The armour of the common soldier
in the late middle ages.
Harnischrödel as sources for the history of urban
martial culture

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Abstract – The designation Harnischrödel (rolls of armour) lumps together
different kinds of urban inventories. They list the names of citizens and
inhabitants together with the armour they owned, were compelled to acquire
within their civic obligations, or were obliged to lend to able-bodied men. This
contribution systematically introduces Harnischrödel of the 14th and 15th c. as
important sources for the history of urban martial culture. On the basis of lists
preserved in the archives of Swiss towns, it concentrates on information pertaining
to the type and quality of an average urban soldier’s gear. Although the results of
this analysis are only preliminary – at this point, it is not possible to produce
methodologically sound statistics –, the value of the lists as sources is readily
evident, as only a smattering of the once massive quantity of actual objects has
survived down to the present time.

Keywords – armour, common soldier, source, methodology, urban martial
culture, town, middle ages.

I. INTRODUCTION
The designation Harnischrödel (“rolls1 of armour”) lumps together different kinds of
urban inventories. They list the names of citizens and inhabitants together with the
armour they owned, were compelled to acquire within their civic obligations, or were
obliged to lend to able-bodied men.

Harnischrödel resulted from the need to assess the military resources of the town and its
territory available in times of acute military danger. They therefore were not produced
on a regular basis, but occasionally, and were not necessarily preserved once the
immediate necessity was over. However, Harnischrödel (or differently termed lists with
the same purposes), dating from the 14th and 15th c., do occur in sufficient number and
are today extant within archives of towns within a sufficiently wide geographical range
that they can be described and analysed as a group of typical late medieval urban
documents.

1 Like the word “roll”, the Middle High German word rödel derives from the latin word rotulus. In
contrast to the English rolls, however, the lists discussed here were typically written on oblong
sheets of paper that were folded in the middle, thus forming a slim booklet (see figure 1 and 2).
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Fig 1: Brugg, Stadtarchiv, 156a, p. 4-5: Harnischrödel of 2 December 1437
Fig 2: Luzern, Staatsarchiv, URK 230/3298: 2v-3r: Harnischrödel of 23 January 1443
Historians have occasionally used some of these lists for demographic purposes or in order to obtain information on the fighting power of a specific town. Nevertheless, most of these rolls remain so far unpublished, and no attempts have ever been made to ascertain the number, spatial and temporal distribution of the surviving lists, to identify common traits and differences, and to discuss the proceedings leading up to the creation of the lists in the first place. These methodological steps can, at this instance, only be outlined, but would be prerequisite to a more thorough analysis of such lists, especially when relating urban social stratigraphy to armour ownership.

This contribution is the first to systematically present Harnischrödel as important sources for the history of urban martial culture. On the basis of lists preserved in archives of Swiss towns, the main purpose here will be to assess the type and quality of an average urban soldier’s combat gear. Although the results of this analysis are only preliminary – particularly because it is not yet possible to produce methodologically sound statistics –, the value of these extensive lists as sources is readily apparent in comparison to the now only fragmentary remaining quantity of actual objects passed down to the present time. Questions of the legal basis for the possession of armour by citizens and subjects, social stratigraphy, armour production and markets, or the identity of the people using the armour (in contrast to the people owning it) will not be addressed at this point.

II. OCCASIONS AND PROCEEDINGS

“The minor council and major council have decided to enforce legislation on the Harnischrödel, as a Harnisch was enjoined on each person, to wit, that each person should have the armour allocated. It is ordered that everybody should have [armour] before Whitsuntide. People who have already been ordered to have armour and still do not have it, are ordered to have it before Shrovetide, on pain of a penalty of 2 lb each time this order is neglected. Item: Armour brought here in order to be sold should be assessed by Iberg and Hartman Furter. Stout and good armour may be sold. If the armour is not stout and good, the person wanting to sell it shall swear to export it from our town and territory and not to sell it in our town and districts.”

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3 SSRQ III,1,2, Nr. 312: January 23, 1443 <https://www.ssrq-sds-fds.ch/online/LU_I_2/index.html#p_277> [accessed 10 June 2017]: “Ret und C [Hundert] sind jn ein komen, dz si dem harnisch rodel, nach dem und iederman ist harnisch geleit, wellent nach gân, dz iederman sol den harnisch haben, der jm geleit ist. – und sol man iederman gebieten ze haben hinnent ze Pfingsten, – wer aber, dz jeman vorhin were harnisch geleit, den er noch nicht hett, dz man denen gebiete, jnn ze habend hinnen ze Fasnacht, alles by ij lib. àn gnad, als dik es übersehen wurd. / Jtem ouch was jeman harnischns her bringt ze verköffen, den soellent Jberg und Hartman Furter besehen. Und wz werschaft und guot harnisch ist, de mag den einer verköffen. Wo aber nit werschaft und guot
On January 23, 1443, the government of the town of Lucerne in central Switzerland ordered its inhabitants to acquire armour as allocated on the basis of their fiscal capacity. In addition, the town councils appointed two of their members to acquire only quality armour for the town’s use. It enforced measures to impede the acquisition of insufficient or weak armour by its subjects prescribing that insufficient armour should be sold only outside the town’s jurisdiction. Both statutes aimed at strengthening the defensive capacity of the Luzern territorial state. They refer to similar legislation going back to 1414, when the councils ordered that every citizen and every head of a household under Luzern rule should own defensive armour.4

Luzern’s scribe Johannes Etterlin reproduced the council’s resolution at the top of a two part inventory list.5 It details people owning armour in two small parts of the Lucerne territory, ze Lutermatt und Meggenhorn on the one hand, in two quarters in the town, uff dem Gütsch und im Moss, on the other hand.6 The list is probably only a fragment of a once much more complete inventory of all households in town and territory.

The 1443 fragment was produced in a moment of heightened military tension. Like two earlier lists, of 1437 and 1442, and lists from the small town of Brugg situated on the north-east corner of Bern’s territory,7 it relates to war preparations in the context of the “Old Zurich War” (a list of the analysed Harnischrödel is in Appendix A). Since 1437, a territorial struggle between Zürich and Schwyz had engulfed most of eastern and central Switzerland. Skirmishes were fought in 1439. They quickly turned into protracted war. In 1440 a shaky truce was reached, however in winter of 1442/43, war preparations started again, and in May 1443 open war resumed and reached its peak in a series of bloody battles. A preliminary peace in 1446 was finally confirmed in 1450 with a far-reaching packet of agreements.8

Unrelated to these events in the east, war was brewing in the west of today’s Switzerland between the towns of Bern (allied with the duchy of Savoy) and neighbouring Fribourg. War eventually broke out in 1447.9 Harnischrödel in Fribourg (1443, 1444) were probably produced in this context. (North of the Rhine, the quarrel between noble lords and

harnisch ist, da sol der schweren, der jin feil hatt, usser unser statt und gebieten ze füren und den jn unser statt noch emptern nit ze verkaffen.” (= StAL URK 230/3428).

5 SSRQ III,1,2, p. 277, note 1.
6 On the historical topography of Luzern see: Liebenau, Das alte Luzern.
7 Banholzer, Geschichte der Stadt Brugg, p. 20-24 (on Brugg during the Old Zurich War) and p. 147-148 (on the Harnischrödel and the type of armour mentioned).
8 Illi, “Alter Zürichkrieg”; Niederstätter, Der Alte Zürichkrieg; Niederhäuser / Sieber (eds.): Bruderkrieg.
9 Bern’s wars in the mid-15th c. and its role in the Old Zurich War are discussed in: Zahnd, Heinrich IV. von Bubenberg, from the Savoy point-of-view: Biolzi, Guerre.
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towns reached a peak in the so-called *Städtekrieg* of 1449/50, producing large amounts of urban sources, including inventories of weapons. They are, however, outside the geographical scope of this investigation.\(^{10}\)

About half of the surviving lists date from the very belligerent period of the mid-15th century. The first lists so far discovered were, however, already written 100 years earlier, in Luzern in 1349 and 1353. The Luzern government might have been provoked to establish an overview of households and armour due to the demographic upheavals in the wake of the Black Death that hit the town and the surrounding countryside both in spring and in fall of 1349.\(^{11}\) However, since 1351, Luzern was also involved in belligerent actions against its Habsburg overlord, and the second list is in all likelihood connected to them. Another list (of 1393) from the small Habsburg town of Aarburg (the list was seized by the Bernese when they captured the Habsburg territory in 1415) was probably produced in view of the still unsolved war between Habsburg and the lands of Uri, Schwyz, and Unterwalden.

Similarly, a list of the armour provided by the wealthy citizens of the Habsburg town of Winterthur on the basis of their fiscal capacity, and noted down in the town’s main administrative book, was part of the Habsburgs’ war preparations against urban and rural communal forces south of Lake Constance. This latter list was amended in December of the same year, after the battle of the Stoss on June 17, 1405. Appenzell’s defeat of the Habsburg army there had a major impact on Winterthur’s population. Instead of men, women and children were thereupon listed as owners of armour, married women were designated as widows, and the overall number of armour was heavily reduced.\(^{12}\) In a contemporary letter, the Appenzeller are said to have seized about 250 *Panzer* (mail-coats, see below) and were recovering still more from people who had drowned. A chronicle lists among the dead 95 “good people” from Winterthur, “who wore their armour”.\(^{13}\)

It is unclear exactly how long the *Harnischrödel* were the main basis for urban military organization, and how long they continued to be actively used. The lists seem to thin out by the 1460s, with a few exceptions, such as the Zürich government establishing in 1585 a detailed list of the militia, and the available armour and arms in their territory.\(^{14}\)

\(^{10}\) See, however, Zeilinger, *Lebensformen*, esp. 47-50, 58-63, 68-72.

\(^{11}\) Schnyder, *Pest*, p. 102-103.

\(^{12}\) See Appendix 2 in: Hauser, *Winterthur*, p. 112-122.

\(^{13}\) Hauser, *Winterthur*, p. 25: (from a letter possibly from St. Gallen to Schwyz): “Also hant die von Appenzell wol 1000 man laussen ziehen in ir letzi vnd hant si da angriffen vnd vil erschlagen, daz si ietzo hant of 2 1/2 hundert panzern an der büitung vnd findent all tag më; so sint ir vil ertrunken.” The quote from the so-called Klingenberg Chronik ibid.: “Es verluren von Wintertur aber redlich lüt die iren harnasch truogent 95 manen. Die selb statt verlur aller swarlichost.”

The petering out of Harnischrödel before the intensive military phase of the Burgundian and Swabian Wars might indicate a general change in military and administrative organisation and might be connected to the rise of the urban arsenal as center of weapon keeping and distribution. Some circumstantial evidence supports this connection, although a definitive conclusion will await further investigation.

### III. THE URBAN SOLDIER’S GEAR

The Harnischrödel tend to list only armour, even if an occasional staff-weapon is included. A few inventories list crossbows and crossbowmen, thus testifying to the importance of this branch of service. In Bern, individual crossbow inventories recorded by the appointed official are preserved. It is noticeable that swords and knives are never recorded, probably because these blade-weapons were considered as personal equipment. This present contribution will concentrate solely on defensive armour.

The lists contain a number of words for different parts of medieval armour. It is a major challenge to establish clearly the actual meaning of these words, especially because terms tend to resist the course of time better than the objects they are applied to. There are also indications that the terminology is not consistent between the different towns (see Appendix B). The following analysis will therefore present the urban soldier’s gear as it appears in the Harnischrödel in three steps: First, it will present the nouns that designate armour. In a second step, it will discuss characteristics pertaining to the quality of the armour owned by members of the population, by examining adjectives and other linguistic qualifiers. Thirdly, it will discuss the workmanship and longevity of the armour listed in these late medieval urban inventories.

#### III.1. Types of armour

The general word used for armour is Harnisch. It designates both the entirety of a full body armour and the objects serving for body protection.\(^{15}\)

As a collective, Harnisch is used, for example, in a statute of the commune of Walchwil, a rural village in the jurisdiction of the town of Zug. The members of the cooperative decided that armour should be classified as immovables and therefore as unalienable part of the household, enumerating Panzer, different types of helmets, arm gear “and whatever is Harnisch and is called Harnisch”.\(^{16}\) In both the countryside and the town, legislation defined armour that had to be put to common use as bound to the household rather than to the person. It could not be taxed (a privilege often acquired by citizens in the course of the 14th c.), was not part of the community of property of

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\(^{15}\) See the entry Harnisch in Idiotikon 2, col. 1609-1612.

\(^{16}\) UB Zug, Nr. 293, 1398, April 21: Harnischbrief von Walchwil: “...harnesch, so wir han, waz dz ist, es sigen pantzer, huben, kessel huette, harschen armzug, und waz harnesch ist und harnesch heisset.”
married couples, and had to be sold together with the house or farmstead where it was recorded as belonging to.  

Definition of a complete suit of arms is given, for example, in a individual contract the town of Bern made with one of its richest citizens on April 23, 1444\(^\text{18}\): Anna von Krauchthal agreed to pay for her civic duties by buying “sechs mann harneschs volkoommer werschaft, nemlich pantzer, tschaladen, armzüg und hentschen” and to hand them over to the government for further use. According to this itemization, Harnisch consists of the protective gear for the upper body and neck, the arms, and the hands as well as the head. The Bernese government obviously was keen on acquiring high quality armour as the contract designates the helmet explicitely with the word tschalade (derived from the Italian celata). The contract does not mention any protective gear for legs and feet, and it can therefore be assumed that these suits of armour were intended for well-armed foot soldiers. As a general rule, a “full” urban Harnisch consisted of protection for head, upper body, arms and hands, but not for legs and feet. The exact composition of a full armour (ganzer Harnisch) is of course subject to change, depending on technical developments as well as on specific requirements for each group of the society. It is telling that Harnisch can also be used in a collective fiscal sense as the wealth of taxpayers is expressed in multiples of ganzer Harnisch or arma totum.\(^\text{19}\) On the basis of this evidence, absolute definitions that can be found in older literature have to be reappraised.\(^\text{20}\)

Panzer was the main object for protecting the torso. It could mean either chain-mail or steel cuirasse, depending, no doubt, on the period in question.\(^\text{21}\) The two makings can be distinguished only when the list provides specifications: A Luzern Rödel of 1437 that lists armour lent by the owner to another person (in the form: “X has lent Y one pantzer, 2 hentschen, 1 armzüg”) describes the Panzer in more detail, not doubt in order to permit a certain identification of the piece and therefore to document its true ownership. Among the 16 Panzer, 4 are guot stechlin and one just stechlin (i.e. made from (good) steel), one is furnished with fürwelen ringen and another is described as furwil (wellen means to forge rounded pieces, the two terms might refer to chain-mail). Finally, one Panzer is called weschfelin (an unknown word, maybe from waschen / to polish?). Of the eight remaining Panzer, two are considered “good”, the rest is not specified further. In these lists, Panzer is usually part of the Harnisch even if it might refer to the armour in its entirety. In the

\(^{17}\) A number of examples in Weber, Waffenverzeichnisse and SSRQ online.

\(^{18}\) StaBE F. Burgdorf, 1444, April 23.


\(^{20}\) For example, Schneider, Beiträge, p. 46-49. Schneider also claims (p. 46) that the Swiss did not have sophisticated armour, but prefered to wage their battles with their offensive arms alone: “Diese [the offensive weapon] entsprach viel eher dem Offensivgeist, der die eidgenössischen Heere beseelte.”

\(^{21}\) Idiotikon 4, col. 1407-1408.
Brugg list of 1442, for example, a certain Cuoni Beck “hat ein pantzer und anders das zuo eim mansbarnisch gebör” (“has a pantzer and other things that belong to the full armour”).

In Luzern’s oldest Harnischrödel, from 1349/1353, the most numerous item is called currit or currisia. Using a chronological argument, the editor of this source (in accordance with the then leading specialist for medieval armour in Switzerland), stated that currisia meant a long shirt made of leather worn over the chain-mail. However, in this particular list, far fewer Panzer than currisia are mentioned, and the two items never appear in the same hands. The only solution I can imagine is that a large number of people did not own a chain-mail but only a protective gear made out of leather, and that panzer meant either chain-mail plus leather jacket or the chain-mail alone. Ganzer harnisch or arma totum would then comprise currisia, chain mail, helmet, and probably arm protection (although this latter is not mentioned in this particular list). A helmet is mentioned in this list only once: A woman called Bermendera owns a currisia with a Göller and a Beckenbaube. The editor of the list identified the word Göller as “breast protection made out of leather”, a meaning attested without further explanation also in the Swiss Dialect Lexikon. Usually, however, the word (from lat. collarium) means neck gear.

The next most numerous items, overall, are armzug and hentschooch. To own protective gear for arms and hands seems to have been a minimum requirement for urban households. They are never specified further, although in each of the two lists made in 1437 and 1442, a pair of stössling, the gear for the lower arm, is separately listed.

Whereas the two early Luzern Rödel do not, with this one exception, mention helmets, all other lists do. If the officials just wanted to tell the citizens to acquire any kind of helmet, they used the general word hauptbarnisch (i.e. “armour of the head”). The list made in Brugg in 1393 enumerates Huben, i.e. Beckenbauben / bascinets. A certain Kristan Rot owned “2 blos huben” and “1 huben mit einr behenke”. The scribe added that the latter was originally owned by a certain Saltzman. This allows at least the interpretation that most of the Huben in this list were bloss, “naked”, i.e. that they came without the added chain-mail protecting cheeks and neck. A hube without noseband is mentioned in 1442 in Brugg. In 1437, both in Brugg and Luzern, tschaladen (sallets) make an appearance, as well as a huntzkapp (a bascinet with pointed visor or “hounscull”) in Luzern. The ysenhut (kettle hat) is also mentioned in 1437 and 1442 in Brugg.

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22 StadtA Brugg 156b, p. 8.
23 QW II/3, p. 247, note 2.
24 The editor of the lists identifies Göller with “Brustpanzer aus Leder”. If this designation is correct for the mid-14th c., Bermendera owned two pieces of armour made out of leather, and a bascinet. QW II/3, p. 247, note 3.
Rarely included, among the many mentions of full armour and *panzer*, are pieces for the protection of neck and breast. To a certain extent, the terms used reflect technical differences. *Göller* was a neckpiece made of leather whereas *kragen* might or might not refer to this simple material. The terms *brustblech* or *blech* however clearly indicate beaten metal. Only the 1349/53 list of Luzern that integrates crossbows also mentions a large number of *tarzen*, the shields of the crossbowmen.

In accordance with their function, the *Harnischrödel* attest to the existence of armour in every household. A quantification of individual pieces of armour is, however, very difficult: the lists pose a number of methodological problems (beyond the simple difficulty of the often not particularly neat handwriting). The lists integrate several individual administrative steps that appear, in the *Rödel*, as different layers of notes, deletions, etc. or as partial (but not entirely congruent) duplications. Names appear twice, for example, sometimes with indications that they might refer to the same person, or are noted without matching armour. These and other problems are familiar to every scholar of the middle ages, but detrimental to sound statistics. The main challenge, however, is to connect armour ownership to armour use: the lists with rented armour preserved in the Swiss material show very clearly that not just entire sets but also individual arm pieces, helmets, and gauntlets were assembled to furnish adequate gear for the able-bodied men who were compelled to fight for the town (either as part of their legal duty as citizens or as paid men). The sheer ratio of full armour vs. pieces of armour that could be deduced from the list can therefore not be used as an indicator of a town’s overall militarization of the citizenry. The practice of collecting and renting armour has to be examined separately and in context with a town’s total military efforts. It will be a subject of further investigation.

### III.2. Quality of the armour and duration of use

A number of *Rödel* provide information on the quality of the simple armour owned by the towns’ inhabitants. Quality control can be shown by examining the Brugg list of 1437 more closely. Some of the lists from Luzern, on the other hand, can be used to discuss how long pieces of armour were in use, and how old they might have been at the moment they were shown to the inspectors.

The writer of the Brugg *Rödel* of 1437 (and of 1442, but this list is much more problematic from a methodological point of view and will therefore not be taken into account) first checked whether the person had the required pieces and noted if the armour was complete, what state of the pieces were in, and whether and what the person had to buy in order to complete his or her armour. We also learn that a number of people were not home when the officials called, that one man did own his armour but kept it in a different house, and other details.

In order to give an impression of the overall quality, the 1437 list will serve as random sample: Of the 196 people listed (among them 9 women who are either listed by name or as houseowners), 17 people did not show up or were not at home when they were
supposed to be. 76 of the remaining 179 people checked had “enough” or “enough for now”. The rest was ordered to add specific pieces (“Heini Guoter shall in addition have a helmet, otherwise he has enough”; “Wannenmacher has one hube, one armzüg, he shall have one good panzer before Pentecost”) or to replace their insufficient armour altogether.

The quality of the armour is obviously checked against an idea what “good” armour looks like. The very differentiated way in which 14 sets of “insufficient” armour are judged is telling: with the words nüt wert (worth nothing), böš (bad, broken), nitt gut (not good), nit vast guet (not very good), bescheiden (modest), bescheidenlich guet (modestly good), the inspectors range the armour within an (unwritten) framework of quality control. In accordance to the individual way the armour is judged, the officials then ordered the owners to remedy deficiencies, either by completely replacing the armour (“Meiger from Cuniken … has 1 panzer that is not good, he shall buy 1 good panzer”) or by repairing it (“Owelman has 1 harnesch, but the panzer and the hub are not good. He shall repair the helmet”). The material value inherent even in broken objects is apparent when a certain Hechteregg who owns two böš panzer is ordered to acquire one good mail coat in exchange for these two broken ones.

Overall, the Brugg list shows officials clearly struggling to obtain sufficient arming of the town’s defensive forces. The need to have armour in the household and the insufficiency of this kind of organisation became evident when, on July 30, 1442, Brugg was taken in a surprise attack by about 400 men of the Zürich-Habsburg coalition. In the early morning hours, the doors had been opened to them because one of their leaders, the local noble Thomas von Falkenstein, had pretended being on the way to a peace congress. In the ensuing strife, 12 men from Brugg were killed. The town was plundered and burnt, and lost its banner, treasure, and archive.

The Brugg list indicates that a number of households kept pieces of armour clearly no longer suited for their original purpose. Although the precise age of a specific piece in the moment of its use – or control – cannot be determined, the Rödel encompass a plethora of information on armour that was handed down from earlier generations. The 1393 Harnischrödel of the small town of Aarburg, and the Habsburg department of the same name, for example, gives a lot of detail on former owners. Among others, a certain Ruedi owned an entire harnisch, including a panzer that had belonged to his brother in law, Heinzi Nebiker. A Henseli Nebiker, clearly a relative of this Heinzi, had a panzer who had belonged to his grandfather (eni, this word might also mean great-grandfather). The son of Uolli Toeri, the brother of Henni Schnider, the heirs of the deceased Berschi Erler, and the wife of a certain Klaus Paratti all own armour that was acquired by the members of an earlier generation. In other Rödel – for example in the 1437 rent list from

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27 Banholzer, Brugg, p. 22-23.
Luzern —, children who are explicitly qualified as minors are listed among the owners of armour, another indication of the importance of armour as part of the inheritance.

It can be safely assumed that the pieces of armour worn by urban soldiers compelled to fight for their towns were usually objects of mass production. Though their protective function was obvious, they shared only few representative traits with the individually tailored armour of the medieval knight: The *Eisenbut* or *Hube* of the average citizen, handed down from the father, or lent out by the widow next door, cannot be a match to a Lorenz Helmschied helmet for emperor Maximilian. And whereas masterworks and experimental armour produced for a noble lord could be of interest to many future generations – as memorial, technical, or esthetical objects —, and therefore found their way to *Waffenkammern* and modern museums, the ironmongery of the urban soldier was very rarely saved for more than a couple of generations. The metal was eventually worth more than the object worn down by use and old age: the broken armour went back to the smithy where the iron was recycled.

Material and makemanship considerations were not the only limitations upon the preservation of urban armour over time. The defining trait of medieval urban armour ownership itself also shifted notably. Up to the end of the 15th century, armour was personally owned, kept, and taken care of. The first urban arsenals serving as central places for acquiring, repairing, keeping and distributing armour actually appear in the Swiss lands in the course of the 15th century. However, even the oldest preserved inventories indicate that by this time, the arsenals’ main purpose was to keep and maintain fire arms (especially canons) and crossbows. The number of pieces of protective armour kept in stock was too small for a general distribution and was obviously meant as a reserve. Only in the course of the 16th and 17th c. did the towns within the Swiss Confederation build up important stocks of arms and armour that then in turn became the basis of the first historical museums in the 19th c.

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28 StaLU URK 229/3257: “Item Hanns Mache, vogt des von Uotzingern kinden het glichen 1 stechlin guot pantzer Weltin Meiger, die ist der kinden.” (“Item Hanns Mache, warden of Utzinger’s children, has lent Welti Meiger 1 good steel pantzer, which belongs to the children.”)

29 StadtA Brugg, A 156.a: “Rutzmüller hat sin ding, doch hand wir mit im geredt, er söll die pantzer vertuschen, an 1 guet pantzer hab er nüt gnueg.” (“Rutzmüller has his stuff, but we have prompted him to exchange the pantzer, as he does not have enough without one good pantzer.)

Ibid. “Hechteregg hat 2 pantzer 2 hentschen, ist boess, umb die 2 pantzer sol er 1 gúte kouffen.” (“Hechteregg has 2 pantzer, 2 gauntlets, [they are] broken. For the 2 pantzer he shall buy one good one.”) Ibid. “Wagner vorm Tor sol han 1 guot pantzer und 1 brustblech hinant Pfingsten, mag sin pantzer, so er hat, verkouffen.” (“Wagner vorm Tor shall have 1 good pantzer and one brustblech by Pentecoste, and he may sell the pantzer he has.”) There are virtually no studies on the economically important trade with scrap metal and especially with old armour. As an introduction, see: Tschudin, *Wiederverwertung*, Reith, *Recycling*. Sprandell’s important study *Das Eisengewerbe im Mittelalter* does not take into account metal recycling.

30 Gessler, *Basler Zeughausinventar*. 
IV. CONCLUSION

_Harnischrödel_ recorded the fighting gear used by the average weapon bearer rather than the knight, and inventoried mass produced armour without much of the idiosyncrasies exhibited in the individually tailored, personal armour of professional warriors. _Harnischrödel_, therefore, mainly present simple defensive armour owned by average people, and give insights into questions ranging from the actual materiality of the armour to patterns of urban administration, and from the practices of buying, exchanging, and lending armour to the difficulties of distinguishing urban mercenaries from the citizen soldier.

The type and quality of the armour analysed here do not imply a very optimistic interpretation of the actual fighting capacity of the average citizen. The lists are too unequally spread to allow a serial analysis that would, for example, account for general trends in the number of pieces of armour each household owned, or their overall quality. However, they show that the possession of defensive armour was a general reality for town inhabitants, including the poorest members of the society. In fact, the _Rödel_ are good indicators of social stratigraphy. The Winterthur list of 1405 pertains only to citizens who were rich enough to be taxed, and their wealth was expressed in _Harnisch_ and its multiples. In Luzern and Brugg, however, the lists derive from inspections of all households, thus covering all strata of society. The poorest members either had no weapons at all or a single spear, warhammer or halberd, but no defensive armour. Those a bit more affluent were the households that kept gauntlets, armpieces or the occasional helmet. Here, different words indicate different types and qualities of helmets, from the simple _Hube_ to the slightly more complex _Eisenhut_ to the high end _tschalade_. Households which owned a _Panzer_, especially in connection with gauntlets and armpieces, are likely to be counted in the middle class, whereas ownership of one or more complete _Harnische_ indicates a middle to upper middle class position. Of course, a “full man’s armour” could have been handed down through the generations, indicating the social status of a former generation that was later lost. The simple fact that armour is at least worth its metal, however, undermines this argument to a certain extent: a poor family needing money would have sold grandfather’s _Panzer_ long before having to present its armour to the scrutinizing eyes of the town’s officials.

_Harnischrödel_ are not easily deciphered sources. However, especially in view of the lack of objects that would reflect the once general presence of armour in a medieval town, they contain a plethora of information. This first attempt at an overview shows their potential for helping develop a fuller appreciation of the gear of the common medieval urban soldier. A next step will be to systematically link legal prescriptions, social dynamics, and economic logics to weapon possession and military use for an integrated history of martial culture in late medieval towns.

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31 On weapon ownership as social indicator see the pioneering study of Tlustý, _Martial Ethics_.
V. BIBLIOGRAPHY

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V.1.1. Unprinted Sources

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Brugg, Stadtarchiv [StadtA Brugg]

A 156.a (Harnischrödel 1437)
A 156.b (Harnischrödel 1442)

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URK 226/3133 (Harnischrödel 1349/1353).
URK 229/3257 (List of rented suits and pieces of armour, 1437, 12. April)
URK 230/3293 (Harnischrödel 1442, 15. November)
URK 230/3298 (Harnischrödel 1443, 23. Januar)
URK 271/4789 (Harnischrödel ca. 1458).
URK 271/4791 (Harnischrödel 1461, 21. Mai)

V.1.2. Printed sources


V.2. Secondary literature

Biolzi, Roberto, “avec le fer et la flamme”: la guerre entre la Savoie et Fribourg (1447/48) (Lausanne: Université de Lausanne-Section d’histoire, 2009).


Schnyder, Franz, Pest- und Pestverordnungen im alten Luzern, Der Geschichtsfreund, 87 (1932), 102-118.


VI. APPENDIX A
Harnischrödel in Swiss archives and mentioned in this article

<table>
<thead>
<tr>
<th>Year of creation</th>
<th>Place of creation</th>
<th>Depository</th>
<th>Edition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1349, after January 6 / 1353</td>
<td>Luzern</td>
<td>StaLU URK 226/3133.</td>
<td>Weber, <em>Waffenverzeichnisse; QW II/3</em> (the two editions deviate from each other in a number of details).</td>
</tr>
<tr>
<td>1393, January 22</td>
<td>Aarburg (Amt)</td>
<td>StaBE AV 1380 (=UP 22bis), Nr. 98.</td>
<td>Boner, <em>Urkunden</em>.</td>
</tr>
<tr>
<td>1405, June 3 / December 8</td>
<td>Winterthur</td>
<td>StaW B 2/1, fol. 2r-3v [the list from June 3 in the <em>Stadtbuch</em> was amended on December 8]</td>
<td>Hauser, <em>Winterthur, Appendix 2</em>.</td>
</tr>
<tr>
<td>1419, 1433, 1443, 1444</td>
<td>Freiburg (CH)</td>
<td>AEF Affaires militaires: several lists</td>
<td>The lists could not be consulted for this article.</td>
</tr>
<tr>
<td>1437, April 12</td>
<td>Luzern</td>
<td>StaLU URK 229/3257: List of armour lent to urban fighters</td>
<td>unpublished</td>
</tr>
<tr>
<td>1437, December 2</td>
<td>Brugg</td>
<td>StaABg A. 156a</td>
<td>unpublished</td>
</tr>
<tr>
<td>1442, September 14</td>
<td>Brugg</td>
<td>StaABG A. 156b</td>
<td>unpublished</td>
</tr>
<tr>
<td>1442, November 15</td>
<td>Luzern</td>
<td>StaLU URK 230/3293</td>
<td>unpublished</td>
</tr>
<tr>
<td>1443, January 23</td>
<td>Luzern</td>
<td>StaLU URK 230/3298</td>
<td>SSRQ LU I,2, Nr. 312 [only the statutes, the list itself is unpublished]</td>
</tr>
<tr>
<td>1458 (ca.)</td>
<td>Luzern</td>
<td>StaLU URK 271/4789</td>
<td>unpublished</td>
</tr>
<tr>
<td>1461, 21 Mai</td>
<td>Luzern</td>
<td>StaLU URK 271/4791</td>
<td>unpublished</td>
</tr>
<tr>
<td>1515</td>
<td>Brugg</td>
<td>StaABg A. 156f</td>
<td>unpublished</td>
</tr>
</tbody>
</table>

32 The archives in Bern, Zürich, and Zug were consulted with negative results. The archives in Basel, Solothurn, Freiburg (where lists certainly exist), and St. Gallen have not yet been searched. This article is part of an ongoing project on the identity and gear of the common soldier in Swiss towns.
### VII. APPENDIX B

Armour terminology

<table>
<thead>
<tr>
<th>Year / place</th>
<th>Armour</th>
<th>Breast / torso</th>
<th>Head</th>
<th>Arms</th>
<th>Hands</th>
<th>Miscellaneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>1349/53, Luzem</td>
<td>ganzer harnisch</td>
<td>currisia / curmit pantzer</td>
<td>beckenhaube / hube</td>
<td></td>
<td></td>
<td>göller tarzen cingulum&lt;sup&gt;33&lt;/sup&gt;</td>
</tr>
<tr>
<td>1393, Aarburg</td>
<td>ganzer harnisch</td>
<td>pantzer</td>
<td>hube</td>
<td></td>
<td>hentschuoch</td>
<td></td>
</tr>
<tr>
<td>1405, Winterthur</td>
<td>ganzer / halber harnisch</td>
<td>pantzer</td>
<td>hube</td>
<td></td>
<td>hentschuoch</td>
<td></td>
</tr>
<tr>
<td>1437, Luzem</td>
<td>pantzer</td>
<td>zschalad huntzkapp</td>
<td>armzug</td>
<td>hentschen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1437, Brugg</td>
<td>mansharnesch</td>
<td>pantzer</td>
<td>hube</td>
<td>armzug</td>
<td>hentschuch</td>
<td>kragen brustblech / blech stösslig&lt;sup&gt;34&lt;/sup&gt;</td>
</tr>
<tr>
<td>1442, Brugg</td>
<td>mansharnisch</td>
<td>pantzer</td>
<td>hauptarnesch hube (+ «1 huben an nasband») ysenhut</td>
<td>armzug</td>
<td>hentschuch</td>
<td>kragen brustblech stösslig</td>
</tr>
<tr>
<td>1443, January 23</td>
<td>mansharnisch</td>
<td>pantzer</td>
<td>hauptarnisch hube</td>
<td>armzug</td>
<td>hentschen</td>
<td></td>
</tr>
</tbody>
</table>

<sup>33</sup> It is unclear what kind of “belt” is meant here respectively for what part of the armour the Latin word for the Roman military belt is used.

<sup>34</sup> Protection of the lower arm ([Idiotikon](https://www.idiotikon.ch), vol. 11, col. 1160).