers find these statements based on weak material evidence (Stampfli 1992). Recently it has been shown that there is a fluctuation in the importance of game animals in lakeside settlements throughout the Neolithic. This would apparently be determined less by cultural differences than has been assumed so far, and more to the effects of climatic factors. Unfavourable climatic periods might have forced people to search for an alternative to unsuccessful agricultural activities (Schibler 2006).

As for the plants and crops, the pattern of their consumption is also very mixed. Traces of cultivated cone wheat, barley, einkorn wheat, emmer wheat, flax and peas were found. It has to be mentioned that cone wheat is a type of wheat which is not autochtonous to this region, but rather comes from the Mediterranean area. But also collected plants and fruits were present. It has not been possible to calculate the consumption of cultivated crops and collected fruit, roots, berries and plants but the evidence we have suggests that many different things were consumed. Egolzwil 3's inhabitants cultivated the land around the settlement, 20% of which was suitable for this purpose according to studies (Böllinger 1994). There were no great clearances and the area was mainly covered by mixed oak woods. Regardless, the environment would have been fit to provide for a minimum of 40–50 people all year long (Böllinger 1994).

Remarkable is the fact that barely any remains of fish and typical birds from lake environments have been found. These would seem an important source of nutrition, seen the vicinity of the lake. A possible explanation for the absence of these fragile remains, however, could be that they were overlooked during excavations.

4.1.2. Ceramics

The next important resource that is discussed are the ceramics. This could even be separated in two parts, discussing the clay and the style separately, but eventually this will not be necessary. Egolzwil 3 is the eponymous site for the Egolzwil culture. The pottery repertoire is not very varied, most vessels are rather uniform, thin-walled rounded shapes with rounded bases of a light grey colour. The rims are not too accentuated, sometimes circular handles can be found under the rim. Many vessels are not decorated, some bear incision or knobs. The material that was used seems very uniform too, course with mainly granite temper, and is assumed to come from a local source (Capitani 2013). Therefore, both style and material seem to be local. The Egolzwil pottery has also appeared at other sites, such as Zürich Kleiner Hafner. Its style is described as west and north oriented with parallels to Cortaillod. The only evidence of external ceramics would be a handful of *Schulterbandbecher*, common in the north of Switzerland. Nevertheless, these could very well be made from local clay too (Capitani 2013).

4.1.3. Wood

According to the pollen analyses, most of the area surrounding Egozlwil 3 consisted of woodlands. Most common were oak, mixed with beech, ash, linden, fir and poplar (Böllinger 1994). The interesting thing is that we can detect a preference or specialisation in the use of wood. For architectural purposes oak was most frequently used. Probably because there were many oak trees around, but this type of wood is also very strong, making it suitable for planks for example.

The most commonly used wood for artefacts would be oak, beech, acorn, hazel and ash. Apart from that there is evidence of a sporadic use of elm, linden, willow, cherry tree, yew, pine, buckthorn and honeysuckle (Wyss 1994). It is evident that the inhabitants of Egolzwil 3 relatively effortlessly had a wide variety of different woods to their disposal.

4.1.4. Stone

Regarding the lithic resources found at Egolzwil 3 their provenance rather than their typology will be discussed, because this was already done in Wyss's (1994) publication. For the purpose of this article, the provenance of the lithic resources has been studied in order to get information about their availability. This was possible thanks to the petrographic analyses carried out for another study (Kienholz 2011). What is striking in the results is that local materials (Kienholz 2011) only make for a 0.7% of the total. This is probably due to the very bad quality of the locally available material. Mainly quartz, radiolarite and glauconite quartzite was used, materials that are difficult to knap and are probably from the surrounding moraine deposits.

To enable a quick overview and later comparison with other case studies, a map was drawn, depicting the location and share of all identified lithic resources (*fig. 1*). Some points are missing as the provenance of some materials was very generally identified as 'Moraine Alps' or 'Malm Jura', which is too vague to assign coordinates.

The distance grid used on the map delimits distances of 25, 50, 100 and 150km. These limits were chosen using the calculation that a person can travel at a speed of approximately 4.5km per hour in

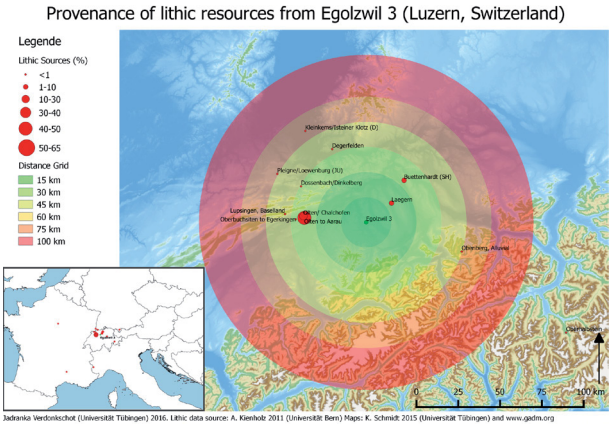


Fig. 1. Provenance of lithic resources from Egolzwil 3 (Luzern, Switzerland).

flat areas without carrying any load (4.4 for women, 4.9 for men (Murrieta-Flores 2010). The first circle represents a distance which could have been travelled within a day and half, assuming that one had to travel slightly slower than 4.5km per hour as the area is not flat, and even slower on the way back as they would be carrying the stones (approx. 3.9km per hour (Murrieta-Flores 2010). The next circle, of 50km, would have been a longer expedition. Using the same assumptions at least three days would be needed to travel there and return to the settlement. It is possible that any material from beyond this limit reached the settlement by trade or exchange rather than being collected by the inhabitants. The projected circles do not represent a realistic vision in all cases, especially when coming closer to the stronger relief of the Alps. Nonetheless, there is work in progress to apply cost-distance calculations to these maps, delimiting more organic and relief-bound boundaries.

The primary flint deposit can be found at a distance of approximately 20km in the Olten Region. 47.1% of the material comes from the Olten-Aarau region making it the biggest import region. The second most important deposit is the nearby Olten/Chalchofen one, with 29.6%. All other deposits, although widespread and varied, make for significantly smaller percentages. It could seem that the lithic resource collection was either not very specialised in Egolzwil 3, obtaining material from many different sources, or that there were strong contacts with other people, delivering lithics to the settlement through exchange or trading.

The problem we have with the material from Egolzwil 3 is that it was found all over the settlement. Due to the floods the archaeological material has been partially spread throughout the settlement, making it very difficult to assign working spaces for example. Nonetheless, at least one has probably been found, with the remains of many different lithic materials (Wyss 1994). This leads to the assumption that much of the lithic artefacts were made on-site and not imported as finished products. Whether the distant raw materials were imported or obtained through long expeditions remains unclear.

4.1.5. Bone and Shell

Most of the bone artefacts can be placed in the typological category of spatulas and chisels, making up 31.8% of the record. Next are the needles and points with 31.8%.The share of any other type of object is considerably lower. 9.3% are amulets, 4.7% harpoons, 2.5% are handles and the rest (14.8%) consists of broken artefacts, *Retuscheure* and 'varia'.

Only the two largest categories have been analysed to determine the type of bone. This showed that male red deer was preferred, its bones and antler making up 45.6% of the total record. Small ruminants follow with 22%, then deer with 14%, ovicaprides with 10.7%, big ruminants with 7% and finally the wild boar with 0.7% (a single item). Although red deer make up the largest category by far, this does not necessarily mean that they were the most frequently hunted animals, as many of the antler artefacts were made of shed antlers (Schibler 2006).

To sum up, the bone material found at the site does not present us with any big surprises. It is fairly similar in species to the bones of consumed animals that, and also the surroundings of the site correspond to the habitat of these animals. Therefore, it seems that the animal resources, both for consumption and for bone and antler material, are strictly local.

An exception to this is presented by the presence of pendants made of triton shells, or *ranellidae*. This is a kind of mollusc common in the Mediterranean area. Together with the previously mentioned influences such as the exogenous cone wheat or the high number of ovicaprides this could indicate strong connections with the Mediterranean area. Adding the widespread lithic sources too, Egolzwil 3 presents the image of a settlement which was well connected.

4.2. 'Indirect' Resources

4.2.1. Landscape/Environment

The site of Egolzwil 3 is located at the Neolithic shore of the *Wauwilermoos* (Wauwil Bog). The Neolithic lake no longer exists nowadays due to draining activities from 1856 onwards and the exploitation of peat. It was never a big body of water with an estimated surface of 5.5km² in the Neolithic and no deeper than 10–15m. The lake was fed by the Ron river, now flowing straight from east to west, which used to make its way through the landscape meandering towards the Wigger, often causing floods. The surrounding landscape is characterised by the Santenberg (690m) looming over the settlement from the north. On the southern side, however, the landscape opens up and provides a view of the high plain between the Jura and the Alps on which the Wauwil Bog is located. This is a Pleistocene ground moraine, in the area of the Reuss Gletscher (Böllinger 1994). The area was undoubtedly of a very humid nature because of the presence of the lake and the often flooding river. The area has been characterised as favourable in terms of soil fertility and natural resources (Böllinger 1992), this can also be deducted from the presence of 30 Mesolithic sites and 10 other Neolithic sites nearby (Stampfli 1992). Going on a little stretch, one could find similarities to people living on the flanks of volcanoes. The soil around there is exceptionally fertile. These agricultural advantages seem to outweigh the risk of occasional eruptions. Nevertheless, this explanation alone does not suffice to grasp the reasons for pile dwellers to inhabit wetlands. Other than the volcanic environment, which is only disastrous in the case of an eruption, there are also very strong disadvantages to daily life itself in the pile dwellers' humid environment. Due to the humidity there is a higher risk of diseases and people are continuously conditioned

by frequent floods and other difficulties a damp environment entails. This is often not taken into consideration. Especially for this case it does, however, play an important role as the *Wiggertal* (Wigger Valley), where Egolzwil 3 is located, lies right at the Alpine foothills, making it one of the coldest climates of the suboceanic zone (Troll/Paffen 1964). Moreover, the broad and open Wigger Valley, which is also overshadowed by the Santenberg, works as a windtunnel between the *Mittelland* and *Zentralschweiz/Voralpen* (Böllinger 1994).

It is therefore safe to say that, although wetland occupations have many positive sides, which might overshadow the exposure to diseases and the problematics of regular floods, this specific wetland area is not the most favourable one.

This presents us both with a problem and a step in the right direction, for, as Tilley says: 'There may be a strong affection for place (*topophilia*) or aversion (*topophobia*), but places are always far more than points or locations, because they have distinctive meanings and values for persons. Personal and cultural identity is bound up with place; a topo-analysis is one exploring the creation of self-identity through place.' (Tilley 1994, 15).

The answer to the question why people settled in this place is to be found in the specific value it possessed for them. People occupying lakeshores and other wetland environments such as marshes around the Alps maintained an intense relation with their immediate surroundings. Although landscapes are never static, wetland environments are especially dynamic, even in a human time perception. This observation can be linked to archaeological remains of floods, house repair and other daily social and cultural practices directly connected to a life not only next to, but with water.

To have a look at this problem from a new point of view it is valuable to bring in some ethnological examples. For one, there are the *ribeirinho* people from the Brazilian Amazon. Ethnographical studies about the *ribeirinhos* state that not only the perception of space is influenced by living on a floodplain, even the perception of time becomes something which is shaped by the water (Harris 2013). Judging from this intense relationship it is a small step to say that the surrounding landscape defined the lake-dwellers' identity strongly. As Tilley said: 'People both live out their lives in place and have a sense of being part of it. Consequently place is fundamental to the establishment of personal and group identities and the formation of biographies. Place is both internal and external to the human subject, a personally embedded centre of meanings and a physical locus for action.' (Tilley 1994, 18).

Nonetheless, if we take the example of the *ribeirinho* people, who also live in an environment which is strongly influenced and conditioned by the presence of water, at first sight Tilley's ideas seem very far off. Harris' ethnographic research on the Amazon floodplains has shown that the people's identity is not so much linked to statics in the landscape as would be the case with other communities (Harris 1998). This is mainly due to the fact that this landscape is ever changing, the floods forever take away or shift any recognisable landmarks and points which could be meaningful to the *ribeirinhos*. Apart from this, many of the people living on the floodplains do not share the same places or spaces as they are on the move most of the time. Although this seems to contradict what Tilley mentions, we could even opt for a slightly different interpretation. First of all, the fact that the landscape is not stable and does not permit the shaping of identity through steady landmarks should mean that the collective identity is not developed in this sense. However, they obviously do have a strong identity. They are so strongly influenced by the water surrounding them that even their perception of time follows the flowing of the water.

Although they might not share the same sense of attachment to a specific place, which would be derived from the stability of meanings associated with it (Tilley 1994), they share a sense of attachement nonetheless.

This cannot be applied directly to the people of Egolzwil 3, but it does offer an interesting insight into how important the coexistence with water must have been. As has been mentioned before, the climate in this region was not very favourable and it was prone to floodings. The choice of Egolzwil 3's inhabitants to live in such close vicinity to the water nonetheless could be based on an ideological significance the water held for them.

4.2.2. Ritual

As is the case for most lakeside settlements, no indications of any ritual activities have been found at the site of Egolzwil 3. The settlement was constructed in a very straightforward manner; square houses, all of very similar dimensions, were aligned in rows. Also the finds do comprise some 'special' artefacts, such as imported lithics or ornaments, nothing seems to fulfil a ritual function. If one really makes an interpretative effort, the necklaces of perforated boar teeth could be mentioned. However, the context of their finding does not suggest any ritual use. All in all, judging by literature and excavation reports it seems that nothing struck a ritual chord with the archaeologists. Apart from this, also the artistic expression of the Egolzwilers seems to have been limited to the simple decorations on pottery. It is true that other pile dwelling sites too represent few artistic or decorative elements, except for a unique case where decorated houses were found in Bodman-Ludwigshafen (Germany). The pile dwellers seem to have been an especially uninspired people in this regard.

Another important point is that of the missing burials. There is no evidence of funerary rites at Egolzwil 3, or nearly any other pile dwelling site. However, this cannot mean that they are completely absent. It is obvious there must be deceased people somewhere, and when dealing with lake dwellers it would not be a far-fetched assumption to say that they disposed of their bodies in the lake, especially regarding the close connection with water. Nonetheless, no evidence that could support this theory has been found. However, when we have a wider look in the region we can get some more information. First of all, sites such as the Oberbipp dolmen or the Schweizersbild burials in Switzerland present us with burials related to Horgen and Pfyn people, which also inhabited lake dwellings (Lichter 2016). As was mentioned before, not much is known about these people in the hinterland, but it is possible they inhabited dry-land settlements too. In any case, the cultural links that can be drawn with contemporaneous pile dwellers are very strong and although we cannot construct a direct parallel for lack of information, these burials do shed some light on the mystery of the missing dead.

4.3. Summary

Due to the cold and frequent floodings the area of Egolzwil 3 had no ideal climatic conditions. However, the direct environment did offer many advantages. Most of the land was covered by forests, providing plenty of construction material. Also the soil was favourable for agriculture. The Egolzwilers were very well adapted to their environment. Their diet consisted of both wild and domesticated animals, cultivated crops and gathered food, combining all available possibilities.

This specific adaptation could mean that the environment was very suitable for living. However, it could also indicate that a varied diet and activity were required for survival. In this case not the directly available resources played an important role in the pile dwellers' decision to settle there, but other ties to the place. This idea is strengthened by the fact that the climate must have posed difficulties, and the local scarcity of other essential resources such as lithics. Lithic material often reached the site from great distances. This does indicate contact with other people, as does the presence of other imported goods and the 'external' features such as cone wheat or the many ovicaprides. It is very probable that the inhabitants of Egolzwil 3 had a strong link to the Mediterranean area.

As was discussed in the chapter about lithics, local material is seldom used. The main sources for obtaining lithic material were located at the considerable distance of 35km as the crow flies. Apart from this, a wide variety of lithics were imported from even greater distances. There is a strong possibility that much of this material reached the site through trade or exchange, again indicating contact with other people.

The lack of any ritual or decorative elements robs us of the possibility to gain more insight into the people's ideological world. However, judging from the close relationship they had with their environment, adapting to it even in spite of the

mentioned disadvantages, this link could have weighed heavily.

5. Case Study 2: Hörnle IA

The site of Hornstaad Hörnle was discovered in 1856/57 by M. Koch. Therefore, it is also mentioned in some of Ferdinand Keller's earliest publications (1858). Nevertheless, it was not until much later that the first excavation took place on this site. Nowadays Hornstaad-Hörnle is located at the very shore of Lake Constance, it is flooded every summer and work on the site is only possible during wintertime, when the lake retreats and the area dries up. The first work was carried out by H. Schlichtherle, who was responsible for several test probings, opening up small trenches in the winters between 1973 and 1978 (Schlichtherle 1990). This was financed by the State Cultural Heritage Department Baden-Württemberg. In 1983 Hornstaad-Hörnle became the focus point for a project of the German Research Council (DFG) 'Siedlungsarchäologie im Alpenvorland'. With the financial help from this programme excavations were carried out under B. Dieckmann until 1993 (Dieckmann et al. 2006). All data and results were meticulously analysed and interpreted, resulting in very exhaustive publications, which grant this site the position of the best studied and interpreted pile dwelling site in Germany. Nowadays the site and its immediate surrounding is a protected area. Moreover, the unexcavated occupation layers are well preserved under lake marl and a reed meadow (Palafittes 2010).

Hornstaad-Hörnle is situated at the tip of the Höri Peninsula, at the western part of Lake Constance. This Peninsula is surrounded by water from three sides, while towards the west the Schiener Berg rises. The site of Hörnle IA is located at the border of an area of shallow water. This settlement is not the only one in this area, as a matter of fact, the surroundings provide a lot of evidence of other, slightly earlier, contemporaneous and later occupation. Some of these have been investigated, others not. In any case, the area seems to have been relatively densely and perhaps continuously settled. Hornstaad-Hörnle IA (3917–3905 calBC) is the oldest known lakeside settlement of Lake Constance and has different phases of occupation with a short interruption due to a fire. But to the northeast Hörnle II can be found (3869 BC), a bit further Hörnle III which would have been a contemporaneous settlement. Hörnle IV, V and VI have also been named, all later. Nevertheless, none of these sites is as well studied as Hörnle I. As a matter of fact, from Hörnle V and VI only some piles are known, and Hörnle IV was found during a period of very low water in 1949 but has not been spotted since. This potentially strong presence of contemporaneous and posterior sites is important to understand the dynamics of the area.

The settlement extended over a total area of at least 100 x 80 metres, its size varying strongly in different chronological moments. The oldest houses, built during the first construction phase, were generally approximately 3.5 metres wide and 8 to 9 metres long. From the excavated areas it seems that these first houses were built in lines parallel to the shore looking over the lake. Also in the following phases after the fire, houses were of similar dimensions. What did change was their orientation. The image of Hörnle that is provided by reconstructions in publications seems rather messy, with houses in many different orientations, and lacking a systematic order. Nevertheless, a valuable observation made by R. Ebersbach (2013) is that often sites are only partially excavated and the lay-out is imagined by copy-pasting the found structures onto the whole extension of the settlement. In this case, only 1262m^2 of the estimated 3900m^2 for the total settlement were excavated by 1993 (Maier and Vogt 2001). Therefore, the interpretations regarding organised or disorganised seeming house lay-outs is partially artificial.

The lack of evidence for ground-level hearths or floors suggests that the houses had a raised floor level. For the construction *Pfahlschuhe*, little wooden 'boots' were used to fasten the piles in the lake marl and basin clay. The houses consisted of paired posts. The walls were usually made with wattle and daub techniques or filled with brushwood. The floors were covered with loam and lake marl, for the hearth areas clay was used. Housefloors were elevated approximately 2–3 metres from the ground and there are hypotheses stating that the

front could have been used for working purposes and the back part was used for resting and sleeping (Matuschik 2011). The houses themselves were not very big, and it has been estimated that they were inhabited by small family units of 5 to six individuals (Maier/Vogt 2001). With a probable presence of about 40 houses, this means that there would be a maximum population of 300 to 350 individuals.

Although so far no evidence for specific stables, barns or workshops have been found in pile dwelling settlements (Ebersbach 2013), it has been suggested that specialised areas, for example for bead production or fishing, could be recognised within this settlement. Apart from this, according to Dieckmann's findings each house constituted its own *Wirtschaftseinheit* (economic unit), with its own food storage and private tools (Maier/Vogt 2001).

5.1. 'Direct' Resources

5.1.1. Nutrition

As in many Neolithic lakeside settlements around the Alps, also Hörnle IA's inhabitants enjoyed a mixed diet, combining both cultivated and collected plants and both domesticated, and hunted animals.

We have data from three different layers of habitation in Hörnle IA. Each of these presents slight differences. Nonetheless, for the purpose of this study this will not be taken into account. Very slight changes, in this case talking about an increase of 2% in the presence of cattle bones from one layer to the next for example, do not contribute significant information to this study.

Generally, the biggest amount of seeds belongs to gathered fruits such as for example raspberries. One has to keep in mind, that this prevalence of fruits can partially be explained by the fact that they contain many seeds that are likely to be preserved and found in great quantities, whereas other types of plants are less traceable. The next important category would be that of field weeds. However, these are probably part of the inventory because of their presence among the harvested cereals, not because they were actually used or eaten. Then there are remains of poppy seeds, cone wheat, barley, einkorn wheat, emmer wheat, cereral threshing remains, aquatic plants, flax, flax threshing remains, forest plants and peas. Some of the remains that were found are not autochtonous to the region. Some examples of this are the peas (*Lathyrus sativus*), the cone wheat crops (*Triticum turgidum)* or herbs such as dill, parsley and celery. Their presence points to Mediterranean influences (Maier/Vogt 2001). The collection of different fruits and plans was still very important too.

All in all, a great variety of different food remains is present. The cereal remains come both from storage contexts or were processed to make bread or porridge. Also the burned layer, giving us a real snapshot of the moment of the fire, shows a great variety of remains. This can only be explained by the storage of different foods, otherwise the evidence would be more seasonally bound.

Almost all of the land around the site was suitable for cultivation. Beginning at circa 300 metres from the site and at a height starting at 400 metres. Within 1km around the site the possibly available land is 60ha, for 1.5km around the site this is 150ha. Based on the cereal remains, it is assumed that the people needed a surface of approximately 18.3ha, when the cultivation of some poppy, flax and peas are added to this the total land should span 15 to 20ha (Maier/Vogt 2001). Two possibilities for the agricultural management currently exist; either one big field was cleared, or the Hornstaaders cultivated small clearances in the forest (Baum 2014). Possibly land cultivation was also managed on a household-scale, as was shown by a study regarding the use of manure (Styring et al. 2016).

The importance of fish is always underestimated due to insufficient excavation methods. Nevertheless, it has been argued in literature that this must have been an important point in the choice of settlement (Dieckmann, Harwath, and Hoffstadt 2006). As for the bone fragments that have been found in the different layers of Hörnle IA, these are dominated by the presence of mainly cattle, domesticated pigs and deer. Also remains of ovicaprides, aurochs and wild boar have been found, but to a smaller extent (Dieckmann et al. 2016). What is striking here is the strong presence of cattle in comparison to only few ovicaprides, painting a very different picture from the animal management in Egolzwil 3.

5.1.2. Ceramics

The pottery found at Hörnle IA has been described thoroughly, both the stylistic features and the material used to make it. 33 ceramic samples and various nearby clay sources were analysed microscopically. Low calcium carbonate levels indicated that the pile dwellers did not exploit lacustrine clay sources, but went further into the inland to get their clay (Scharff 2011). The pottery is usually tempered with granite and recycled ceramic temper. More rarely with quartz, calcite and sand.

Silk-matt surfaces are prevalent, polished or roughly smoothed surfaces are rare, there are no roughened surfaces at all. 19% of the vessels are decorated. The decoration and shape of different vessels is attributed to the 'culture' they are supposed to belong to. In Hörnle IA many different types of pottery were found, corresponding to the material associated with *Stichbandkeramik*, *Rössen*, *Schulterbandgruppen* and more. Nevertheless, the interesting part is that the majority of this pottery was made with local clay. This indicates an even stronger influence as the material is not merely imported, but created locally (Scharff 2011). Ideas have been transmitted to the Hornstaaders to such extent that they reproduce them. This observation breaks down the panorama of countless 'cultures' co-existing in Neolithic Central Europe, proving that there were stronger contacts and influences. It seems strange that much of the material present in the hinterland, Hegau, such as *Linearbandkeramik* or *Hinkelstein*, is absent from the Lake Constance area (Scharff 2011).

Another important type of decoration found at the site is the one used for the so-called gynaecomorphic vessels, pottery that is supposed to represent feminine shapes. This kind of vessels is known from the rest of the western Constance Lake area too. These vessels represent one of the few possible ritual indications. An interesting link has been made with a decorated house found at the site of Bodman-Ludwigshafen, showing sculpted breasts on its wall. Investigations regarding this discovery are still going on, but there is a tendency to ascribe these features to an ancestral cult. Taking into account the contemporaneous megalithic monuments, which are strongly linked to ancestral cults and can even show similar decoration, this seems like a very promising line of investigation.

Apart from pottery, also many ornaments have been found in Hörnle IA, representing a very broad spectrum of decorative elements. Almost all of these ornaments are said to have been very common during the 5th and the beginning of the 4th mill. BC in Central Europe.

5.1.3. Wood

The surroundings of Hornstaad Hörnle were very rich in trees. Therefore, it is assumed that its inhabitants had no trouble finding this resource. Wood was of great importance for the settlement, mainly because it was the most important building resource. Apart from this, wood was also used for vessels. Bowls and cups made of wood or tree bark were found. Also nets and ropes were made of parts of trees and plants (Schlichtherle 1990).

According to studies regarding the environment the immediate surrounding of the settlement was covered by oaks and ash trees. Also the first houses were made of this wood, later partially switching to other wood types that can be found a bit further away from the settlement. This is not surprising, as most of the pile dwelling structures show preference for oak wood as a building material due to its hard and strong characteristics. However, at this specific site the preference for oak known from other sites correlates with these trees growing around the settlement. The conditions can therefore be dubbed as very favourable (Maier/Vogt 2001).

More distant from the lake, in slightly drier conditions, beech is known to have grown. This soil would then be favourable for agriculture. In any case, many different types of wood were used for different purposes, although mainly architectonical. The most frequently used trees were ash, oak and alder. All these types of woods were located in the immediate vicinity of the settlement. According to environmental reconstructions, Hörnle IA seemed to hold a very favourable position in this respect.

5.1.4. Stone

The distribution of stone resources throughout the settlements suggests house-bound preferences for specific materials. Nonetheless, general patterns can be deduced, in spite of fluctuations between houses and different habitation layers.

Remarkable, especially in comparison with the last case study, is that almost all of the processed stones were of regional provenance. The most important materials would be *Jurahornstein*, fresh material found around the Alb and Randen, and Jaspis, from residual deposits in Hegau. The third most important material would be *Hornstein*, from the glacial *Schotterterrassen* of Mühlhausen-Ehingen. This material was very typical in the Neolithic Lake Constance area. To conclude the list of local materials only the *Plattenhornstein* from the nearby Schiener Berg is missing. The first two sources cover nearly 100 % of the used material in Hörnle IA. The latter two were not used very frequently. The remaining stone material that was found at the site is provenient from approximately six other sources. Nevertheless, the percentage of this material is minimal. Most probably the presence of these items signifies contacts with other people, trading and/or exchanging material. Therefore, the raw material provisioning of Hörnle IA was almost exclusively local, drawing mainly from two sources, which were located within a distance of at least 25, but less than 50km. This means, according to the same calculations used for the Egolzwil 3 case study, that the residual deposits of Hegau were located within a total travelling distance of approximately 1.5 days. The *Jurahornstein* source, which seemed to provide the most commonly used material, required a slightly longer expedition of perhaps two or three days in total (*fig. 2*).

It is necessary to mention that the percentages that are used for the map are not exact, but approximate estimations. In the publication of the Hornstaad lithics (Hoffstadt 2005) the author uses many different percentages, reflecting the ratio of lithic types within different houses and layers. However, even these calculations are said to be inaccurate as the settlement has not been excavated as a whole and it is possible that the recovered material does not offer an accurate reflection of the site. This being said, for the current database a general average percentage of the materials was used. This, although it might not reflect the exact nuances, does bring us close enough to the information we need to assess the vicinity and exploitation of lithic deposits.

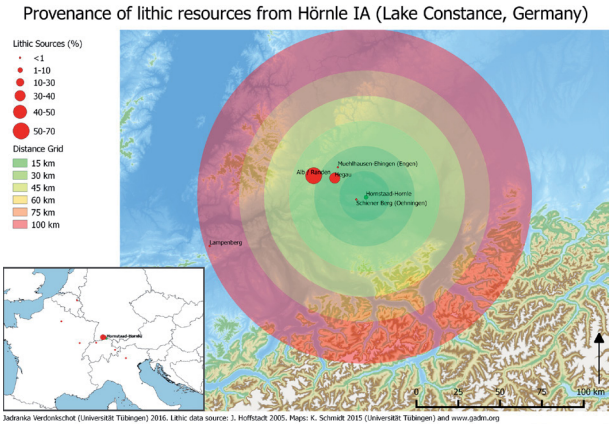


Fig. 2. Provenance of lithic resources from Hörnle IA (Lake Constance, Germany).

Other stone objects that were found on the site were either imported or produced after an 'importation of ideas' as they are clearly 'foreign elements'. Examples of this would be the stone artefacts from Monte Lessini and Monte Gargano in Italy, the Central Alps, Northern and Eastern France and the southern Netherlands. Axes similar to those that are known from French Brittany, usually made of Jade, but also axes similar to those found in Western Hungary in the Lengyel culture appear in Hörnle I. This broad network stretching to all corners of Europe places Hörnle I in a very central position.

5.1.5. Bone and Shell

The bones used for the creation of bone and teeth artefacts such as tools or various ornaments and pendants correspond to the same animal species that were used for consumption. For the ornaments mainly wild animals were used, as is commonly seen in other settlements too (Heumüller 2009). Apart from this, very specialised studies regarding the imported material have been carried out, proving that much of the jewellery and ornaments were possibly made of shells that are

common in distant parts such as the North and Baltic Sea in northern Europe, southern France or Sardinia (Dieckmann et al. 2016). Discussing these long-distance contacts, although it has nothing to do with bone or shell artefacts, it is also necessary to mention the copper disc that was found inside one of Hörnle I's houses. This is an exceptional find as metal objects are very rare in this region at the time. It is thought that the disc has been imported from Eastern Central Europe, as the production of this kind of copper artefacts is more common there in this period (Dieckmann et al. 2016). It is not possible to say what role this disc played exactly in the lives of Hörnle I's inhabitants, but it does confirm a very wide spread trading network, as was already indicated in the paragraph about stones.

5.2. 'Indirect' Resources

5.2.1. Landscape/Environment

The settlement is located on a small triangular 'peninsula' protruding into the water at the western part of Lake Constance. Hörnle IA was placed near the lakeshore, meaning that it was flooded throughout big parts of the year (usually summer) and stood on dry land only during the wintertime, much like it is nowadays. Behind the settlement, away from the lake, the Schiener Berg rises 708 metres above sea level. The settlement itself was set at approximately 394/395 metres above sea level. Those more than 300 additional metres, sheltering the settlement from the landside, consist mainly of molasses.

It has been suggested that the settlement, in the very early stages of settling, was placed on water and not dry land. This conclusion has been reached as no evidence of the growth of any plants or trees were found underneath the first traces of settlement. Therefore, the floor was most probably covered by water.

The environmental conditions seem to have been favourable. People presumably still had to deal with the constant humidity and the effects this entails, but at least the rest of the area seems favourable. The settlement enjoys a south exposition to the sun and is somewhat protected by the Schiener Mountain. However, an important point is the fact that the surroundings were flooded on a very regular basis. These frequently changing conditions do a lot of damage to the architectonical wood, not to mention the difficulties posed to the inhabitants who suffer the consequences of having periodically flooded houses.

Again, to widen our perspective and try to understand the reasons why people would settle a wetland landscape, prone to flooding, some ethnographic parallels will be included. We have previously seen the *ribeirinhos* and their special relationship to water, defining their identity and even going so far as to condition their time perception. However, they are not the only possible example. Already in the beginning of pile dwelling research ethnographical parallels were drawn, although it was for all the wrong reasons. Ferdinand Keller, in his first publications, happily referred to the people of New Guinea, thus creating a very real and romantic image of the pile dwellings. In those times also another researcher sought parallels for the lake dwellings. The Marquis de Nadaillac, a renowned French anthropologist and palaeontologist included an account of prehistoric pile dwellings in his book 'Manners and Monuments of Prehistoric Peoples'. Here we find a list of references, such as the fact that Herodotus describes how the people of a lakeside settlement on Lake Prasias withstood an attack of the Persians. Or as Alonzo de Ojeda, who decided to name a group of stilt houses on a lake 'Venezuela', as they reminded him of his native Venice. Many others apparently also encountered pile dwellings on lakes or rivers during their travels. Sir Richard Burton found them in Dahomey, Captain Cameron in Central Africa and the Bishop of Labuan in Borneo. As contemporary examples Celebes, New Guinea, Java, Mindanao or the Caroline Islands are mentioned (Nadaillac 1892). It is clear that the lakeside settlements in Central Europe are by no means an exception, and investigation of the mentioned examples will be an important part of further research.

5.2.2. Ritual

The difficulty of ritual interpretations for pile dwelling settlements has been discussed in the previous Case Study. For Hörnle IA the situation is not very

different. Although some jewellery and the previously mentioned gynaecomorphic vessels have been found, no other evidence of anything that could be anything but strictly functional were present.

Naturally, no burials that could be directly related to the settlement were found. However, there is evidence of a contemporaneous burial ground in the hinterland, more specifically: Engen-Welschingen, nearby one of the settlement's main lithic sources (Hald/Wahl 2016). The conclusions regarding this finding have been that there were people living in this area, called Hegau, following similar cultural traditions as the pile dwellers, based mainly on the found pottery and ornaments. Therefore, it has been said that it could be possible that the pile dwellers buried their own dead in a similar fashion nearby the lake-dwellings. In this seemingly logical reasoning, two important shortcomings can be found. First of all, the hinterland here was studied well, as opposed to most other cases, and the settling patterns there are still unclear, yielding few results. On the other hand, if the pile dwellers had utilised similar burial sites for their deceased nearby the settlement, at least in some cases evidence should have been found. We are therefore left with two other hypothetical possibilities: the earlier mentioned idea that pile dwellers disposed of their deceased in the lake, leaving behind no traces. This would also mean that their contemporaneous dry-land neighbours had different burial rites, indicating cultural differences and thus to an isolation of pile dwellers. This is a line of thoughte which I would not like to reiterate, as no other evidence for this isolation of pile dwellers has been found. Another possibility could be that the burial site that was found is actually a final resting place for the pile dwellers. In this specific case, we know that the location was known to them as it is very close to a frequented lithic source.

5.3. Summary

As was mentioned earlier, the area held more settlements than Hörnle IA alone, evidence from the Mesolithic has been found, as well as a contemporary settlement (Hörnle III) and several posterior sites. In this sense, Hörnle IA was no exceptional site, but rather another expression of many people who considered this area as a favourable place to settle. In the previous pages different reasons for this 'popularity' have been discussed in an attempt to see whether it would rather be the 'direct' or the 'indirect' resources that conditioned life on the Höri Peninsula.

The settlement of Hörnle IA was without a doubt situated in a very favourable area, as far as resources go. Most of the necessary resources such as wood, lithics, cultivable land, etc. were located within half a day walking distance (one way). It is also visible that people seemed to have used what was close to them. For example, when looking at the wood that was used for architectural purposes, it seems probable that the wood used for the first houses came from the immediate vicinity of the site, and only later this expanded a bit. Most of the surrounding area was suitable or even favourable for agriculture. The only inconvenience would be that most of the area was covered by forest. Nevertheless, by cutting down trees for building purposes probably small clearances were created, which then were cultivated. As for the lithic resources, this site shows a slightly different pattern than Egolzwil 3. Instead of having many different small sources, the obtaining of lithic raw materials is focused on two spots nearby the site, within a walking distance of 1–3 days (to and back). Other sources, which are located further away could be attributed to long distance trading networks.

As for the indirect resources, the landscape seems to have played an important role in this case too. But in difference to Egolzwil 3, this region was definitely favourable in all necessary resources. A similarity is that this area had also been settled previously and posteriorly.

6. Regional Overview

To conclude it is necessary to incorporate a short regional overview of the studied region too, presenting a broader picture. Also, in this way it should be clarified that it is not intended to set the discussed lakeside settlements apart as special settlements, isolating them from other contemporaneous sites.

The circum-Alpine region stretches from south-eastern France to Slovenia. The Alps seem

to impose a barrier between the southern and the northern part, but it has been proven that there was indeed interaction across the Alps. However, the lake dwellers did not settle within the Alps themselves, in spite of the presence of small lakes. This could perhaps be attributed to climatic considerations. Many climatic studies, both from the 70s and recent work, have shown that the region was subjected to rapid climate fluctuations in the Holocene, making life so close to the water even more complicated. Nonetheless, people did decide to inhabit the lakeshores north and south of the Alps in great numbers. As a matter of fact, the prevalent prehistoric settlement type in the region north of the Alps is that of lakeside settlements, or pile dwellings. These sites started to appear in the Neolithic around 4300 BC, bringing the first evidence of the Neolithic way of live to this region and kept appearing until the Iron Age around 700 BC. There were many times in which no lakeside settlements seem to exist. The question whether this could be due to climatic changes, or rather because of cultural change still occupies researchers. Recently Benjamin Jennings made a very interesting contribution to the topic (Jennings 2014), and it can be said that the demise of pile dwellings is still better studied than their beginning. Some attempts to explain it have been made, but they usually do not to stretch beyond a rather general account (Pétrequin 2016).

As was mentioned before, the lakeside settlements were the most common and often only settlements found in prehistory in the northern Alpine region. This seeming lack of other sites can probably partially be attributed to the fascination for lakeside settlements that started around the 1850s. Research was strongly focused on this, leaving the hinterland for what it was. Nevertheless, in recent years investigations have been trying to level this inequality. Results from Swiss investigations already indicate several land settlements between the Jura and the Alps and other evidence for dryland settlements, such as the Oberbipp dolmen. Also for the area around Hörnle IA similar studies have been carried out. Although up to now not too many contemporaneous settlements have been found, the image of lakeside settlements standing all alone in the Neolithic is shifting.

7. Final Considerations

The final part of this article is not a conclusion, as much work is still left to be done, but rather a recap of the current state of research. The main question, posed at the beginning of this article, remains unanswered, it is still not clear at what point and for which reasons people **started** settling wetlands. Further research is required in order to find a possible answer. The PhD project, of which this article is a mere preview, focuses on this, and will hopefully contribute further information. However, what has been proven for now is that the formerly suggested reasons for settling in wetlands, such as defence or a suitable environment, are too simplistic. The settlements studied do not have a defensive character and the disadvantages of the wet environment and the specific climatic conditions may have nearly outweighed the advantages posed by the surrounding lands (*fig. 3*). Therefore, we are looking at a complex equilibrium of motives, in which the identity formed by the landscape could play a bigger role than was previously thought.

The case studies from other regions are missing in this overview, but after assessing the first two several preliminary observations can be noted. First of all, both of the sites are part of an extensive network of contacts, Hörnle I even more so than Egolzwil. The idea of an isolated position within the circum-Alpine can be rejected. Second, a certain form of dynamicity can be recognised in this active contact and trading network. If architecture can indeed reflect certain social aspects (Schubert 2010), the short-lived settlements with the even more short-lived and ever changing buildings due to repair and maintenance confirms the former. This could mean that lakeside settlements did not necessarily host a uniform identitarian or ethnical group (Ebersbach 2016). Finally, the absence of anything bearing ritual or symbolical meaning in these settlements makes it complicated to assess the importance people really ascribed to the water. The sensory experience might seem a peculiar thing to take into account in archaeology, but it is a valuable factor nonetheless and it is gaining terrain in research (Hamilakis 2015). We should take a moment to appreciate the sensory experience of

Fig. 3. Advantages or disadvantages?

what it means to live in such proximity to water. Proximity is not even the correct word here, as people are living **with** water. Imagine being surrounded by water all the time, feeling its humid touch not only on your skin but a reflection of it on every object, every material. To hear the lapping of the waves against the piles or the lakeshore, day in day out until you get so used to it you only notice it in the silence that takes its place once you walk away into the forest or on an expedition. It seems unthinkable that such strong and conditioning factors would not be reflected in people's behaviour and identity. Nevertheless, there is nothing tangible that could confirm this. Apart from this, the hypothesis is neither that lakeside settlers belong to a different group than contemporaneous people living in dry-land settlements.

Here it becomes clear that the current study tries to walk a fine line between setting lakeside settlements apart as an isolated phenomenon and attributing ritual and symbolic meanings to the close connection their inhabitants maintained with water. On the one hand, it is in no way intended to discredit the relatively recently won insight that lakeside settlements cannot be attributed to a specific culture but are 'just' another type of prehistoric settlement. This is an important advance in research since the last century, and there is no evidence that suggests a different interpretation. The current work also relies on a seemingly conflicting assumption. Namely, that the pile dwellers maintained a special relationship with their environment and the strong presence of water in any form. There are many ethnographic examples indicating people who have such an strong link with water and also from other historiographic sources we could find inspiration for this idea. This leads to possible interpretations that do not fit the current framework in research. Therefore, a closer look is required not only at the material, but also at nuancing existing limitations regarding concepts such as identity. Further research is required and is actually underway in the form of the author's PhD.

Jadranka Verdonkschot
Institute of Prehistory, Early History and Medieval Archaeology
Schloß Hohentübingen
Burgsteige 11
D-72070 Tübingen
jadranka@verdonkschot.nl

Bibliography

Arnold 2012: B. Arnold, The Lake-Dwelling Diaspora. Museum, Private Collectors and the Evolution of Ethics in Archaeology. In: Menotti/O'Sullivan (eds.), The Oxford Handbook of Wetland Archaeology. Oxford University Press (Oxford 2012) 875–892.

Baum 2014: T. Baum, Models of Wetland Settlement and Associated Land Use in South-West Germany during the Fourth Millennium B.C. Vegetation History and Archaeobotany 23, 2014, 67–80.

Binford 1962: L. Binford, Archaeology as Anthropology. American Antiquity 28, 1962, 217–225.

Böllinger 1992: T. Böllinger, Wirtschaft Und Umwelt Des Jungsteinzeitlichen Wohnplatzes Egolzwil 3. PhD-Thesis Universität Basel (Basel 1992).

Böllinger 1994: T. Böllinger, Samenanalytische Untersuchung Der Frühjungsteinzeitlichen Siedlung Egolzwil 3. Dissertationes Botanicae 221 (Stuttgart 1994).

Bosch-Lloret et al. 2011: A. Bosch-Lloret/J. Chinchilla/J. Tarrús/A. Ferran, El Poblat Lacustre Del Neolític Antic de La Draga. Excavacions 2000–2005 (Girona 2011).

Capitani 2013: A. Capitani, Egolzwil 3. Die Keramik Der Neolithischen Seeufersiedlung. Kantonsarchäologie (Luzern 2013).

Dieckmann et al. 2016: B. Dieckmann/A. Harwath/M. Heumüller/J. Hoffstadt/U. Maier/I. Matuschik/A. Schwoerbel/E. Stephan/P. Schweizer-Strobel/A. Styring/H. Schlichtherle/B. Theune-Großkopf, Eine Kurze Dorfgeschichte – Hornstaad-Hörnle IA Am Bodensee. In: Schlichtherle/Heumüller/Haack 2016, 80–92.

Dieckmann et al. 2006: B. Dieckmann/A. Harwath/J. Hoffstadt, Hornstaad-Hörnle IA. - Die Befunde Einer Jungneolithischen Pfahlbausiedlung Am Westlichen Bodensee. Siedlungsarchäologie Im Alpenvorland 9 (Stuttgart 2006).

Ebersbach 2013: R. Ebersbach, Houses, Households and Settlements. Architecture and Living Spaces. In: Menotti/O'Sullivan (eds.), The Oxford Handbook of Wetland Archaeology (Oxford 2013) 283–301.

Ebersbach 2016: R. Ebersbach, Neues Haus – neue Nachbarn. Warum die Pfahlbauer so oft umzogen. In: Schlichtherle/Heumüller/Haack 2016, 143–145.

Facorellis et al. 2014: Y. Facorellis/M. Sonfronidou/G. Hourmouziadis, Radiocarbondating of the Neolithic Lakesidesettlement of Dispilio, Kastoria, Northern Greece. Radiocarbon 56.2, 2014, 511–528.

Fugazzolla Delpino 2004: M. A. Fugazzolla Delpino, Su Alcuni Funghi Rinvenuti Nel Villaggio Neolitico de "La Marmotta." Bullettino di Paletnologia Italiana 95.13, 1–20.

Fugazzolla Delpino et al. 1993: M. A. Fugazzolla Delpino/G. D'Eugenio/A. Pessina, "La Marmotta" (Anguillara Sabazia, RM). Scavi 1989. Un Abitato Perilacustre de Etá Neolitica. Bullettino di Paletnologia Italiana 84.2, 197–267.

Fugazzolla Delpino/Mineo 1995: M. A. Fugazzolla Delpino/M. Mineo, La Piroga Neolitica Del Lago Di Bracciano ("La Marmotta 1"). Bullettino di Paletnologia Italiana 86.4, 197–267.

Garrow/Yarrow 2010: T. Garrow/D. Yarrow, Archaeology and Anthropology. Understanding Similarity, Exploring Difference (Oxford 2010).

Gosden 1999: C. Gosden, Anthropology & Archaeology. A Changing Relationshop. Routledge (London 1999).

Greber 1952: A. Greber, Auf den Spuren des Steinzeitsmenschen. Bericht über Die Ausgrabungen in Egolzwil Im Jahre 1950. Heimatkunde des Wiggertales 13, 1952, 4–17.

Grünig/Hafner/Klügl 2013: M. Grünig/A. Hafner/J. Klügl, Die Pfahlbauer. Am Wasser und über Die Alpen. Archäologischer Dienst des Kantons Bern (Bern 2013).

Hafner 2010: A. Hafner, Pfahlbauten rund um die Alpen. Kulturen des 5. und 4. Jt. v. Chr. im zirkumalpinen Raum. In: C. Lichter (ed.), Jungsteinzeit im Umbruch. Die "Michelsberger Kultur" und Mitteleuropa vor 6000 Jahren (Karlsruhe 2010) 104–113.

Hamilakis 2015: Y. Hamilakis, Arqueología y los sentidos. Experiencia, memoria y afecto. JAS Arqueología (Madrid 2015).

Hald/Wahl 2016: J. Hald/J. Wahl, Weit weg von den Pfahlbauten. In: Schlichtherle/Heumüller/Haack 2016, 200–201.

Harris 1998: M. Harris, The Rhythm of Life on the Amazon Floodplain. Seasonality and Sociality in a Riverine Village. The Journal of the Royal Anthropological Institute 4.1, 1998, 65–82.

Harris 2013: M. Harris, Rhythm of Wetlandlife Seasonality and Sociality. In: The Oxford Handbook of Wetland Archaeology (Oxford 2013) 749–760.

Heumüller 2009: M. Heumüller, Der Schmuck Der Jungneolithischen Seeufersiedlung Hornstaad-Hörnle IA Im Rahmen des Mitteleuropäischen Mittel- Und Jungneolithikums. Siedlungsarchäologie Im Alpenvorland 10 (Stuttgart 2009).

Higham 1967: C. Higham, Stock Rearing as a Cultural Factor in Prehistoric Europe. Proceedings of the Prehistoric Society 33, 1967, 84–101.

Hodder 1982: I. Hodder, The Present Past. An Introduction to Anthropology for Archaeologists (Croydon 1982).

Hoffstadt 2005: J. Hoffstadt, Die Untersuchung Der Silexartefakte Aus Der Ufersiedlung Hornstaad-Hörnle IA (Stuttgart 2005).

Jennings 2014: B. Jennings, Breaking with Tradition. Cultural Influences for the Decline of the Circum-Alpine Region Lake-Dwellings (Leiden 2014).

Keller 1854: F. Keller, Die Keltischen Pfahlbauten in Den Schweizerseen (Pfahlbauten, 1. Bericht). Mitteilungen Der Antiquarischen Gesellschaft in Zürich 12.3, 1854, 1–100.

Keller-Tarnuzzer/Reinerth 1925: K. Keller-Tarnuzzer/H. Reinerth, Urgeschichte Des Thurgaus: Ein Beitrag Zur Schweizerischen Heimatkunde (Frauenfeld 1925).

Kienholz 2011: A. Kienholz, Die Silices aus der Neolithischen Siedlung Egolzwil 3 (Kt. Luzern). (Master Thesis Universität Bern 2011).

Leach 1973: E. Leach, Concluding Address. In: The Explanation of Culture Change: Models in Prehistory: Proceedings of a Meeting of the Research Seminar in Archaeology and Related Subjects Held at the University of Sheffield (London 1973) 761–771.

Lichter 2016: C. Lichter, Einzeln? Doppelt? Kollektiv? Vom Umgang mit Den Toten. In: Schlichtherle/Heumüller/Haack 2016, 194–197.

Lucas 2010: G. Lucas, Triangulating Absence: Exploring the Fault-Lines between Archaeology and Anthropology. In: T. Yarrow/D. Garrow (eds.), Archaeology and Anthropology: Understanding Similarity, Exploring Differencen (Oxford 2010) 28–39.

Maier/Vogt 2001: U. Maier/R. Vogt, Botanische und Pedologische Untersuchungen zur Ufersiedlung Hornstaad-Hörnle IA (Stuttgart 2001).

Matuschik 2011: I. Matuschik, Die Keramikfunde von Hornstaad-Hörnle I-VI. Besiedlungsgeschichte der Fundstelle und Keramikentwicklung im Beginnenden 4. Jahrtausend v. Chr. Im Bodenseeraum. Siedlungsarchäologie Im Alpenvorland 12 (Stuttgart 2011).

Menotti 2004: F. Menotti (ed.), Living on the Lake in Prehistoric Europe. 150 Years of Lake-Dwelling Research (London 2004).

Menotti/O'Sullivan 2013: F. Menotti/A. O'Sullivan (eds.), The Oxford Handbook of Wetland Archaeology (Oxford 2013).

Murrieta-Flores 2010: P. Murrieta-Flores, Travelling in a Prehistoric Landscape. Exploring the Possible Influences That Shaped Human Movement. In: Making History Interactive. Computer Applications and Quantitative Methods in Archaeology (CAA). Proceedings of the 37th International Conference, Williamsburg, Virginia, United States of America, March 22–26, 2009. British Archaeological Reports S2079 (Oxford 2010) 258–276.

Nadaillac 1892: J. Nadaillac, Manners and Monuments of Prehistoric Peoples (London 1892).

Palafittes 2010: Nominationsdossier (2010) - Palafittes - Prähistorische Pfahlbauten um die Alpen, last updated 2011.11.17 <http://www.palafittes.org/de/produkte-downloads/nominationsdossier-2010/index.html> (last access 04.2016).

Pétrequin 2016: P. Pétrequin, An der Grenze zwischen Land und Wasser. Warum Pfahlbauten?. In: H. Schlichtherle/M. Heumüller/F. Haack (ed.), 4.000 Jahre Pfahlbauten (Ostfildern 2016) 65–76.

Rathje/Murphy 2001: W. Rathje/C. Murphy, Rubbish! The Archaeology of Garbage (Tucson 2001).

Scharff 2011: W. Scharff, Mikroskopische und Geochemische Untersuchungen von Keramischen Proben aus Hornstaad-Hörnle IA, IB und II. In: I. Matuschik/B. Dieckmann, Die Keramikfunde von Hornstaad-Hörnle I–VI. Besiedlungsgeschichte der Fundstelle und Keramikentwicklung im Beginnenden 4. Jahrtausend v. Chr. Im Bodenseeraum. Siedlungsarchäologie im Alpenvorland 12 (Stuttgart 2011) 373–394.

Schibler 2006: J. Schibler, The Economy and Environment of the 4th and 3rd Millennia BC in the Northern Alpine Foreland Based on Studies of Animal Bones. Association for Environmental Archaeology 11.1, 2006, 49–64.

Schlichtherle 1990: H. Schlichtherle, Die Sondagen 1973–1978 in den Ufersiedlungen Hornstaad-Hörnle I (Stuttgart 1990).

Schlichtherle 1997: H. Schlichtherle, Pfahlbauten rund um die Alpen (Stuttgart 1997).

Schlichtherle/Heumüller/Haack: H. Schlichtherle/M. Heumüller/F. Haack (ed.), 4.000 Jahre Pfahlbauten (Ostfildern 2016)

Schlichtherle/Wahlster 1986: H. Schlichtherle/B. Wahlster, Archäologie in Seen und Mooren. den Pfahlbauten auf der Spur (Stuttgart 1986).

Schubert 2010: H. Schubert, Architektur als Prozess – Perspektiven eines architektursoziologischen Modells der "Verhäuslichung". In: Der gebaute Raum. Bausteine einer Architektursoziologie vormoderner Gesellschaften (Münster 2010).

Stampfli 1992: H. Stampfli, Die Tierknochen aus den Jungsteinzeitlichen Siedlungen Egolzwil 3 und Egolzwil 4. Kantonsarchäologie (Luzern 1992).

Styring et al. 2016: A. Styring/U. Maier/E. Stephan/H. Schlichtherle/A. Bogaard, Cultivation of Choice. New Insights into Farming Practices at Neolithic Lakeshore Sites, Antiquity 90, 349, 2016, 95–101.

Tarrús 2008: J. Tarrús, La Draga (Banyoles, Catalonia), an Early Neolithic Lakseide Village in Mediterranean Europe. Catalan Historical Review 1, 2008, 17–33.

Thomas 2010: J. Thomas, Commentary: Walls and Bridges. In: D. Garrow/T. Yarrow (eds.) Archaeology and Anthropology. Understanding Similarity, Exploring Difference (Oxford 2010) 179–184.

Tilley 1994: C. Tilley, A Phenomenology of Landscape. Places, Paths and Monuments (Oxford 1994).

Troll/Paffen 1964: C. Troll/K.H. Paffen, Die Jahreszeitenklimate der Erde. Erdkunde 18, 1964, 5–28.

Vogt, 1951: E. Vogt, Das Steinzeitliche Uferdorf Egolzwil 3 (Kt. Luzern). Bericht über die Ausgrabung 1950. Zeitschrift für Schweizerische Archäologie und Kunstgeschichte 12, 1951, 193–219.

Witmore 2007: C. Witmore, Symmetrical Archaeology. Excerpts of a Manifesto. World Archaeology 39, 2007, 546–562.

Wyss 1989: R. Wyss, Egolzwil 3, Ein Viehzüchterisch bedeutender Wohnplatz aus der Zweiten Hälfte des 5. Jahrtausends v. Chr. Zeitschrift Für Schweizerische Archäologie und Kunstgeschichte 46, 1989, 192–203.

Wyss 1994: R. Wyss, Steinzeitliche Bauern auf der Suche nach neuen Lebensformen Egolzwil 3 und die Egolzwiler Kultur, I. Die Funde. Archaeologische Forschungen. Schweizerischen Landesmuseum Zürich (Zürich 1994).

IV. Resources and the Symbolic Dimensions of Cultures

STEFFEN PATZOLD

Variability of Tangible and Intangible Resources
The Example of Monastic Communities in Medieval Germany

Keywords: variability of resources, monasticism, monastic reform, Middle Ages

Abstract

Historians have presented the history of monasticism between ca. 800 and ca. 1200 AD as a narrative of ever newer reforms, the aims of which would be to return to a life in accordance with the wording of the 'Regula Benedicti' and to adopt the *Consuetudines* of another monastery perceived as exemplary. This scholarly model is problematic. The monks of the 9th to 12th cent. were assiduous in the compiling of their history into various lengthy narrative texts; however, one searches in vain for cyclical succession of reform within these historical narratives. We are also not dealing simply with a functionalist model from the modern discipline of History. Rather, the cycle of 'reform', 'decadence' and newer 'reform' is an explanatory model which was invented in the monastic historiography of the transition between the Middle and Early Modern Ages (i.e. roughly during the 15th cent.). In our narratives of monasticism, we are hence perpetuating a pre-academic model – which does not originate from those historical actors whose history is the subject of this paper. In this article, therefore, we propose to abandon the concept of 'reform' and to analyse medieval monasticism by observing the variability of tangible and intangible resources. We argue that this perspective could be helpful to understand the dynamics of medieval monasticism in a new way.

In our subproject, conducted under the auspices of the Collaborative Research Centre SFB 1070 Ressourcenkulturen, we study monasteries in Central Europe during the Middle Ages – roughly between 800 and 1300 AD. The aim of this article is to explain why we are interested in the question as to how 'tangible resources' might be transformed into 'intangible resources' and *vice versa*. For historians of the Middle Ages this is a somewhat unusual question, and indeed a rather strange perspective on monasticism in medieval Europe. However, this approach has been developed in collaboration with anthropologists and archaeologists within our collaborative research centre (cf. Bartelheim et al. 2015); and it can be of use to medieval historians too. Indeed, the approach allows us to engage with a fundamental problem in the study of medieval monasticism in a new and interesting manner.

Until now, the history of monasticism has usually been portrayed as a succession of perennial 'reforms': underlying this narrative is the conception that individual monasteries were invariably in jeopardy of losing sight of their original aims – and thereby tended to relax stringency of their monastic vows of obedience, poverty and chastity, that they 'secularised' and became worldly. Yet, in the long history of monasticism there were repeatedly moments of reform, in which individual 'reform-abbots' ensured that their monks reflected upon these original norms and values and returned to a better, less worldly, monastic life (cf. e.g. Melville 2012; Vanderputten 2013, 2015; cf. also Sellner 2016, 67–74 and 521–551, suggesting the medieval concept *correctio* instead of 'monastic reform').

A focus on written and codified normative texts has served as the yardstick for the actual norms and values of monasticism: for the 8th cent. onwards this means specifically focusing on the so-called 'Regula Benedicti', a very brief text which maintains in 71 chapters as to how monks and their abbot should live together in a monastery (Regula Benedicti, ed. Hanslik 1977). From at least the turn of the 9th cent. until well into the 12th cent. this text served as the most important normative text to which good monks might turn. Contemporaries viewed a saint of the 6th cent. as the originator of this rule: the monk and abbot Benedict of Nursia, the life and miracles of whom were exhaustively recounted by Pope Gregory the Great around 600 AD (Gregor der Große, Dialogi, ed. de Vogüé 1979, lib. II). Academics today view the connection between the Rule and Benedict of Nursia with considerably more scepticism (cf. Fried 2004, 344–356; Wollasch 2007; Melville 2012, 31–42; Licht 2013).

To emphasise once more, historians have presented the history of monasticism between ca. 800 and ca. 1200 AD as a narrative of ever newer reforms, the aims of which would be to return to a life in accordance with the wording of the 'Regula Benedicti'. In the second half of the 20th cent., this explanatory model was refined in an important aspect: the 'Regula Benedicti' is, as mentioned, a very short text. It barely regulates – or even omits – many areas of monastic daily life, allowing considerable leeway; besides, it presupposes the climatic circumstances and social conditions of Southern Europe in 600 AD, and thereby much which could not be implemented in following centuries in other regions. Hence, the text was supplemented in the course of time by further, more detailed normative texts produced by individual monasteries in order to regulate daily life according to this practice and reduce conflicts: these texts are termed *Consuetudines* (i.e. 'customs') within the academic literature and it may be said that the trend of writing out ever lengthier *Consuetudines* which regulated ever more minutely daily monastic life extended until the 11th cent. (editions of the *Consuetudines* are published in the Corpus Consuetudinum Monasticarum 1963ff.; cf. Schieffer 1988; Kottje et al. 1989).

For the history of monasticism this means the following: since the 1950's 'reforms' are no longer understood as merely a return to the 'Regula Benedicti', but also as a possibility for a community to adopt the *Consuetudines*, these 'regulatory statutes' of lifestyle, of another monastery perceived as exemplary. The notion of what should constitute monastic reform thereby changed somewhat: reform was no longer simply reform in itself; it now could be named after the respective exemplary centre of each reform – thus 'Cluniac Reform' (after Cluny in Burgundy), 'Gorze Reform' (after Gorze in Lothringen), 'Siegburger Reform', 'Sanblasianic Reform', or 'Hirsauer Reform' for the application of the *Consuetudines* of the monastery of Hirsau. However, what is important here is, that the old cyclical explanatory model remained intact: the history of monasticism was still held to be a constant succession of reform, decadence (i.e. deviation from rules), new reform (i.e. a return to a 'purer' life, now, however, at the same time the possibility of orientation toward another monastery perceived as being exemplary), then decadence once more, and so on (the fundamental study was: Hallinger 1950/51; cf. also Semmler 1959; Jakobs 1961; 1968; important criticism: Wollasch 1973; for a recent synopsis of older 'Reformforschung' cf. Sellner 2016, 36–66).

This scholarly model is problematic. The core of the argument of our project is as follows: we are not dealing with a model with which the actors observable to us were themselves at all familiar; indeed the monks of the 8th to 12th cent. were very assiduous in the compiling of their history into various lengthy narrative texts. However, one searches in vain for cyclical succession of reform within these historical narratives (for Flanders cf. now: Sellner 2016). In any case, we are also not dealing simply with a functionalist model from the modern discipline of History, devised by scholarly observers in the 20th and 21st cent. Rather, as we see it, the cycle of 'reform', 'decadence' and newer 'reform' is an explanatory model which was invented in the monastic historiography of the transition between the Middle and Early Modern Ages (i.e. roughly in the 15th cent.). In our narratives of monasticism, we are hence perpetuating a pre-academic model – which does not originate from those historical actors whose history interests us here. This is a sizeable problem.

Actually, European monks of the 8th to 12th cent. also did not discuss the 'Variability of Tangible and

Intangible Resources', but at least we are dealing with concepts which were not outlined by monastic historiographers and their aims in the 15th cent. but rather by ourselves according to the rules of artifice. In the following, I will attempt to shed light upon these concepts and to explain what we might be able to deduce thereby – and why we find the 'Variability of Tangible and Intangible Resources' interesting in the creation of a new history of medieval monasticism.

Not all monasteries of the Middle Ages, but many of them certainly were rich. The individual monk extolled poverty; the community of monks, however, had a wealthy estate of property and possessions. Monastic communities possessed land, which could be used commercially (fields, pasturage, woods, vineyards, etc.) and people who cultivated this land so that they could live from it themselves but also present dues to the monastic community. In the case of quite a few monasteries these incomes could easily exceed what the monks required to feed themselves. One must hence state that successful monasteries accumulated wealth.

It is also quite simple to explain as to how monasteries acquired their landholdings (and thereby their regular incomes): large numbers of medieval landowners bestowed land, but also other goods: cattle, precious metals, clothes, books – there is virtually nothing which would not have been presented to a monastery at one time or another. We know of these endowments as they were documented in writing by the monks themselves. The monks had an interest in recording their property for posterity, to avoid (or settle) conflicts with lay donators and their families: such so called 'charters' or 'notices' have survived in the thousands from the period of study – even though the majority are not originals, but rather transcripts in books which the monks compiled to try to get an overview of their holdings.[1]

Why did large numbers of people again and again transfer a considerable part of their estate to a monastery? In this regard, historians have worked out a broad spectrum of possible motives and interests, which cannot be introduced here individually. Notwithstanding, one chief motive, which recurs explicitly in the documents is: *pro remedio animae*, 'for the remedy of the soul'. Monks served to some degree as experts in the production of salvation: as they personally lived in chastity, obedience, and poverty, they were particularly qualified to ask God for mercy – and not only for themselves, but also on the behalf of their friends and benefactors. This concept becomes visible from the 9th cent. onwards in so-called *Libri memoriales* or memorial books. An important example comes from the monastery of Reichenau: the book was begun in the middle of the 820s and maintained for more than a century afterwards. The Reichenauer monks proudly named this book the *Liber vitae* – in reference to the 'Book of Life' referred to in the Apocalypse, within which the names of all of those were inscribed who would attain God's mercy and salvation in the Last Judgement. The proud assertion was hence as follows: the salvation of whosoever was listed here by the Reichenauer monks was practically already assured. In the course of the 9th and early 10th cent., the names of some forty thousand people were entered into the books; this should provide an impression of how sought after this prayer service of a large monastery could be (Autenrieth et al. 1979).

Incidentally, this did not only encompass prayers for the salvation of the dead; one could also ensure prayer assistance from monks during one's lifetime. Moreover, this prayer assistance was also keenly used by elites and rulers in political and even military contexts: when Louis the German campaigned in the year 828 AD against the defiant (and as of yet unchristianised) Bulgars, the monks of Fulda sang in Lent a thousand masses and a thousand psalters on the behalf of the king and his warriors (evidently, the more the merrier) (cf. Epistolarum Fuldensium fragmenta, ed. Dümmler 1899, 518 Nr. 4).

To sum up: monasteries became rich as communities through the endowments of believers, and indeed because the individual monks extolled asceticism (and poverty) and therefore were particularly suited to serve as intercessors with God. One might say that monasteries were sacred places in which tangible resources for the maintenance of physical welfare in this world – from pigs (with

1 Several hundreds of early medieval original charters have survived from the monastery of Saint Gall (ed. Erhart 2013); copies are known amongst others from the monasteries of Fulda (ed. Stengel 1958), Lorsch (ed. Glöckner 1929–36), and Wissembourg (ed. Glöckner et al. 1979).

their ham) to fields and vineyards – were transformed into intangible resources for the maintenance of spiritual salvation – in the form of prayers, litanies, and masses.

It is the contention of our subproject that this connection unfolded a dynamic, which decisively drove the history of western European monasticism in the Middle Ages. Furthermore, we maintain that working from this connection, the history of monasticism and its dynamics may be described in an alternative fashion – and in a more complex way than by trying to understand this history with the model of a cycle of reform, decadence, and newer reform.

The transformation from tangible resources to intangible resources was a very central point encountered in what the monks themselves described as the *interiora* and *exteriora* of their monastic community – namely the 'interior' and 'exterior' things. The 'interior things' comprised: the monks' asceticism, their prayer, the daily *officium* for God, and the *vita communis* within the monastic community, the salvation, the soul. The 'exterior things' included for example the administration of the monastic estate, the interaction with the friends and benefactors of the monastic community and other landowners of the relevant region, but also the body and its maintenance (cf. Schnell 2006; Hollick 2016; but also Melville 2011).

According to their writings, the monastic communities viewed themselves as being tasked with achieving some equilibrium between these two realms, for as a community, in their own view, they could only exist successfully when these two were connected. Ensuring this, incidentally, was no simple task. A monastery needed the reputation as a result of the asceticism of its monks so as to be able to achieve the salvific litanies to God, otherwise it became unattractive for benefactors outside of the monastery grounds – thereby threatening the loss of those tangible resources necessary to the ensuring of the physical survival of the community here on earth. Strange as this may sound to us on account of our previous knowledge of medieval monasticism: the monks of the monastery at Hirsau reproached their first abbot, Stephan, with 12th cent. hindsight; he was alleged to have devoted himself too fully to the prayer and spiritual salvation of his monks, indeed too one-sidedly to the *interiora* of his community; Stephan hence even lost his office of abbot! (Codex Hirsaugiensis, ed. Waitz 1883, 256 c. 2: '[…] quippe qui nihil eorum exterioribus utilitatibus provideret'; cf. also Goetz 1989).

When conversely the community was very successful, it was in danger of becoming too affluent, thereby leaving the impression that the monks did not live ascetically enough to be able to achieve salvation for themselves and others; in this manner, their prestige for potential benefactors would sink – threatening economic hardship. The actors themselves saw only one solution to this: to keep the *interiora* (i.e. souls, prayers, inner organisation of the community) and the *exteriora* (bodies, administration of goods, exterior relationships of the community) time and time again back into balance with one another.

Interestingly we can now observe a broad spectrum of norms and values on one hand and on the other practices and institutions, which should have permitted the actors to frequently balance out the *interiora* and *exteriora*. Three areas may be mentioned here to illustrate concrete examples as to how we can narrate the history of monasticism in the Middle Ages in a different manner, when we take the 'Variability of Tangible and Intangible Resources' as our point of departure. These three areas concern: 1) how land with which the monastery was bequeathed was dealt with, 2) the question of so-called 'immunity', and 3) the duties of the abbot.

1) The most vital tangible resource for monasteries was landholdings. This resource could – through human labour (not that of the monks, rather of dependents) – be transformed into grain, fruit, vegetables as well as fish and other animal products, and by means of markets and trade into money. Land estates were vital to the survival of a community, but at the same time also a constant challenge to its ascetic withdrawal, as the landholdings drove the monastic communities to interact with the base physical world.

The most blatant example of this problem will become clear in the following context: since the Carolingian Age it was common for the king to compel monasteries to undertake military service. This did not mean that the monks themselves

went on campaign, but they had to equip soldiers so that they could field contingents for the king's host. A very vivid example of this point is provided by the so-called *Notitia de servitio monasteriorum* from the beginning of the 9th cent. Here, Emperor Louis the Pious listed as to which monasteries had to render to him military service, annual gifts, and prayers – and which had to offer merely gifts and prayers, or even only prayers (Notitia de servitio monasteriorum, ed. Semmler 1963; cf. Geuenich 1998, 106–108; Kettemann 1999). To perform military service for the king, the monasteries lost a good deal of their pool of men, who went on campaign with the ruler – of men then, whose professional expertise was with horses and weapons who were prepared to kill others in battle. Military organisation for at least the 9th to 11th cent. was connected to a considerable degree to this relationship (cf. Renard 1999; 2006; 2009).

For the monasteries, this meant an interesting challenge in the balancing act of *interiora* and *exteriora*. They had to convince landowners to bestow a piece of their land to a monastery for the salvation of their souls – although the risk existed that with this land a warrior would be equipped who was a professional in killing others. We can observe how benefactors and monks from the 9th cent. onwards attempted to solve this problem. Some benefactors left in their charters the clause that the land endowed could not be given out to the laity as a *beneficium*, or in turn, that it could only be used for very specific purposes – such as for the outfitting of monastery churches with candles, or for the provision of food or garments for monks. The monastic communities in turn also tended to identify a part of their goods with a particular end, and to keep reserves for the welfare of the community itself. In this manner the so-called *mensa fratrum* (the goods of which could only serve for the provisioning of the monks) and a *mensa abbatis* which the abbot was permitted to use for other purposes (cf. Renard 2004; Patzold 2007) came into being.

One might say the relationship between *interiora* and *exteriora* was balanced out: a part of the monastic property was explicitly defined as a resource for the guarantee of the *interiora* (e.g. candles for mass, freeing of monks from gainful employment in order to enable prayer services).

2) A second example: when a landowner transferred a tract of land to a monastery, then according to the perceptions of contemporaries it also changed its character – because property of the church counted as being protected in a special manner. Already in Late Antiquity the estates of the church were ascribed with such a special value. *Res ecclesiae nihil aliud sunt nisi vota fidelium, precia peccatorum, patrimonium pauperum*, as canon law formulated this: 'The wealth of churches are nothing more than the vows of the believers, the price of sin, the property of the poor.' (Collectio canonum in V libris, ed. Fornasari 1970, lib. III, 369 c. 116) – This sentence was widely spread during the early Middle Ages. In the 9th cent., for example, Abbot Grimald of Saint Gall had it inscribed in his personal *florilegium* (Saint Gall, Stiftsbibliothek, Cod. 397, 27; for doubts about the ownership of Grimald cf. Grupp 2014); and the synods of Bishops in the Carolingian Age relished in quoting it. In canonical law, church property was indeed specially protected: what was once bestowed to a monastery could not be removed from thereon – not even by the abbot himself. At best, it could be exchanged for a good of equivalent value or indeed conferred as a *beneficium* (cf. Esders et al. 2016 with further literature).

This did not suffice. From the early Middle Ages onwards, we observe that kings in ever-growing numbers sought to protect the property of monasteries in particular and to mark them as special material: they conferred upon monasteries in high and ever growing numbers so-called 'immunity' (for an anthropological perspective cf. Rosenwein 1989; for a legal perspective: Vogtherr 2000, 19–24). This consisted of the special privilege that no public judge or functionary of the king was permitted to enter the property of monastic land and there levy duties, pronounce the law, or perform other sovereign duties. Which of these properties beyond the monastery itself were included was, however, rather less clear: Emperor Louis the Pious took as his principle that those properties possessing a fence or a ditch should certainly be encompassed by the immunity (but not, for example, an open tract of woodland) (Benedictus Levita, ed. Pertz 1837, lib. I, p. 61 c. 279; cf. Patzold 2014).

The conferral of immunity upon a monastery (and other spiritual institutions) was viewed for a

long time from the perspective of royal sovereignty and legal history (classics are: Stengel 1910; Hirsch 1913). From the perspective of the monasteries it may be worth considering as to whether we are not once more observing an attempt to balance out *interiora* and *exteriora*: at least a part of the land estate of the monastery was marked in a particular manner by immunity – and removed from the world and its obligations and requirements, and foremost from the reach of the laity who acted without the permission of the abbot.

3) Finally, a last point regarding the role of the abbot:[2] this role changed repeatedly over the course of the centuries; and these changes can also be understood in connection to the balancing out of *interiora* and *exteriora*. Already in the Rule of St. Benedict, the position of the abbot between cloister and world is outlined (Regula Benedicti, ed. Hanslik 1977, c. 64). During the early Middle Ages, abbots are among those magnates who are regularly spoken of in normative texts of kings; they are present at the king's court, some of them have a large share of the political decision-making on an imperial level, and they are responsible for the levying of military contingents for the king's army (for the example of Wala of Corbie: Weinrich 1963; for Adalhard of Corbie: Kasten 1986; for Einhard: Patzold 2013). One may say that the abbot must act outwards in order to make the special spaces within the monastery possible for the monks, within which they are able to exude a particular power of salvation through asceticism and withdrawal.

From this background, one might think of a phenomenon which previous research has viewed as a typical sign of decadence: in the course of the 9th cent., it was common for kings to confer the abbotship even of important monasteries to magnates who had professed no vows as a monk and did not live with the monks of their monastic community but rather remained present as a layperson in the world. Traditionally, these so-called 'lay abbots' meant for historical research a symptom of the evil decline of monastic life, as a sign of the 'secularisation' of the monasteries. Franz Felten had, however, already in the 1980s demonstrated that many monasteries in the 9th cent. actually profited from their so-called 'lay abbots' (Felten 1980). In practice, this meant that one of the monks took over the daily internal running of the community, while an influential magnate represented the monastery to the outside world as abbot and advocated for it – and indeed accessed those goods which were allocated for purely worldly aims (such as military service). Quite a few abbots carried out these tasks in the interests of the monastic community, as for example Einhard did – and used their political influence and experience in the world to support their community materially and to administrate the monastic property to the best of their abilities. Here one sought to balance out *interiora* and *exteriora*, as one conferred the responsibility for the *interiora* upon the community itself, while engaging a professional lobbyist of sorts who indeed – as he did not have to be in charge of the *interiora* – was free to occupy himself with property and its administration.

In conclusion we may summarise once more the central points of this paper in the form of three short theses: Instead of describing the history of medieval monasticism as an endless cycle of reform, decadence, new reform, and new decadence, we can attempt to explain a dynamic, in which we take seriously monasteries as being sacred places within which tangible resources for the provision of the corporal here on this earth were transformed into intangible resources for the salvation of souls after death. Monasteries transformed calories into prayer.

In order for them to do so, they were compelled to balance out repeatedly and ever anew what the actors themselves termed *interiora* and *exteriora* – i.e. on one hand the things related to the soul, prayer, the inner salvation-guaranteeing organisation of the community, and on the other hand the things related to the physical, the administration of property and the external relationships of the community.

This necessity – to repeatedly impose an equilibrium between *interiora* and *exteriora* anew – explains to a considerable degree the dynamic of the history of monasticism in the medieval Europe: it drove, and brought about those ever newer practices and institutions which we can observe in the history of monasticism.

2 This point will be treated somewhat briefer here, as it will form the focus of the PhD dissertation, on which Marco Krätschmer is working under the auspices of our project.

Steffen Patzold
Fachbereich Geschichtswissenschaft
Seminar für mittelalterliche Geschichte
Wilhelmstraße 36
72074 Tübingen
Steffen-patzold@uni-tuebingen.de

Bibliography

Autenrieth et al. 1979: J. Autenrieth/D. Geuenich/K. Schmid (eds), Das Verbrüderungsbuch der Abtei Reichenau. Monumenta Germaniae Historica. Libri memoriales et necrologia, Nova series 1 (Hannover 1979).

Bartelheim et al. 2015: M. Bartelheim/R. Hardenberf/T. Knopf/A. K. Scholz/J. Staecker, 'ResourceCultures' – A Concept for Investigating the Use of Resources in Different Societies. In: A. Danielisová/M. Fernández-Götz (eds), Persistent Economic Ways of Living. Production, Distribution, and Consumption in Late Prehistory and Early History. Archaeolingua 35 (Budapest 2015) 39–49.

Corpus Consuetudinum Monasticarum 1963ff.: K. Hallinger (ed.), Corpus Consuetudinum Monasticarum (Siegburg 1963ff.)

Dümmler 1899: E. Dümmler (ed.), Monumenta Germaniae Historica. Epistolae, V (Berlin 1899).

Erhart 2013: P. Erhart (ed.), Chartularium Sangallense, I. 700–840 (St. Gallen 2013).

Esders et al. 2016: S. Esders/S. Patzold, From Justinian to Louis the Pious. Inalienability of Church Property and the Sovereignty of a Ruler in the Ninth Century. In: R. Meens et al. (eds), Religious Franks. Religion and Power in the Frankish Kingdoms. Studies in Honour of Mayke de Jong (Manchester 2016) 386–408.

Felten 1980: F. J. Felten, Äbte und Laienäbte im Frankenreich. Studie zum Verhältnis von Staat und Kirche im früheren Mittelalter. Monographien zur Geschichte des Mittelalters 20 (Stuttgart 1980).

Fornasari 1970: M. Fornasari (ed.), Collectio canonum in V libris (lib. I–III). Corpus Christianorum. Continuatio Mediaevalis 6 (Turnhout 1970).

Fried 2004: J. Fried, Der Schleier der Erinnerung. Grundzüge einer historischen Memorik (München 2004).

Geuenich 1998: D. Geuenich, Kritische Anmerkungen zur sogenannten „anianischen Reform". In: D. R. Bauer/R. Hiestand/B. Kasten/S. Lorenz (eds), Mönchtum – Kirche – Herrschaft 750–1000. Festschrift für Josef Semmler (Sigmaringen 1998) 99–112.

Glöckner 1929–36: K. Glöckner, Codex Laureshamensis, I–III. Arbeiten der Historischen Kommission für den Volksstaat Hessen (Darmstadt 1929–1936).

Glöckner et al. 1979: K. Glöckner/L. A. Doll (eds), Traditiones Wizenburgenses. Die Urkunden des Klosters Weissenburg, 661–864. Arbeiten der Hessischen Historischen Kommission Darmstadt (Darmstadt 1979).

Goetz 1989: H.-W. Goetz, Das Bild des Abtes in alamannischen Klosterchroniken des hohen Mittelalters. In: idem/D. Berg (ed.), Ecclesia et regnum. Beiträge zur Geschichte von Kirche, Recht und Staat im Mittelalter. Festschrift für Franz-Josef Schmale (Bochum 1989), 139–153.

Grupp 2014: U. Grupp, Der Codex Sangallensis 397 – ein persönliches Handbuch Grimalds von St. Gallen? Deutsches Archiv für Erforschung des Mittelalters 70, 2014, 425–463.

Hallinger 1950–51: K. Hallinger, Gorze-Kluny. Studien zu den monastischen Lebensformen und Gegensätzen im Hochmittelalter. Studia Anselmiana 22–25 (Rom 1950–51).

Hanslik 1977: R. Hanslik (ed.), Benedicti Regula. Corpus Scriptorum Ecclesiasticorum Latinorum 75 (Wien 1977).

Hirsch 1913: H. Hirsch, Die Klosterimmunität seit dem Investiturstreit. Untersuchungen zur Verfassungsgeschichte des deutschen Reiches und der deutschen Kirche (Weimar 1913).

Hollick 2016: B. Hollick, *corpus – spiritus – deus*. Anthropologie, Hamartiologie und Poetik im Opusculum Herimanni. In: F. Heinzer/T. Zotz, Hermann der Lahme (im Druck).

Jakobs 1961: H. Jakobs, Die Hirsauer. Ihre Ausbreitung und Rechtsstellung im Zeitalter des Investiturstreites. Kölner historische Abhandlungen 4 (Köln 1961).

Jakobs 1968: H. Jakobs, Der Adel in der Klosterreform von St. Blasien. Kölner historische Abhandlungen 16 (Köln 1968).

Kasten 1986: B. Kasten, Adalhard von Corbie. Die Biographie eines karolingischen Politikers und Klostervorstehers. Studia Humaniora 3 (Düsseldorf 1986).

Kettemann 1999: W. Kettemann, Subsidia Anianensia. Überlieferungs- und textgeschichtliche Untersuchungen zur Geschichte Witiza-Benedikts, seines Klosters Aniane und zur sogenannten „anianischen Reform“ (PhD-Thesis University of Duisburg 1999).

Kottje et al. 1989: R. Kottje/H. Maurer (eds), Monastische Reformen im 9. und 10. Jahrhundert. Vorträge und Forschungen 38 (Sigmaringen 1989).

Licht 2013: T. Licht, Die ältesten Zeugnisse zu Benedikt und dem benediktinischen Mönchtum. Erbe und Auftrag 89, 2013, 434–441.

Melville 2011: G. Melville, Inside and Outside. Some Considerations about Cloistral Boundaries in the Central Middle Ages. In: S. Vanderputten/B. Meijns (eds.), Ecclesia in medio nationis. Reflections on the Study of Monasticism in the Central Middle Ages. Mediaevalia Lovaniensia, Series 1.42 (Leuven 2011) 167–182.

Melville 2012: G. Melville, Die Welt der mittelalterlichen Klöster. Geschichte und Lebensformen (München 2012).

Patzold 2007: S. Patzold, *Mensa fratrum* und *consensus fratrum*. Überlegungen zu zwei parallelen Entwicklungen im fränkischen Mönchtum des 9. Jahrhunderts. In: C. Dobrinski/B. Gedderth/K. Wipfler (eds), Kloster und Wirtschaftswelt im Mittelalter. MittelalterStudien 15 (München 2007) 25–38.

Patzold 2013: S. Patzold, Ich und Karl der Große. Das Leben des Höflings Einhard (Stuttgart 2013).

Patzold 2014: S. Patzold, Benedictus Levita I, 279 – ein echtes Capitulum von 829? Vorarbeiten zur Neuedition der Kapitularien Ludwigs des Frommen. Deutsches Archiv für Erforschung des Mittelalters 70, 2014, 67–86.

Pertz 1837: G. H. Pertz (ed.), Monumenta Germaniae Historica. Leges, II/2 (Hannover 1837).

Renard 1999 : E. Renard, Les ‘Herescarii’, guerriers ou paysans? Archivum latinitatis medii aevi 57, 1999, 261–272.

Renard 2004: E. Renard, Que décrit le polyptyque de Saint-Bertin? A propos de la notion de mense a l’époque carolingienne. Revue Mabillon 15, 2004, 51–80.

Renard 2006 : E. Renard, Une elite paysanne en crise? Le poids des charges militaires pour les petits alleutiers entre Loire et Rhin au IXe siècle. In: F. Bougard et al. (eds), Les élites au haut Moyen Âge. Crises et renouvellements. Collection Haut Moyen Âge 1 (Turnhout 2006) 315–336.

Renard 2009: E. Renard, La politique militaire de Charlemagne et la paysannerie franque. Francia 36, 2009, 1–34.

Rosenwein 1989: B. H. Rosenwein, To Be the Neighbor of St. Peter. The Social Meaning of Cluny’s Property, 909–1049 (Ithaca 1989).

Schieffer 1988: R. Schieffer, Consuetudines monasticae und Reformforschung. Deutsches Archiv für Erforschung des Mittelalters 44, 1988, 161–169.

Schnell 2006: R. Schnell, Wer sieht das Unsichtbare? *Homo exterior* und *homo interior* in monastischen und laikalen Erziehungsschriften. In: K.-S. Philipowski/A. Prior (eds), Anima und sêle. Darstellungen und Systematisierungen von Seele im Mittelalter. Philologische Studien und Quellen 197 (Berlin 2006) 83–112.

Sellner 2016: H. Sellner, Klöster zwischen Krise und correctio. Monastische „Reformen“ im hochmittelalterlichen Flandern. Klöster als Innovationslabore 3 (Regensburg 2016).

Semmler 1959: J. Semmler, Die Klosterreform von Siegburg. Ihre Ausbreitung und ihr Reformprogramm im 11. und 12. Jahrhundert. Rheinisches Archiv 53 (Bonn 1959).

Semmler 1963: J. Semmler (ed.), Notitia de servitio monasteriorum. In: Corpus Consuetudinum Monasticarum I (Siegburg 1963) 483–499.

Stengel 1910: E. E. Stengel, Diplomatik der deutschen Immunitäts-Privilegien vom neunten bis zum Ende des elften Jahrhunderts (Innsbruck 1910).

Stengel 1958: E. E. Stengel (ed.), Urkundenbuch des Klosters Fulda, I. Die Zeit der Äbte Sturmi und Baugulf. Veröffentlichungen der Historischen Kommission für Hessen und Waldeck X,1 (Marburg 1958).

Vanderputten 2013: S. Vanderputten, Monastic Reform as Process. Realities and Representations in Medieval Flanders, 900–1100 (Ithaca 2013).

Vanderputten 2015: S. Vanderputten, Imagining Religious Leadership in the Middle Ages. Richard of Saint-Vanne and the Politics of Reform (Ithaca 2015).

de Vogüé 1979: A. de Vogüé (ed.), Grégoire le Grand, Dialogues, II. Sources Chrétiennes 260 (Paris 1979).

Vogtherr 2000: T. Vogtherr, Die Reichsabteien der Benediktiner und das Königtum im hohen Mittelalter (900–1125). Mittelalter-Forschungen 5 (Stuttgart 2000).

Waitz 1883: G. Waitz (ed.), Codex Hirsaugiensis. In: Monumenta Germaniae Historica. Scriptores 14 (Hannover 1883) 254–265.

Weinrich 1963: L. Weinrich, Wala, Graf, Mönch, Rebell. Die Biographie eines Karolingers. Historische Studien 386 (Lübeck 1963).

Wollasch 1973: J. Wollasch, Mönchtum des Mittelalters zwischen Kirche und Welt. Münstersche Mittelalter-Schriften 7 (München 1973).

Wollasch 2007: J. Wollasch, Benedikt von Nursia. Person der Geschichte oder fiktive Idealgestalt? Studien und Mitteilungen zur Geschichte des Benediktinerordens und seiner Zweige 118, 2007, 7–30.

RICHARD BORSHAY LEE

Resources, Material and Symbolic and Exchange Relations
An Example from the Kalahari

Keywords: resources, exchange relations, Namibia, economic self-sufficiency, San-Bantu relations

Abstract

The Collaborative Research Centre SFB 1070 at Tübingen has launched a multi-year study of 'resources', involving anthropologists, archaeologists and related disciplines. This exciting initiative gives the promise of new perspectives and novel solutions to issues of long-standing in economic anthropology. My goal in this brief paper is to peel away the layers of economic theory on the subject of 'resources' and examine the topic with a fresh eye.

In thinking about resources, both material and symbolic, in their most elemental forms, I offer some examples from research in the Kalahari Desert of Botswana and Namibia, drawing on five decades of research among the Ju/'hoansi, formerly known as the !Kung San or Bushmen.

As well-researched exemplars of the hunting and gathering way of life, the Ju/'hoansi offer insights into how economic life was organised in the millennia of human development before the rise of states and empires, with their complex technologies, division of labour and marked social inequalities.

Background on the Ju/'hoansi

Until the 1950s–60s the Ju/'hoansi were living as hunter-gatherers in remote northeastern Namibia and northwestern Botswana, straddling the border between the two then-colonies occupying the northernmost reaches of the Kalahari desert.

They were among the last peoples in Africa, if not the world, to live as hunter-gatherers with traditional tools. Their way of life changed dramatically in the late 1950s in the case of Namibia, and about a decade later in Botswana. Collectively they have experienced four-plus decades of rapid change. Yet surprisingly, in the 2000s, even with their computers and cell phones, recent research has shown that they still get a significant percentage of their food from the bush, both hunted and gathered (Lee 2013, 215–227).

During the early years of anthropological research they were known as the !Kung Bushmen (e.g. Marshall 1957; 1960), later as the !Kung San (e.g. Lee 1979), but since 2000 ethnographic writing has adopted their term of self-appellation – Ju/'hoansi – 'real' or 'genuine people' (e.g. Lee 2013).

The late Irven DeVore and I started research with the Ju/'hoansi in 1963 from a base at the University of California, Berkeley, then at Harvard University. Later in the decade we expanded the scope, founding the Kalahari Research Group (KRG) involving a range of other specialists, now senior scholars in their own right.

The commitment was to make the work multidisciplinary, collaborative, and long term (Lee/DeVore 1976). In addition to social and ecological anthropology, the team included archaeologists John Yellen and Alison Brooks (Yellen 1977; Brooks/Yellen 1979), demographer Nancy Howell (2000; 2010, a geneticist, the late Henry Harpending (1971), child-rearing specialists Patricia Draper (1975) and Melvin Konner (1976), a gifted writer

on life-histories, the late Marjorie Shostak (2000), and a specialist on folklore mythology and language, Megan Biesele (1993), who later emerged as a major figure in applied political anthropology (Biesele/Hitchcock 2011).

One of the important sources of cohesion for this research group was the commitment of many to the Kalahari Peoples Fund (KPF), founded in 1973 and now based in Austin Texas, which has funnelled money and expertise to the San for forty years to assist them in protecting their civil and human rights and meeting their development goals.[1]

How to approach the Ju/'hoansi

The Ju and other Kalahari San live in a world region rich in paleo-anthropology, where some of the oldest human and proto-human fossils have been found (McCall 2014; Stringer/McKie 2015). Geneticists have determined that the San have some of the oldest genetic affinities of any human group. And they practiced until recently a way of life – hunting and gathering – that was, until 10,000 years ago, the universal mode of human adaptation.

Do these characteristics give them privileged status as sources for understanding human behavioural and cultural evolution? Or alternately, do they have nothing of greater value to offer students of evolution than any other human group?

Regardless of how you view this matter, the Ju/'hoansi do offer some fascinating material to illuminate the central issues of our conference.

Resources and 'The Great Debate'

A major discussion in Anthropology has been whether human behaviour is driven by economic calculation or by a broader field of motivations. Must a behaviour confer a selective advantage on the individual who practices it? Or can human behaviour vary over a wide range of culturally-embedded motivations, and other forces, seemingly distant from immediate survival?

This clash of views is in essence is the basis for the Formalist-Substantivist debate in Economic Anthropology (Polanyi 1945; Wilk/Cliggett 2008). This has been a persistent debate but, I would argue, a false dichotomy. My own view is that while human behaviour can and does enjoy a wide range of variability, ultimately there has to be a reckoning with survival; there are limits to how varied behaviour can be and still be compatible with reproducing the social group and ultimately the species.

This differs from the view that all behaviour is a product of economic calculation, but it does set some limits on the discussion of resources; all of which have both a material and a symbolic dimension.

One of the virtues of working with a hunter-gatherer group like the Ju/'hoansi is that the material logic of survival is closer to the surface, that is more visible; there is a narrower margin for error. Yet even here, we still observe a wide range of behaviours.

So let us turn to the task at hand: What constituted resources for the Ju/'hoansi? Like all human groups, they extracted materials from the environment and converted these to useful objects. The analysis should also examine to what degree were they self-sufficient in resources and to what degree did their survival depend on externally-sourced materials?

Material resources must be further subsumed under two headings: subsistence resources and material culture resources, or in other words, consumables and non-consumables.

Food is a vast topic I have written about elsewhere (Lee 1979, 158–280) and here I would include other consumables like water and firewood. The same is true of material culture inventory; tools, utensils, clothing, ornamentation, also written about in my 1979 monograph (116–157).

The key point I would like to emphasise here is the Ju/'hoansi's, strong tradition of self-sufficiency. They produced almost everything they consumed and almost all the tools needed for survival. This was self-sufficiency on a grand scale. However, in two key areas they departed from the ideal of local self-sufficiency.

1 See Kalahari Peoples Fund, <http://www.kalaharipeoples.org/> (last access 07.12.2016) and Kalahari Peoples Network, <http://www.kalaharipeoples.net/> (last access 07.12.2016).

– They carried out a sustained long-distance trade with their Black neighbours and
– they carried on an elaborate internal exchange system among and between Ju groups.

Let us look at each of these in turn.

Inter-Ethnic Long-Distance Trade

There is abundant evidence that hunter-gatherer groups carried out extensive long-distance trade even in the absence of Neolithic trading partners. A classic example from the ethnographic literature is the work of Donald Thomson documenting the Australian Aboriginal long distance trade in which sting-ray spears from the coast of Arnhem Land in northern Australia were traded deep into the interior in exchange for hand-axes quarried from an inland source of mineable chert (Peterson 2005). Other well-documented examples include work by archaeologists on the provenance of stone tools from locations far distant from the sites where they were excavated, for example such studies as the Lindenmeier Palaeo-Indian site in Colorado and the Olorgesailie MSA site in southern Kenya (e.g. Andrefsky 2006).

The Kalahari researchers were interested in this question both archaeologically and ethnographically. For example, in 1994–96, Andrew Smith carried out excavations at Cho/ana, in northern Namibia, in collaboration with the present author who collected oral histories from a dozen Ju elders about this and other sites (Smith/Lee 1997; Lee 1998; 2002).

The Dobe-Nyae-Nyae area, straddling the Botswana-Namibia border, was a region of some 30,000 square kilometres fed by natural springs and pans, and surrounded by a waterless and uninhabited belt some 60–100km deep. On their distant peripheries, to the north and east lay the Okavango River and its delta, occupied by Bantu-speaking peoples who arrived in the area about 2000 years ago. Documented by archaeology, oral histories, and historical sources, there was good evidence that the Ju/'hoansi maintained a lively long-distance trade over centuries, with these Bantu-speaking groups on their periphery. These included – from west to east along the river – the Kavango, the /Geriku, the Mbukushu, and along the west side of the Okavango delta, the BaYei or BaKubu (Taylor 2009; McKittrick 2008).

The Ju/'hoansi collected and processed two desert products in great demand among the riverine Bantu. The first was dried meat – biltong – produced from the abundant plains game hunted in the interior, mainly kudu, gemsbok and wildebeest. The second desert product was beadwork made from the shells of the abundant ostrich eggs. This was a true manufactured good, produced through an elaborate process by Ju/'hoan women in the interior and strung on strings made from the leg sinews of the plains game. Strings of ostrich-egg-shell beads several meters in length were bundled with sticks of the dried meat and carried by the Ju men to the river villages on trading trips that could last for weeks.

In exchange for these products, the Ju/'hoan traders sought four items, two relatively utilitarian and two that can only be described as 'luxury goods'. Of the first kind, the Ju were eager consumers of locally smelted and produced iron ingots in order to produce tools and hunting weapons – knives, axes, spear tips, and arrow-heads.

The Ju also sought to acquire ceramic vessels, the use of which markedly improved food storage and cooking, and hence digestibility. Prior to acquiring both of these, the Ju had lived successfully for many millennia by manufacturing their own tools of stone, wood, and bone, and by cooking their meat and 'veld' foods in the ashes of their fires. The use of wooden mortars and pestles to pound cooked food also made food more digestible even before the introduction of ceramic vessels.

We know that the trade in iron and ceramics had considerable antiquity because archaeological excavations of prehistoric Ju sites in the interior have turned up evidence in deep undisturbed deposits of iron fragments and potsherds (Wilmsen 1989; Smith/Lee 1997).

Luxury goods were a more recent addition to the trade. These were of two kinds: European glass beads and tobacco. Both could only have appeared as articles of trade after 1500 CE. Tobacco as a crop originated in the New World and became a valued crop and trade good in Africa as a result primarily but not exclusively of the Atlantic Slave

Trade. The European glass beads, manufactured in the glass-works of Bohemia and elsewhere, were introduced into coastal Africa trade only in the 17th cent. By the 19th cent. the beads eventually found their way into the riverine-desert trade routes some 600–1000km inland from the west coast trading ports of Lobito and Walvis Bay (Robertshaw et al. 2010). There was also a considerable east coast trade in glass beads of Asian origin, but no evidence that these ever reached as far inland as the Dobe-Nyae Nyae area.

The Culture and Symbolic Content of the Trade

The trade in meat and ostrich-egg-shell beads in exchange for iron and ceramics followed complex inter-ethnic rules of etiquette. In detailed oral histories (Lee 1998; 2002; 2013, 253–268). Ju described how their ancestors would make up trading parties that would last weeks or months. They would go to the Okavango River to their north or to the Okavango Delta on their east, where the Kavango, Mbukushu, /Geriku, and Yei had their villages.

They would meet with their trading partners, usually a headman or village chief, and would be accorded courtesies, though not always treated as direct equals. Negotiations were carried out with the aid of local Ju interpreters who were attached to the chief's household and who were bilingual. The goods were exchanged and the Ju trading party took their leave and returned home with their precious cargoes, camping and foraging on the way. No pack animals were used.

The nature of this trade formed a key element in the famous Kalahari Debate of the 1980s and 90s. Protagonists of the 'revisionist position' as it became known, argued that the archaeological evidence of iron and ceramic fragments in deep deposits in interior Ju/'hoan sites, was proof that the Ju of the past were subjugated to their Bantu speaking neighbours, and therefore not independent hunter-and-gatherers at all (Wilmsen 1989).

Those seeing the pre-20th cent. Nyae-Nyae-Dobe Ju as autonomous foragers and not serfs (e.g. Solway/Lee 1989; Lee/Guenther 1991), presented three lines of evidence:

The amount of archaeological evidence of the Iron Age on interior sites was minute, perhaps a few dozen shards and iron fragments compared to thousands of stone tools in the lithic assemblage.

There was no evidence of any Iron Age settlement in the interior despite its distinctive archaeological footprint on the rivers. This raised the legitimate question of how could one group dominate another if they were not physically present? Evidentially they lacked the means or the will to project their power into the interior. Bantu-speaking outsiders did begin to colonise the interior in the 1920s and 30s, but the trade extended back hundreds of years earlier.

The Ju/'hoan view of themselves as independent foragers was corroborated by several early European observers. Thomas Baines (1864), James Chapman (1868), and Hauptmann Müller (1912) were three observers over a half century who noted the independence and autonomy of the interior Ju/'hoansi, and noted the marked contrast with the evident subordinate status of San peoples elsewhere in the Kalahari.

There remained the evidence of long-distance trade. How was it to be explained? What was the nature of the relationship between the two parties? The revisionists maintained that it was tribute that the Ju from the interior were providing to their Bantu overlords. We saw it as simply mutually advantageous trade. At first, neither side of the debate had asked the Ju themselves for their view of this trade, which had continued into the living memory of Ju elders alive in the 1980s and 90s. As noted above I interviewed over a dozen Ju elders about their experiences and traditions in this trade. They all insisted that it was a trade of equals.

In attempting to test the validity of the trade-as-evidence-of-Ju-subordination hypothesis, I explored the symbolic content of the trade. I asked probing questions: What did you call your trading partners? Did you address them as Lord or as Master, indicating a hierarchical relation? They responded saying they addressed them by their given

names, but I pressed on. If they wanted you to address them as 'Master' would you do it?

One articulate elder who had participated in these trips as a young man gave me this answer:

> 'I really didn't care what he wanted me to call him as long as I got a fair return in iron and tobacco for the things I was bringing.'

That answer, when added to the archaeological and historical evidence, I think, sums up nicely the argument that trade not tribute was the primary rationale of these exchange relations.

Ju/'hoansi Internal Exchange Relations: On *Hxaro*

The well-developed internal system of exchange, called *hxaro* operated on very different principles. The most extensive research on *hxaro* was carried out by Polly Wiessner (1977; 1982). Here I draw on Wiessner's work as well as my own research carried in the 1960s when hunting and gathering was still the dominant mode of subsistence (e.g. Lee 2013, 130–135).

As will become clear, *hxaro* is deeply invested with symbolic meaning. But to return for a moment to a point of theory: for an institution to have significant adaptive value, it must have more than symbolic meaning; underlying it there must be a material basis that fosters survival. *Hxaro* is a case in point. A delayed form of non-equivalent gift exchange, at first glance it seems an entirely symbolic epiphenomenon with little obvious adaptive value. Only as we delve deeper is the underlying adaptive value revealed.

First, here is a primer on *hxaro*, actively practiced by Ju/'hoan groups in Botswana and Namibia as observed in the 1950s, 60s, and 70s.

- Ju men and women form exchange relationships with a variety of partners; including kin and non-kin, and geographically-close and geographically-distant others.
- Exchanges take place infrequently, once or twice a year or even every second or third year.
- The settings, especially for distant partners for exchange is during visits. The partners stay a week or a month; at some point during the visit, goods are brought out and, with modest ceremony, are exchanged.
- Jewelry, made by women, and arrows made by men are the most common objects in the exchange, as well as other primary items of daily use, such as clothing, cooking utensils, and tools.

An initially puzzling aspect was that these items are locally made and that everyone makes them, from raw materials that are distributed more or less evenly in space. Thus, there is little if any, evidence of regional specialities.

Another puzzling key detail also took me a long time to understand: namely, every exchange is a delayed exchange. At *hxaro* ceremonies the observer witnesses goods flowing in both directions; but the Ju emphasise that these are each halves of separate transactions. The giver is completing a previous transaction and in return the receiver is initiating a new sequence. We will return to this point in a moment.

How to account for these unusual features of Ju internal exchange? Here I have been strongly influenced by David Graeber's recent book: 'Debt: the First 5,000 Years' (2014). There he critiques the idea that persists in virtually all economic textbooks that barter was a universal form of exchange prior to the invention of money.

As noted, the Ju did have this long-distance relationship with the Bantu based on barter, but their internal exchange operated on a very different basis. It was not a question of a group which has a resource A but is lacking resource B, exchanging with a group that has abundant B but lacks resource A. Much of contemporary world trade is premised on this basic principle, whether raw materials or manufactured goods and even extends to labour power.

Not so the Ju/'hoansi and *hxaro* exchange. The goods exchanged are manufactured equally by all groups; the raw materials from which they are made are ubiquitous. Does this contradict my basic premise: that underlying even the most symbolic exchange there must be a material adaptive principle at work?

In fact *hxaro* emphatically confirms the principle; the goods are secondary: the relationships between the traders are primary. As Ju/'hoan men and women articulate the principle the object of the exchange is to maintain good relations with kin and non-kin, close and distant.

Even though raw materials ('resources') are more or less evenly distributed across the landscape, changing weather patterns are not. Rainfall patterns in semi-arid zones, like the Kalahari, are especially capricious, from place to place and from year-to-year. *Hxaro* opens and sustains the possibility that a given group will be able to respond to environmental crises with a broad and flexible social safety net.

Ju/'hoansi occupy home territories called n!ores, but these are non-exclusive. Reciprocal access to resources is a cardinal principle of land-tenure. Group A visits group B one year with the understanding that in another year, A will reciprocate and host B.

If group territories were fixed and mutually exclusive, survival would be much more problematic. Maintaining a wide network of friends and relatives across the landscape provides, in Polly Wiessner's apt phrasing, the Ju/'hoansi with a collective 'mechanism for reducing risk' (Wiessner 1982).

Hxaro in the Past

We have focused on *hxaro* in the ethnographic present. But *hxaro* in the past can also be discussed, offering possible insights for archaeological analysis. The archaeological research conducted by Andrew Smith (Smith/Lee 1997) and others suggests possible evidence of deeper antiquity for *hxaro*.

The existence of iron and ceramic fragments in undisturbed deposits on interior sites can be accounted for by trading trips of Ju hunters to Bantu riverine villages. But then would these iron tools and pottery vessels have remained only in the villages of the original procurers?

The expressed logic of *hxaro* would dictate that these goods would be re-circulated among Ju/'hoan villages, as part of the normal *hxaro* exchange networks. For them to remain strictly the possessions of the original traders violates the deeply embedded logic of the *hxaro* system.

So it is a very reasonable assumption that some iron and ceramics goods found their way to at least some interior village sites via the *hxaro* exchange network. This view is corroborated by oral history accounts. When I asked informants whether all interior villages mounted trading trips to the river villages, I was told, even if not all villages made such trips, the goods would have eventually reached them through normal *hxaro* networks (e.g. Lee 1979, 77).

Summing Up

Hopefully the preceding discussion will help clarify an aspect of how resources are defined even in societies like those of hunter-gatherers where the view of resources differs markedly from textbook definitions of the term. Here is a system of exchange that puts the social before the economic, in which social relations are primary and actual material resources are secondary.

As the Ju/'hoansi themselves frame it 'we don't trade with things, we trade with people' (Lee 2013, 131). Reciprocal access and delayed gift-exchange are thus ideal means of 'lubricating' the important (but understated) role that this flexibility plays in survival overall.

What will the inroads of the Capitalist system do to *hxaro*? Some forms of monetary exchange were already present in the 60s and 70s. The Ju language makes clear distinctions between *hxaro* and barter, as well as between *hxaro*, barter, and buying and selling. An interesting footnote: the word for 'money' in Ju/'hoansi is variously given as 'shilingi' an obvious adaptation of English 'shilling', and the Ju word '/n' which translates as 'blood'. Further research on these etymologies would provide useful insights.

In conclusion, this discussion of 'resources' from a Ju/'hoan perspective offers an opportunity to comment on and critique some aspects of classic economic theory. Ju emphasis on the importance of 'people' before 'goods' echoes nicely the Marxist

distinction between 'Use Value' and 'Exchange Value' and the primacy of the former before the historical rise of markets and states.

Hopefully this discussion will also facilitate a more nuanced understanding of the multi-faceted nature of 'resources'. Ju external trade and internal exchange each in their way can be viewed as examples of 'balanced reciprocity', to employ Sahlins typology of exchanges in his classic paper 'The sociology of primitive exchange' (Sahlins 1965). Yet the modalities of these exchanges are very different.

The case-study of the interior Ju/'hoansi and their mutually beneficial exchanges with their riverine Bantu neighbours illustrates a classical instance of the materiality of resources: scarce in one place, plentiful in another. Ostrich-egg-shell beads and meat from the interior fulfilled a need on the river, matched by a return flow of iron, ceramics, glass-beads and tobacco from the river villages.

By contrast, *hxaro*, the internal exchanges of the Ju/'hoansi among themselves, illustrate other dimensions of resources, the symbolic and social. First, symbolic, because in *hxaro* the 'goods' are secondary, the relations, primary. The exchanges act as signalling devices to mark and affirm that social relationships are in good standing. They can also be glossed as 'social' because an individual's network of *hxaro* partners represents the accumulated 'social capital' she or he is able to draw on.

Ultimately the Ju/'hoansi materials emphatically support the substantivist position in economic anthropology, as derived from the influential theories of Karl Polanyi (1945), in which reciprocity was a dominant principle of economic life in early societies before the rise of markets. It also supports the ongoing critiques of the formalist position (e.g. Hann/Hart 2011), which is now in eclipse in economic anthropology; but a position that nevertheless still dominates the orthodoxy in Economics departments. Though even here there are encouraging signs: the innovative ideas contained in widely-read and positively-received works by David Graeber (2014) and in Thomas Picketty's 'Capital in the Twenty-first Century' (2013) are indications that even in conventional economics, the monolith based on *Homo economicus* is starting to break up.

Richard Borshay Lee
University Professor Emeritus
Department of Anthropology
University of Toronto
28 Crang Ave
Toronto, Ont.
Canada, M6E2Z9
richardb.lee@utoronto.ca

Bibliography

Andrefsky 2006: W. Andrefsky, Lithics. Macroscopic Approaches to Analysis (Cambridge 2006).

Baines 1864: T. Baines, Explorations in South-West Africa (London 1864).

Biesele 1993: M. Biesele, Women Like Meat. The Folklore and Foraging Ideology of the Kalahari Ju/'hoan (Bloomington 1993).

Biesele/Hitchcock 2011: M. Biesele/R. K. Hitchcock, The Ju/'hoan San of Nyae Nyae and Namibian Independence. Development, Democracy and Indigenous Voices in Southern Africa (New York 2011).

Brooks/Yellen 1979: A. Brooks/J. Yellen, Archaeological Excavations at ≠Gi. A Preliminary Report on the First two Field Sessions. Botswana Notes and Records 9, 1979, 21–30.

Chapman 1868: J. Chapman, Travels in the Interior of South Africa. I–II (Cape Town 1868 [1971]).

Draper 1975: P. Draper, !Kung Women. Contrasts in Sexual Egalitarianism in the Foraging and Sedentary Contexts. In: R. Reiter (ed.), Toward an Anthropology of Women (New York 1975) 77–109.

Graeber 2014: D. Graeber, Debt – Updated and Expanded. The First 5000 Years (London 2014).

Hann/Hart 2011: C. Hann/K. Hart, Economic Anthropology. History, Ethnography, Critique (Cambridge 2011).

Harpending 1971: H. Harpending, !Kung Hunter-Gatherer Population Structure (PhD-Thesis Harvard University 1971).

Howell 2000: N. Howell, Demography of the Dobe !Kung. Second Edition (Hawthorne 2000).

Howell 2010: N. Howell, Life Histories of the Dobe !Kung. Food, Fatness and Well-being over the Life Span (Berkeley 2010).

Konner 1976: M. Konner, Maternal Care, Infant Behavior and Development among the !Kung. In: R. B. Lee/I. DeVore (eds.), Kalahari Hunter-Gatherers. Studies of the !Kung San and their Neighbors (Cambridge 1976) 218–245.

Lee 1979: R. B. Lee, The !Kung San. Men Women and Work in a Foraging Society (Cambridge 1979).

Lee 1992: R. B. Lee, Art, Science or Politics? The Crisis in Hunter-Gatherer Studies. American Anthropologist 90.1, 1992, 14–34.

Lee 1998: R. B. Lee, Gumi kwara. E ba n//a basi o win sin kwana (There was no Cattle. Our Fathers and their Fathers just Lived on their own). Oral Histories from Nyae Nyae-Dobe and the Khosan Renaissance. In: A. Bank (ed.), The Proceedings of the Khoisan Identities and Cultural Heritage Conference. Organised by the Institute for Historical Research, University of the Western Cape Held at the South African Museum, Cape Town 12–16 July 1997 (Cape Town 1998) 67–73.

Lee 2002: R. B. Lee, Solitude or Servitude? Ju/'hoan Images of the Colonial Encounter. In: S. Kent (ed.), Ethnicity and Hunter-Gatherers: Association or Assimilation (Washington 2002) 178–96.

Lee 2013: R. B. Lee, The Dobe Ju/'hoansi (Belmont 2013).

Lee/DeVore 1976: R. B. Lee/I. DeVore, (eds.) Kalahari Hunters and Gatherers. Studies of the !Kung San and their Neighbors (Cambridge 1976).

Lee/Guenther 1991: R. B. Lee/M. Guenther, Oxen or Onions. The Search for Trade (and Truth) in the Kalahari. Current Anthropology 32.5, 1991, 592–601.

Marshall 1957: L. Marshall, The Kin Terminology System of the !Kung Bushmen. Africa 27, 1957, 1–25.

Marshall 1960: L. Marshall, !Kung Bushman Bands. Africa 30, 1960, 325–55.

McCall 2014: G. McCall, Before Modern Humans. New Perspectives on the African Stone Age (London 2014).

McKittrick 2008: M. McKittrick, Landscapes of Power. Ownership and Identity on the Middle Okavango River, Namibia. Journal of Southern African Studies 34.4, 2008, 785–802.

Müller 1912: H. Müller, Ein Erkundungsritt in das Kaukau-veld. Deutsches Kolonialblatt 25, 1912, 530–541.

Peterson 2005: N. Peterson (ed.), Donald Thomson in Arnhem Land (Carlton 2005).

Piketty 2013: T. Piketty, Capital in the Twenty-first Century (Cambridge 2013).

Polanyi 1945: K. Polanyi, The Great Transformation. The Political and Economic Origins of our Time (Boston 1945 [2001]).

Robertshaw et al. 2010: P. Robertshaw, Southern African Glass Beads. Chemistry, Glass Sources, and Patterns of Trade. Journal of Archaeological Science 37.8, 2010, 1898–1912.

Sahlins 1965: M. D. Sahlins, The Sociology of Primitive Exchange. In: M. Banton (ed.), The Relevance of Models in Social Anthropology (London 1965) 139–236.

Shostak 2000: M. Shostak, Nisa The Life and Words of a !Kung Woman (Cambridge 2000).

Smith/Lee 1997: A. Smith/R. B. Lee, Cho/ana. Archaeological and Ethnohistorical Evidence for Recent Hunter-Gatherer/Agro-Pastoralist Contact in Northern Bushmanland. South African Archaeological Bulletin 52, 1997, 52–58.

Solway/Lee 1989: J. Solway/R. B. Lee 1989. Foragers, Genuine or Spurious. Situating the Kalahari San in history, Current Anthropology 31, 1989, 109–46.

Stringer/McKie 2015: C. Stringer/R. McKie 2015. African Exodus. The Origins of Modern Humanity (New York 2015).

Taylor 2009: J. J. Taylor, Differentiating 'Bushmen' from 'Bantus'. Identity Building in West Caprivi, Namibia, 1930-89. Journal of African History 50.3, 2009, 417–36.

Wiessner 1977: P. Wiessner, Hxaro. A Regional System of Reciprocity for the !Kung San (PhD-Thesis University of Michigan 1977).

Wiessner 1982: P. Wiessner, Risk Reciprocity and Social Influences in !Kung San Economics. In: E. Leacock/R. B. Lee (eds.), Politics and History in Band Societies. Cambridge and Paris (Cambridge 1982) 61–84.

Wilk/Cliggett 2008:R. Wilk/L. Cliggett, Economic and Cultural Foundations of Economic Anthropology (Boulder 2008).

Wilmsen 1989: E. Wilmsen, Land filled with Flies. A Political Economy of the Kalahari (Chicago 1989).

Yellen 1977: J. Yellen, Archaeological Approaches to the Present. Models for Reconstructing the Past (New York 1977).

SABINE KLOCKE-DAFFA

ResourceComplexes, Networks, and Frames
The *Sambatra* in Madagascar[1]

Abstract

Rituals are multifunctional and multimedia events. They may imply a multitude of actors and performative actions and be attached to diverging individual, social, economic and politic intentions. As opposed to what has long been taken for granted, rituals are not always stereotypic procedures but leave room for manoeuvreing to individual actors. They decide if and to what extent rituals are to be altered, abandoned or revitalised. This is true even when actors are not acting by themselves but are merely attributed agency such as gods, ancestors, ghosts or other nonhuman entities. However, what has hitherto been neglected in ritual analysis is the coherence of actor networks, material and non-material resources and prevailing conditions. In this paper it is argued that the specific constellation of ResourceComplexes, networks and frames in time and space has a decisive impact on the continuity of cultural institutions such as rituals. It focuses on the Malagasy *sambatra*, a traditional circumcision rite for young boys of 0 to fourteen years of age, celebrated every seven years as a collective event attended by large family associations and thousands of participants. Although the children have generally been circumcised before and might not even live in Madagascar, their participation in the *sambatra* is deemed indispensable for admission to their fathers patrilines, finding suitable marriage partners as adults and – most of all – being admitted to their respective family tombs. The case study investigates into the particular components safeguarding the continuity of the *sambatra* for centuries as the grant festival of blessing.

1. Introduction

This paper deals with a classic topic of social anthropology: the analysis of rituals. It attempts to cast a light on the hitherto neglected connectedness of actors, resources and networks within complex sets of ritual events. I will use a theoretical approach generated within the SFB 1070 Special Research Unit on Networks and ResourceComplexes[2] and will combine it with recent results on the dynamics of rituals (Brosius/Huesken 2010; Krüger et al. 2005; Michaels 2010/11; Sax 2006), in particular on the action potential of individual and collective actors.[3] It is an attempt to come to a deeper understanding of the attraction, cohesion and persistence of allegedly outdated events in a world in which 'culture' does not have much status because anything and everything seems to be governed by individual negotiation, multiple solution options, and divergent power relations. The apparent paradox is that in rituals nothing is **supposed** to be individually negotiated and yet everything is – lest their continuity be contested.

I argue that the **interplay** of social relations, ResourceComplexes and frames is decisive for the dynamics of rituals as social acts and their persistence under changing economic, social and political conditions. It will be examined if a specific **configuration** of resources is a prerequisite for the

1 I am deeply grateful to Felix Knauf, who generously provided his research findings on the *sambatra* as a circumcision ritual, and for many fruitful discussions as well as to Ingo Wallner for contributing valuable informations and photographs. Sincere gratitude is also expressed to Shahnaz Nadjambadi for her invaluable advice and commitment.

2 The Special Research Unit 'ResourceComplexes and Networks' is sponsored by the University of Tübingen and associated to the collaborative research centre SFB 1070 RessourcenKulturen funded by the German Research Foundation.

3 The research was part of the multidisciplinary collaborative research centre SFB 619 Ritual Dynamics of the University of Heidelberg running from 2002–2013.

continuity of rituals and their meaningfulness for individuals as well as social units. Without elaborating on the lengthy discussion on figuration theory in sociology (for an overview see Albert 2013; Jakob 2013), I will use the term configuration in the anthropological practice of formation or constellation denoting the specific arrangement and interaction of actors (material/non-material, human/non-human) necessary to hold something in place or get it going. This might give us a clue to understand why other such events are given up or reactivated, since we know from many recent studies that rituals are always a 'cultural dynamic flow' (Brosius/Hüsken 2010, 1) playing a crucial role in changing societies. As Brosius demonstrated, and in opposition to what has been taken for granted for a long time, rituals are not static, repetitive and formalistic entities (Brosius et al. 2013). In fact, they may not even be genuinely religious, although this needs to be proven in any particular case. Religious constituents might not be obvious at first glance or consciously enacted but still are decisive for the setting in general.

In this article the Malagasy *sambatra* serves as a testing ground for the superordinated theoretical question and is indeed a fine example of a persisting ritual – in this case of male circumcision – which is frequented by young boys who have in general been circumcised long before, many of whom do not even live in Madagascar today and with little intention they will ever do so. By applying the theoretical concept on an ethnographic sample outside the current scope of the SFB 1070 it also serves to prove whether it is applicable to ethnographic data in a broader scope.

2. Research Question and Theoretical Approaches

This leads to the guiding question of this study: how important is the interplay of social relations, ResourceComplexes and frames for the persistence of rituals? With reference to the *sambatra*, I will go deeper into detail and ask what makes this event so meaningful that it subsisted despite all political and economic conditions for hundreds of years. How is it framed within the wider context of the Malagasy socio-economic environment? I will also focus on the many actors needed to organise and put into effect this social event and ask what scope is left for individual agency.

2.1. ResourceComplexes, Networks and Frames

Let us start with a definition of resources as developed and used within the Collaborative Research Centre 1070. Deriving from a broader cross-cultural perspective, resources have been defined as 'the basis for or a means to create, sustain and alter social relations, units and identities within the framework of culturally affected beliefs and practices' (Bartelheim et al. 2015, 39). For the purpose of our research, resources become a **category for analysis**.

A number of particularities stand out: Within the context of this research resources are conceptualised not only as the means for the **physical subsistence** of human beings but as fundamental to their **social** survival. As such, they are subject to culture specific ascriptions of meaning. Resources thus do not have an intrinsic worthiness but are **made** into resources by a cultural act of value construction.

By extending the narrow view of resources as economic assets, additional aspects are taken into account such as their importance for the continuity and transformation of social units as well as their varying symbolic connotations.

Different correlated dimensions have to be distinguished:

– a material dimension
– a social dimension
– a symbolic dimension

Drawing on Bruno Latour's Actor-Network-Theory (ANT), the concept of the 'actant' (Latour 2005) comes into view. Actants may be human as well as non-human, material as well as non-material such as objects, knowledge, ideas, technology, spaces, humans, gods, ancestors or ghosts, animals or buildings. Actants in any particular network interact but they do not necessarily communicate, they affect each other but might not be dependent upon one another. What Latour points out is that the course of action in any given scenario is not always and only influenced by individuals in the sense of

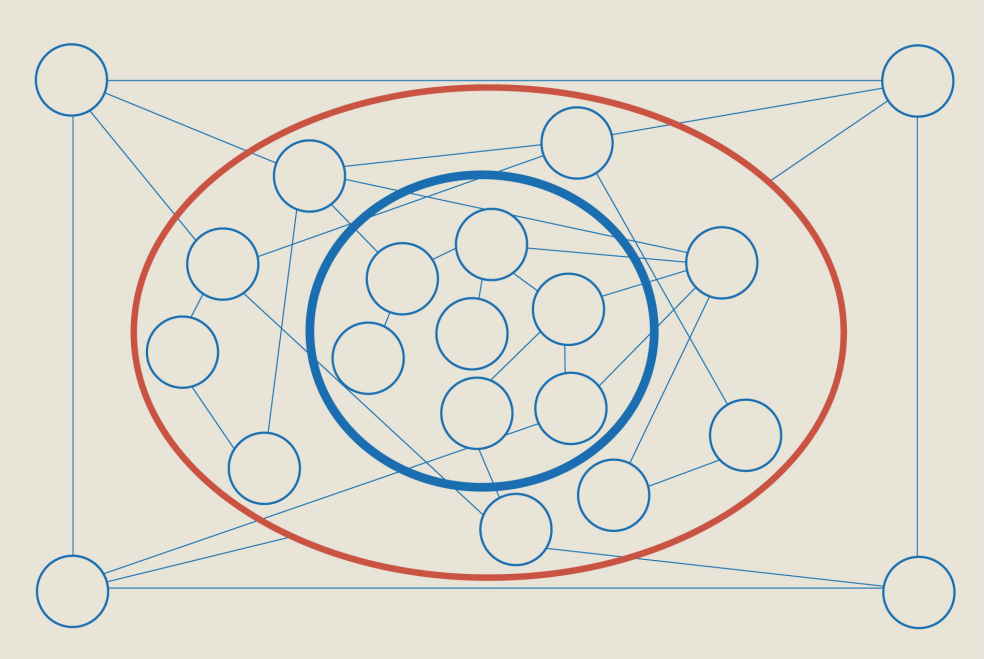


Fig. 1. Model of ResourceComplex (inner circle), network (middle circle) and frame.

human actors but is determined by the prevailing set of relations. Objects e.g. do not determine what goes on but may authorise, influence, enable or block the course of action. The objects entail 'acting potential' without acting and may still become a decisive part of the structuring templates for human interaction. Human as well as non-human actors together are moulding into a specific configuration and only in this assemblage do they command agency.

Nevertheless, I argue that for easier access it is helpful to distinguish three analytical levels (see *fig. 1*) – ResourceComplexes (inner circle), activating networks (middle circle) and frames – which can subsequently be reunited to a combined actor-network.

ResourceComplexes: resources generally do not exist as single units but are **clustered** in complexes which are needed for a particular purpose. Taken separately, clusters of resources are a sort of 'energy potential' which by itself is of little use as a socially valuable resource to individuals or social units, e.g. educational institutions such as schools or universities which do contain many purposely installed resources, but would not operate by themselves if not put to use.

Networks: ResourceComplexes must hence be **activated** by networks, that is by interrelated actors (human or non-human, material or non-material) to make use of them. ResourceComplexes and networks are intertwined and can merge into one large network. Being embedded in such a web of relations can be most important for participating actors (persons) in regard to their social reputation and actions. On the other hand, the quality of connectedness can be decisive for having **access** to ResourceComplexes. Becoming a member of a network and being placed in a certain position (be it as a broker or being linked to other actors) relies on diverse factors and is influenced by personal as well as professional links such as being a member of certain families, neighbourhoods, businesses, congregations or peer groups. Network links can be of very different quality and might implicate reciprocal or unilateral transfers, exchanges, cooperation, and identity negotiations, as e.g. a voluntary association of influential and interconnected persons who seek to provide scholarships for the payment of university tuition fees for children from poor families who might otherwise not have access to the ResourceComplex university.

Frames: ResourceComplexes and networks need a frame (in the sense of an encompassing setting) to become and remain effective. A frame is more than a communicative cue but is conceptualised as a structural feature of an **organisational principle**. In this sense it refers to Goffman (1980, 16) and to the more recent research by Ambos/Weinhold (2013, 94) who differentiate between frames defining conscious or unconscious

structures of knowledge and organisational principles, and framing as the communicative process of perception and interpretation of a certain situation (also Weinhold et al. 2006, 25). To remain with the example of education, it is the frame that is decisive for general school attendance, social and gender segregation or integration, and assessing 'knowledge' in general.

To sum up, social units and phenomena in any such configuration do not represent single independent entities but are pulled together by connecting links in a net of relations. They mould into a kind of interrelated **meshwork**, as Tim Ingold called it (Ingold 2008, 212),[4] or **assemblage** (DeLanda 2016) of persons and things, practices and knowledge. It becomes clear that substantial changes in one or the other part of it – be it within the ResourceComplex or the web of social relations or the frame – may have significant effects on the whole. However, this does not mean that every change is a potential threat as we observe when sophisticated complexes manage to persist against all odds.

Using an actor-network model, two questions cannot easily be answered:

1. What agency does the individual actor have? Is the actor subordinate to the total or is there room for manoeuvring, replacements, inventions, or even subversion?
2. What happens if parts of the network are changing, breaking away, given up or are substituted? Does it collapse altogether or will it be reconfigured with other parts to form another whole? What is crucial for its stability or weakness – is it the specific constellation, is it the quality of relations between particular actors serving as **nodes** and **bridges** or is it the frame that determines the whole?

These questions open the field for the second theoretical approach I will use in this analysis and will then try to combine both in order to answer the above formulated research question.

4 Tim Ingold defines the term meshworks in his book 'Lines' and understands a meshwork as a reticular pattern of interwoven and interconnected lines left by the movements of beings and material, that is '[…] interwoven traits […] rather than routes' (Ingold 2007, 75).

2.2. Theorising Agency in Rituals

Theorising 'ritual agency' (Sax 2006) is conceptualised by the authors not as a critique to Latour's actor-network-theory but rather as a kind of continuation. It appears most appropriate for the analysis of individual and collective agency in the context of life transitions.

The term **agency** is defined as an action potential within networks constituted of human and non-human actors (actants) allocated to persons, institutions, relations and objects. Rituals accordingly are the space where agency is articulated, revealed and approved (Sax 2006, 477). The term 'ritual agency' reverts to a theory designed by Barney Glaser and Anselm Strauss (1971) conceptualising life status passages (such as celebrated in initiation rites) and what they termed 'structure in process' where the social order is not only reproduced but renegotiated every time the event is celebrated. Overcoming the dichotomy of unalterable social structure and individual acting as separate categories of understanding, the concept of 'negotiated order' allows for taking additional dimensions into account. It leaves the door open to the dynamic in-between, to interaction and processes of acting within networks. Agency is no longer reduced to a capacity of individual actors but becomes a virtue of the collective of persons and non-persons being connected to each other (objects or institutions) as well as of their relations among each other.

Within rituals and in particular in initiation rituals, the interplay of individual and collective agency becomes visible. The creation and negotiation of social order is again and again celebrated and demonstrated. Eberhard Raithelhuber (2012) terms it the 'relational understanding of agency'. **The social** is thus the product as well as the frame of actions, but there are limits to negotiating order.

These two theoretical approaches will now be applied to the Malagasy *sambatra*, the famous circumcision rituals for boys. It draws on recent ethnographic research on the 2014 *sambatra* festival and a thorough analysis of actors and agency from within a complex of resources and networks (Knauf 2015).

3. Madagascar and the *Sambatra* Festival of Blessing

3.1. Madagascar

Madagascar is situated some 400 km off the southeastern coast of Africa and is part of the Southern African Development Community (SADC).[5] In many ways, the island is unique and very different from nearby African countries. What makes Madagascar so special is not only the biodiversity with more than 90% of its wildlife found nowhere else, but also the Malagasy population being so different from neighbouring countries. The majority of the early settlers came from Southeast Asia (supposedly Borneo) arriving between 300 BC and 500 AD in several subsequent immigration waves. Mixing with later incoming groups from Eastern Africa and the Near East[6] the inhabitants of the island evolved into a culturally relatively homogeneous population of Asian, African and Arabian mixture despite the many differences in regard to language as well as social and economic aspects (Mack 1986; Radimilahy 1993; Ogot 1992; You 1905). The proclaimed national identity of the Malagasy people designed in the constitution seems to be more wishful thinking rather than reality (see Wallner 2012, 299–310), but the 18 subgroups (*foco*) do have much in common as far as language, religion and social organisation are concerned (Domenichini 1989; 2010). This is not only due to the internal colonisation of the island under the Merina kings between the 18th and 19th cent. (Callet 1972; Kent 1970; Piolet 1895; Raison-Jourde 1983) but even more so to cultural parallels. To date, many of their cultural traits such as the lineage system, preferential cousin marriage, advice-seeking with astrologers, sacrifices of oxen and secondary mortuary rituals resemble Southeast Asian traditions.

Following official statistics, about half of the Malagasy population is said to be Christian.[7] Conversion to Christianity dates back to the early 19th cent. (Ralibera 1993) after missionaries of the London Missionary Society arrived in Madagascar in 1818. When the then Merina king Radama converted to Protestantism many Madagascans followed his example but it was not before the 1860s that Christianity became widespread. French missionaries of the Catholic Church came to Madagascar at the end of the 19th cent. following the French colonisers. By then the Merina court and a large part of the Merina upper class had become Protestants, so the Catholic Church focused more on lower social strata resulting in the fact that even today many of the lower income classes and the *côtiers* – the non-Merina coastal population – are Catholic. Islam plays a minor role covering only about 7% of the population. It has been established since at least the 11th cent. brought to Madagascar by immigrants as well as Arabian and Somali traders. Many of the 52% said to adhere to 'traditional religions' would consider themselves nevertheless to be Christian due to the prevailing syncretic practices. The Madagascans integrate their Christian beliefs with traditional ones which sometimes makes it difficult to distinguish between the denominations. In some cases, as will be seen in the following chapter, Islam, Christianity and traditional belief systems merged into a specific form of hybrid Malagasy religion.

There is one attribute that most Madagascans would identify with and that is also said to be one of the most outstanding characteristic of social life: the belief in the power of their ancestors (*razana*) as is known from other parts of Africa as well as

5 The SADC, established in 1992, emerged from the Southern African Development Coordinating Conference (SADCC) of 1980. The SADC today comprises 15 Southern African member states; see <http://www.sadc.int/about-sadc/overview/sadc-facts-figures/> (last access 19.08.2016).

6 Due to the lack of archaeological findings it is difficult to determine the date of immigrations which most probably took place in several waves. Recent research of DNA markers clearly indicates that 'the most likely origin of the Asia-derived paternal lineages found in the Malagasy population is Borneo' (Hurles et al. 2005) and genetic evidence of the Malagasy-Asia admixture history over hundreds of generations (see Tofanelli et al. 2009). There has been a later admixture by Indonesian women in the 13th cent. but they certainly were not the 'founders' of the Malagasy population as the authors indicate (Cox et al. 2012).

7 Following the data of Index Mundi 52% of the population following 'indigenous beliefs', 41% are said to be Christians and 7% Muslims. As these figures appear on many websites and in print publications for years it is questionable whether they have been updated recently; <http://www.indexmundi.com/madagascar/demographics_profile.html> (last access 19.08.2016).

Southeast Asia (see Bloch 1995 [1986]; Crossland 2014 and Ottino 1998 for the Merina of Madagascar; McCall 1990 with examples from Africa; Barrault/Platenkamp 1999 for Southeast Indonesia). Respecting the ancestors is much more than remembrance – it signifies identity and history, belonging and solidarity (*fihavanana;* see below*)*. The ancestors are said to be mediators between the living and the inaccessible creator God (*zanahary*) and should therefore be consulted first whenever a person is in need of divine support (Rakotomalala et al. 2001, 47). The ancestors are virtually the source of life: the living are connected to them through the stream of life (*aina*) and rely upon them for their blessing (*hasina*).[8]

In a kind of reciprocal interaction, the ancestors as benevolent forebears of the living are responsible for the wellbeing of their descendants, just as the living are expected to maintain good relations with them. However, the ancestors are also said to be dangerous and malevolent causing misfortune and illness as a means of punishment for misbehaviour. To keep them well disposed they should be taken care of and honoured by the living through obedience to the social norms as well as pleased by sacrifices accompanying reburial festivals. Not least, they were the 'first residents' (*tompon-tany*) of the land (*tanindrazana*), where their descendants still dwell today. *Tanindrazana* should thus be regarded as the base of life and token of social belonging passed from generation to generation (Middleton 1999; Rakotomalala et al. 2001 for the Merina). The family land is also the place of the tombs where the funerals and famous second burials with the turn and rewrapping of bones of the deceased (*famadihana*)[9] take place. Madagascans regard the land of their ancestors to be holy as is alluded to in the national anthem: *Ry Tanindrazanay Malala ô* – Oh beloved land of our ancestors.

3.2. The Antambahoaka

The dominant group in Madagascar is that of the Merina of the Central Plateau, representing about 26% of the 25 million inhabitants of Madagascar,[10] next to the Betsimisaraka and Betsileo on the eastern coast amounting to 15% and 12% respectively. One of the least numerous people are the Antambahoaka (about 60.000) near the city of Mananjary in southeastern Madagascar, just south of Betsimisaraka settlements.[11] The Antambahoaka are a breakaway faction of the larger Antomoro group who claim to be of Arab origin migrating from Mecca some time after the 11th cent. Most of the 30.000 Mananjarys live off rice cultivation and fishing. Due to economic and ecological constraints a part of the Antambahoaka population migrated to Madagascar's capital Antananarivo during the last decades of the 20th cent. Some of them later took residence in France, the former colonial power of Madagascar.

The Antambahoaka of Mananjary are organised in 16 patrilineal lineages ranked according to seniority. Much as the highland groups such as the Merina, their social hierarchy was traditionally divided into three 'classes' – the royal families, the commoners and the descendants of former slaves. Nevertheless, 'class' seems to be a rather Eurocentric description of social stratification and does not seem to describe Malagasy social differences adequately. Neither is the class of 'royals' of outstanding wealth or power nor are the former 'slaves' predominantly disenfranchised and exploited. Since 1896 when slavery was officially prohibited, Merina as well as Antambahoaka were proclaimed to be free citizens – which does not mean that equal rights have since been realised nor has intermarriage with members of the lower social strata ever been much appreciated. Antambahoaka kings never come from slave families. However, rituals such as the famous *sambatra* are celebrated by all and are some of the few events bringing together

8 For the concept of *hasina* see Crossland 2014, 102–106.

9 Celebrating the *famadihana* is essentially connected to the belief in the power of ancestors but will not be further discussed in this paper. For more on the 'Dancing with the dead' see Graeber 1995.

10 Projected figures for 2016 by United Nations World Statistics, see <http://data.un.org/CountryProfile.aspx?crName=MADAGASCAR> (last access 18.08.2016).

11 Except for a short notice on the Antambahoaka (Deschamps/Vianés 1959) a thorough ethnographic account is still lacking.

people of different descent and social affiliation. Those who are explicitly excluded are families with twins[12] and all persons who are publically known to have arbitrarily infringed on social norms.

Nowadays, Antambahoaka kings do not enjoy much political power other than by indirectly influencing their subjects, but do have to exert several legal and ritual obligations such as acting in judicial matters as arbitrators or judges as well as on ritual occasions. Most of all, the as yet privileged position of a king is due to the ascribed position and functions within the socio-cosmological order of Antambahoaka world view. Kings are conceptualised as mediators between the living and the dead just as the ancestors mediate between the living descendants – including those at the social top – and God. Access to office is not predefined by birth. The king (*ampanjaka*) as representative of his lineage is advised by his vice kings (*lefitra*). They are all elected by the women of the lineages.

3.3. The Sambatra – Festival of Blessing

The circumcision ritual as celebrated by the Antambahoaka is in parts similar to other rituals among neighbouring groups (Bloch 1995b; Middleton 1997). One of the first detailed accounts dates back to the 1920s (Razafitsaroana 1927). In Mananjary, the Antambahoaka celebrate the *sambatra* every seven years for a period of four consecutive weeks in the months of September/October. The last one took place in 2014. It was presided over by the local kings gathering at 10 royal houses (*tranobe)* and attended by several ministers of state as well as thousands of Antambahoakans, visitors, and tourists.[13] The date is chosen after the Muslim lunar calendar in the 'year of Friday' (*tanon-joma*) when the full moon appears at the end of September/beginning of October (*volambita*, month 11 of the Malagasy calendar, called to be the month of stars/destiny; see Knauf 2015, 41) which dates back to the day and month when their founding father is said to have left Mecca (see below) on a Friday. It starts with an initial ceremony (*fafirano*), a prayer directed to God and the ancestors of the royal houses asking for a blessing of the city and all Antambahoaka. Even though celebrated as a huge open air festival resembling a giant party, there is a distinctly marked cosmological connotation to the ritual to be observed as well as a symbolic iteration of a historical event which became part of Antambahoaka cultural heritage.

The initiates participating in the ritual are generally between 0 to 7 years old. In 2014, about 200 boys simultaneously took part (Gyre 2014). Since the *sambatra* is organised for them to be the most important persons, they should be the centre of attention – but as in so many initiation rites worldwide the initiates have little to do and nothing to say. Many if not all of these boys have been circumcised as babies by a hospital doctor in or outside Madagascar.[14] To become circumcised within the *sambatra* is thus merely a symbolic act. But if the circumcision itself has been enacted before the ritual why is it so important to organise this type of collective event in the first place? Or asked differently, why would a single act of circumcision for the individual child not be considered enough to achieve the intended goal?

Rituals are always multifunctional and multimedia events. One of the manifold functions of the *sambatra* is the collectively celebrated transformation of male children and youngsters – gathered in a peer group – into socially accepted members of the patrilines.[15] To be an Antambahoaka man two conditions need to be accomplished: being born

12 According to Antambahoaka mythology, the birth of twins is the sign of a curse causing misfortune to the family and the community. Therefore, there is a *fady* (taboo) connected to twins. Until recently, the children used to be killed after birth, today they are usually given up for adoption. However, some parents decide to keep their children but will have to face social stigmatisation.

13 The exact number of visitors is unknown. There are doubtless thousands regularly attending the *sambatra* since it takes place only every seven years and is promoted by the Malagasy gouvernment as well as the international tourism industry. However, it is doubtful that 80.000 visitors came to the 2014 *sambatra* as was promulgated in some of the social media.

14 In order to prevent unhealthy conditions, circumcision during the *sambatra* is prohibited since 1972. Boys are usually circumcised within the first 18 months after birth either by a doctor or other specialist (Knauf 2015, 41, footnote 107).

15 It would be worthwhile to examine whether Antambahoaka females do not need to go through an initiation ritual because they are considered to be descendants by birth. In any case, Antambahoaka women do play a crucial role within the *sambatra* ritual.

into an Antambahoaka family by an Antambahoaka mother or in-married woman respectively, and having participated in the *sambatra* aiming at the incorporation of the child into his Antambahoaka father's family. Only circumcised men who have gone through the ritual are said to be 'real men', only on that condition will they find an Antambahoaka wife and – most importantly – be allowed to be exhumed from the family tomb and commemorated. Only 'real men' are said to be strong and brave and will be recognised as representatives of the patrilineal families, potential kings (even though this is more than unlikely), distinguished elders and honoured ancestors.

Since all family members are expected to participate, share in the costs and perform in one way or the other – even though not all might have the chance to be present nor are all willing to share – the *sambatra* also has to do with the highly valued concept of solidarity (*fihavanana*), which Wallner designates to be one of the key concepts of Malagasy society (Wallner 2012, 162; for more on the *fihavanana* see the contributions to the edited volume by Kneitz 2014; Njara 1992). Furthermore, it comprises cultural heritage and individual identity, the conveying of 'Antambahoaka-ness' and continuous social reconstruction. All these divergent and heterogeneous concepts – widely known from other important initiation rituals – can be depicted and become lucid when carefully analysed.

However, the participation of specific **individual actors** is not mandatory – some might be abroad, refuse to be present altogether or be prevented otherwise – but the *sambatra* would still take place. So what is it that really counts? What **ought** to be there in any case and cannot be relinquished? What is needed to serve the purpose, or in other worlds: what transforms a person into a 'real Antambahoaka'? I argue that it is precisely the specific constellation of culturally validated resources, social relations and supporting frames that keeps the *sambatra* alive and guarantees its purpose despite all outside changes.

3.4. A Myth of Origin

It all originated with the legend of immigration serving as a kind of myth of origin which is re-enacted in each *sambatra* and will be outlined here in short (see Knauf 2015, 33–35; Ottino 1998). Interestingly, Antambahoaka oral history does not begin in what is today Indonesia even though this would be expectable due to the many cultural parallels. Their point of departure is said to be Mecca leaving no doubts about when recordable **history** began in collective memory: according to this myth, at some time during the 12th cent. Raminia, who was later to become the founding father of the Antambahoaka, left Mecca sailing in the direction of Madagascar due to conflicts with the local communities.[16] Raminia was sailing with 15 ships all under a red flag.[17] The departure of the ships was on an Islamic holiday which happened to be a Friday in October.

Aboard the ships were many of Raminia's relatives as well as many of his vassals equipped with spears and knives to defend his people. The ships were loaded with barrels of water, large quantities of groceries and live animals such as Zebu cattle but also some birds. After their arrival at the Malagasy island they debarked at the mouth of a river and decided to stay there. One of Raminia's descendants was Ravalarivo who became the first king of the Antambahoaka and founder of the first royal house (*tranobe*) which at the time was erected from bamboo wood covered with reed grass collected at the river where Raminia's people went ashore. Ravalario is also said to be the initiator of the *sambatra*. His five sons became the founders of five more royal houses, later split up into another five so that today there are 10 *tranobe* in Mananjary and some more in the surrounding villages. Ravalarivo and his sons thus became the forebears of today's 16 Antambahoaka lineages or subclans. They continued celebrating the *sambatra* in memory of their father and to commemorate the first settlers led by Raminia.

The story of Raminia is hence part of the cultural heritage of the Antambahoaka written down in the *sorabe* (lit. 'large writings'), a 'holy' text composed in Arabian characters in the secret Malagasy-Arabian language (Munthe 1977; Beaujard

16 There are many versions of Raminia's story but all recall the joint exodus of a group of Muslim and non-Muslim persons (for an overview see Knauf 2015, 35).

17 It would be interesting to do more research on the meaning of the red colour in Southeast Asia.

1998).[18] Only one person is able to read the text. He is the scibe (*katibo*), a member of one of the royal houses who serves the position of secretary (for the role of the scribe for the 'grand houses' see Gueunier et al. 1992). The knowledge is normally passed from father to son within the *katibo's* family. In earlier times, the *katibo* used to be the royal astrologer who would be asked to read the *sorabe*. It was he, who then decided which days were suited best to celebrate the *sambatra*. During the exodus of Raminia the text with the Antambahoaka myth of origin is said to have been stored in the *vatomasina*, a zoomorphic sculpture of chlorite schist resembling an elephant. A replica of the original *vatomasina* is kept in the village of Ambohitsara near Mananjary. The text was preserved as a transcript and is today kept in the *katibo's* house. It is said that the first *vatomasina* was made from chlorite schist and placed aboard Raminia's ship. Today's sculpture is definitely of later origin and seems to resemble a pig more than an elephant. Since it came from Saudi-Arabia, it cannot ever have been intended to be a pig but more research on the symbolic meaning of this sculpture would be necessary to find out about its historical symbolism.[19] Up to this day, the *vatomasina* of Ambohitsara is the centre of ritual performances intended to bring rain and fertility.

All of these details just mentioned are helpful when analysing the *sambatra* as all of them (plus many more of later origin) reappear in one form or the other in the ritual (for details see Knauf 2015, 39–70): over a period of four weeks, almost 30 individual rites are to be performed in a prescribed way. After the opening ceremony *fafirano*, a series of five successive parts are effected including the fetching of holy water to be distributed to all participants, drumming, singing, 'war dances' of men, women circumventing the royal house (*tranobe*) of their own lineage and in adjacent quarters and a final parade around the city of Mananjary, which is then said to be void of all evil. The second and third week provide ample time for cross-visiting, eating, rum drinking, dancing and singing. Towards the end of the third week, the 'commander of the army' and 'leader of the fathers' is to be elected. It is a prestigious though costly honorary office for the elected man as it is he who is expected to buy a zebu oxen (later to be slaughtered for the feasting). The most eventful part is the fourth week with a course of almost 20 different performances re-enacting the advent of the founding father, symbolical reed thatching of the *tranobe*, posting wooden birds on top of them, praying and invoking the ancestors, slaughtering the zebus, eating and dancing. Only at the very end will the boys symbolically and in secrecy be circumcised. They thus become 'real Antambahoaka', successors of the founding fathers and (potential) guarantors that life will continue. This is considered to be a blessing for all, the ancestors will be pleased and all rejoice in a night full of singing and feasting.

4. Analysis

4.1. Networks and Agency

Looking at the *sambatra* in detail it becomes clear that the ritual is indeed a complex network of human and non-human actants. I will analytically differentiate their varying functions, obligations and positions in order to show the interplay of complexes, networks and frames all set up in a specific configuration.

The central ResourceComplex (see *fig. 2*) consists of a mixture of persons, material objects and immaterial goods conceived to be indispensable actors without acting. First of all, we find the initiates as the most important though most inactive persons. The central location is the royal house (*tranobe*) where the initiation will take part later in the process. Then there is the holy text (*sorabe*) which must be consulted. Zebu oxen are slaughtered, the tail of one of the animals will be hung up

18 Several hundred *sorabe* were preserved in Madagascar, the oldest possibly dating back to the 11th cent. (Munthe 1977, 96).

19 Three aspects should be examined: one is the shape of the object. Even though there is reference to the importance of elephants in Islam there is a seemingly strong similarity to an archaeological terracotta object from Towulan, Surabaja, Indonesia dating back to the kingdom of Mojopahit (12th cent.). The object is said to be one of the first 'piggybanks' ever found but it is more than likely that it originally served other purposes. What also needs to be examined is the material: chlorite schist has been found to be of ritual importance throughout the Near East long before Mecca came into existence. Also, vessels made of chlorite schist have been in use over centuries on the southeast coast of Madagascar as the Matitanana Archaeological Project in the vicinity of Mananjary could verify starting from the *vatomasina* in Ambohitsara (Griffin 2011, 43).

in the royal house where the initiation takes place and the head is used as a seat for the boys to be placed upon during circumcision. Holy water from the mouth of the river is brought in barrels and calabashes, bamboo cane and reed grass from the river banks are woven into mats and straw-hats. Birds carved from wood are among the indispensable equipment such as boats, red garments and large amounts of groceries. Men wearing spears and knives perform exhibition fights.

In this comprehensive cluster of elements determined by tradition new elements can be found and as time goes on they might eventually be substituted again by others. One such element is the national flag, which for several decades during the 20th cent. was the French Tricolore later to be replaced by the Malagasy national flag. Today, the Malagasy national anthem is played instead of the Marseillaise, new musical instruments find their way into the *sambatra* and new locations may be integrated into the feasting. Among the drinks to be served one is an absolute must: rum is conceived as the drink of the ancestors. It remains unknown why the Malagasy ancestors have chosen this alcoholic beverage to be their favourite drink but it might be one of the newer elements since rum was probably not part of the catering on Raminia's ships (of course, we never know for sure, as in early Islam alcohol was not totally forbidden, see surah 4:43, 16: 67, 47:15).

Beyond this cluster serving as the basis of the *sambatra* – let us call it a ResourceComplex – there are a large number of persons initiating, organising and executing the *sambatra*. Many of them are connected by family ties but not necessarily so, as also many non-kin are participating. To begin with, the traditional authorities must become active even months before the festival: the scribe (*katibo*) of the oldest clan will read in the holy text to find out about the appropriate date which will be delivered to the Antambahoaka kings and vice kings, the *sambatra* organising committee and the municipality (to make sure the City of Mananjary is prepared for the festival). Among the most important actors are the initiates' families, constituting several peculiar subgroups of mothers and mothers' sisters, fathers and fathers' brothers and mothers' brothers. Besides these groups of relatives performing different roles, many more persons are actively involved who are either distant relatives or non-relatives chosen by the participating families. Among the many actors appearing on the scene are the slaughter-men who will kill and cut the zebus, the drummers and musicians, wood carvers, reapers, water carriers, mat weavers and, last but not least, the circumcisers (see *fig. 3*) .

This very dense network of actors, material objects and performers is complemented by music and dance, a simulated sea voyage and inshore landing, men fighting against fictive enemies, singing women circumambulating the *tranobe*, processions to the mouth of the river and street parades – all accompanied by thousands of visitors. No doubt the *sambatra* has become a tourist attraction which is promoted nationally and even worldwide through the media but this fact should not distract from its social purpose.

Even though not enacted in dogmatic array all rites are well defined in content and intention: starting with the fixing of the date and the initial quest of blessing (*fafirano*) to the dance of the king (*mitavana ampanjaka*) and call of the ancestors to the sacrifice of the zebu (*mamono ny ombin*) to the near-final act of the circumcision (*rangozaza*) effected by the circumciser or a religious specialist inside of the royal house. Even though the cutting is reduced to a little incision or merely a symbolic act, the boys are still expected to be placed on the bloody head of one of the zebus sacrificed to the ancestors clearly indicating the intimate connection between circumcision, sacrifice and the ancestors as transcendental actors. The child is carried into the *tranobe* on his mother's brother's shoulders and after completion handed over to his father who is awaiting the child outside the royal house. This has to be accomplished through the east door. In the Antambahoakan worldview the East is the cardinal direction connected to life and the Northeast considered to be the seat of the ancestors.[20] The symbolic meaning of the handing over of the child thus becomes very obvious: life is more than the biological existence of the human being but is conceptualised (and deemed possible only in this way) as life in social relations guided by the ancestors.

20 Up to this day, most houses in Madagascar whether urban or rural allocate some space for the ancestors in the northeastern corner of one of the central rooms.

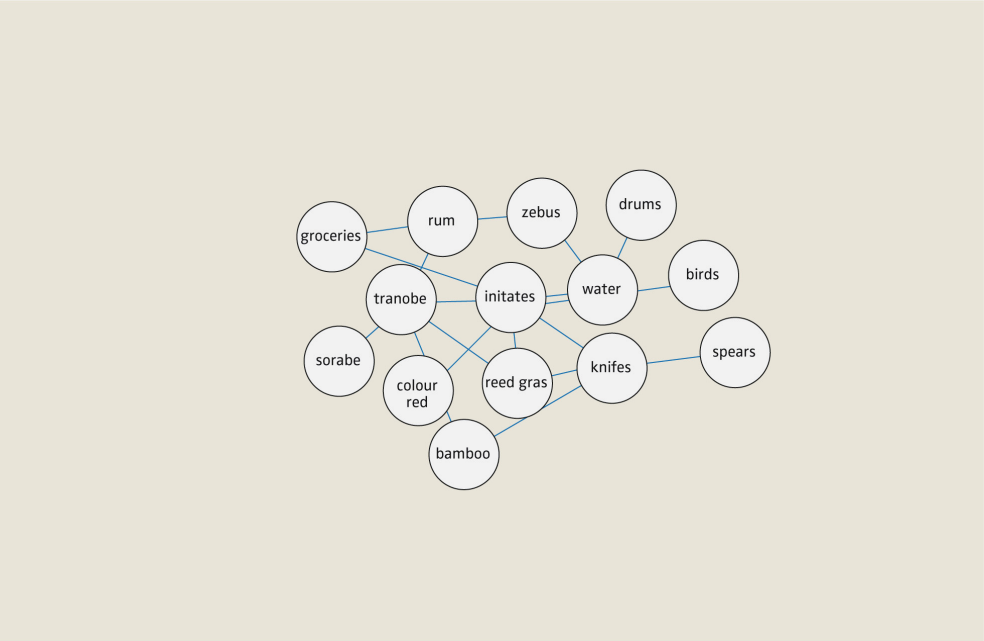


Fig. 2. Sambatra ResourceComplex.

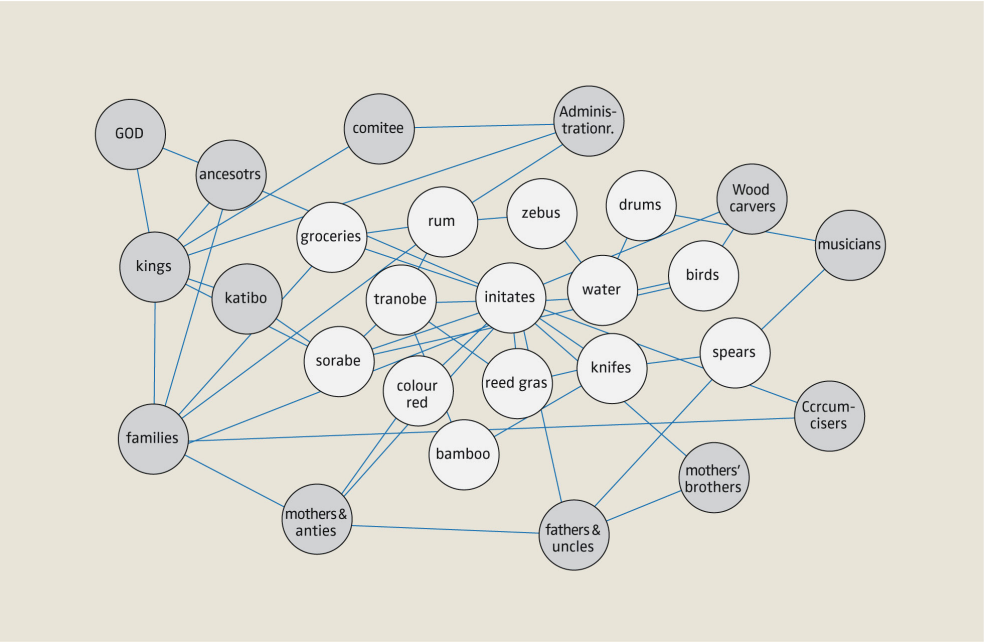


Fig. 3. Sambatra ResourceComplex and network.

Not before the entire series is completed except for the very last closing rite does the boy officially belong to his father's family and becomes a worthy successor of his patrilineal ancestors. It is here where his identity as an individual and as a social person is defined. This can only be achieved by a collective representation and re-enactment of the myth of origin. As a kind of 'eternal now', presenting Raminia's story serves to bring back the past into the present in order to safeguard the future. Being a (male) Antambahoaka hence means being a descendent of Raminia (*Zafiraminia*), thus standing in the line of the founding father which requires courage and a symbolic sacrifice.

This explains why the rather unspectacular *rangozaza* rite effected weeks after feasting began is central and is followed by a night full of music, dancing and drinking rum (see *fig. 4*). Bloch expressed the importance of the circumcision in these words: 'The blessing of the child is the celebration of all and so all who participate will benefit; the blessing of circumcision produces new generations in general for the entire descent group' (Bloch 1995b, 89).

Fig. 4. The Merina circumcision party (unknown painter). As among the Antambahoaka, the circumcision of boys is a widely known custom in Madagascar (I. Wallner).

Whether collectively celebrated as a public open air event or in private family groups, the intention is the same deriving from the **validation** of the *sambatra* as a cultural resource deemed necessary for the individual as well as for social units. The **value** of this ritual lies in the ascribed meaning as a source of cohesion, the celebration of life (*aina*) and the recreation of solidarity (*fihavanana*) in a specific social context. In this regard, the *sambatra* – as other rituals – is 'rational' in the sense that the participants contribute to a shared good, 'seeing the ritual taking a momentum of its own' as Thomas Widlok has demonstrated (Widlok 2010, 31). It is the blessing of the ancestors that is needed and considered essential for the continuity of the individual in his process of growing into the status of an adult, as it is deemed necessary for social cohesion. The anticipated blessing for all might in fact be one of the decisive factors: etymologically *sambatra* means **blessing** synonymously used for **luck** and **joy**.[21] Being joyful is indeed an essential part of the festival and a quasi-obligation of all the participants of the *sambatra* to show their emotions over the newly achieved luck (not least facilitated by happily consuming rum during most of the feasting days). It deserves closer attention that for the weeks the *sambatra* is celebrated there must be no disharmony and no funerals should take place to make sure the harmony is undisturbed and the ancestors are unmolested. This is very much opposed to many African rituals as I have shown for some Namibian groups where death always comes first and in case of coincidence any other ritual is postponed (Klocke-Daffa 2001; 2016).

4.2. Actors and Actants

Without delving too deep into the details of classical social network theory we can easily depict some of the central actants in this network classified as **nodes** or **bridges** (for definitions see Gamper et al. 2012) connecting other actors or providing interactions.

– **Ancestors**: in each of the 29 singular rites the ancestors are invoked, donated with sacrifices or asked for their blessing. Defined in theoretical terms, they are nodes of highest centrality linking all other actors.
– **Kings and scribes**: in their bridging function as mediators between the living and the

21 In the Malagasy language, *sambatra* is also used as an adjective meaning 'lucky', see the Malagasy-German dictionary edited by Bergenholtz et al. 1991, 564.

dead kings are among the important actors for all participants. It must also be stressed that the knowledge of the proper execution of the *sambatra* rests mainly with them. Closely connected to them are the scribes to give their judgment on the best suitable cosmological constellation for celebrating the festival.

- **Mothers and mothers' sisters**: individuals as well as groups (and as such acting within the ritual) women are the persons who give birth to the new generation.
- **Mothers' brothers**: as a group the brothers of the initiates' mothers represent the female lines.
- **Fathers and fathers' brothers**: representing the patrilines it is they who eventually define the social status of the boys.
- **Initiates**: even though not actants in the sense of active persons, they are essential nodes within the *sambatra*.
- **Royal houses**: since it is conceptualised as absolutely essential that some of the most important rites of the *sambatra* must take place inside the royal house of each clan, the *tranobe* must also be defined as one of the nodes linking people, groups and objects.
- **Material goods**: since many of the objects and goods are seen to be essential for a successfully conducted *sambatra*, material objects must also be considered as central even though their amount, quality and availability might change over time.

In his recently published thesis on the *sambatra*, Felix Knauf demonstrated that all participating actants deemed to be important for a successful *sambatra* do command agency in some way or another. It does not matter whether they are involved in most or all rites or have little to do such as the boys for whose sake the ritual is organised in the first place. Also, actors might be just endowed with meaning and efficacy such as the ancestors. This led him to conclude that it is the collective agency that counts rather than the individual acting. 'Agency should be analysed neither as a mere human or as a stable quality but as a social phenomenon, the product of actions and impacts of agents connected to one another in a causal network' (Knauf 2015, 71; translation by Klocke-Daffa).

Construing the *sambatra* as a totality of material and immaterial resources, personal ties and interlinked actors in a particular setting guarantees continuity without reducing the agency of individual actors in their efforts to adjust over time. Individuals are welcome to change things and procedures as long as the setting is not endangered. It may happen that initiatives for change may be collectively disapproved and will not be accepted. Without a single institution or person in office to set the agenda, alterations to the overall formation must be implemented by the majority of participants and cannot be overthrown by individual actors but depend on their relations to others. This is where the limits of negotiations and individual agency are to be found. The *sambatra* thus proves to be an ever transforming dynamic formation and a 'structure in process' as Glaser and Strauss called it (Glaser/Strauss 1968, 239 f.). Because of its flexibility it could be preserved over time despite all political, religious and social alterations.

4.3. ResourceComplexes and Networks

Analysing agency in ritual and its dynamics allows us to define thoroughly who is acting in which kind of relation but does still not explain why that is so. It also leaves open the question why some ritual constellations must stay unchanged while others are changing substantially or end up being totally relinquished. This brings me back to my theoretical approach delineated at the outset of this paper.

The *sambatra* must certainly be called a 'resource' in the sense of our Collaborative Research Centre: for the Antambahoaka it constitutes an important basis for their social cohesion as it does for other southeastern Malagasy groups. The *sambatra* creates unity, identity, and belonging far beyond the male circumcision (which can be and is accomplished by other means). To answer the as yet unanswered question about the resilience of the *sambatra* despite all time-conditioned economic, political and even religious changes it seems

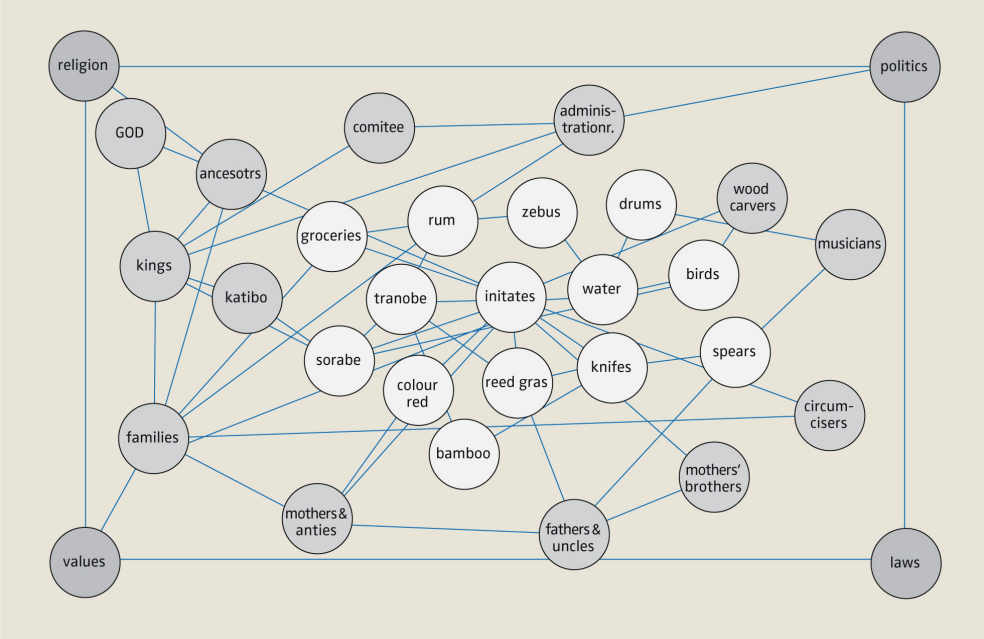


Fig. 5. ResourceComplex, network, and frame in the Sambatra.

helpful to take a fresh look at the framing particularities (see *fig. 5*). They too, are actants in the network but should be analysed separately in order to define their relevance for the whole.

Among them are:

– the current political situation influencing or even determining if a *sambatra* takes place,
– the judicial system regulating judicial guidelines,
– the religious beliefs having an impact on the incorporation of transcendent actors,
– prevailing values as the common base of belonging and identity.

They can be interconnected such as religion and values or laws and politics. Laws might have a strong influence on religious practices and the performative enactment of values. However, we must note that the **political system** and the prevailing law system, despite having an impact on the official authorisation or prohibition of the ritual (only during World War II the festival was temporarily suspended) the *sambatra* proved to be stable. Throughout all political changes over the past century, whether internal or external colonisation, socialist experiments or capitalism, nothing could severely threaten the ritual. The current **law** prescribes that male children must not be circumcised in private and under unhealthy conditions, so boys are nowadays to be brought to a doctor or a hospital. This alone could have been the end of the ritual was it meant to be just for this purpose, but it persisted. Not even the advent of **Islam** and **Christianity** had an impact on the *sambatra* to the point that it ever ran the risk of being abandoned since the Antambahoaka managed to creatively incorporate every religion they came into contact with into their traditional beliefs. What remained was the belief in the power of their ancestors closely connected with the deep **values** of Antambahoaka society.

Many more framing conditions could certainly be named, such as the overall **economic and ecological conditions**, which influence the magnitude of the *sambatra* and the quantity of material resources people would be able to allocate. But neither the degenerating soil nor the nearly missed national economic collapse kept people from celebrating. Another factor worth mentioning is the **educational system,** which has a bearing not only on the time available but even more on the validation of the initiation as an important part of socialisation. Here, too, we find that the educational level of parents does not seem to be decisive for the general notion of the social capital provided by having one's child participate in the *sambatra*. On the contrary, the educational level does not have a negative influence, since most of the kings used to be teachers, politicians or state employees themselves. The same accounts for the *katibo* and other religious specialists. Much more important is the

Fig. 6. The Sambatra festival at Mananjary, 2014 (I. Wallner)

access to and the incorporation into the network of actors.[22] It is questionable whether we can set up a ranking of actants and depict **central resources or central actors** in this scenario. Even though the ancestors are important actors around whom the entire ResourceComplex and all social relations revolve, we could not be sure what would happen were people no longer convinced of their power.

5. Concluding Remarks

In summing up the results of this brief overview we conclude that if we want to know how important the interplay of social relations, ResourceComplexes and frames is for the persistence of rituals thorough analysis is needed of what it needs to configurate a ResourceComplex as an assemblage of material and non-material items, knowledge and practices.

The *sambatra* complex changed over time due to the participating actors in a continuous and dynamic process of transformation. However, it is not **individual agency** that leads to substantial modifications (up to the point where the *sambatra* would be abandoned) but **the temporal constellation** of the whole. Along with the resources deemed indispensable and the set of social relations activating them, it is worth looking into the frame which is part of the entire network. Framing elements might not be connected to any participant in particular and yet be decisive for all. More detailed information and cross-cultural comparisons would be required to find out whether culture specific **validations** are to be considered as central resources in any such constellation – and equally so, what it takes to reconfigure or even abandon a complex. In the case of *sambatra*, this would help us to comprehend why some Malagasy groups of the southeast coast who celebrate the *sambatra* reduce it to a one-week or even a one-day private family event.

It would be interesting to test whether the theoretical reflections this analysis relies upon are workable in the interpretation of other rituals – which could also be helpful in applied anthropology. It might give insights into similar initiation rituals which persist in other parts of Africa, often against all odds and even international pressures such as female circumcision rites in Eastern Africa on the one hand and re-discovered rituals such as the Xhosa *ulwaluko* circumcision for male adults in South Africa on the other.

At a more abstract meta level, intensive research is required to prove whether this theoretical approach to configuring ResourceComplexes,

22 Research on the importance of social capital and educational options has been conducted by Marc Schwenzer (2016) who is also a member of the Special Research Unit of the SFB 1070.

networks and frames is valuable beyond ritual analysis and applicable to other constellations such as economic and social complexes, or social groups and their access to educational institutions, or production and trading networks. Also, considering certain constellations in hindsight the delineated model might be helpful to understand more about historical developments such as archaeologically reconstructable complexes which evolved or suddenly 'disappeared'. In this regard the SFB 1070 ResourceCultures has a lot to offer.

Sabine Klocke-Daffa
Asien-Orient-Institut
Abteilung für Ethnologie
Burgsteige 11
72070 Tübingen
sabine.klocke-daffa@ethno.uni-tuebingen.de

Bibliography

Albert 2013: G. Albert, Figuration und Emergenz. Zur Ontologie und Methodologie des Ansatzes von Norbert Elias. Kölner Zeitschrift für Soziologie und Sozialpsychologie 65.2, 2013, 193–222.

Ambos/Weinhold 2013: C. Ambos/J. Weinhold, Rahmen und Rahmungsprozesse. In: C. Brosius/A. Michaels/P. Schrode (eds.), Ritual und Ritualdynamik. Schlüsselbegriffe, Theorien, Diskussionen (Göttingen 2013) 92–99.

Barraud/Platenkamp 1990: C. Barraud/J. Platenkamp, Rituals and the Comparison of Societies. In: C. Barraud/J. Platenkamp (eds.), Rituals and Socio-Cosmic Order in Eastern Indonesian Societies, Part II. Maluku, Special Anthropological Issue. Bijdragen tot de Taal-, Land- en Volkenkunde 146.1, 1990, 103–123.

Bartelheim et al. 2015: M. Bartelheim/R. Hardenberg/T. Knopf/A. Scholz/J. Staecker, ResourceCultures. A Concept for Investigating the Use of Resources in Different Societies. In: A. Danielisová/M. Fernández-Götz (eds.), Persistent Economic Ways of Living. Production, Distribution, and Consumption in Late Prehistory and Early History (Budapest 2015) 39–50.

Beaujard 1998: P. Beaujard, Le parler secret arabico-malgache du sud-est de Madagascar (Paris 1998).

Bergenholtz et al. 1991: H. Bergenholtz/S. Rajaonarivo/R. Ramasomanana/B. Radanielina/J. Richter-Johanningmeier/E. Olszowski/V. Zeiss (eds.), Malagasy-Alema. Madagassisch-Deutsches Wörterbuch (Antananariva 1991).

Bloch 1995: M. Bloch, Almost Eating the Ancestors. Man 20.4, 1995, 631–646.

Bloch 1995 [1986]: M. Bloch, From Blessing to Violence. History and Ideology in the Circumcision Ritual of Madagascar (Cambridge 1995).

Brosius/Hüsken 2010: C. Brosius/U. Hüsken, Change and Stability of Rituals. An Introduction. In: C. Brosius/U. Hüsken (eds.), Ritual Matters. Dynamic Dimensions in Practice (New Delhi 2010) 1–26.

Brosius et al. 2013: C. Brosius/A. Michaels/P. Schrode, Ritual und Ritualdynamik. Schlüsselbegriffe, Theorien, Diskussionen (Göttingen 2013).

Callet 1972 [1908]: F. Callet, Tantara ny andriana eto Madagasikara (histoire des rois) (Antananarivo 1972).

Cox et al. 2012: M. P. Cox/G. Nelson/M. Tumonggor/F. Ricaut/S. Herawati, A Small Cohort of Island Southeast Asian Women Founded Madagascar. Proceedings of the Royal Society of Biological Sciences 279.1739, 2012, 2761–2768.

Crossland 2014: Z. Crossland, Ancestral Encounters in Highland Madagascar. Material, Signs and Traces of the Dead (Cambridge 2014).

DeLanda 2016: M. DeLanda, Assemblage Theory (Edinburgh 2016).

Deschamps/Vianès 1959: H. Deschamps/S. Vianès, Les Malgaches du sud-est. Antemoro, antesaka, antambahoaka, peuples de Farafangana (Antefasi, Zafisoro, Sahavoai, Sahafatra) (Paris 1959).

Domenichini 1989: J.-P. Domenichini, Tribu, ethnie, nation à Madagascar. Peut-on corrigier les dénominations? In: J. Chrétien/G. Prunier (eds.), Les ethnies ont une histoire (Paris 1989) 15–31.

Domenichini 2010: J. Domenichini, Des populations régionales mais un seul people. Unpubl. manuscript.

Gamper et al. 2012: M. Gamper/L. Reschke/M. Schönhuth (eds.), Knoten und Kanten 2.0. Soziale Netzwerkanalyse in Medienforschung und Kulturanthropologie (Bielefeld 2012).

Glaser/Strauss 1968: B. Glaser/A. Strauss, The Discovery of Grounded Theory (London 1968).

Glaser/Strauss 2010 [1971]: B. Glaser/A. Strauss, Status Passage (London 2010).

Goffman 1980 [1974]: E. Goffman, Frame Analysis. An Essay on the Organization of Experience (Boston 1980).

Graeber 1995: D. Graeber, Dancing with Corpses Reconsidered. An Interpretation of "Famadihana" in Antananarivo, Madagascar. American Ethnologist 22.2, 1995, 258–278.

Griffin 2011: W. Griffin, Notes on the Chlorite-Schist Industry of Madagascar's Southeast Coast. Études Océan Indien 46/47, 2011, 222–273.

Gueunier et al. 1992: N. J. Gueunier/N. Rajaonarimanana/P. Verin, Le scribe et la grande maison. Études offertes au professeur J. Dez (Paris 1992).

Gyre 2014: A. Gyre, «Sambatra» 2014. Un mois de festivité chez les «Antambahoaka», http://agir.avec.madagascar.over-blog.com/2014/11/sambatra-2014-un-mois-de-festivite-chez-les-antambahoaka.html (last access 20.8.2016).

Hurles et al. 2005: M. E. Hurles/B. Sykes/M. Jobling/P. Foster, The Dual Origin of the Malagasy in Island Southeast Asia and East Africa. Evidence from Maternal and Paternal Lineages. American Journal of Human Genetics 76.5, 2005, 894–901.

Ingold 2007: T. Ingold, Lines. A Brief History (London 2007).

Ingold 2008: T. Ingold, When ANT Meets SPIDER. Social Theory for Anthropods. In: C. Knappett/L. Malafouris (eds.), Material Agency. Towards a Non-Anthropocentric Approach (New York 2008) 209–215.

Jakob 2013: K. Jakob, „Figuration" bei Norbert Elias (München 2013).

Kent 1970: R. Kent, Early Kingdoms in Madagascar and the Birth of the Sakalava Empire, 1500–1700, Volume 1 (Holt 1970).

Klocke-Daffa 2001: S. Klocke-Daffa, „Wenn du hast, mußt du geben". Soziale Sicherheit im Ritus und im Alltag bei den Nama von Berseba/ Namibia (Münster 2001).

Klocke-Daffa 2016: S. Klocke-Daffa, "On the Safe Side of Life". Cultural Appropriations of Funeral Insurances in Namibia. In: L. Prager/M. Prager/G. Sprenger (eds.), Parts and Wholes. Essays on Social Morphology, Cosmology, and Exchange in Honour of J.D.M. Platenkamp (Berlin 2016) 203–218.

Knauf 2015: F. Knauf, Das kollektive Beschneidungsritual (Sambatra) der Antambahoaka in Madagaskar (Master Thesis, University of Tübingen).

Kneitz 2014: P. Kneitz (ed.), Fihavanana – La vision d'une société paisible à Madagascar. Perspectives anthropologiques, historiques et socio-economiques (Halle 2016).

Krüger et al. 2005: O. Krüger/M. Nijhawan/E. Stavrianopoulou, "Ritual" und "Agency". Legitimation und Reflexivität ritueller Handlungsmacht (Heidelberg 2005).

Latour 2005: B. Latour, Reassembling the Social. An Introduction to Actor-Network-Theory (Oxford 2005).

Mack 1986: J. Mack, Madagascar. Island of the Ancestors (London 1986).

McCall 1990: J. C. McCall, Interactions with Ancestors in Everyday Life (Bloomington 1990).

Michaels 2010/11: A. Michaels (ed.), Ritual Dynamics and the Science of Ritual. International Conference "Ritual Dynamics and the Science of Ritual" 5 (Wiesbaden 2010/11).

Middleton 1997: K. Middleton, Circumcision, Death, and Strangers. Journal of Religion in Africa 27.4, 1997, 341–373.

Middleton 1999: K. Middleton (ed.), Ancestors, Power and History in Madagascar (Leiden 1999).

Munthe 1977: L. Munthe, La tradition écrite arabico-malgache. Un apercu sur les manuscits existants. Bulletin of the School of Oriental and African Studies 40.1, 1977, 96–109.

Njara 1992: E. Njara, Le Fihavanana. Droit et Cultures 24, 1992, 152–159.

Ogot 1992: B. Ogot, Africa from the Sixteenth to the Eighteenth Century (Paris 1992).

Ottino 1998: P. Ottino, Les champs de l'ancestralite à Madagascar. Parenté, alliance et patrimoine (Paris 1998).

Piolet 1895: J.-B. Piolet, Madagascar et les Hova. Déscription, organisation, histoire (Paris 1895).

Radimilahy 1993: C. M. Radimilahy, Ancient Iron-Working in Madagascar. In: T. Shaw/P. Sinclair/A. Bassey/A. Okpoko (eds.), The Archaeology of Africa. Food, Metals, and Towns (London 1993) 478–483.

Raison-Jourde 1983: F. Raison-Jourde, Les souverains de Madagascar (Paris 1983).

Raithelhuber 2012: E. Raithelhuber, Ein relationales Verständnis von Agency. In: S. Bethmann/ C. Helfferich/H. Hoffmann/D. Niermann (eds.), Agency. Qualitative Rekonstruktionen und gesellschaftstheoretische Bezüge von Handlungsmächtigkeit (Weinheim 2012) 122–153.

Rakkotomalala/Blanchy/Raison-Jourde 2001: M. Rakkotomalala/S. Blanchy/F. Raison-Jourde, Madagascar. Les ancêtres au quotidien. Usages sociaux du religieux sur les hautes-terres malgaches (Paris 2001).

Ralibera 1993: D. Ralibera, Madagascar et le Christianisme (Paris 1993).

Razafitsaroana 1927: R. Razafitsaroana, Le Sambatra ou la circoncision chez les Antambahoaka. Tribu de la côte est de Madagascar (Mananjary). Traduit du malgache et annoté par P. H. Dubois. Anthropos 22.5/6, 1927, 747–764.

Sax 2006: W. Sax, Agency. In: J. Kreinath/J. Snoek/M. Strausberg (eds.), Theorizing Rituals. Issues, Topics, Approaches, Concepts (Leiden 2006) 473–481.

Schwenzer 2016: M. Schwenzer, Kollektives soziales Kapital und die Herkunftsabhängigkeit von Bildung. In: J. Schmid/K. Maos/J. Schrader/A. Thiel (eds.), Internationalisierte Welten der Bildung. Bildung und Bildungspolitik im globalen Vergleich (Baden-Baden 2016) 147–162.

Tofanelli et al. 2009: S. Tofanelli/S. Bertoncini/L. Castrì/D. Luiselli/F. Calafell/G. Donati/G. Paoli, On the Origins and Admixture of Malagasy. New Evidence from High-Resolution Analyses of Paternal and Maternal Lineages. Molecular Biology and Evolution 26.9, 2009, 2109–2124.

Wallner 2012: I. Wallner, Kultur- und Nationalbewusstsein. Zur Gestaltung einer nationalen Identität Madagaskars (PhD Thesis, University of Münster).

Weinhold et al. 2006: J. Weinhold/M. Rudolph/C. Ambos, Framing als Zugang zur Ritualdynamik. In: H. Jungaberle/J. Weinhold (eds.), Rituale in Bewegung. Rahmungs- und Reflexivitätsprozesse in Kulturen der Gegenwart (Münster 2006) 19–31.

Widlok 2010: T. Widlok, What is the Value of Rituals? Effects of Complexity in Australian Rituals and Beyond. In: A. Michaels (ed.): Ritual Dynamics and the Science of Ritual. Section I: Ritual and Agency (Wiesbaden 2010) 21–34.

You 1905: A. You, Madagascar, histoire, organisation, colonisation (Paris 1905).

ULRICH MÜLLER

Contested Identities
Die Nevada Test Site, Nevada, und das Welterbe Le Morne, Mauritius

Stichworte: Kalter Krieg, Protest, Welterbe, Kreolisierung, Identität, materielle und immaterielle Ressourcen

Abstract

This paper presents two case studies for the formation of social identities in contested landscapes: The Nevada-Test-Site (NTS) in the USA and the World Heritage Site Le Morne Brabant on the island of Mauritius. Between 1951 and 1992 the NTS was one of the largest sites for atmospheric and underground testing of nuclear weapons. From the 1950s until the 1990s the Peace Camp near the NTS was one of the hot spots for the movements protesting against nuclear energy and war.

Le Morne Brabant is a mountain situated in the southwest of the island of Mauritius. In 2008 the whole region, as a symbol of identity building and the fight against slavery, was declared a Cultural Landscape.

Sites and spaces of Le Morne Brabant and the NTS, together with the peace camp witnessed multiple social identities and the practices, and tangible as well as intangible resources associated with them. While tangible cultural heritage often seems homogenous and passive, intangible heritage instead is dynamic and based in community. The landscape of both sites and spaces also stands for multiple discourses. The remote part of the Nevada desert is a scene of socio-political discourses, but the landscape is only charged with meaning because of the construction of the NTS and the Peace Camp. Its tangible objects being of fundamental significance already because of the nuclear testing. The case of Le Morne Brabant seems somewhat different: meaning first was assigned to the mountain and the surrounding landscape and by this they were made part of discourses.

NTS and the Peace Camp with their historic dimensionality show the dialectics of social movements during the 20th cent. and are almost paradigmatic examples of contested spaces. Boundary drawing is immediately visible by the physical isolation of the NTS. The boundaries between Peace Camp and NTS are eye-catching at first sight, because the fence around the NTS separates public from closed space. The differences are most striking: a camp of 20 square kilometres, tents and improvised infrastructure, spontaneous action and protest happenings on one hand, on the other a 4000 square kilometre testing site, elaborate high-technology and meticulously planned scientific research. Regarding space the camp was a mark for ‘the other’ and the ‘elsewhere’. The people within the Peace Camp, at least temporarily, stood outside of the defined legitimate order and therefore bonded even closer. In sharp contrast, the NTS constituted a ‘closed space’ – access was almost impossible for un-authorised persons. Even now, tourists need a special permit. Still, it did not accommodate a ‘gated community’ like comparable testing sites in the Soviet Union or in China. The space surrounding the NTS, originally settled by Native Americans, was free but not easy to access for anybody, being a desert area. With the establishment of the NTS its surroundings became a kind of buffer zone. A stay was possible but not easily practicable and certainly not welcome. With the starting of protests a part of this space was occupied and turned into a space of public interest

and meaning. The heterogeneous group of activists again created a space only open to access for those being part of the protest movement.

The 'contestation' seems obvious but the social identities are more complex. At first sight, a clear distinction is recognisable in the dichotomy between nuclear testing programme and anti-nuclear movement. Interviews with NTS employees reveal that they define themselves as a homogenous group. The same is true for the protesters, but a closer inspection reveals, how identities are formed by tangible and intangible resources and how the practices of those identities create new resources in turn. The nuclear programme with the NTS as a physical reality, as well as the Peace Camp are likewise tangible and intangible. With its concepts of peace, disarmament and faith it is somehow mirroring the NTS. Both the spaces of the NTS and the Peace Camp today have turned into spaces and sites of commemoration, where present meets the past. For visitors the Peace Camp is hardly understandable without background information. The NTS and its materialities on the other hand are immediately apparent. For the protest movement, heterogeneous as it may be, the NTS is a symbol for the resistance against war and nuclear menace: The 'Sacred Peace Walk' is still conducted even if nuclear testing has stopped. For tourists the NTS is a monument of the, sometimes glorified, period from the 50s to the 80s and it continues to be a place of work.

Declaring Le Morne Brabant a Cultural Landscape demonstrates the importance of the spatial element, here seen as a reciprocal structuring of activity and physical space, for discourses of social identity. The peninsula is filled and charged with meaning. Tangible and intangible resources are mutually dependent on each other and especially the latter seem to be extremely dynamic. In the course of time, the peninsula Le Morne changed from a barren place of refuge for runaway slaves to a creole settlement site, then to a touristic enclave and now to a world-wide recognised symbol of slavery. The place, at first sight only of relevance for local history, became a component of 'nation building' emphasising multi- and transculturality as a constructive element of the Republic of Mauritius. This interpretation is not unanimously shared, a cultural and political participation of Creoles is called for, while the creole identity on Mauritius seems to be dynamic, creating multiple and heterogeneous identities. Thus, a contested landscape and boundary drawing become evident by visible, including and excluding, limitations. Touristic resorts and private beaches on the one hand, landscapes and villages of the local predominantly creole population on the other. Still, the boundaries are fluctuant: tourism expands into the villages and also integrates locals for example as employees. The 'contestation' is less comprehensible through physical places than through intangible ones. It affects participation or exclusion of the local population and becomes manifest in the question, if and how much whether Le Morne is related to creole identity creation.

1. Einleitung

Im Jahre 2008 wurde Le Morne Brabant, ein Tafelberg im Südwesten der Insel Mauritius und sein Umfeld zum Weltkulturerbe erklärt. Mit der Ausweisung von Le Morne als *Cultural Landscape* wird nicht zuletzt den vielfältigen Interaktionen zwischen Mensch und Natur Rechnung getragen.[1] Le Morne Brabant ist nicht nur eine Weltkulturerbestätte, sondern eine Halbinsel, die durch exklusiven Tourismus dominiert wird. Im Jahre 2008 formierte sich – wie auch in den Jahren zuvor – der alljährliche Protest der Nevada Desert Experience am Nevada Test Site (NTS). Er fand seinen Ausdruck unter anderem im Sacred Peace Walk zu den Toren von Mercury, der Stadt am Eingang zum NTS-Gelände.[2] Das NTS war zwischen 1951 und 1992 eines der größten Testgelände für unter- und oberirdische Atomwaffentests. Das mit den Protesten verbundene Peace Camp bildete von den 1950er bis in die 1990er Jahre hinein einen „hotspot" des Widerstandes gegen Atomenergie und Krieg und für Abrüstung und Frieden.

Im Folgenden wird es darum gehen, anhand dieser beiden Orte, den mit ihnen verbundenen Räumen, die Teil von Landschaften sind, Identitätsbildungen und Identitäten aus der Perspektive von

1 Le Morne Brabant <http://whc.unesco.org/en/list/1259/> (letzter Zugriff 10.03.2016).

2 Nevada Desert Experience <http://www.nevadadesertexperience.org/> (letzter Zugriff 10.03.2016).

Contested Landscapes bzw. *Contested Spaces* nachzuzeichnen. Die Raumdiskussion hat in Anlehnung an zahlreiche Arbeiten (z. B. von H. Lefevre) in den letzten Jahren deutlich herausgestellt, dass Räume kulturell und sozial konstruiert sind und die konkreten Orte soziale Räume im doppelten Sinne sind. Raum bedeutet, um auch hier das berühmte Zitat zu bringen, die „relationale(n) (An)Ordnungen von Menschen (Lebewesen) und sozialen Gütern" (Löw 2001, 166). Entsprechend dem *topografic turn* ist Landschaft als Raum nicht nur eine materielle, sondern auch eine soziale und kulturelle Realität und Repräsentation. Ein relationaler Landschaftsbegriff (z. B. Gailing/Leibenath 2015) ist analog zum Raum zu verstehen und wird dementsprechend in einem Prozess der Strukturierung durch das Handeln der Akteure und Akteursgruppen konstruiert wie umgekehrt diese individuellen und kollektiven Akteure bzw. Akteursgruppen durch Landschaft strukturiert werden. Darüber hinaus sollte aber Landschaft auch als Hybrid verstanden werden. Dies betrifft nicht nur die durch Bruno Latour angestoßene Sichtweise, die Trennung von Natur und Kultur aufzuheben, sondern vor allem die wenig hilfreiche Dichotomie von materieller und immaterieller Welt.

Das Konzept einer relationalen „Raumproduktion" bzw. ein relationaler Landschaftsbegriff bedeutet auch, Grenzen zu schaffen (*boundary drawing*), also Zugänglichkeit oder Nicht-Zugänglichkeit von erwünschten und unerwünschten Menschen(-gruppen) zu definieren. S. Low entwickelte 2003 in „The Anthropology of Space and Place" an den Begriffen *Body*, *Gender*, *Inscription*, *Contestation* und *Transnationality* ein Modell zu Raum und Ort. „Spaces are contested precisely because they concretize the fundamental and recurring, but otherwise unexamined ideological and social frameworks that structure practice". (Low 2003, 18). Es sind also Orte, an welchen Machtverhältnisse zum Ausdruck kommen, und diese entstehen auch dadurch, dass ein und demselben Raum unterschiedliche Bedeutungen von verschiedenen Personen zugeschrieben wird. Dies sind physische Aspekte, aber auch soziale und kulturelle Konstruktionen von Raum. Soziale Differenzen wie Geschlecht, Ethnizität, Nationalität, Religion oder Klasse finden in räumlichen Ordnungsstrukturen einen Niederschlag, sie produzieren und reproduzieren diese Ungleichheitsverhältnisse. Im Falle einer *Contestation* sind diese Zuschreibungen inklusiver und exklusiver Natur, die unter anderem Hierarchien im Raum entstehen lassen und entsprechende Konfliktpotentiale bieten. Es dürfte auf der Hand liegen, dass das Konzept der *Contestation* und der *Contested Spaces* gerade für die historischen Kulturwissenschaften großes Potential bietet und in Hinblick auf die Diskussion um Weltkulturerbe von Bedeutung ist (z. B. Jenkins 2008; Silvermann 2011; Tauschek 2013; Tilley 2006).

Vor diesem Hintergrund ist auch das Konzept der *Contested Landscapes* zu sehen, das insbesondere Barbara Bender formulierte (Bender 2002; Bender/Winer 2001). Nach Bender ist Landschaft ein Medium, durch das dominante Ideologien und politische Macht auch physisch ausgedrückt werden. Landschaft ist multivokal, denn in ihr artikulieren sich viele Stimmen. Sie erzählen unterschiedliche Geschichten in einer sich beständig verändernden Umwelt. In ihnen manifestieren sich aber auch Ansprüche von Macht und Kontrolle vergangener wie gegenwärtiger Gemeinschaften und Gesellschaften, die aus vielfältigen politischen, sozialen, kulturellen, ideologischen und wirtschaftlichen Faktoren resultieren. Sie wird damit zu einem Speicher von unterschiedlichem Wissen und Erfahrungen, einem Attraktor, der Menschen anziehen oder fernhalten kann.

Ein *Contested Environment* bzw. *Landscape* ist in unterschiedlicher Form fassbar. So kann der Raum zwischen den verschiedenen Akteuren mehr oder minder deutlich abgegrenzt sein, zum anderen kann der Raum und die Orte aber auch als Schnittmenge oder sogar als eine Teilmenge verstanden werden, in dem unterschiedliche Gruppen ein und dieselben Orte durch verschiedenen Zuschreibungen beanspruchen. Ein *Contested Environment* bedeutet, dass verschiedene Gruppen die Landschaften und ihr materielles wie immaterielles Erscheinungsbild für sich reklamieren. In einem *Contested Environment* kommen herausragenden Ikonen und Symbolen für die Inanspruchnahme durch die jeweils andere Gruppe eine herausragende Bedeutung zu. Landschaften können für einzelne Gruppen und Gemeinschaften zu Ikonen mit bestimmten Werten und Botschaften werden. Sie spiegeln dann nicht mehr gesamtgesellschaftliche Vorstellungen wieder, sondern ihre

materiellen und immateriellen Manifestationen werden von bestimmten Gruppen beansprucht. Eine solchermaßen aufgeladene Landschaft wird zu einer symbolischen Landschaft, die unterschiedliche Felder berührt: „Geschichte und Erinnerung", „Gedenken", „Darstellung" und „Funktionen". Ihnen kommt eine herausragende Rolle für die Identitätsbildung zu, wenn *Lived Space* und *Perceived Space* zu einer *Transformed* oder *Transmuted Space* werden (vgl. z. B. Dodge 2007). Sie wecken öffentliches Interesse, sie sind Schauplätze unterschiedlicher Vorstellungen, Werte oder Ideologien und in ihrer historischen Dimension spiegeln sich Konflikte und Befindlichkeiten und die politischen Interessen der verschiedenen sozialen Gruppen.

Im ersten Abschnitt wird der Blick auf das NTS und das Peace Camp gelenkt. Hier manifestieren sich Dauerhaftigkeit und Temporalität und schaffen konkurrierende Räume, die mit vielschichtigen, aber grundsätzlich entgegengesetzten Identitäten zu verbinden sind. Im zweiten Abschnitt steht Le Morne im Blickpunkt. Das Beispiel wurde gewählt, um die Entstehung einer *Contested Landscape* mit Blick auf die historischen Rahmenbedingungen darzustellen und zugleich deren heutige Multidimensionalität zu thematisieren.

In beiden Fällen spielen die vielfältigen materiellen Quellen eine wichtige Rolle, doch werden neben den materiellen Hinterlassenschaften auch die oralen, bildlichen und schriftlichen Quellen hinzugezogen, denn erst die Berücksichtigung der dichten, korrespondierenden, aber auch konkurrierenden Überlieferungen ermöglicht es, die vielschichtigen Identitätsbildungen zu unterscheiden.

2. Das Nevada Test Site und das Peace Camp

2.1. Das Nevada Test Site

Die Nevada National Security Site, bis 2010 auch Nevada Test Site genannt, besitzt eine Ausdehnung von rund 3500 km^2 und liegt in einer abgeschiedenen Wüstenlandschaft etwa 100 km nordwestlich von Las Vegas (*Abb. 1; 3*). Bei dem Gelände handelte es sich ursprünglich um Siedelland der Westlichen Shoshonen. Von 1951 bis 1992 wurden auf dem Gelände mehr als 1000 Atomwaffentests durchgeführt. Davon erfolgten 119 bis in das Jahr 1958 oberirdisch (Fehner/Gosling 2000; Beck 2002; NNSA 2005). Das Gelände wurde seit den 1950er Jahren systematisch ausgebaut und beherbergte in seinen Hochzeiten rund 1100 Gebäude, vier Landeplätze für Flugzeuge und Helikopter sowie ein umfangreiches Straßensystem. Den Eingang zum NTS bildet Mercury. Die Stadt war Stützpunkt für Militärs und Wissenschaftler und zählte zeitweilig bis zu 10000 Einwohner. Das eigentliche Areal ist in 30 sogenannte *Aeras* für spezifische Aufgaben eingeteilt, die spezielle Gebäude, Versuchsanlagen usw. beherbergten. Neben dem 1945 durchgeführten Trinity-Test wurde auf dem NTS die erste Kernwaffentestserie auf dem Gebiet der Vereinigten Staaten durchgeführt. Für Las Vegas entwickelten sich die Versuche im Übrigen zu einem lukrativen Unterhaltsprogramm, waren die Atompilze doch aus rund 100 km Entfernung noch gut sichtbar. Weniger attraktiv war dagegen der Fallout, der sich bis in das südliche Utah hinzog und der für einen deutlichen Anstieg an Krebserkrankungen verantwortlich war (Committee 1999, Chap. 2). Das NTS wurde als Waffentestgelände bis zum Memorandum im Jahre 1992 genutzt. Bereits seit den späten 1980er Jahren bestand der Plan, die nahegelegenen Yucca-Mountains als Endlager für hochradioaktiven Abfall zu nutzen und einen Teil des Geländes mit einzubeziehen. Die Planungen wurden 2009 gestoppt. Heute wird das NTS noch zur Lagerung schwachradioaktiver Abfälle sowie für unterschiedliche Versuchszwecke genutzt. Der Nevada Test Site Guide (NNSA 2005), der sich gleichermaßen an die Beschäftigten wie die Öffentlichkeit wendet, gibt einen detaillierten Überblick über den Bestand dieser Nuklearbrache und eines Denkmals des Kalten Krieges.[3] Neben Bunkern, Hallen, Gebäuden und weiteren stationären Einrichtungen, an denen die Auswirkungen und Nachwirkungen der atomaren Explosionen akribisch dokumentiert wurden, umfasst der Bestand auch Fahrzeuge, Flugzeuge und ein Schiff. Die Auswirkungen der atomaren Tests sind im Gelände bis heute sichtbar

3 Siehe auch Nevada National Security Site <http://www.nv.energy.gov/about/nts.aspx> (letzter Zugriff 10.03.2016), sowie National Atomic Testing Museum. <http://www.nationalatomictestingmuseum.org/> (letzter Zugriff am 10.03.2016). Zu den Protesten z. B. Peace Camp 25/Nevada Nuclear Test Site <http://peacecampnts.blogspot.de/> (letzter Zugriff 10.03.2016).

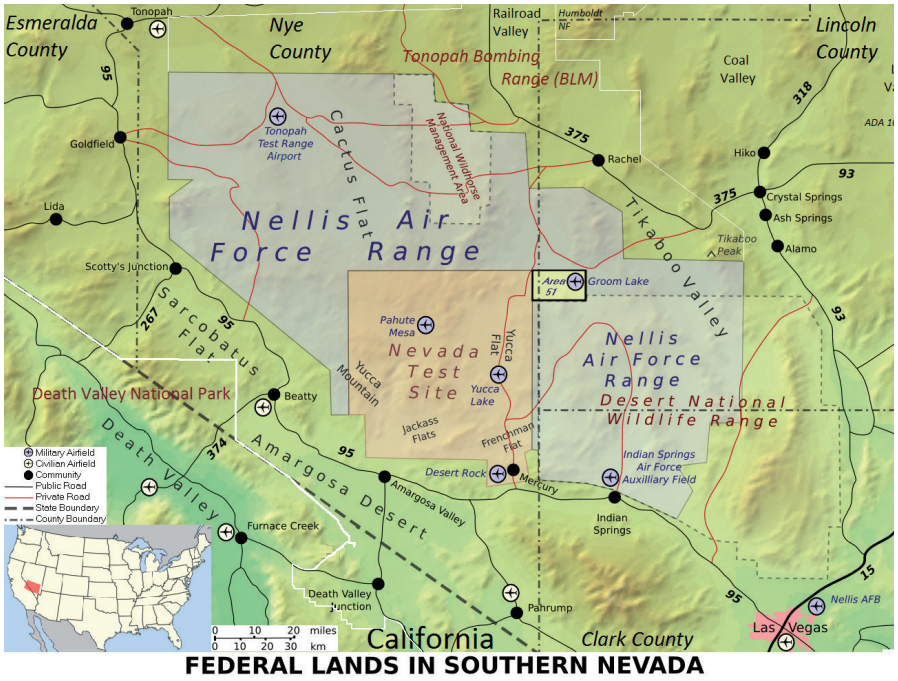


Abb. 1. Nevada Test Site und Umgebung. Finlay McWalter <https://commons.wikimedia.org/wiki/File:Wfm_area51_map_en.png>, „Wfm area51 map en“, <https://creativecommons.org/licenses/by-sa/3.0/legalcode> (letzter Zugriff am 10.03.2016)..

Abb. 2. Nevada Test Site, Nevada/USA. Krater unterirdischer Kernwaffentest in Bereich der Yucca-Flat <https://de.wikipedia.org/wiki/Nevada_National_Security_Site#/media/File:Nevada_Test_Site_craters.jpg> (letzter Zugriff am 10.03.2016).

Abb. 3. Nevada Test Site, Nevada/USA. Lage und Ausdehnung des Peace Camps (Grafik: J. Cordts nach Beck et al. 2007).

– das ehemals weitgehend flache Wüstengelände ist von Kratern übersät, die sich deutlich in Luftbildern abzeichnen (*Abb. 2*).[4]

Die Geschichte der Atombombentests ist im National Atomic Testing Museum (NATM) dargestellt.[5] Das in Las Vegas ansässige Museum thematisiert in festen und wechselnden Ausstellungen verschiedene Aspekte der atomaren Technologien, wobei der Protest am NTS allerdings kaum eine Rolle spielt. Das „Außengelände“ in der Wüste kann besucht werden, wobei nur ausgewählte Bereiche öffentlich zugänglich sind.[6] Nicht nur mit seiner rund 50jährigen Nutzungsgeschichte ist das NTS eine Besonderheit. Aufgrund der Bedeutung über die amerikanische Geschichte hinaus ist es nicht verwunderlich, wenn dem Platz inzwischen große Bedeutung beigemessen wird. Ein Versuch, diese Wissensbestände dem Vergessen zu entreißen, ist das „Nevada Test Site Oral History Project“ der Universität von Nevada.[7] Die Sammlung beinhal-

4 Siehe z. B. unter <https://www.sindark.com/2006/02/20/nuclear-test-sites/> mit Ausschnitten aus Goggle Earth (letzter Zugriff 10.03.2016).

5 National Atomic Testing Museum, <http://nationalatomictestingmuseum.org/> (letzter Zugriff 10.03.2016).

6 <http://www.nnss.gov/pages/PublicAffairsOutreach/NNSSSiteTours.html> (letzter Zugriff am 10.03.2016).

7 The Nevada Test Site Oral History Project, <http://digital.library.unlv.edu/ntsohp/> (letzter Zugriff am 10.03.2016). Im Rahmen dieses Projekts wurden zwischen 2003 und 2008 zahlreiche Interviews durchgeführt. Die Auswahl bezieht sich vornehmlich auf Akteure der 1980er Jahre. Befragt wur-

tet nicht nur Transkripte der Interviews, sondern auch Dokumente und Fotografien sowie Audio- und Videoclips.

Das NTS ist als Landschaft und mit seinem baulichen Bestand ein herausragendes Zeugnis des Atomzeitalters und des Kalten Krieges. Es gehört in die gleiche Kategorie von Plätzen wie das Bikini-Atoll (seit 2010 Weltkulturerbe) oder das Friedensdenkmal in Hiroshima, die ehemalige "Halle zur Förderung der Industrie der Präfektur Hiroshima" (seit 1996 Weltkulturerbe). Zeugnisse des Kalten Krieges im Allgemeinen (Schofield 2006; Schofield/Cocroft 2007; Olsen/Pétursdóttir 2014) und die Denkmäler atomaren Wettrüstens im Speziellen sind auch in der archäologischen Forschung der letzten 20 Jahre wiederholt thematisiert worden (Delgado et al. 1991; Burström et al. 2009; Beck 2002).

2.2. Das Peace Camp

Parallel zum Ausbau des NTS formierte sich der Protest, der sich nicht nur allgemein in den USA artikulierte, sondern seinen Ausdruck in direkten Aktionen vor den Toren des NTS fand. Das Protestcamp lag südlich des zentralen Zuganges zum NTS und war von diesem durch den annähernd in Ost-West-Richtung verlaufenden Highway 95 getrennt (*Abb. 3*). Da das Protest bzw. Peace Camp im eigentlichen Sinne keine Abgrenzungen aufwies, sind Angaben zu seiner Größe schwierig. Während die unmittelbaren Zeugnisse des Atomzeitalters bereits aufgrund ihrer materiellen Präsenz dominieren, rücken die Stimmen des Protestes vielfach in den Hintergrund. Das genannte „Nevada Test Site Oral History Project" gibt diesen Stimmen ebenso Raum, wie sich in einer Vielzahl von Websites, die Aktivistinnen und Aktivisten angelegt haben, bis heute das kollektive wie individuelle Gedächtnis insbesondere für die Zeit der späten 1980er Jahre manifestiert.[8]

R. Futrell und B. Brents (2003) unterscheiden drei Phasen, die von den 1957 bis Anfang der 1980er, von den 1980er Jahren bis 1992 und der Zeit ab 1992 reichen. Über die frühen Proteste ist wenig bekannt. Sie wurden überwiegend von Einzelpersonen und kleineren, meist religiös motivierten Gruppen getragen (Futrell/Brents 2003, 747). Im Jahr 1957 protestierte am zwölften Jahrestag der Atombombenabwürfe auf Hiroshima eine Gruppe von Quäkern, Mennoniten und andere Pazifisten auf einem Platz, der in der Folgezeit immer wieder aufgesucht wurde und sich als „Protesters Camp" etablierte (Futrell/Brents 2003, 750 f.). Seit den 1970er Jahren kam es zu einem Anwachsen der Proteste, was unter anderem mit dem Erstarken der pazifistischen Bewegungen zusammenhing. Sie kumulierten in den 1980er Jahren. In den Jahren 1986 bis 1994 erfolgten mehr als 536 Demonstrationen mit rund 38000 Teilnehmern. Nach amtlichen Angaben wurden rund 15700 Personen festgenommen. An den Protesten waren zahlreiche Gruppen beteiligt, unter denen die Gruppen „American Peace Test" und „Nevada Desert Experience" die meisten Aktivisten versammelten. Mitglieder des Franziskaner-Ordens engagierten sich ebenso wie Pazifisten, Veteranen des Atomprogramms, Betroffene des Fall-Outs (sogenannte *Downwinders*) und die Shoshone. Die „Nevada-Semipalatinsk-Bewegung" brachte Aktivisten aus den USA und Kasachstan zusammen und spirituell oder ökologisch motivierte Gruppen, wie „Mother Earth", waren ebenso anzutreffen.

Ebenso vielfältig wie die Akteure waren auch die Widerstandsformen. Sie umfassten Gottesdienste, spirituelle Zeremonien und Gebete der christlichen und indigenen Glaubensgemeinschaften ebenso wie Demonstrationen, *teach-ins* oder „Spaziergänge" zum Haupteingang. Auch direkte Aktionen sind überliefert, die zumindest in einem Falle zur Verzögerung eines Atom-Tests führten. In den späten 1980er Jahren kam es innerhalb der verschiedenen Gruppen zu Diskussion über Formen und Strategien des Widerstandes, die auch

den Wissenschaftler ebenso wie Ingenieure, Arbeiter oder Militärs und Bundesbeamte, Aktivisten und Demonstranten der verschiedenen Protestgruppen wurden gleichermaßen einbezogen wie die *Native Americans* und deren spirituelle Führer. Weiterhin befragte man Bewohner im Umkreis des NTS und insbesondere der Fallout-Gebiete (*Downwinder*).

8 Webseiten von Aktivisten z. B. <http://users.rcn.com/jrp2/protest/> (letzter Zugriff am 10.03.2016) oder <http://vonne920.tripod.com/martin_sheen/activism1.html> (letzter Zugriff am 10.03.2016).

Fragen des gewaltsamen Widerstand betrafen (Futrell/Brents 2003, 754) und nicht zuletzt vor dem Hintergrund zunehmender staatlicher Repressalien zu sehen waren. Insgesamt aber blieben die Proteste gewaltfrei und folgten in gewissen Sinne einem performativen Ablauf. Dass es am NTS nie zu gewaltsamen Protesten oder Sabotageaktionen kam, hat nach R. Futrell und B. Brents (2003, 759 f.) verschiedene Gründe. So spielt die lange Dauer der Proteste und eine gewissen Ritualisierung der Konflikte auf beiden Seiten ebenso eine Rolle, wie die Tatsache, dass Sabotageaktionen an Atomanlagen für alle Beteiligten mit einem kaum einschätzbaren Risiko verbunden waren. Das Memorandum von 1992 bedeutete zwar das Ende der Atomtests, doch kein Aus für den Protest. Dieser verlagerte sich auf die Projekte zur Lagerung radioaktiven Abfalls. Weiterhin wurden die Proteste als ein allgemeines Zeichen gegen Krieg und für Frieden aufrechterhalten.

2.3. Identitäten von Protest und Protestierenden in der materiellen und oralen Kultur

Während Strukturen und Mechanismen von Wiederstand in den Kulturwissenschaften recht gut aufgearbeitet sind, bildet die Frage nach den materiellen Ressourcen ein Desiderat. Untersuchungen zur Materialität von (Protest-)Camps sind nach wie vor selten (Badcock/Johnston 2013; Dixon 2013). Diese Camps sind darüber hinaus auch in methodischer Hinsicht wichtig, da sich in ihnen sogenannte *Short-Term-Events* widerspiegeln. Dabei stehen sie zwischen singulär aufgesuchten Orten und Plätzen saisonaler Nutzung. Die archäologischen Formationsprozesse sind sehr gut vergleichbar mit jeglichen Arten von Lagern, Schlachtfeldern, aber auch Festivals (Fiære-Risbuna 2012; White 2013) oder Lebensräumen Nicht-Sesshafter (Zimmermann 2013).

Das Camp wurde in den 2000er Jahren umfassend prospektiert. Die Surveys durch die Universitäten York und Nevada auf rund 240 ha erschließen eine Ausdehnung von rund 2000 m zu 1000 m. (*Abb*. 3). Dieses Gebiet etablierte sich seit den 1950er Jahren als Protest-, Versammlungs-, Veranstaltungs- und Übernachtungsort. Das nicht kultivierte Wüstenland befand sich in öffentlichen Besitz, „[…] and so, that was where they had the camp when they was out there for four or five days. They would camp right in the sagebrush. There was no water. There were sand huts but that was all. It was tough living".[9]

Das Camp wurde von den Akteuren wie den Medien bis in die 1980er Jahre hinein Protesters Camp genannt, und ab den 1980er Jahren setzte sich dann zunehmend Peace Camp durch (Beck et al. 2007, 299). Aus den Quellen ist bekannt, dass die Proteste bis in die späten 1970er Jahre hinein saisonal und temporär erfolgten (Futrell/Brents 2003). Erst ab den 1980er Jahren wurden zwei Wohnwagen eingerichtet, in denen mindestens eine Person über einen längeren Zeitraum wohnte. Vor dem Hintergrund von Massenprotesten wurden 1989 diese geräumt und das bis dato bestehende Camp aufgelöst. An das Camp erinnert sich Paul Colbert, der Program-Director der Nevada Desert Experience „The line is down halfway to Mercury, which is where the old camp was, and that used to be where the protests were held. And so when they talk among themselves about crossing the line, they think somebody's down in there a ways".[10]

Während aufgrund des Surveys die Ausdehnung des Platzes recht gut umgrenzt werden konnte, zeigen sich in Bezug auf die Lage und die Größe in den Erinnerungen der Interviewten recht unterschiedliche Einschätzungen. Das Interview von Suzanne Becker (SB) mit Dorothy (Day) Ciarlo (DC) ist hier aufschlussreich:

SB: „Now this camp, was this set up outside of Mercury on the highway, do you remember?"

DC: „My recollection is it was inside, but they couldn't have been."

SB: „Well, behind the line. I mean it's still on the other side of the property?"

DC: „It had to be behind the line, yes."

SB: „I'm just wondering if it's the same - there is a little area that is now known as Peace Camp up there, where throughout the eighties and the nineties when the protests were really picked

9 Interview with James Donald Merlino, November 7, 2004, <http://digital.library.unlv.edu/u?/nts,1122> (letzter Zugriff am 10.03.2016).

10 Interview with Paul Colbert, July 12, 2004, <http://digital.library.unlv.edu/u?/nts,1224> (letzter Zugriff am 10.03.2016).

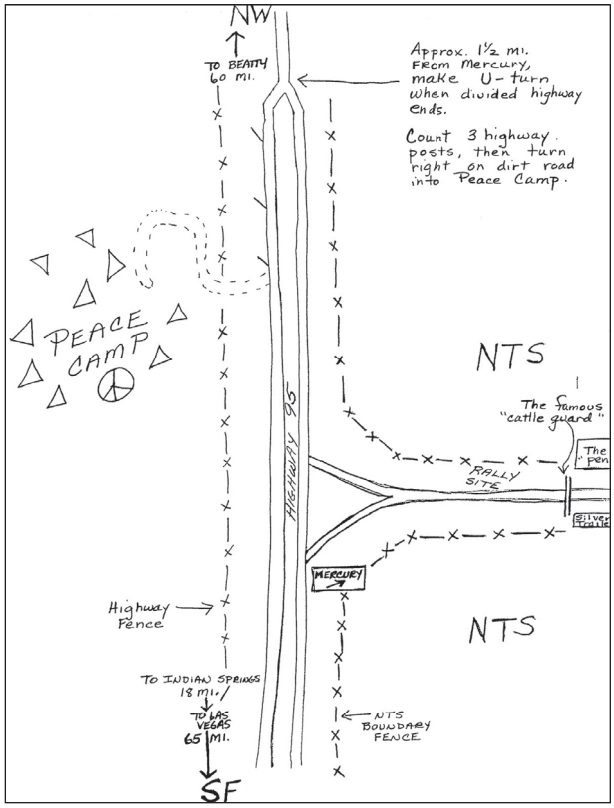


Abb. 4. Nevada Test Site, Nevada/USA. Karte des Peace Camps. Desert Waves AG, ca. 1988, <https://peacecampnts.blogspot.de/2011_04_01_archive.html> (letzter Zugriff am 10.03.2016).

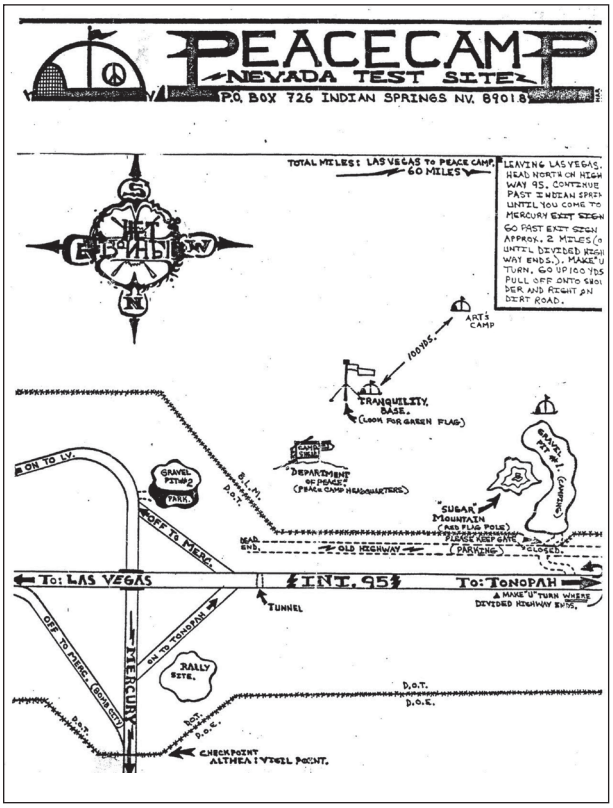


Abb. 5. Nevada Test Site, Nevada/USA. Karte des Peace Camps aus dem Jahr 1987, <http://peacecampnts.blogspot.de/2011_04_01_archive.html> (letzter Zugriff am 10.03.2016).

> up again, is where everybody camped and the hub of activity was. I'm just wondering if this is possibly the same location."
>
> DC: „It might be. I know that this camp was not far from this guard station and where the people that were committing civil disobedience actually walked into the site, and then of course they were arrested immediately."[11]

Andere wie David Buer (Nevada Desert Experience Staff) sind von der Größe und Lage des Camps überrascht. „I was surprised at how close to the major highway it was. I was surprised at how close the gates were and the town of Mercury being there [...] So you had the Peace Camp area, it was a smaller area where the people were actually staying, but then there was this extended area and you might have people who would set up tents a little bit more remote".[12] Neben den Ergebnissen des Surveys, den Interviews und Fotos geben die Anfahrtsskizzen weitere Informationen.[13] Auf einer Karte der Desert Waves AG, die um 1988 datiert, ist das Camp nur grob angegeben, dafür aber detailliert die Eingangssituation zum NTS (*Abb. 4*). Eine Karte aus dem Jahr 1987 (*Abb. 5*) weist dagegen die verschiedenen Bereiche des Peace Camps aus. So nennt sie das Tranquility Base mit grüner Flagge, das Art's Camp sowie Dept. Of Peace als zentrale Institution. Als Sugar Mountain (Red Flag pole) wird eine Erhöhung im Westen bezeichnet. Weiterhin werden noch ein Camping-Areal sowie der Parkplatz genannt.

Die Surveys lieferten einen detaillierten Einblick in die Struktur des Platzes und die sozialen Identitäten der Beteiligten (Beck et al. 2007; 2008;

11 Interview with Dorothy (Day) Ciarlo, August 18, 2005, <http://digital.library.unlv.edu/u?/nts,1281> (letzter Zugriff am 10.03.2016).

12 Interview with David Buer, August 9, 2006. <http://digital.library.unlv.edu/u?/nts,1177> (letzter Zugriff am 10.03.2016).

13 <http://peacecampnts.blogspot.de/2011/04/peace-camp-maps.html> (letzter Zugriff am 10.03.2016).

Schofield 2006; 2009, 75–86). In den dokumentierten 771 Strukturen und Oberflächenfunden spiegeln sich deutlich die Vielfältigkeit der Gruppen und Protestformen, aber auch die Erhaltungsbedingungen wieder. Es liegt auf der Hand, dass stationäre Konstruktionen am langlebigsten sind und Steinkonstruktionen einen Großteil der Befunde ausmachen. Meist werden diese als Fundamente, Einhegungen von Arealen wie Zeltplätzen oder Umgrenzungen von Wegen angesprochen. Es gibt aber auch einzeln stehende Herde und Konstruktionen. Derartige Strukturen sind teilweise auf zeitgenössischen Fotos dokumentiert.[14] Daneben sind noch negative Befunde bemerkenswert. Hierzu gehören Bereiche, die systematisch von Steinen und Geröll gesäubert waren und als Schlaf- oder Rastplätze dienten. Dies ist auch auf zeitgenössischen Fotos nachvollziehbar.[15] Eher selten waren Befunde und Funde aus Holz, Plastik oder Metall anzutreffen. Die wenigen Beispiele- umfassen Alltagsgegenstände wie Spielzeuge, Feuerzeuge oder Nägel. Wie wird man das Fehlen eines entsprechenden Fundniederschlages bewerten? Das seltene Holz diente als Brennmaterial, bei anderen Materialgruppen wird eine konsequente Müllvermeidung oder -entsorgung seitens der Aktivisten angenommen. C. Beck, H. Drollinger und J. Schofield (2007, 302), gehen von einem „Set of unwritten rules“ der Aktivisten aus. Dem steht die Aussage von James Merlino gegenüber, der in einem Interview von unhaltbaren sanitären Zuständen und Müll spricht: „[…] and cleaned it up because it was – trash and – it was ugly […] Sanitation was zero and it was just not a good place. It wasn't good right outside of the test-site. That's the first thing you see on that side of the road, and there's a test site just on the other side. So yes, we did get that cleaned up, but here again the government give us the dump trucks and the loaders and they have operators and Teamsters. So it worked very well […]“[16]

Abb. 6. Nevada Test Site, Nevada/USA. Foto einer Zeremonie durch ein Mitglied der Nevada Desert Experience am Nevada Test Site, 1984, <http://digital.library.unlv.edu/objects/pho/7364> (letzter Zugriff am 10.03.2016).

Abb. 7. Nevada Test Site, Nevada/USA. Foto der "Blessed Yucca of the Four Spirits", <http://peacecampnts.blogspot.de/2011_04_01_archive.html> (letzter Zugriff am 10.03.2016).

Steinerne Zeugnisse des Protestes waren auch die Geoglyphen. Diese Steinkonstruktionen zeichnen mit ihrem großen Variantenreichtum Identitäten der Protestierenden und ihre Protestformen nach. Geoglyphen bilden Peace-Zeichen ebenso wie Chi-Rho-Symbole, aber auch Spiralen, Blumen oder Schlangendarstellungen ab. Vielfach handelt es sich aber auch um bloße Steinkreise, deren Bedeutung aus dem Kontext nicht erschlossen werden kann. So berichtet Rosemary Lynch „We found a place in the desert and everybody that came brought a little cactus […] and we had a cactus planting ceremony“.[17] Ähnliche Aktionen sind auch fotografisch

14 Digital Collection der Universität von Nevada, pho011304, <http://digital.library.unlv.edu/u?/pho,8184> (letzter Zugriff am 10.03.2016).

15 Digital Collection der Universität von Nevada, pho011156Y, <http://digital.library.unlv.edu/u?/pho,7533> (letzter Zugriff am 10.03.2016).

16 Interview with James Donald Merlino, November 7, 2004, <http://digital.library.unlv.edu/u?/nts,1122> (letzter Zugriff am 10.03.2016)

17 Interview with Rosemary Lynch, June 8, 2004, <http://digital.library.unlv.edu/u?/nts,1287> (letzter Zugriff am 10.03.2016).

dokumentiert wie die Aktion der Nevada Desert Experience aus dem Jahre 1984 (*Abb. 6*) oder die Niederlegung eines Palmenzweiges am 8. April 1990.[18] Díe „Blessed Yucca of the Four Spirits“ (*Abb. 7*) zeigt die sogenannten *Dreamcatchers*, auch als Traumfänger bekannt. Sie dienen dem Einfangen von „guten Träumen“ und wurden im Zuge der Pan-Indianer-Bewegung seit den 1960er von verschiedenen Gruppen übernommen. Am Camp sind diese nicht mit indigenen, sondern esoterischen Gruppen zu verbinden. Sie sind in ihrer Materialität nur noch auf Fotos erhalten oder in der Erinnerung der Beteiligten. Umgekehrt haben sich im individuellen wie kollektiven Gedächtnis der Interviewten nicht die Aktivisten Terry Tempest Williams und Ben Linder eingegraben (Beck et al. 2007, 302–304). Im nördlichen Bereich des Geländes entdeckten die Forscher die Initiale „TTW“. Diese konnte als Akronym für „Terry Tempest Williams“ identifiziert werden. Die Schriftstellerin, Ökologin und Friedensaktivistin war nicht an den Protesten vor Ort beteiligt, sondern gehörte wie ihre Familie zu den sogenannten *Downwinders* des südlichen Utah. Zu den Befunden, die „personalisiert“ werden können, gehört auch eine rechteckige Steinsetzung („Steingarten“) für den 1987 in Nicaragua getöteten Aktivisten Ben Linder. An dieser Steinsetzung wurden zahlreiche Objekte niedergelegt, die als Gaben anzusprechen sind oder memorative Funktion hatten (Beck et al. 2007, 305 Fig. 17 f.). Ebenfalls nicht mehr präsent ist eine mobile Toiletteneinheit, die von den Behörden gespendet wurde. Allerdings lassen sich an ihrem Schicksal symbolischer Protest und die Transformation als ein Zeichen des Wiederstandes ablesen. Das Chemieklo wurde mit Geröll „befüllt“ und zu einem Zeichen des Widerstandes umgewandelt.

Pagoda Hill, eine im Südwesten des Areals gelegene und rund 150 m hohe Erhebung, war weitaus mehr als eine Geländemarke (*Abb. 8*). Sie bot einen Blick auf das NTS samt Mercury und wurde zu einem Zentrum politisch-spiritueller Aktivitäten. Obwohl Pagoda Hill für die Aktivisten wichtig war, wird es selten in den Interviews genannt

Abb. 8. Nevada Test Site, Nevada/USA. Steinfigur am Nevada Test Site Gelände, Nevada/USA, ca. April 1989 <http://digital.library.unlv.edu/objects/pho/8184> (letzter Zugriff am 10.03.2016).

Abb. 9. Nevada Test Site, Nevada/USA. Foto der Shadow Children, <http://3.bp.blogspot.com/-8bfCVS-2zri0/T4I10DYa-LI/AAAAAAAABKs/Nzkcv2LaUMw/s1600/DSCF9476.JPG> (letzter Zugriff am 10.03.2016).

und zudem als „Aussichtspunkt“ bezeichnet.[19] Dies mag die Problematik der oralen Überlieferung kennzeichnen. War der Platz im gemeinschaftlichen Gedächtnis so präsent, dass er keiner Erwähnung bedurfte oder war eine Bedeutung nur auf bestimmte Zeiten oder Gruppen beschränkt? Die Surveys (Beck et al. 2007) erbrachten eine Vielzahl von Befunden und Funden, die überwiegend mit zeremoniellen Aktivitäten in Verbindung gebracht werden und die Interpretation stützen, dass der Ort als Anlaufpunkt für rituelle Aktivitäten diente. Hierauf weist beispielsweise eine Frauenfigur aus rotem Ton hin, deren Gesicht mit Geschwüren übersät ist und die eine Halskette mit der Inschrift „DOE Nuke Waste Dump“ trägt (Beck et al. 2007, 311, Fig. 17.12). Orale Überlieferung und gegenständliche Quellen korrespondieren dagegen bei den *Shadow Children*. Hierbei handelt es sich um

18 Digital Collection der Universität von Nevada, pho011019, <http://digital.library.unlv.edu/u?/pho,7364> (letzter Zugriff am 10.03.2016) und pho011427, <http://digital.library.unlv.edu/u?/pho,8305> (letzter Zugriff am 10.03.2016).

19 Interview with David Buer, August 9, 2006, <http://digital.library.unlv.edu/u?/nts,1177> (letzter Zugriff am 10.03.2016).

zwei Figuren, die bei dem Survey gefunden wurden (Schofield/Cocroft 2007). Die in zusammengekauerter Lage dargestellten Kinder wurden liegend in einem ovalen Steinkreis angetroffen (*Abb. 9*). Rosemary Lynch, Schwester des Franziskaner Ordens und eine der Gründerinnen der Nevada Desert Experience erinnert sich: „An artist made two figures, a black child and a white child, out of some kind of plastic material. Beautiful. And we went far up into the mountain area out there, and we had this ceremony. We called them the Shadow Children. And with time and rain and wind they disintegrated, but somewhere I have the photo of that, just that unknown monument to the children who had been hurt through nuclear testing".[20] An anderer Stelle führt die Ordensschwester aus „We had a ceremony installing them kind of up on the mountain near the test site"[21], womit auch Pagoda Hill gemeint sein kann. David Buer von der Nevada Desert Experience kann sich ebenfalls an die *Shadow Children* erinnern und gibt noch einen Einblick in das Camp: „And then even further out you have peace signs made out of white rocks that were found or pictures. Near the Shadow Children there were pictures of loved ones who'd been affected by testing put out on the rocks ceremoniously and lovingly, and people would leave their names and other mementos."[22] So wie insbesondere die Geoglyphen eine hervorragenden Einblicke in die Materialitäten der Handlungen bieten, so zeigen sich in den Interviews die vielfältigen Aspekte der Handlungen abseits ihrer materiellen Ausprägungen. Beide zusammen machen aber deutlich, wie sehr die Materialiäten eine grundlegende Ressource für die Ausbildung der Identitäten waren. Hierzu gehört die Skulptur einer nackten Schwangeren, die am Mother's Day 1987 aufgestellt wurde. Die performative Aktion der Princesses against Plutonium im Jahre 1988 scheint ebenfalls kaum Spuren

Abb. 10. Nevada Test Site, Nevada/USA. Graffitis in einem Drainagetunnel unter dem Highway 95, <http://3.bp.blogspot.com/-YhlpMzsgYwE/T4I1gtcU-C9I/AAAAAAAABKg/wtk_ie6GNMo/s1600/DSCF9483.JPG> (letzter Zugriff am 10.03.2016).

hinterlassen zu haben.[23] Ob die bei den Surveys aufgefunden Masken denjenigen der Aktivistinnen von Princesses against Plutonium gleichen, ist bislang nicht untersucht. Die Aktion der Theatergruppe aus San Francisco scheint auch in den Erinnerungen der Interviewten nicht mehr präsent, obwohl das Foto einer Princess in den internationalen Medien abgebildet wurde.[24] Neben den Lagern und Pagoda Hill sind als weiterer Bereich der Eingangsbereich zum NTS sowie der Drainagetunnel unter dem Highway zu nennen (Beck et al. 2008). Besondere symbolische wie praktische Bedeutung hatte der Eingang zum NTS. James Donald Merlino, Nye County Lieutenant, erinnert ebenso wie Aktivisten, die auf das Gelände drangen: „They would come into Mercury and we'd catch them in Mercury. I don't remember any damage, very little graffiti or any of that kind of stuff".[25] In beiden Tunneln sind zahlreiche Graffiti erhalten (*Abb. 10*), Diese sind allerdings weniger ein Zeichen öffentlichen Protestes, sondern zeichnen sich durch „personal nature and individuality" (Beck et al. 2015,

20 Interview with Rosemary Lynch, June 8, 2004, <http://digital.library.unlv.edu/u?/nts,1287> (letzter Zugriff am 10.03.2016).
21 Interview with Corbin Harney and with Rosemary Lynch, August 4, 2005, <http://digital.library.unlv.edu/u?/nts,1108> (letzter Zugriff am 10.03.2016)
22 Interview with David Buer, August 9, 2006, <http://digital.library.unlv.edu/u?/nts,1177> (letzter Zugriff am 10.03.2016).
23 Fotos der Princesses Against Plutonium von Richard Misrach, <http://www.artnet.com/usernet/awc/awc_workdetail.asp?aid=424216474&gid=424216474&cid=81574&wid=424341471> (letzter Zugriff am 10.03.2016).
24 Foto einer Princess von John Misrach, <http://publishing.cdlib.org/ucpressebooks/view?docId=ft8g5008gq&chunk.id=d0e11502&toc.depth=1&toc.id=d0e11351&brand=ucpress> (letzter Zugriff am 10.03.2016).
25 Interview with James Donald Merlino, November 7, 2004, <http://digital.library.unlv.edu/u?/nts,1122> (letzter Zugriff am 10.03.2016).

178) aus. Die zahlreichen Graffiti sind mit Bildern, Texten und abstrakten Motiven variantenreich, stammen von zahlreichen Aktivisten und können stellenweise sehr genau datiert werden, wenn man Angaben wie „Hiroshima Day, 93“ oder „Mother‘s Day 2003“ (Beck et al. 2015, 183 f.) als eindeutig ansieht. Sie zeigen zudem, wie sich die materiellen und medialen Formate seit den 1980er Jahren verändert haben.

2.4. *Contested Spaces* I

Mit dem Peace Camp des NTS bekam die Anti-Atom-Bewegung und Friedenspolitik eine alltägliche, eine körperlich-gegenständliche und vor allem eine räumliche Seite. In seiner historischen Dimensionalität steht das NTS und das Peace Camp für die Dialektik sozialer Bewegungen des 20. Jh.s, Das NTS und das Peace Camp können fast paradigmatisch als *Contested Spaces* verstanden werden. Hier ein rund 20 km^2 großes Camp, dort ein fast 4000 km^2 großes Testgelände, hier Zelte und provisorische Infrastruktur, dort geplante Hochtechnologie, hier oftmals spontane Aktionen und Protestformen, dort über Jahre geplante Forschungsprogramme. Das Camp markierte bereits in räumlicher Hinsicht das Andere und das Anderswo. Die Menschen innerhalb des Peace Camps befanden sich zumindest auf Zeit außerhalb der definierten legitimen Ordnung und banden sich dadurch (zumindest für einige Zeit) nur umso enger aneinander. Im Gegensatz hierzu war das NTS eine *Closed Space* – ein Eindringen in das Gelände war für nichtautorisierte Personen kaum möglich und auch jetzt ist für den Touristen eine Ausnahmegenehmigung notwendig. Doch es beherbergte keine *Gated Community* wie vergleichbare Testgelände in der Sowjetunion oder China. Der Raum um das NTS – ursprünglich Siedelland der indigenen Bevölkerung – ist dagegen für Jedermann begehbar. Im Zuge der Proteste wurde ein Teil dieses Raumes okkupiert und zu einem durch die Proteste in einen öffentlichkeitswirksamen Raum umgewandelt. Mit dem Peace Camp schufen die heterogenen Aktivisten ihrerseits einen Raum, der nur jenen zugänglich war, die Teil der Protestkultur waren oder werden wollten. Sie erzeugten ein Wir-Gefühl, das nicht nur die Protestierenden, sondern auch die Objekte und Subjekte des Protests – die Nevada Test Site – betraf. Beide zusammen, aber auch jedes für sich, sind *Contested Spaces*. Das Protestcamp ist heute als solches in seiner Materialität kaum mehr erkennbar. Das Testgelände dominiert nach wie vor physisch. Das Camp, zum Zweck von Widerstand und gewaltfreien Aktionen errichtet, war nach den Aussagen der Aktivisten auch ein Ort für „Sozialexperimente“. Doch auch in den Materialitäten werden sowohl generelle gesellschaftliche Tendenzen als auch gruppenspezifische Muster fassbar. Es sind Peace-Zeichen aber auch spezifische Ausdrucksformen wie die *Shadow Children* oder die Chi-Ro Zeichen. Es ist nicht nur der lange Zeitraum von Nutzung und Protest, während dessen sich eine ganz eigene Performativität entwickelte. In den beiden geografischen Orten manifestieren sich grundsätzliche und gegensätzliche Vorstellungen von politischer Verantwortung in globaler Perspektive. So erschienen die Atomtests aus Sicht der Regierenden als ein Garant für Weltsicherheit und Demokratie, während die Aktivisten ihre Verantwortung gegenüber der Gesellschaft und ihren Nachkommenden geltend machten und auf indigene Ursprünge hinwiesen. Es wäre allerdings vereinfachend gedacht, NTS und Peace Camp auf eine einfache Dichotomie zu reduzieren, wie jüngst Chr. Scholl (2012) am Beispiel der Proteste zu den Weltwirtschaftsgipfeln aufgezeigt hat. Die Materialität des NTS bzw. Peace Camps scheint insbesondere durch Gegensätze geprägt zu sein, doch in den Interviews und weiteren Erinnerungen kommt auch das hybride Narrativ deutlich zum Ausdruck.

3. Die Welterbestätte Le Morne

3.1. Mauritius und die Archäologie der *Maroons*

Mauritius ist ein Inselstaat im Indischen Ozean, der rund 1700 km von der ostafrikanischen Küste und etwa 4000 km von der indischen Küste liegt (*Abb. 11*). Die Republik Mauritius erlangte im Jahre 1969 ihre Unabhängigkeit und besteht aus mehreren Inseln, von denen Mauritius die Hauptinsel ist. Die Republik Mauritius besaß 2014 rund 1,2 Millionen Einwohner, von denen nahezu alle auf

der Hauptinsel wohnten.[26] In Mauritius sind alle Bewohner Nachfahren von freiwilligen Einwanderern, Sklaven oder Zwangsarbeitern, die in den letzten vier Jahrhunderten vor allem aus Europa, China, Ostafrika, Madagaskar und Indien auf die Insel kamen (Eriksen 2007, 156–159). Über die Hälfte der heutigen Bevölkerung gelten als Hindus, die aber eine politisch und kulturell heterogene Gruppen darstellen. Etwa 17 % sind Muslime indischer Abstammung, rund 28 % Prozent sind Kreolen. Versuche, das *Kreol Morisien*, auch Moris genannt, als Amtssprache in den 1980er zu etablieren, schlugen fehl. Kreolisierung als Prozess und als Konzept ist in der Linguistik, Anthropologie und Ethnologie, vor allem aber auch in den Kultur- und Sozialwissenschaften in den letzten zehn Jahren umfassend behandelt worden (Knörr 2009). Dabei haben die post-kolonialen Diskurse die Funktionslogiken der Selbst- und Fremdzuschreibungen aufgezeigt. Im Zuge der Diskurse um Hybridität, Transnationalität und Globalisierung beschreibt der Begriff „einen Prozess der Fusion verschiedener Kulturen und Sprachen zu einer neuen autonomen Kultur“ (Müller/Ueckmann 2013, 9). Mauritius gilt hierbei oftmals als ein Modellfall (Pherson 2009), welcher den Spagat zwischen Globalisierung und regionalen Identitäten geschafft hat. Die Geschichte der Insel ist durch den Kolonialismus geprägt (Teeloc 2009; Vaughan 2006; Palmyre-Florigny 2009) und der *Code Noir* prägte bis in die 1980er Jahre hinein die Gesellschaft (Boswell 2008). Nach der „Entdeckung“ durch Pedro Mascarenhas in den 1510er Jahren begann 1598 die Phase der holländischen Oberherrschaft. Die Insel wurde erst Anfang des 17. Jhs. von Niederländern besiedelt und dann 1710 aufgegeben. Bereits in dieser Zeit wurden Sklaven, vornehmlich aus Java, in der Landwirtschaft eingesetzt. Die französische Oberherrschaft begann 1715, wobei zunächst die Französische Ostindienkompanie und dann, ab 1767, der Staat Eigentümer war. In diese Zeit fällt auch der massive Anbau von Zuckerrohr unter Einsatz von Sklaven aus Ostafrika und Madagaskar. Zwischen der Mitte des 18. Jhs. und der Zeit um 1800 wuchs der Anteil der versklavten Bewohner von rund 15000 auf 63000, was rund 80 % der Bevölkerung entspricht. Mit der Sklaverei kam auch die Flucht aus der Sklaverei, und die sogenannte *Maroonage* ist bereits zur Zeit der holländischen Oberherrschaft bekannt (Allan 1999; Teeloc 2005).

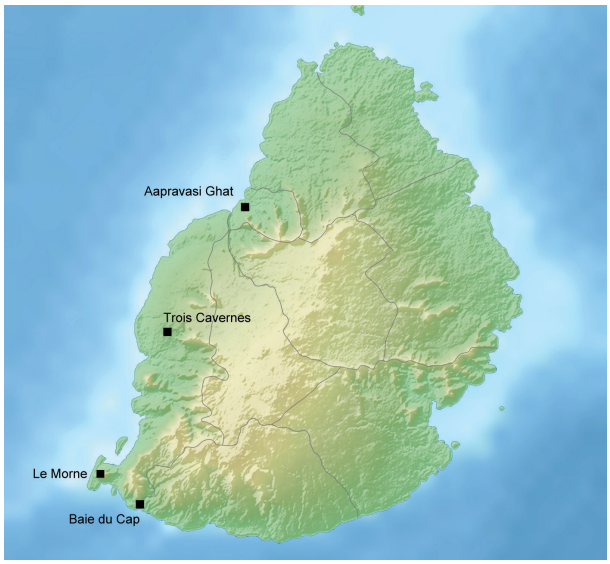


Abb. 11. Mauritius, Republik Mauritius. Lage der im Text genannten Orte (Grafik: I. Reese).

Bei den *Maroons* handelt es sich um afrikanische Sklaven und ihre Nachfahren, die von Plantagen flohen. Die Bezeichnung *Maroon* leitet sich vom spanischen *Cimarrón* und indigenen Vorformen ab. Da *Cimarrón* im lateinamerikanischen Spanisch ein „wildes Tier“ oder ein „entlaufenes Haustier“ meint, bildet der Begriff eine politische Disqualifizierungsvokabel. Bezeichnungen wie „self-liberated African Communities“ erscheinen angebrachter. Die Rückzugsgebiete sollen sich im Süden der Insel und den bewaldeten Höhenregionen befunden haben (Chowdhury 2014, 256). Nach der französischen Herrschaftsübernahme wird mit einigen Hundert selbstbefreiten Sklaven gerechnet (Chowdhury 2014, 256). *Maroonage* ist in zahlreichen Formen auch in Mauritius überliefert (de Salle Essoo/Panyandee 2007, 39–52). Der zunehmende Druck und die hoheitliche Überwachung führten dazu, abgelegene und geschützte Bereiche im Inselinneren und an der Küsten aufzusuchen. Eine Karte der agrarisch nicht genutzten Flächen aus dem Jahr 1775 vermittelt einen recht deutlichen Eindruck von den unzugänglichen Regionen vor allem im Süden der Insel (*Abb. 12*). Der systematische Ausbau der Plantagenwirtschaft wird die

26 Statistics Mauritius (under the aegis of the Ministry of Finance & Economic Development) <http://statsmauritius.govmu.org/English/Pages/default.aspx> (letzter Zugriff am 10.03.2016).

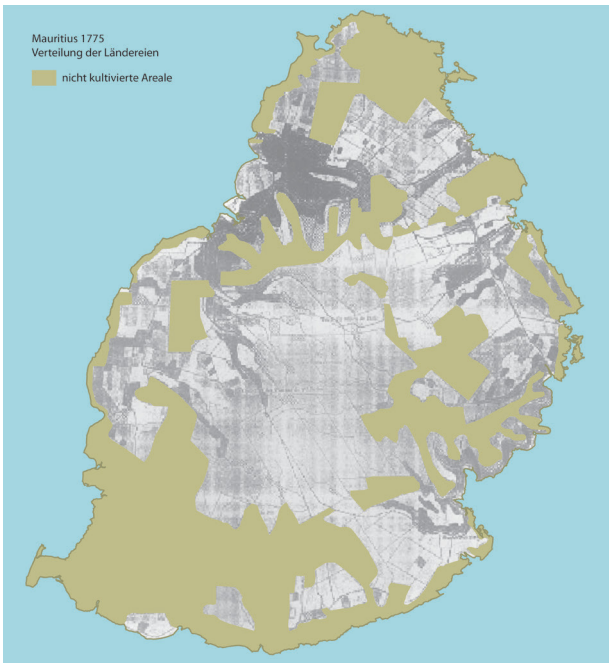


Abb. 12. Mauritius, Republik Mauritius. Landverteilung und Ödland in einer Karte aus dem Jahre 1775. (Grafik: I. Reese nach Chowdhury 2007, 9).

möglichen Verstecke reduziert haben, und zugleich ist mit einem wachsenden Anteil an geflohenen Sklaven zu rechnen. Schätzungen gehen davon aus, dass der Anteil der *Maroons* von 5 % (1770) auf rund 15 % (1820) wuchs (Teeloc 2005). Mit dem Übergang in die britische Verwaltung 1810 wurde Mauritius Teil des britischen Empire. Die Mehrzahl der Sklaven kam aus Ostafrika, insbesondere Mosambik, und der Insel Madagaskar (Allan 2010). Weniger häufig wurde auf Sklaven aus Indien und Westafrika zurückgegriffen. Bis 1835 war die Sklaverei erlaubt und wurde in diesem Jahr verboten. Die Aufgabe der Sklaverei bewirkte jedoch den Übergang zur sogenannten Vertrags- oder Leiharbeit. In den folgenden Jahren wurden tausende von Arbeitern vor allem aus Indien auf die Insel gebracht (Allan 1999).

Während die Sklaverei, aber auch die Leiharbeit, anhand der schriftlichen Quellen recht gut aufgearbeitet ist, sind die materiellen Zeugnisse dieser dunklen Seite der Kolonialgeschichte erst spät Gegenstand von Forschungen geworden (Teeloc 2012; Seetah 2015a). Als Gründe macht K. Seetah (2015a, 923) unter anderem die fehlenden gesetzlichen und strukturellen Rahmenbedingungen aus. Er ist aber auch in der Fachgeschichte der „Historical Archaeology“ und der „Post-Colonial Archaeology“ begründet (Croucher/Weiss 2011). Ein Wandel in Mauritius ist ab den späten 1990er zu erkennen, wobei die Planungen im Zusammenhang mit dem Welterbeantrag und die neuerliche Aufarbeitung der kolonialen Vergangenheit unter post-kolonialen Aspekten Hand in Hand gehen (Boswell 2006; 2008; Eichmann 2012b; Eriksen 2007). So kennen die frühen Verordnungen und Gesetze aus den Jahren 1938 (Ordinance No. 19) und 1944 (Ordinance No. 8) zwar „objects, the preservation of which is a matter of public interest by reason of the historic, architectural, traditional, artistic, or archaeological interest“ (Forest 2013, 209; 209–213), doch beschränkte sich die Ausweisung entsprechender Denkmäler eher auf die Zeugnisse des Ruhmes der kolonialen Geschichte. Ein Perspektivenwechsel zeichnete sich nach der Unabhängigkeit ab, wenngleich der National Heritage Act erst 1985 verabschiedet wurde. Mit der Ausweisung nationaler Denkmäler war im Übrigen nicht automatisch deren Erhaltung und vor allem deren Management verbunden. Hierzu kam es erst 1997 und endgültig 2003 (Seetah 2015c, 289). Le Morne wurde 2006 zu einem Nationalen Denkmal erklärt. Im Zuge dieser Aktivitäten wurden in den Jahren 2002 – 2004 im Rahmen des „Maroon Slave Archaeological Investigation Projects“ einige Fundstellen prospektiert und teilweise ergraben (MAC 2007). Zwischen 2008 und 2011 wurde dann das „Mauritian Archaeology and Cultural Heritage“ (MACH) Projekt durchgeführt, in dem anhand von ausgewählten Fundstätten die koloniale Geschichte der Insel diachron untersucht wurde (Seetah 2010; 2015a).

Die Überlieferung dieser *Maroon*-Sites ist wie andernorts schwierig. In Mauritius handelte es sich überwiegend um Tunnelsysteme, Höhlen oder Felsspalten (MAC 2007, 127 Fig. IV/1). Zu diesen gehörte neben Le Morne Brabant auch Trois Cavernes, das Baie du Cap und einige weitere (MAC 2007; Chowdhury 2014). Bei Le Trois Cavernes (*Abb. 13*) handelt es sich um ein unterirdisches Tunnelsystem, zu dem bildliche und schriftliche Quellen existierten (MAC 2007, 177–211; Chowdhury 2014, 259–263). Zusammen mit Prospektionen und kleineren Sondagen zeichnen sie ein beeindruckendes Bild einer kurzzeitigen Nutzung durch rund 50 *Maroons* in den 1780er Jahren (Chowdhury 2014, 262). Baie du Cap ist ein System von Felsspalten im

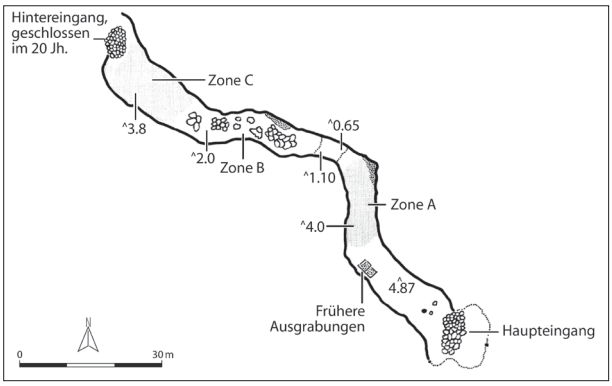


Abb. 13. Mauritius, Republik Mauritius. Ausschnitt aus dem Tunnelsystem von Trois Cavernes (Grafik: I. Reese nach Chowdhury 2014, 260 Fig. 12.2).

Süden der Insel (MAC 2007, 231–255; Chowdhury 2014, 267–269). Der Komplex liegt rund 6 km südöstlich des Tafelberges von Le Morne und war bis dato in den schriftlichen Quellen nicht bekannt. Auch hier wurden Sondagen an verschiedenen Stellen durchgeführt, die stellenweise eine Okkupation bereits im frühen 17. Jh. vermuteten lassen (Chowdhury 2014, 269). Aufgrund der Lage und der zahlreichen Nachweise einer längeren Nutzung geht A. Chowdhury (2014, 271) von einer *Way-station* entlang eines *Maroon-trails* aus, der in die entlegene Region von Le Morne führte. Beide Fundplätze zeigen nicht zuletzt das Problem der Nachweisbarkeit von *Maroonage*. Als Indikatoren gelten unter anderem eine geringe Funddichte mit Ausnahme von Holzkohle, bearbeitete Tierknochen und die Nutzungsspuren z. B. an den Felswänden. Die Archäologie der *Maroons* berührt zahlreiche methodische Aspekte (Weik 2013, Chap. 4; Sayers 2014). Die Verstecke bzw. Siedlungen liegen an meist unzugänglichen Plätzen. Dies erschwert bereits ihr Auffinden, aber auch prospektive Maßnahmen oder Ausgrabungen. Als versteckte, auf Unauffälligkeit bedachte Aufenthaltsorte erscheinen die Befunde oftmals wenig differenziert. Somit ist die Spannweite zwischen temporärem Versteck und (semi)-permanenter Siedlung recht groß. Generell stellt sich die Frage, wie und durch welche materiellen Äußerungen sich Individuen oder Kollektive auf der Flucht bzw. während einer Migration auszeichnen. H. Norton und K. Espenshade diskutieren mögliche Szenarien für die Wahl der Verstecke und Unterkünfte. „Site locations have been selected […] with concealment […] [or] with defensibility in mind“. Dies bedeutet, „Maroons would have made a concerted effort to reduce their signatures on the landscape“ (Norton/Espenshade 2007, 6 f.). Dies betrifft in erster Linie die Befunde und „due to lack of building materials and risk of loss to slave hunters, the Maroons likely utilized indestructible, ready-made rock shelters or caves for many of their sites. […] Maroon refuge sites would not have been located on the landforms targeted by normal archaeological survey” (Norton/Espenshade 2007, 6 f.). Auch der Fundniederschlag spiegelt die besondere Situation wider. „Depending on the amount of interaction between the refuge Maroons, enslaved African Caribbeans, freedmen, and others (e.g., pirates), the Maroons may have had limited material possessions.” (Norton/Espenshade 2007, 6 f.).

3.2. Le Morne Brabant

Le Morne, die Halbinsel im Südwesten von Mauritius und ihr rund 600 m hoher Tafelberg sind für die Geschichte der Insel von herausragender Bedeutung (*Abb. 14*). Der Berg und die mit ihm verbundenen materiellen wie immateriellen Überlieferungen wurden 2008 zum Weltkulturerbe erklärt. „Le Morne represents maroonage and its impact [...] which was demonstrated so effectively on Le Morne mountain. It is a symbol of slaves' fight for freedom, their suffering, and their sacrifice, all of which have relevance beyond its geographical location, to the countries from which the slaves came“[27] heißt es in der Begründung der UNESCO. Die Abgeschiedenheit der Halbinsel, die zunächst nicht von den Kolonisten erschlossen worden war, der dichte Bewuchs und der kaum zugängliche Berg boten den selbstbefreiten Sklaven ideale Bedingungen. Dies findet seinen Niederschlag nicht nur in der materiellen, schriftlichen und oralen Überlieferung, sondern auch in nach wie vor gelebten Traditionen.

Erstmalig erwähnt wird Le Morne im Jahre 1601 auf einer Karte als „den fyningen bergh“ (de Salle Essoo/Panyandee 2007, 156). Die Benennung „Brabant“ geht ebenfalls auf die Holländer

27 Le Morne Cultural Landscape, <http://whc.unesco.org/en/list/1259> (letzter Zugriff am 10.03.2016).

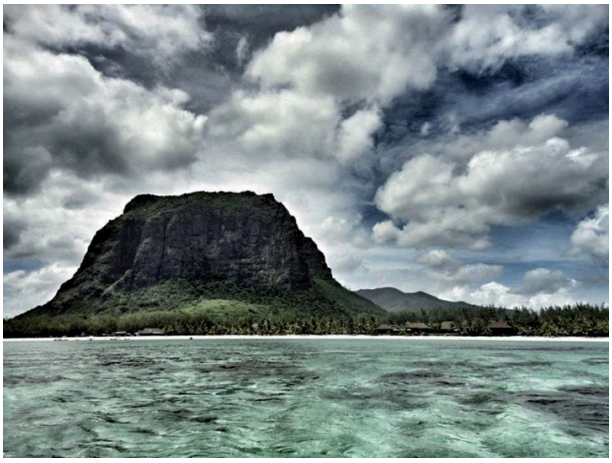


Abb. 14. Mauritius, Republik Mauritius. Halbinsel Le Morne. Tafelberg. Saïda, <https://commons.wikimedia.org/wiki/File:Le_Morne_Brabant_HDR.jpg>, „Le Morne Brabant HDR", <https://creativecommons.org/licenses/by-sa/2.0/legalcode>

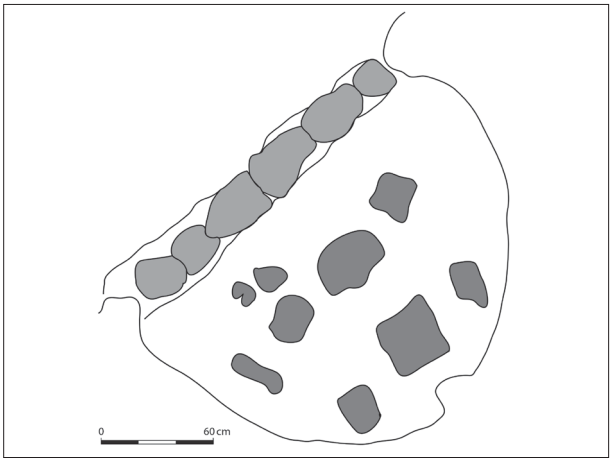


Abb. 15. Mauritius, Republik Mauritius. Felsspalte MRN 3 (Grafik: I. Reese nach Chowdhury 2007, 213).

zurück. Die Karte zeigt den Anlandeplatz, der bis heute als „Pointe Hollandais" bekannt ist. Als Rückzugsorte der *Maroons* ist die Halbinsel seit den 1730er Jahren belegt, wenn Karten Landmarken wie „Pointe des Marrons" oder „Passe des Marron" ausweisen (de Salle Essoo/Panyandee 2007, 159). Nach der Aufhebung der Sklaverei wurde die Halbinsel vor allem durch die *Maroons* und deren Nachkommen besiedelt, wenngleich das Land überwiegend im Besitz kolonialer Farmer war. Der Berg und die Fluchtorte in seinem Umfeld sind in der mündlichen Tradition nach wie vor lebendig und zahlreiche Landmarken oder markante Bäume werden mit den *Maroons* verbunden (de Salle Essoo/Panyandee 2007, 160–168). Als Ansiedlungen der *Maroons* und ihrer Nachkommen gelten in der Überlieferung die teilweise aufgelassenen Weiler Trou Chenilles, Embracure, La Gaulette und Le Chamarel. Die Ansiedlung Coteau Raffin/La Gaulette besteht vermutlich seit den späten 1870er Jahren (de Salle Essoo/Panyandee 2007, 127). Das Dorf Le Morne ist 1960 gegründet worden; die Bewohner siedelten seit 1945 überwiegend im La Boisière (de Salle Essoo/Panyandee 2007, 116–118).

Das zentrale Monument der Halbinsel ist der Tafelberg. Aus zeitgenössischen Quellen des 18. und 19. Jh.s ist bekannt, dass der Felsen als Versteck der selbstbefreiten Sklaven gedient hat (MAC 2007, 22–24), wobei der Todessturz von Sklaven im Jahre 1835 besonders in das gemeinsame Gedächtnis eingegangen ist. In der oralen Tradition gilt der Berg nach wie vor als ein spiritueller Ort, der auf das engste mit der Geschichte der Sklaverei und des Wiederstandes verbunden ist und dem Kraft zugesprochen wird (Bakker/Odendaal 2008, 228–230).

Der Gipfel ist sehr schwer zugänglich und es ist bis heute nicht völlig geklärt, wie die *Maroons* den Gipfel erreichten. Der südliche Teil des Berges weist im Gegensatz zu den Klippen an allen anderen Seiten einen steilen Hang auf, der sich zum Aufstieg anbot. Eine weitere Variante geht von einer brückenartigen Konstruktion aus, um den sogenannten V-Gap zu überqueren (MAC 2007, 9–11). Insgesamt sind sechs Felsspalten und Höhlen auf dem Gipfel und den Hängen bekannt, von denen fünf Nachweise menschlicher Nutzung zeigten (Chowdhury 2007; 2014, 265).[28] Die Untersuchungen an drei Anlagen belegen Tierknochen und Holzkohle (MNR 1–3). Mindestens drei Anlagen (MRN 4–6) befanden sich auf dem Gipfel (*Abb. 15*). Weiterhin wurde geochemische Analysen durchgeführt, wobei hohe Phosphat-Konzentrationen auf menschlichen Eingriffe hindeuten (MAC 2007, 27; Chowdhury 2014, 266). Radiocarbon-Analysen von Tierknochen ergaben Daten, die zumindest in der Interpretation als ein Hinweis auf eine

28 Die genaue Lage der Plätze lässt sich trotz der GPS Daten nicht erschließen, da die angegebenen GPS Positionen für MRN 2 und 3 sich nicht mit den Fotos dieser Plätze decken.

maroonzeitliche Okkupationsphase gedeutet werden (MAC 2007, 28; Chowdhury 2014, 267).

Insgesamt bleibt unklar, ab wann und in welchem Umfang der Berg benutzt worden ist. Die dichte Bewaldung des Plateaus, der Hänge und am Fuße des Berges boten aber hervorragende Verstecke. Zumindest wird man von einer weitgehend ganzjährigen Wasserversorgung ausgehen können (MAC 2007, 8). Für eine dauerhafte Ansiedlung von *Maroons* fehlen bislang schlüssige archäologische Hinweise, doch sind vergleichbare Felsspalten und Höhlen beispielsweise aus Kenia bekannt. Am Mount Kasigau dienten diese eher als Ausguck, um vor Sklavenjägern zu warnen und somit die Ansiedlungen zu schützen (Marshall 2014b).

Weitere Untersuchungen auf der Halbinsel Le Morne erfolgten im Rahmen des MACH Projektes. Besondere Bedeutung hatten die Grabungen auf dem Old Cemetery (Seetah 2015b), aber auch Arbeiten in den aufgelassenen Dörfern von Trou Chenille und Macaque (Colwell-Chanthaphonh et al. 2014). Bei Le Morne Old Cemetery handelt es sich um einen mehr als 3600 m^2 großen Bestattungsplatz. Vermutlich wurden mehr als 70 Personen bestattet. Ausgegraben wurden 28 Individuen, von denen angenommen wird, dass es sich nicht nur um Sklaven, sondern auch selbstbefreite und freigelassene handelt (Appleby et al. 2012). Die Funde offenbaren ein facettenreiches Bild der materiellen Kultur des frühen bis mittleren 19. Jh.s auch wenn die Radiocarbondaten eine weitaus frühere Nutzung belegen könnten (Seetah 2015a, 929 Tab. 1). Die Beigaben, die aus Afrika, Europa oder madagassischen Kontexten stammen, belegen eindringlich Prozesse der Kreolisierung und Hybridisierung. Dies zeigt sich nicht zuletzt in den synkretistischen Bestattungspraktiken. Aus den schriftlichen Quellen ist das sogenannte Longanis bekannt, in dem animistische Praktiken mit christlicher Ikonografie und Ritualen aus Südostasien verschmolzen sind (De Salle-Essoo 2011; Seetah 2015b) und das neben der Sprache und den performativen Sega-Tänzen (MAC 2013, 100–145) Ausdruck der Hybridität der Bewohner war und ist. Die aDNA (ancient DNA) an 11 Individuen deuten eine Herkunft aus Ost-Afrika, möglicherweise Mosambik an (Seetah 2015a, 929 Tab. 2) und beleuchten aus einer völlig neuen Perspektive die zentrale Stellung der Insel im Sklavenhandel und der Ökonomie, aber auch dem Prozess der Kreolisierung.

Auch wenn der Tafelberg als physische wie immaterielle Landmarke die Halbinsel dominiert, so ist die Landschaft durch weitere Orte geprägt, die mit der Geschichte der Sklaven in Verbindung stehen (*Abb. 16*). Der Berg war weithin sichtbar, doch hatten eine Reihe von Untiefen, Felsen und Landmarken im Küsten- und Uferbereich ebenso wichtige Bedeutungen. Die Mehrzahl der Zuschreibungen speist sich aus der oralen Tradition, was es nicht immer einfach macht, einen zeitlichen Zusammenhang herzustellen (de Salle Essoo/Panyandee 2007). Mit dem Pointe de Hollandais (*Abb. 16:8*) an der Südwestspitze wird der potentielle Anlandeplatz umschrieben, während der Pointe Maroon (*Abb. 16:11*) im Nordwesten in Bezug zu den Sklaven gesetzt wird. Er wird wie auch die Passe de Maroon nahe L'Embrazure (*Abb. 16:4*) auf einer Karte aus dem Jahre 1818 genannt (de Salle Essoo/Panyandee 2007, 160) Weiterhin durchbrechen zwei tiefe und breite Kanäle das Korallenriff an zwei Stellen: die Passe de la Prairie und die Passe de l'Ambulante. Sie sind auch historisch bedeutsam, da sie im Saumriff „Türen" für die Boote bilden und damit auch die Flucht von der Insel ermöglichten. Die Lagune südlich des Berges bot darüber hinaus Möglichkeiten zum Fischfang. Die Ilôt de Fourneau, wie das in der Lagune liegende Inselchen auf einer Karte von 1883 genannt wurde, galt in der oralen Tradition als Bestrafungsort für entlaufene Sklaven. Ob dies wirklich so war, bleibt aufgrund der Nähe zu den Unterschlupfen auf der Halbinsel fraglich. Ein Brunnen versorgte die Bewohner der Küste jedoch bereits früh mit Frischwasser (de Salle Essoo/Panyandee 2007, 25). Auf der Halbinsel selbst lassen sich vor allem das Valley of Bones (*Abb. 16:14*) und die Felsspalte One Eye (*Abb. 16:16*) im Westen und der Rastafarian Rock oder auch Roche St. Marie (*Abb. 16:17*) im Süden des Berges mit zahlreichen Legenden verbinden. Beim Valley of Bones handelt es sich um den historisch überlieferten Platz, an dem die Sklaven bei ihrem Sprung vom Felsen zu Tode kamen. Zwischen Spiritualität und Pragmatik angesiedelt ist der One Eye. Diese Felsspalte diente zur Orientierung für die Fischer, während der Rastafarian Rock nahe der Siedlung Trou Chenilles als spiritueller Ort gilt. Die Genese der zahlreichen Siedlungen

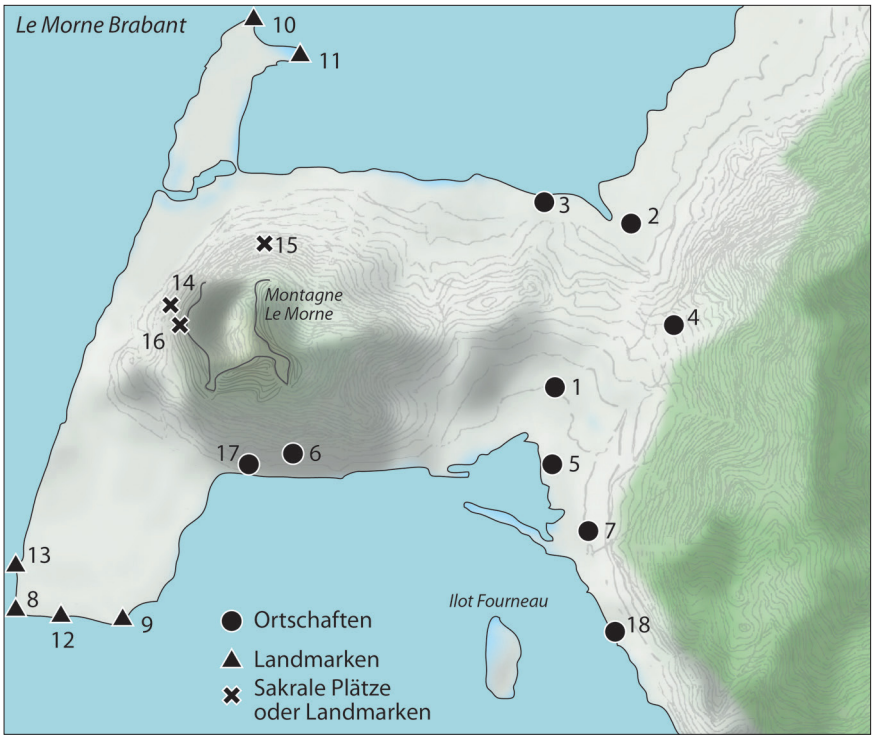


Abb. 16. Mauritius, Republik Mauritius. Orte, die mit Maroons und Maronage in Verbindung gebracht werden (Grafik: I. Reese nach de Salle Essoo/Panyandee 2007, 91, Kartengrundlage: Open Street Map).

und Weiler ist nicht einfach darzustellen. Zum einen sind kaum ethnologische oder archäologische Untersuchungen erfolgt, zum anderen handelte es sich um Ansammlungen von Hütten, die in der mündlichen Tradition mit bestimmten Personen, Gruppen und Narrativen verbunden werden und nicht unbedingt einer heutigen Definition von „Dorf" entsprechen.

Das heutige Dorf Le Morne (*Abb. 16:18*) ist eine Gründung des Jahres 1960, als Zyklone die alten Siedlungen zum Teil verwüsteten (de Salle Essoo/Panyandee 2007, 20–22). Zumindest ein Teil der Bewohner stammte aus der nahe gelegenen Siedlung La Boisière, die ihrerseits in den 1940er Jahren angelegt wurde (*Abb. 16:7*). Traditionell als Siedlung der freigelassenen Sklaven gilt Trou Chenilles an der Südküste, die als Wüstung bekannt ist (*Abb. 16:6*). Wann es zu einer zweiten „Gründung" eines gleichnamigen Dorfes weiter östlich kam (*Abb. 16:1),* ist unklar. Da sich nahe dieser Siedlung der Friedhof aus den 1880er Jahren befindet (*Abb. 16:5*), könnte die Anlage auch in dieser Zeit erfolgt sein. Die Karte von Descubes aus dem Jahre 1880 zeigt jenen Friedhof an, der archäologisch untersucht werden konnte (de Salle Essoo/Panyandee 2007, 27). Auf einer Karte aus dem Jahre 1873 werden die Weiler Macaque (*Abb. 16:2*) und L'Embrazure (*Abb. 16:4*) genannt (Bakker/Odendaal 2008, 229). Zu Macaque liegt inzwischen eine umfangreiche Studie vor (Colwell-Chanthaphonh et al. 2014). L'Embrazure am Übergang der Halbinsel ins Inselinnere dürfte ebenfalls in das späte 19. Jhd. datieren, und befindet sich in der Nähe eines passartigen Übergangs. Auch der weiter westlich liegende Weiler Dan Zak scheint auf Nachkommen der *Marrons* zurückzugehen. Umzüge oder Umsiedlungen ließen dann im Verlauf des späten 19. und frühen 20. Jh.s die Siedlungen Coteau, Raffin sowie La Gaulette nordwestlich von der Plaine Macaque (*Abb. 16:2*) entstehen. Die Halbinsel Le Morne Brabant zeigt sehr deutlich, wie mündliche, schriftliche und materielle Überlieferung zu einer Einheit verschmelzen, ohne das mitunter sicher gesagt werden kann, wann und wie es zu diesen Zuschreibungen kam. Dies ist aber typisch für die Dynamiken der Kreolisierung und Hybridisierung.

3.3. Tourismus und Welterbe

Mauritius besitzt gegenwärtig (2016) zwei Weltkulturerbestätten: Aapravasi Ghat und Le Morne Brabant. Der Black River Gorges National Park steht seit 2006 auf der Tentativliste. Bei Aapravasi Ghat in der Hauptstadt Port Louis handelt es

sich um einen Gebäudekomplex, der stellvertretend für die Vertrags- und Zwangsarbeit seit dem 19. Jh.s steht und 2006 in die Liste aufgenommen wurde. Im Jahre 2008 folgte dann „Le Morne Cultural Landscape“ (MAC 2007). Le Morne umfasst eine Kernzone von 3,48 km² sowie eine Pufferzone von 29,65 km², die nicht nur den gesamten terrestrischen Bereich der Halbinsel, sondern auch große Teile der Flachwasserzone umfasst (*Abb. 17*). Für die UNESCO Ausweisung sind Kriterien ausschlagegebend, an denen sich der OUV, der „Outstanding Universal Value“ definiert. Für Le Morne waren die Kategorien III und VI entscheidend.[29] In der Bewerbung war noch das Kriterium IV genannt worden, das aber keine Berücksichtigung fand.[30] Die Nominierung betont zwar die immaterielle Überlieferung, doch wird der physischen und damit materiellen Präsenz durchaus Bedeutung geschenkt.[31] Dass dabei materielle und immaterielle Attribute miteinander verwoben sind, stellt die Nominierung deutlich heraus. Nach K. Bakker und F. Odendaal (2008, 230–232) ist Le Morne „a Creole symbol of resistance and liberty, a place of refuge from oppression, a source of healing power, a connection to the traditions relating to the sea and the origin of Creole music of resistance“. Auch wenn der Tafelberg im Zentrum steht, führt der Integrated Management Plan inzwischen 12 *general attributes* und 29 *specific attributes* (Republique Mauritius 2014a, 22, 28–30) in der Kern- und Pufferzone auf. Große Teile der Kernzone gehören dem Staat. Das Anwesen in Le Morne Brabant ist im Besitz der Société Renaud Frères in 1865

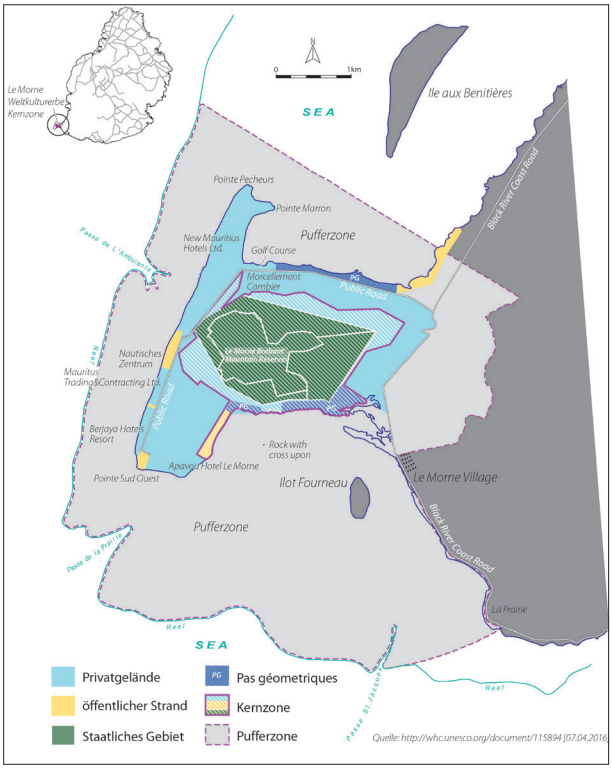


Abb. 17. Mauritius, Republik Mauritius. Kernzone und Pufferzone der Welterbestätte sowie Besitzverhältnisse auf der Halbinsel "Le Morne Brabant", Stand 2014 (Grafik: I. Reese nach MAC 2007, xii; Republique Mauritius 2014a, 14).

(Republique Mauritius 2014a, 16). Die Pufferzone gehört überwiegend (MAC 2007, xii; Republique Mauritius 2014a) Großgrundbesitzern und in kleinen Teilen weiteren Privatleuten und der Regierung (*Abb. 17*). Zum Ablauf der Nominierung, den beteiligten Parteien und die auftretenden Probleme haben K. Bakker und F. Odendaal (2008) ausführlich Stellung genommen. So haben einerseits die politischen Entscheidungsträger mitunter völlig andere Ziele als beispielsweise ICOMOS (International Council on Monuments and Sites) verfolgt, und lokale und regionale Interessensvertretungen hatten kaum Einfluss auf die Planungen. Hier sind insbesondere die Kreolen zu nennen, obwohl gerade Le Morne als Monument gegen die Sklaverei und damit implizit für die Ausbildung kreolischer Identitäten steht.

Das Welterbe Le Morne ist auf das engste mit der Entwicklung des Tourismus verbunden. Tourismus spielt in Mauritius seit den 1950er Jahren eine Rolle, stand und steht die Insel doch für die 3S „Sun, Sand and Sea“ (Prayag 2015). Von Ende der 1990er Jahre bis 2015 stieg die Zahl der Hotels

29 MAC 2007, 57–60. Criterion III: „[...] an exceptional testimony to maroonage or resistance to slavery in terms of it being used as a fortress for the shelter of escaped slaves, with evidence to support that use”; Criterion VI: “The dramatic form of the mountain, the heroic nature of the resistance it sheltered, and the longevity of the oral traditions associated with the maroons, has made Le Morne a symbol of slaves’ fight for freedom, their suffering, and their sacrifice, all of which have relevance beyond its geographical location, to the countries from which the slaves came – in particular the African mainland, Madagascar and India and South-east Asia.”

30 MAC 2007, 58 „an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history.”

31 Le Morne Cultural Landscape: „Le Morne Cultural Landscape is an exceptional testimony to maroonage or resistance to slavery in terms of the mountain being used as a fortress to shelter escaped slaves, with physical and oral evidence to support that use”, <http://whc.unesco.org/en/list/1259> (letzter Zugriff am 10.03.2016).

stetig. Sie liegt gegenwärtig bei 115.[32] In den Jahren 2007 bis 2015 wuchs der Anteil der Urlauber um rund 2 % von 907000 auf rund 1,1 Millionen, wobei die meisten Touristen aus Europa (rund 70 %) kommen. In Le Morne entstand das erste Hotel im Jahre 1954 (de Salle Essoo/Panyandee 2007, 134). Seit den 1980er Jahren entwickelten sich verstärkt touristische Enklaven in Form weitgehend abgeschlossener Hotelanlagen und Resorts mit den inzwischen bekannten Folgen für die einheimische Wirtschaft, die Kultur und die Umwelt (Prayag 2015, 252). Der Trend zu hochwertigen Anlagen wurde mit der „Hotel Development Strategy" seit 2008 bewusst politisch gefördert (Prayag 2015, 242). Insbesondere für Le Morne war der Tourismus durch das sogenannte „Integrated Resort Scheme" und das „Real Estate Scheme" geprägt (Prayag 2015, 246). Die Planungen der 1980er und 1900er Jahre sahen eine massive Erschließung der Halbinsel im Rahmen des „Integrated Resort Management Plan" vor, der auch stellenweise verwirklicht wurde. Diese betraf zunächst in erster Linie die strandnahen Bereiche, aber auch die südlichen Hänge des Massivs (Boswell 2005, 292; Bakker/Odendaal 2008). Weitere Entwicklungsbereiche wurden im Norden der Halbinsel ausgemacht und berührten in Teilen massiv die Hangbereiche des Berges. Über die Hotelanlagen hinaus gab es Planungen, eine Seilbahn zum Gipfel einzurichten (Bakker/Odendaal 2008). Der Zugang zum Strand ist deutlich eingeschränkt und an der Westküste auf drei größere Areale beschränkt (Schnepel 2009). Hinzukommt jedoch ein Areal im Norden, welches unter dem französischen Recht der „Zone des cinquante pas géométriques" (*Abb. 17*) einen freien Zugang zum Strand gewährt.

Bei der Mehrzahl der gegenwärtig neun Hotels auf der Halbinsel handelt es sich um Hotelkomplexe, die neben den üblichen Hotelzimmern auch Appartements und Bungalows anbieten. Die Westküste teilen sich drei Hotels, wobei das Dinarobin mit zwei Komplexen den gesamten Bereich vom nördlichen Ausläufer am Pointe de Maroon bis zum Slave Route Monument einnimmt. Im Süden befinden sich drei weitere Hotels, in Le Morne noch zwei Anlagen. Inzwischen wird auch für Mauritius ein nachhaltiger Tourismus angemahnt (Prayag 2015), was bei einer anvisierte Besucherzahl von rund 2 Millionen im Jahre 2020 für Mauritius auch dringend notwendig erscheint.

Wie wird das Thema am Weltkulturerbeplatz vermittelt? Der „Le Morne Cultural Heritage Trust Fund", der 2004 vom Ministry of Arts and Culture eingerichtet wurde, hat neben Denkmalpflege und Forschung die Aufgabe der Vermittlung und beschäftigt gegenwärtig 12 MitarbeiterInnen.[33] Im Zuge der Ernennung ist es nicht nur zur Einrichtung eines Informationszentrums im Dorf Le Morne gekommen. Ein Jahr nach der Ernennung wurde das Slave Route Monument eingerichtet. Es befindet sich an einem der wenigen noch öffentlich zugänglichen Strände an der Westküste. Das Monument wurde am 01.02.2009 am Fuße des Berges eingeweiht. Es beinhaltet einen Garten und eine Plakette zur Erinnerung. Der Platz ist bewusst gewählt, denn er soll nicht nur den Zusammenhang von Tafelberg und Meer verdeutlichen, sondern liegt in einer Sichtachse zu dem legendären Valley of Bones und der Westfelswand. In der weiteren Planung (Republique Mauritius 2014a) wird das Monument in ein Wegesystem eingebunden, das die Landschaft um den Berg erschließen soll. Zur Erschließung der Landschaft und ihrer Geschichte dienen im Sinne eines *Ecotourism* (Republique Mauritius 2014b, 41) nunmehr *Trails* mit Informationsstellen. Hierzu gehören unter anderem die Pfade zwischen den aufgelassenen Siedlungen Trou Chenilles und Macaque oder der Weg von Trou Chenilles auf den Berg. Andere Routen werden per Boot erschlossen wie z. B. durch eine Fahrt entlang der Halbinsel mit Halt auf der Ilôt Fourneau und der Ilôt Benitiers. Dass es dabei nicht allein um Geschichtsvermittlung geht, liegt auf der Hand, Tauch- und Schnorchelaktivitäten gehören ebenso dazu wie spektakuläre Naturerfahrung. Von besonderer Bedeutung soll sich der 1st of February Trail, entwickeln, der vom ehemaligen Sklavenfriedhof über die Wüstung Trou Chenilles und den Rastafarian Rock zum Slave Route Monument und dem öffentlich zugänglichen Strand führt.

32 Diese und folgende Zahlen wurden veröffentlicht von Statistics Mauritius (under the aegis of the Ministry of Finance & Economic Development), <http://dataportal.statsmauritius.govmu.org/en/Map> (letzter Zugriff am 10.03.2016).

33 Le Morne Cultural Heritage Trust Fund, <https:www.lemorneheritage.org> (letzter Zugriff am 10.03.2016).

Dass eine Vermittlung an ihre Grenzen stoßen oder leicht zu einem Folklorismus verkommen kann, liegt auf der Hand, insbesondere wenn es um die Immaterialität geht. Fallen Aufführungen der Sega-Tänze und das Kochen von kreolischem Essen am Strand der Resorts in diese Kategorie? Ist es die Erzählung eines Kreolführers über die Versklavung an einem privaten Strand in der Sichtachse zu dem Felsen? Sind es Wanderungen zu den Felsspalten? Wie vielschichtig dies sein kann, zeigt die Rekonstruktion von Trou Chenilles. Das Projekt wurde als Teil des 178. Jahrestags zum Gedenken an die Abschaffung der Sklaverei in Mauritius initiiert.[34]

3.4. *Contested Spaces* II

Für Mauritius zeigt sich der Spagat zwischen dem touristischen Konsum des Natur- und Kulturerbes einerseits und dem Konzept der Erhaltung und Weitergabe andererseits. Die entsprechenden Staaten oder Länder verbinden mit dem Welterbeprädikat meist handfeste ökonomische Interessen. Die dabei entstehenden Spannungen zwischen den zahlreichen und miteinander verwobenen Akteure sind auch der UNESCO bekannt und werden zunehmend thematisiert (Tauschek 2013; Keough 2011; Anheier/Isar 2011). Das Beispiel Le Morne zeigt weniger wie die Touristikmaschinerie vom Weltkulturerbe profitiert, denn diese war schon lange vor jenem dar. Fassbar werden vielmehr zaghafte Versuche, Identitäten über das Weltkulturerbe neu zu schreiben und in die Diskurse um die kreolischen Identitäten einzufügen. Allerdings zeigen manche Untersuchungen zum *Heritage*-Tourismus, dass gerade lokale Gemeinschaften kaum von dem erwarteten oder wirklichen Geldsegen oder Infrastrukturmaßnahmen profitieren. Deutlich wird aber auch, dass die implizite Verknüpfung von materiellem und immateriellem Kulturerbe, das insbesondere in dem Format der *Cultural Landscape* eben *Contested Spaces* generiert.

Als Welterbestätte steht Le Morne für Widerstand gegen die Sklaverei und fügt sich damit in eine Reihe von Plätzen ein, die im Slave Route Project der UNESCO zusammengefasst worden sind. Die Nominierung der „Forts and Castles, Volta, Greater Accra, Central and Western Regions“ in Ghana im Jahre 1979 war gleichsam die Geburtsstunde dieses Langfristvorhabens, zu dem 42 Landschaften, Städte und Einzelobjekte (Stand 2016), aber auch immaterielles Erbe gehören. Insbesondere an dem Slave House auf der Insel Gorée nahe Dakar, Senegal hat sich eine Diskussion um „Slave Tourism“ entzündet (Ebron 1999; Araujo 2010; 2014; Landry 2011). Auch die Nominierung von Le Morne als Weltkulturerbe hat in verschiedenen Bereichen zu Debatten geführt. Sie betreffen die Frage der Homogenität kreolischer Kultur, die Macht der UNESCO und die Rolle derartig geadelter Plätze für ein *Nation Building* (Bakker/Odendaal 2008). Der auf den Welterbeplatz lastende Druck betrifft die materiellen wie die immateriellen Kulturgüter gleichermaßen wie die Naturlandschaft.[35] So drängten ICUN (International Union for Conservation of Nature) und ICOMOS auf die Ausweitung der Kernzone, welche dann die gesamte Halbinsel und Teile des Flachwasserbereiches umfassen sollte. Dies ist kaum realisierbar, so dass der gegenwärtige Management Plan „an approach for the management and conservation of the Outstanding Universal Value of the Le Morne Cultural Landscape while creating a platform for sustainable economic development“ (Repubilque Mauritius 2014, 4) vorsieht. Der Druck berührt aber auch die Frage, welche Ressourcen zur Identitätsbildung dienen und wer die Verfügungsgewalt über diese Ressourcen hat (Eriksen 2001). Lassen sich die Gefährdungspotentiale der materiellen Güter durch Monitoringmaßnahmen recht gut evaluieren, ist die Bedrohung des immateriellen Erbes

34 Le Mauricien, Abolition de l’esclavage. Une réplique du village de Trou-Chenille au Morne, Artikel vom 19.01.2013, <http://www.lemauricien.com/article/abolition-l%E2%80%99esclavage-replique-du-village-trou-chenille-au-morne> (letzter Zugriff am 10.03.2016) und Artikel vom 7.02.2013, Village du Morne – Hommage. Un aperçu de la vie à Trou-Chenille, <http://www.lemauricien.com/article/village-du-morne-%E2%80%94-hommage-apercu-la-vie-trou-chenille> (letzter Zugriff am 10.03.2016).

35 „Development and land use changes are the biggest threats to the integrity of the property, as has been demonstrated by the impact of recent development in the core and buffer zones - hotels along the coast and houses on the lower slopes of the mountain” (ICOMOS 2008, 5).

weitaus schwieriger zu erkennen.[36] Hierbei geht es nicht allein um die Frage, wie die *threats* gemessen werden können, sondern für wen und in welchem Umfange Le Morne steht. Das betrifft die oben angesprochene Frage, ob sich alle Kreolen als Nachfahren von Versklavten verstehen, ob sie ihre Wurzeln in den *Maroons* sehen und wie sie ihre jetzige Identität formen bzw. wie sie geformt wird. Spätestens seit den 1990er Jahren wurden die kreolischen Identitäten in der Gesellschaft von Mauritius thematisiert. Die damals drängenden sozialen Probleme, von R. Boswell (2008) ebenso plakativ wie zutreffend als *Malaise Créole* charakterisiert, hatten nicht nur historische Gründe, sondern waren eine Folge des rapiden Wirtschaftswachstum und der sozialen Ungleichheiten. Auch wenn sich die Bedingungen bis in die 2000er geändert haben, so stellte Eriksen (2007, 160) heraus: „In the contemporary context of a democratic, competitive capitalist society, the Creoles are at a clear disadvantage because of their loose social organization and their relative lack of symbolic capital in Mauritian identity politics". Kreolische Identitäten werden immer wieder aus einer ethnischen Zuschreibungspraxis vor allem durch Fremdperspektivierung gesehen. Eriksen stellte heraus, das „in the eyes of many Mauritian politicians as well as ordinary citizens, peace is maintained on the crowded, culturally heterogeneous island only because there is a precarious numerical equilibrium and functioning politics of compromise between the ethnic groups. Any upsetting of this balance would ostensibly threaten the peace. An alternative view is posited by Mauritians who reject ethnic classification as a set of primordial identities and who demand the right to be mixed in every sense" (Eriksen 2007, 164 fig. 1). Dementsprechend groß ist auch die Spannweite dessen, was und wer sich als Kreole versteht und wie kreolische Identitäten mit der *Maroonage* zu verbinden sind (Eichmann 2012b). Eine einheitliches Kulturmodell „Kreol" existiert nicht, so dass manche die afrikanischen Wurzeln, andere die Sklaverei und manche den Rastafarismus wie im Weiler Le Chamarel (Boswell 2005) als Ressource für soziale und kulturelle Identitäten hervorheben (Ng Tseung-Wong/Verkuyten 2015).

36 „ICOMOS considers that the main threat to the property is development which might impact on the spiritual values of the mountain and views to and from it." (ICOMOS 2008, 5).

4. Zusammenfassung

Die Landschaften, Räume und Orte von Le Morne Brabant und des NTS-Komplexes mit dem Peace Camp sind Schauplätze multipler gesellschaftlicher Identitäten, den mit ihnen verwobenen Praxen und verbundenen materiellen wie immateriellen Ressourcen. Eingangs war die Frage gestellt worden, ob das Peace Camp/NTS und Le Morne als Beispiele für *Contested Environments* gelten können. Dies ist auf jeden Fall zu bejahen.

Beiden Plätzen gemeinsam ist, dass Erinnerung und Gedenken zentrale Felder für den Prozess der *Contestation* sind. Der Protest am NTS war temporär angelegt. Gerade deshalb bildet das Wissen um die historische Tiefe des Protests ein wichtiges Element bei der Identitätsbildung. Doch der ehemals umkämpfte Raum hat an Bedeutung verloren. Die Erinnerung ist weniger deutlich in der Landschaft eingeschrieben und nur noch mit Vorwissen zu dechiffrieren. Gleichermaßen von Bedeutung war die „horizontale" Vernetzung, also das Wissen um ähnliche Orte des Protestes. Diese Beziehung ist reziprok. In weitaus stärkerem Maße als dies bei dem Peace Camp der Fall war, ist Le Morne historisch und symbolisch aufgeladen. Er berührt dabei zentral das Konzept der Kreolisierung und spätestens mit der Auszeichnung als UNESCO Welterbe ist der Platz zudem ein Symbol und Synonym für Sklaverei bzw. die Befreiung von ihr geworden. Beide Plätze sind gleichsam *Hubs* in den Netzwerken des Protestes bzw. des Widerstandes und der Erinnerung. Dabei verliert aber das Peace Camp am NTS aufgrund der veränderten Rahmenbedingungen an Bedeutung, während Le Morne mit der Ausweisung als *World Heritage Site* an Bedeutung gewinnt.

In dem entlegenen Teil der Wüste von Nevada stehen gesellschaftspolitische Diskurse im Vordergrund, doch wird die Landschaft hier erst durch die Anlage des NTS und des Peace Camps mit Bedeutung aufgeladen, wobei den materiellen Objekten bereits durch die Infrastruktureinrichtungen für die Kernwaffentests grundsätzliche Bedeutung

zukommt. In Le Morne scheint der Fall etwas anders gelagert, da dem Tafelberg und der ihm umgebenden Landschaft erst Bedeutungen zugeschrieben und sie damit Bestandteil der Diskurse werden.

Die Landschaften des NTS/Peace Camps in der Wüste von Nevada einerseits, Le Morne andererseits zeigen Unterschiede und Gemeinsamkeiten. Beide Orte sind bereits geografisch-physisch besondere Orte und schaffen eine besondere Raumsituation und Atmosphäre. Die Wüste ist zumindest für die westlichen Akteure ein potentiell lebensfeindlicher Ort. Er wurde allerdings bewusst gewählt, um die atomaren Tests durchzuführen. Für die Angestellten im NTS musste also gleichsam eine künstliche Welt geschaffen werden. Demgegenüber besaßen die Protestierenden keine grundlegende Versorgung (Wasser usw.) und waren in der „Natur" nur ansatzweise durch Zelte oder Wohnwagen geschützt. Le Morne, klimatisch nicht mit dem Extrem einer Wüste zu vergleichen, war durch seine Topografie gleichsam ein peripherer Ort. Der Berg an sich ist aber gleichermaßen siedlungsfeindlich und auch die Halbinsel ist bis zur Okkupation durch die entflohenen Sklaven nicht genutzt wurden. Dies verwundert allerdings nicht, da Mauritius über keine eigentliche indigene Bevölkerung verfügte und die Halbinsel für die europäischen Siedler keinerlei ökonomische Bedeutung besaß. Demgegenüber war für die indigene Bevölkerung die Wüste von Nevada Teil ihrer Identität und damit keinesfalls ein peripherer Ort.

Wie gestaltet sich das *Boundary Drawing* in diesen Räumen? Wo werden Gruppen eingeschlossen, wo ausgeschlossen? Für das NTS ist dies leicht zu beantworten, denn bereits die Umzäunung und Sicherheitssperren deuten auf eine *Closed Community* hin. Die Räume der Protestierenden insbesondere an den Camps und am NTS waren scharf voneinander getrennt und auch die heutigen Protestaktionen machen vor den Toren halt. Infrastrukturelle Elemente wie der Highway oder der Wartungstunnel könnte man dagegen fast als heterotroph bezeichnen, da sie von gegensätzlichen Akteuren benutzt werden oder die Bühne für Aktionen bilden. Weiterhin ist zu berücksichtigen, dass die Strukturveränderung am NTS auch zu einer teilweisen Auflösung der Grenzen führte, die es Besuchern ermöglicht, Ausschnitte des Geländes zu besuchen. So wie am NTS die ursprüngliche Grenzziehung zunehmend durchlässiger wird, so entwickeln sich auch auf der Halbinsel Le Morne die Grenzen multidimensional. Die Halbinsel war ein Rückzugsort für geflohene Sklaven, in den nur bisweilen Strafexpeditionen einbrachen. Erst nach der Abolition wurde der Raum zunehmend erschlossen, blieb jedoch den Nachkommen der *Maroons* vorbehalten. Allerdings wurde er spätestens mit dem Erstarken der Tourismus neu definiert und damit neue Grenzen gezogen. Ein *Boundary Drawing* zeigt sich auch hier mit sichtbaren Grenzen, die inkludieren und exkludieren. Es sind die Resorts und die privaten Strände auf der einen Seite, die Dörfer und Landschaften der überwiegend kreolischen Bevölkerung auf der anderen Seite. Die Grenzen gestalten sich aber fließender, denn der Tourismus greift in deren kulturellen Räume über und integriert seinerseits bestimmte Gruppen beispielsweise im Hotelgewerbe.

Auf den ersten Blick sind die Identitäten am NTS und dem Peace Camp deutlich fassbar. Es ist das Atomprogramm der Zeit des Kalten Krieges, das in Form des in jeder Hinsicht omnipräsenten militärisch-industriellen Komplexes am NTS zu einer Ikone für Befürworter wie Gegner wird. Das Peace Camp ist gewissermaßen ein Spiegelbild, in dem es den Paradigmen des Kalten Krieges vielfältige Konzepte von Frieden, Abrüstung oder Glauben entgegensetzt. Bei näherer Betrachtung wird das Bild jedoch unscharf. So bilden die *Protesters* bei weitem keine homogene Gruppe und insbesondere die Konflikte in den 1980er Jahren um die Protestformen zeigten auch erhebliche Spannungen. Zwar sind die Protestierenden vor allem durch ihre Ablehnung der Atomtests und der Atomwaffen sowie – weniger scharf – durch ihre Ablehnung von Krieg geeint, doch manifestiert sich diese zunächst sichtbar in ihrem Engagement am NTS bzw. Peace Camp. Neben „professionellen" Akteuren des Protestes wie der Nevada Desert Experience sind es auch Akteure die nur temporär in Erscheinung treten. Auch die Mitarbeiter des NTS sind bereits aufgrund ihrer Aufgaben und Befugnisse alles andere als homogen. Hier stellt sich die Frage, ob es nicht doch Brüche gibt. Diese werden wohl weniger darin liegen, dass die

NTS-Beschäftigten die Atomforschung ablehnen, wohl aber auf dem Feld des Friedens. Blickt man auf weitere Akteure und Akteursgruppen wie Farmer, so wird das Bild ebenfalls unscharf.

Die Auszeichnung von Le Morne als *Cultural Landscape* zeigt, wie wichtig das landschaftliche Element – hier verstanden als wechselseitige Strukturierung von Handeln und physischem Raum – für die Diskurse sozialer Identitäten ist. Die Landschaft der Halbinsel wird durch Bedeutungen besetzt und aufgeladen. Materielle und immaterielle Ressourcen bedingen sich gegenseitig, doch erscheinen letztere in historischer, aber auch institutioneller wie kulturspezifischer Perspektive hochdynamisch. Die Halbinsel Le Morne ist zeitlich einem Wandel unterworfen, der von einem unwirtlichen Zufluchtsort für geflohene Sklaven über Siedlungen von Kreolen zu einer touristischen Enklave und dann zu einem weltweiten Symbol für die Sklaverei wird. Damit wurde der Platz, der auf den ersten Blick „nur“ für die Geschichte der Republik Mauritius und des indischen Ozeanes von Bedeutung ist, zu einem Baustein für das *Nation Building*, das Multi- und Transkulturalität als ein konstitutives Merkmal der Republik herausstellt. Diese Sichtweise wiederum wird nicht von allen geteilt und die kulturelle wie politische Teilhabe der Kreolen angemahnt. Allerdings scheint die kreolische Identität auf Mauritius eine Identität in Bewegung zu sein, die multiple und heterogene Identitäten schafft.

In dem entlegenen Teil der Wüste von Nevada wird die Landschaft erst durch die Anlage des NTS und dem sich daran entzündenden Protest mit Bedeutung aufgeladen. In Le Morne scheint der Fall etwas anders gelagert, da dem Tafelberg und die umgebende Landschaft erst Bedeutungen zugeschrieben werden und sie damit Bestandteilen der Diskurse macht. Das NTS und das Peace Camp sowie Le Morne sind Beispiele für *Contested Landscapes* bzw. *Spaces*, an denen deutlich wird, wie Landschaft mit ihren Räumen und Orte von unterschiedlichen Gruppen und Gemeinschaften genutzt wird und wie die Landschaft die Identitäten dieser Akteure formt.

Ulrich Müller
Christian-Albrechts Universität Kiel
Lehrstuhl für Ur- und Frühgeschichte
Frühgeschichte, Mittelalter- und Neuzeitarchäologie/Chair early historic, medieval and modern archaeology
Institut für Ur- und Frühgeschichte
Johanna-Mestorf-Str. 2–6
D-24118 Kiel
umueller@ufg.uni-kiel.de

Bibliographie

Allan 1999: R. Allan, Slaves, Freedmen, and Indentured Laborers in Colonial Mauritius. African Studies Series 99 (Cambridge 1999).

Allan 2010: R. Allan, Satisfying the “want for labouring people”. European Slave Trading in the Indian Ocean, 1500–1850. Journal of World History 21, 2010, 45–73.

Anheier/Isar 2011: H. Anheier/Y. Isar (Hrsg.), Heritage, Memory & Identity. The Cultures and Globalization Series 4 (Los Angeles 2011).

Appleby et al. 2012: J. Appleby/K. Seetah/D. Calaon/S. Caval/A. Pluskowski/J. F. Lafleur/A. Janoo/V. Teelock, The Juvenile Cohort from Le Morne Cemetery. A Snapshot of Early Life and Death after Abolition. International Journal of Osteoarchaeology 24, 2012, 737–746.

Araujo 2010: A. Araujo, Welcome the Diaspora. Slave Trade Heritage Tourism and the Public Memory of Slavery. Ethnologies 32, 2010, 145–178.

Araujo 2014: A. Araujo, Shadows of the Slave Past. Memory, Heritage, and Slavery (New York 2014).

Badcock/Johnston 2013: A. Badcock/R. Johnston, Protest. In: Graves-Brown et al. 2013, 321–335.

Bakker/Odendaal 2008: K. Bakker/F. Odendaal, Managing Heritage in a Contested Space. The Case of Le Morne Cultural Landscape in Mauritius. South African Journal of Art History 23.1, 2008, 225–244.

Beck 2002: C. M. Beck, The Archaeology of Scientific Experiments at a Nuclear Testing Ground. In: J. Schofield/W. Johnson/C. Beck (Hrsg.), Matériel Culture. The Archaeology of Twentieth-Century Conflict. One World Archaeology 44 (London 2002) 65–78.

Beck et al. 2007: C. M. Beck/H. Drollinger/J. Schofield, Archaeology of Dissent. Landscape and Symbolism at the Nevada Peace Camp. In: Schofield/Cocroft 2007, 297–320.

Beck et al. 2008: C. M. Beck/J. Schofield/H. Drollinger, Archaeologists, Activists, and a Nevada Peace Camp. In: C. Holtorf/A. Piccini (Hrsg.), Contemporary Archaeologies. Excavating Now (Berlin 2008) 95–112.

Beck et al. 2015: C. M. Beck/L. Falvey/H. Drollinger, Inside the Tunnels. The Artistic Legacy of the Anti-Nuclear Activists at a Nevada Camp. In: T. Lovata/E. Olton (Hrsg.), Interdisciplinary Approaches to Graffiti. From Prehistory to Present (Walnut Creek 2015) 177–191.

Bender 2002: B. Bender, Time and Landscape. Current Anthropology 43, 2002, 103–112.

Bender/Winer 2001: B. Bender/M. Winer (Hrsg.), Contested Landscapes. Movement, Exile and Place (Oxford 2001).

Boswell 2005: R. Boswell, Heritage Tourism and Identity in the Mauritian Villages of Chamarel and Le Morne. Journal of Southern African Studies 31, 2005, 283–295.

Boswell 2006: R. Boswell, Le Malaise Créole. Ethnic Identity in Mauritius (Oxford 2006).

Boswell 2008: R. Boswell, Challenges to Identifying and Managing Intangible Cultural Heritage in Mauritius, Zanzibar and Seychelles. CODESRIA monograph series (Dakar 2008).

Burström et al 2009: M. Burström/T. Diez Acosta/E. González Noriega/A. Gustafsson/I. Hernández/H. Karlsson/J. Pajón/J. R. Robaina Jaramillo/B. Westergaard, Memories of a World Crisis. The Archaeology of a Former Soviet Nuclear Missile Site in Cuba. Journal of Social Archaeology 9, 2009, 296–318.

Chowdhury 2007a: A. Chowdhury, Le Morne and Black River Gorges. World Heritage Nomination Dossier. Preparation of Document on Archaeological Significance. In: MAC 2007, Appendix 8a, 1–42.

Chowdhury 2007b: A. Chowdhury, Maroon Slave Archaeological Investigation Project in the Republic of Mauritius 2002–2003. In: MAC 2007, Appendix 8b, 1–428.

Chowdhury 2014: A. Chowdhury, Maroon Archaeological Research in Mauritius and its Possible Implications in a Global Context. In: Marshall 2014a, 255–275.

Colwell-Chanthaphonh et al. 2014: C. Colwell-Chanthaphonh/S. Le Chartier/S. Jacquin-Ng, The Search for Makak. A Multidisciplinary Settlement History of the Northern Coast of Le Morne Brabant, Mauritius. International Journal of Historical Archaeology 18, 2014, 375–414

Committee 1999: Committee on Thyroid Screening Related to I-131 Exposure/Committee on Exposure of the American People to I-131 from the Nevada Atomic Bomb Tests/Commission on Life Sciences/Institute of Medicine/Division on Earth and Life Studies/National Research Council (Hrsg.), Estimated Exposures and Thyroid Doses Received by the American People from Iodine-131 in Fallout Following Nevada Atmospheric Nuclear Bomb Tests (Washington 1999).

Croucher/Weiss 2011: S. K. Croucher/L. Weiss (Hrsg.), The Archaeology of Capitalism in Colonial Contexts. Postcolonial Historical Archaeologies (New York 2011).

De Salle-Essoo 2011: M. De Salle-Essoo, Le profane et le sacre dans les tradipratiques à l'île Maurice. Social Anthropology and Ethnology (Rèunion 2011).

Delgado et al 1991: J. Delgado/D. Lenihan/L. Murphy (Hrsg.), The Archeology of the Atomic Bomb. A Submerged Cultural Resources Assessment of the Sunken Fleet of Operation Crossroads at Bikini and Kwajalein Atoll Lagoons, Republic of the Marshall Islands. Southwest Cultural Resources Center Professional Papers Number 37 (Santa Fe 1991).

Dixon 2013: J. R. Dixon, Two Riots. The Importance of Civil Unrest in Contemporary Archaeology. In: Graves-Brown/Harrison/Piccini 2013, 565–577.

Dodge 2007: W. Dodge, Black Rock. A Zuni Cultural Landscape and the Meaning of Place (Jackson 2007).

Ebron 1999: P. A. Ebron. Tourists as Pilgrims. Commercial Fashioning of Transatlantic Politics. American Ethnologist 26, 1999, 910–932.

Eichmann 2012: A. Eichmann, The Heritage of Slavery and Nation Building. A Comparison of South Africa and Mauritius. In: D. Hamilton/K. Hodgson/J. Quick (Hrsg.), Slavery, Memory and Identity. National Representations and Global Legacies (London 2012) 63–76.

Eriksen 2001: T. Eriksen, Between Universalism and Relativism. A Critique of the UNESCO Concept of Culture. In: J. K. Cowan/M. B. Dembour/R. A. Wilson (Hrsg.), Culture and Rights. Anthropological Perspectives (Cambridge 2001) 127–147.

Eriksen 2007: T. Eriksen, Creolization in Anthropological Theory and in Mauritius. In: C. Steward (Hrsg.), Creolization. History, Ethnography, Theory (Walnut Creek 2007) 153–177.

Fehner/Gosling 2000: T. R. Fehner/F. G. Gosling, Origins of the Nevada Test Site. History Division Executive Secretariat Management and Administration Department of Energy (o. O. 2000).

Fiære-Risbuna 2012: E. M. Fiære Risbruna, «På Roskilde føler jeg meg hjemme» En kulturvitenskapelig analyse av Roskilde Festival sett fra et deltakerperspektiv. Masteroppgave i Kulturvitenskap (Bergen 2012).

Forest 2013: C. Forest, Management and Conservation Of Heritage. Challenges and Opportunities in Mauritius. In: Aapravasi Ghat Trust Fund (Hrsg.), Angajē. Post-Indenture Mauritius. Explorations into the History, Society and Culture of Indentured Immigrants and their Descendants in Mauritius (Port Royal 2013) 209–220.

Futrell/Brents 2003: Protest as Terrorism? The Potential for Violent Anti-Nuclear Activism. American Behavioral Scientist 46, 2003, 745–765.

Gailing/Leibenath 2015: L. Gailing/M. Leibenath, The Social Construction of Landscapes. Two Theoretical Lenses and Their Empirical Applications. Landscape Research 40, 2015, 123–138.

Graves-Brown et al. 2013: P. Graves-Brown/R. Harrison/A. Piccini (Hrsg.), The Oxford Handbook of the Archaeology of the Contemporary World (Oxford 2013).

Hookoomsing et al 2009: V. Hookoomsing/R. Ludwig/B. Schnepel (Hrsg.), Multiple Identities in Action. Mauritius and some Antillean Parallelisms (Frankfurt am Main 2009).

ICOMOS 2008: International Council on Monuments and Sites (Hrsg.), Advisory Board Evaluation No 1259. Le Morne Cultural Landscape, Republic of Mauritius (o. O. 2008), <http://whc.unesco.org/en/list/1259/documents/%3E> (letzter Zugriff am 10.03.2016).

Jenkins 2008: G. Jenkins, Contested Space. Cultural Heritage and Identity Reconstructions. Freiburger Sozialanthropologische Studien 20 (Berlin 2008).

Keough 2011: E. B. Keough, Heritage in Peril. A Critique of UNESCO's World Heritage Program. Washington University Global Studies Law Review 10.3, 2011, 593–615.

Knörr 2009: J. Knörr, Postkoloniale Kreolität versus koloniale Kreolisierung. Paideuma 55, 2009, 93–115.

Landry 2001: T. Landry, Touring the Slave Route. Innaccurate Autheticitues in Bénin, West Africa. In: Silvermann 2011, 205–231.

de Salle Essoo/ Panyandee 2007: M. de Salle Essoo/S. Panyandee, Report on "Oral Histroy & Traditions" on Le Morne. In: MAC 2007, Appendix 7, 1–217.

Löw 2001: M. Löw, Raumsoziologie (Frankfurt am Main 2001).

Low 2003: S. Low, The Anthropology of Space and Place. Locating Culture. Wiley Blackwell Readers in Anthropology 4 (Oxford 2013).

MAC 2007: Ministry of Arts and Culture (Hrsg.), The Le Morne Cultural Landscape. Application for the Inscription on the World Heritage List (Port Louis 2007).

MAC 2013: Ministry of Arts and Culture (Hrsg.), Republic of Mauritius, National Inventory. Intangible Cultural Heritage (Port Louis 2013).

Marshall 2014a: L. W. Marshall (Hrsg.), The Archaeology of Slavery. A Comparative Approach to Captivity and Coercion. Center for Archaeological Investigations Occasional Paper 11 (Carbondale 2014).

Marshall 2014b: L. W. Marshall, Marronage and the Politics of Memory. Fugitive Slaves, Interaction and Integration in 19th. cen. Kenya. In: Marshall 2014a, 276–299.

Müller/Ueckmann 2013: G. Müller/N. Ueckmann, Kreolisierung als weltweites Kulturmodell? In: G. Müller/N. Ueckmann (Hrsg.), Kreolisierung revisited. Debatten um ein weltweites Kulturkonzept. Postcolonial Studie (Bielefeld 2013) 7–42.

Ng Tseung-Wong/Verkuyten 2015: C. Ng Tseung-Wong/M. Verkuyten, Multiculturalism, Mauritian Style. Cultural Diversity, Belonging, and a Secular State. American Behavioral Scientist 59, 2015, 679–701.

Norton/Espenshade 2007: H. K. Norton/H. Espenshade, The Challenge in Locating Maroon Refuge Sites at Maroon Ridge, St. Croix. Journal of Caribbean Archaeology 7, 2007, 1–17.

NNSA 2005: National Nuclear Security Administration (Hrsg.), Nevada Test Site Guide (o. O. 2005).

Olsen/ Pétursdóttir 2014: B. Olsen/Þ. Pétursdóttir (Hrsg.), Ruin Memories. Materialities, Aesthetics and the Archaeology of the Recent Past. Archaeological Orientations (Milton Park 2014).

Palmyre-Florigny 2009: D. Palmyre-Florigny, Kreolische Kultur und Religion in Mauritius. Theologie Interkulturell 18 (Ostfildern 2009)

Pherson 2009: K. Pherson, Mauritius. Mirror and Model of History In: Hookoomsing et al 2009, 31–43.

Prayag 2015: G. Prayag, Beyond Enclave Tourism. The Road of Sustainability of Mauritius. In: N. Morpeth/H. Yan (Hrsg.), Planning for Tourism. Towards a Sustainable Future. CABI Tourism Texts (Tarxien 2015) 240–257.

Republique Mauritius 2014a: Republique Mauritius (Hrsg.), Le Morne Cultural Landscape Integrated Management Plan 2014 – 2019 (Port Louis 2014).

Republique Mauritius 2014b : Republique Mauritius (Hrsg.), Le Morne Cultural Landscape Management Plan 4. Local Economic Development Plan (Port Louis 2014).

Sayers 2014: D. O. Sayers, A Desolate Place for a Defiant People. The Archaeology of Maroons, Indigenous Americans, and Enslaved Laborers in the Great Dismal Swamp (Gainesville 2014).

Schnepel 2009: B. Schnepel, Two Beaches. The Globalization of Mauritian Waterfronts. In: Hookoomsing et al. 2009, 287–293.

Schofield 2006: J. Schofield, Alternative Archaeologies of the Cold War. The Preliminary Results of Fieldwork at the Greenham and Nevada Peace Camps. In: R. L. Lozny (Hrsg.), Landscapes Under Pressure. Theory and Practice of Cultural Heritage Research and Preservation (New York 2006), 149–161.

Schofield 2009:J. Schofield, Aftermath. Readings in the Archaeology of Recent Conflict (London 2009).

Schofield/Cocroft 2007: J. Schofield/W. Cocroft (Hrsg.), A Fearsome Heritage. Diverse Legacies of the Cold War. One World Archaeology (Walnut Creek 2007).

Scholl 2012: C. Scholl, Two Sides of a Barricade. (Dis)Order and Summit Protest in Europe (Albany 2012).

Seetah 2010: K. Seetah, "Our Struggle". Mauritius. An Exploration of Colonial Legacies on an "Island Paradise". International Journal of Research into Island Cultures 4, 2010, 99–112.

Seetah 2015a: K. Seetah, The Archaeology of Mauritius. Antiquity 89, 2015, 922–939.

Seetah 2015b: K. Seetah, Objects Past, Objects Present. Materials, Resistance and Memory from the Le Morne Old Cemetery, Mauritius. Journal of Social Archaeology 15, 2015, 233–253.

Seetah 2015c: K. Seetah, 'The Minister will Tell the Nation'. The Role of the Media for Archaeology in Mauritius. World Archaeology 47, 2015, 285–298.

Silvermann 2011: H. Silvermann (Hrsg.), Contested Cultural Heritage. Religion, Nationalism, Erasure, and Exclusion in a Global World (New York 2011).

Tauschek 2013: M. Tauschek, Kulturerbe. Eine Einführung. Reimer Kulturwissenschaften (Berlin 2013).

Teeloc 2005: V. Teeloc (Hrsg.), Maroonage and the Maroon Heritage in Mauritius (Réduit 2005).

Teeloc 2009: V. Teeloc, Mauritian History (Moka 2009).

Teeloc 2012: V. Teeloc, The Potential for Archaeological Study of Mauritian Indenture History and Heritage. In: V. Teeloc (Hrsg.), Angaje. Explorations into the History, Society and Culture of Indentured Immigrants and Their Descendants in Mauritius. II. The Impact of Indenture (Port Louis 2012) 101–121.

Tilley 2006: C. Tilley, Introduction. Identity, Place, Landscape and Heritage. Journal of Material Culture 11, 2006, 7–32.

Vaughan 2006: M. Vaughan, Creating the Creole Island. Slavery in Eighteenth-Century Mauritius (Durham 2006).

Weik 2013: T. M. Weik, The Archaeology of Antislavery Resistance. The American Experience in Archaeological Perspective (Gainesville 2013).

White 2013: C. L. White, The Burning Man Festival and the Archaeology of Ephemeral and Temporary Gatherings. In: Graves-Brown et al. 2013, 595–609.

Zimmermann 2013: L. J. Zimmerman, Homelessness. In: Graves-Brown et al. 2013, 336–350.

This volume is a collection of contributions to the international and interdisciplinary Conferences 'Developments – Movements – Valuations' from November 6th to 9th 2014 and 'ResourceCultures – Theories, Methods, Perspectives' from November 16th to 19th 2015 at the Eberhard Karls University Tübingen organised by the collaborative research centre 'SFB 1070 ResourceCultures – Sociocultural Dynamics in the Use of Resources'. It includes comprehensive papers about theories, approaches and concepts for the exploration of ResourceCultures, applying a diachronic and interdisciplinary perspective according to the vision of the SFB. International experts from a variety of different disciplines present case studies, examining ResourceCultures from the very beginning of human history until the present in a wide variety of cultural contexts. Thus, they demonstrate the manifold facets of 'resources' as a category for scientific analysis.

EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN

rk SFB 1070
RessourcenKulturen

ISBN 978-3-946552-08-6