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PRECIOUS PROPERTY

Water and Oil in Twentieth-Century Kuwait

Laura Hindelang

In early 1962, Kuwait's first substantial subterranean water reservoir was discovered at Raudhatain in northern Kuwait.¹ The Ralph M. Parsons company, which was conducting hydrogeological surveys on behalf of the government of Kuwait, was a US firm formerly active in building oil refineries. Geologists described how "the fresh water [had] gathered in a geological basin one side of which is an anticline of the structure forming the Raudhatain oil-field."² Raudhatain's water (most of it fossil) and petroleum effectively sprang from the same geological formation and were accessed by similar technologies. This multifaceted historical relationship between Kuwait's water(scape) and petroleum(scape), with its spatial and architectural, social, and political as well as symbolic and representational layers, is the topic of this chapter.

One can trace petroleum's impact on twentieth-century Kuwait in many ways: airplane and automobile culture, gas stations, air-conditioning, and the proliferation of plastics—all depend on petroleum. In Kuwait, the oil industry but also the oil revenue-financed government transformed the city-state's urban and desert landscapes, its architectural forms, and the built environment. However, despite the growing omnipresence of petroleum-derived products and lifestyles, petroleum as a raw material, as an unprocessed liquid, has usually remained invisible in urban space. Chemically, oil and water do not mix, but in Kuwait, as the brief example of Raudhatain illustrates, the history of oil and the history of water flow together. Yet, the visual-spatial absence of oil has obscured the two fluids' interdependent conditions of existence. Water has been given a direct material and spatial presence in a way that oil has not, whereby potable water, whose production, transport, and distribution has relied substantially on petroleum and the petroleum(scape) in one way or another, became the representative liquid of Kuwait's oil-based modernization.

Water has been celebrated with direct contact in ways petroleum was not because of oil's physical characteristics (toxic, inflammable, smelly). At the official inauguration of the opening of the Raudhatain water reservoirs, Kuwait's deputy prime minister drank from the powerful stream of clear water shooting down from a massive pipe connected



FIGURE 9.1 Photograph taken at the official inauguration of the Raudhatain Water Resources Project, where Sheikh Sabah al-Salem al-Sabah, deputy prime minister and minister of foreign affairs, sampled Raudhatain water. *Source:* Unknown photographer, September 19, 1962. Image from the BP Archive, University of Warwick, ARC233262_061.

to the new water scheme (Figure 9.1). The British ambassador to Kuwait reported from the event that:

it was interesting to watch the surge of delighted people, led by the Deputy Prime Minister, to the flowing water immediately after the opening ceremony, and their eagerness to touch and taste this rare commodity which now made its first appearance here in its natural state.³

In the course of Kuwait's modern history, both potable water and petroleum have acted as pivotal commodities that shaped the modernization of the country and the making of modern Kuwait City.⁴ They are Kuwait's precious properties.

This chapter argues that petroleum has been written into Kuwait City's urban space, social practices, and also into its urban visual culture, all of which forms the petroleumscape,⁵ through a form of *waterscape*, the spatial, material, social, and symbolic production of water. Integrating perspectives from the architectural history and the environmental/energy history of the Middle East, this chapter examines key historical moments where layers of the petroleum(scape) and water(scape) intersect and form a palimpsestic relationship. We can trace these intersections in the form of institutions, companies, governments, images, built form, and spatial configurations. It is a transnational and quasi-colonial relation due to Kuwait's status as a British quasi-protectorate until 1961 and the European-American monopolization of much of the oil industry that operates globally. Within this relationship, images—visual-symbolic representations—and infrastructures do not just reflect a status quo, but rather they create narratives and sites in a—often diachronic—feedback loop.

Arguing that the commodification of water started early on, preparing the ground for petroleum, this chapter starts with Kuwait's river water imports in the early twentieth century. It then focuses on early attempts at prospecting for water, which the British turned into a search for oil. Mid-century water desalination, which only became feasible with the arrival of cheap fossil fuels and oil revenues, provided Kuwait with sufficient, locally produced potable water for the first time. In the second half of the century, large-scale water production and distribution systems with monumental sculptural architecture appeared across the country, signaling the oil state's capacity to provide for its citizens. Recently, water coolers in various shapes have come to adorn the sidewalks of Kuwait City, demonstrating citizens' will and power to give water for free—although, one should caution, only as long as oil lasts. Overall, Kuwait's waterscape offers an analytical lens for investigating petroleum's spatialization and social and symbolic representation beyond the oil fields. Moreover, this chapter demonstrates that in the Middle East, petroleum effectively “reached a new group of people eager to believe in new lifestyles and imaginaries” and heavily impacted its urbanism/spatial configurations by the mid-twentieth century and not—as is commonly assumed and most studies suggest—as late as the 1970s (due to the oil price boom/oil crisis).⁶

The Demand for Potable Water Gives Way to the Search for Petroleum

The development of life-sustaining natural resources, in particular a water supply, preceded and made possible oil's role in Kuwaiti society, as British archival sources and Kuwaiti accounts reveal. In the early twentieth century, when growing water scarcity made it urgent to find alternative sources, Kuwaitis began importing water by boat. Water had become scarce following the dry winter of 1907–1908 and, under Sheikh Mubarak's reign (1896–1915), the population had been growing.⁷ During the summer of 1908, shipowner Mohammed Al-Yacoub first brought river water from the Shatt al Arab to sell in Kuwait. A much frequented intake location along the Shatt al Arab became a spot “just above Khorramshahr”—the port city that was largely developed by the Anglo-Persian Oil Company (APOC) as part of their oil industry infrastructure in Khuzestan in Iran.⁸ Prior to these water imports, town dwellers and Bedouins had depended on rainwater harvesting and artesian wells inside and outside the town. Both the inner town wells and the wells outside the city walls contained brackish water, often of poor quality.⁹ Still, the numerous Al-Shamiya wells, for example, had apparently supplied “practically the entire population of Kuwait with water.”¹⁰ It is noteworthy that the newly imported river water was not only of a better quality but also cheaper than well water, which was transported by donkey and camel. Attesting to the new water's popularity, by the 1930s, already forty-nine boats of a type called *būm* were exclusively used for water transport, of which “an average of 6 arrive daily, each with about 8,000 gallons of water worth roughly Rs. 100/-.”¹¹ In 1939, local merchants established the Kuwait Water Company to organize the water transport and the company built three reservoirs for the storage of their product at the harbor.¹²

The scarcity of water led to a variety of techniques, infrastructure, and jobs involved in the transport and distribution of water in the town, early on turning the fluid into a priceable product. The commodification of water unfolded in layers of physical spaces and social practices.¹³ When returning from the Shatt al Arab to Kuwait, each *būm* was loaded with big wooden barrels containing river water. On arrival, the water was either stored in the reservoirs or was poured into goatskins, strapped on a donkey's back, and sold to private households. In addition, through the streets of Kuwait water porters (*al-kandarī*) carried metal containers attached to either end of a wooden stick. The containers had originally been used for kerosene and were now filled with

water for sale. These kerosene tins functioned as “the universal water measure.”¹⁴ Already, the world of petroleum—in the form of kerosene tins—facilitated the practices and infrastructures of water supply in Kuwait and oil manifested as a culture with a related set of social and aesthetic practices, even though the Kuwaiti oil industry would not begin operating until 1946.

The search for domestic sources of water facilitated the development of the petroleum-escape. In 1912, Shaikh Mubarak of Kuwait asked the British Government of India, based on the British-Kuwaiti Protection Agreement of 1899, for assistance in developing “an adequate water supply.”¹⁵ British officials saw an opening for petroleum prospecting, disguised as hydrogeological survey, and seized the moment. Sir Percy Cox, who served as political resident in the Persian Gulf at Bushire, stressed that “the present opportunity for effecting a careful examination of the Oil Fields of Kuwait territory by an expert geologist, whilst nominally examining the potentialities of artesian wells in this region, is a most favourable one and not likely to recur.”¹⁶ And with a distinctively imperialist outlook, he highlighted “the importance, on Imperial grounds, of the retention of the Oil Fields in the Persian Gulf region under exclusively British control,” along similar lines as William Knox D’Arcy, director of the APOC, who argued for British control of Iranian oil production.¹⁷ Evidently, British officials considered petroleum to merit large-scale surveys in a way that water did not, given that—at the time—British livelihood did not depend on securing water in Kuwait.

It is somewhat ironic that in 1924, Swiss geologist Arnold Heim, one of the early experts to assess the availability of exploitable resources in Eastern Arabia, concluded that there was not enough geological evidence to opt for oil prospecting, but there was for water.¹⁸ In fact, surveying for underground geological water deposits shared many common features with prospecting for hidden petroleum.¹⁹ Although Heim was eventually proven mistaken, it is telling that his contractor, the London-based Eastern and General Syndicate Limited, was not interested in drilling for water and British and American efforts to search for petroleum subsequently increased. As a result, in 1934, British Petroleum (formerly APOC) and Gulf Oil, an American firm, formed the Kuwait Oil Company (KOC) to explore Kuwait’s oil deposits. In 1938, the KOC struck crude in the Burgan Oil Field. The Kuwaiti quest to find water became key to foreign prospecting for oil, disclosing not only the seemingly smooth shift from quasi-colonial to increasingly corporate British involvement, but also the inextricability of waterscape and petroleumscape in Kuwait.

Desalinating Water in Kuwait: A Technology Transfer from the Kuwait Oil Company

Given that foreign interest in oil did not solve Kuwait’s drinking water problem, the Kuwaiti leadership tried to explore other options. Eventually, sea water desalination emerged as a promising path, but not until the necessary technical, financial, and energy resources were made available through the emerging oil industry in the mid-twentieth century. However, the idea of desalinating the Persian Gulf’s salt water was not entirely new.²⁰ Already Sheikh Mubarak, under whose reign the water imports had started, had favored the construction of a distillation facility after he had reportedly witnessed one running in Aden.²¹ A first attempt at operating a desalination plant installed by the British company of Messrs. Strick Scott in 1918–1919 failed and Kuwait remained with brackish well water and imported river water.²²

Following the initial oil shipment from Kuwait to Britain in 1946, then-ruler Sheikh Ahmad al-Jaber al-Sabah (r. 1921–1950) reopened the question with the British Political

Agency in Kuwait, expressing an interest in producing additional drinking water through seawater desalination, conscious that the KOC was in the process of building a distillation plant at Ahmadi.²³ In the context of the expanding oil industry and the city-state's modernization project, Kuwait City experienced a startling demographic and economic surge, a rapid shift toward petroleum-based lifestyles, and consequently a new level of water demand. Around that time, according to one estimate, imported water had increased to a daily supply of about 100,000 gallons of river water delivered by twenty-two boats to accommodate Kuwait's water consumption.²⁴

Eventually, the Kuwaiti government commissioned Ewbank & Partners as consulting engineers for a new and much larger power and desalination plant. It does not come as a surprise that Ewbank & Partners, a company with strong ties to the petroleum sector and substantial experience with constructing oil refineries in Iran and Britain, had first been hired by the KOC for their desalination facility. Put into operation in early 1950, the KOC plant was not only able to satisfy the KOC's demands but was capable of supplying Kuwait City, too.²⁵ Initially, the KOC provided the town with 120,000 gallons a day, rising to 200,000 from August 1950 onward,²⁶ by running a 150 mm steel pipeline from the oil harbor Mina al-Ahmadi, where the desalination plant was located, to the capital.²⁷ Evidently, the oil industry was integral to the industrial production of desalinated, potable water in Kuwait, thus anchoring the petroleumscape in the local water needs and the projects designed to overcome environmental limitations through engineering. Subsequently, the desalination plants established a new relationship between Kuwait and the sea. With the decline of seafaring and maritime trade, the sea gradually became a commodity, first as natural resource for water production and subsequently as a view (see Couling, this volume).

The First Power and Desalination Plant in Kuwait City

Large-scale desalination as undertaken at the Mina al-Ahmadi plant was only feasible if fossil fuels were cheaply available. Sheikh Ahmad had wanted "to utilise as fuel the gas now being burnt off at the fields by the Oil Company."²⁸ In fact, the wasteful flaring of natural gas in the oil fields around Ahmadi offered one of the few opportunities to visually experience petroleum (or rather, one of its by-products). The political authorities and the KOC tried to stop images of the flaring from circulating as they were considered negative publicity, indicative of wastefulness. Putting the gas to good use in desalination efforts was seen as good for public relations. Such public relations narratives as well as the official opening of the city's plant created important representational layers of the emerging petroleum/waterscape.

On March 29, 1953, both Kuwaiti and British officials inaugurated the massive power and desalination plant in Shuwaikh, a new industrial area southwest of Kuwait Town. The government secretary Abdulla Mulla Saleh praised the plant as "one of the most vital projects for Kuwait" that finally fulfilled "a dream, that has for a long time been in our minds"²⁹ (Figures 9.2 and 9.3). Although petroleum was not directly mentioned, it had clearly become the way to make dreams come true. Moreover, the plant not only impressed in numbers and cut a fine figure photographically, but it also materialized the conviction of social development through technical and economic progress toward a Western (democratic) model.³⁰ Development and modernization theorists worldwide considered petroleum the perfect fuel and fortune generator to forge this path of progress. The plant fit this logic of how oil revenues could be used effectively. Kuwait's first comprehensive scheme to generate

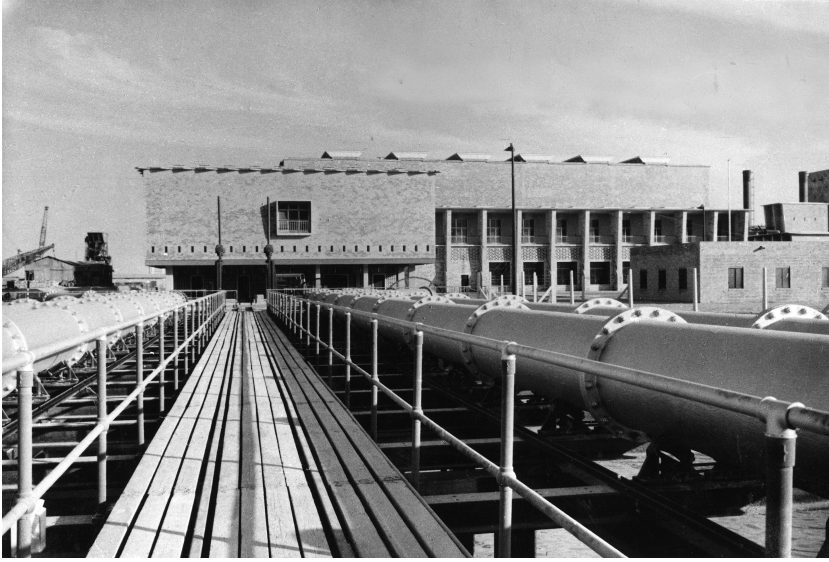


FIGURE 9.2 Administration building with water intake (left) and “Power Station A,” as viewed from the water intake jetty. *Source:* Unknown photographer, c. 1956, RIBA Collections, RIBA112508.

electricity and to desalinate and distribute water was financed by oil revenues and fueled by petroleum, thereby making crude indispensable to Kuwait’s modernization on multiple levels. It is noteworthy that the project was developed and built by British firms only.³¹ Fusing quasi-colonial, national, and corporate interests, Kuwait’s modernization was unfolding as a transnational palimpsestic petroleumscape in which the plant (as built form and architectural design) emerged as a key representational structure.

In 1956, the *Architectural Review* dedicated an article to the power and desalination plant, illustrated with large black-and-white photographs of the three-part structure situated at the waterfront of Kuwait Bay (Figure 9.2).³² The flat horizontal slab with the cantilevered window and French balcony, to the far left, contained the entrance hall on the ground floor and the control room above. This administration building adjoined “Power Station A,” a large horizontal volume housing four turbines, pumps, switchgear, and additional offices, which opened onto a continuous covered balcony. Constructed from steel frames, reinforced concrete, and brick stone, the facades of these adjoined buildings displayed beautiful brick stones of different shades in geometric patterns. Noteworthy is the thin reinforced concrete roof with its overhangs that cast delicate zigzag shadows on the façade of the administration building. These were truly modern buildings in material, construction, and form, designed to showcase Kuwait’s petro-fueled and water-dependent modernization.

The administration building and the power station faced an open courtyard with parking spaces that included a zigzag shaped pool with water fountains, filled with the precious material the plant was producing (Figure 9.3). The symbolic value of this dynamically shaped pool—generally considered the first lavish open-air water feature in arid Kuwait—cannot be overestimated. Its novel display of water in fossil-fueled movement recalls the Palais de l’Électricité at the 1900 Paris World Fair with its water cascades that translated the invisible



FIGURE 9.3 The water pool in the courtyard of the plant. *Source:* Unknown photographer, c. 1956, RIBA Collections, RIBA112509.



FIGURE 9.4 Oblique view of the water tower at Safat Square. *Source:* Unknown photographer, 1960. Image of the BP Archive, University of Warwick, ARC107058_16.

electric currents the building produced into an extravagant experience of waterworks in celebration of the electrical age.

Today, while the administration and the power plant are still in use, albeit for different purposes, the desalination plant, the third building, no longer exists.³³ The plant was a symmetrically stepped volume of reinforced concrete, clad with brick stones in geometric half-reliefs, especially on the main façade. Flat roofs made of extra-thin reinforced concrete slabs cantilevered the building for shading. The external chimneys connected to the water boilers, similar to those at the power plant, and framed the building. It housed offices, pumps, turbines, and switchgear and was connected to the evaporation units. Following the course of the freshly desalinated and remineralized water that was produced here leads us to the prominent water distribution scheme implemented together with the plant. It was not the administrative and industrial facility at Shuwaikh, but the four water towers located strategically across town that were the most visible manifestation of the city-state's new water infrastructure.

Putting the Waterscape on Display

“Water towers rise 80 to 100 feet above streets that never knew more water than could be carried in a goatskin,” one British journalist reported in 1954.³⁴ Indeed, the water towers exceeded not only average building heights by far, but also common experiences of water availability and visibility in the city (Figure 9.4). The water towers needed to be in strategic positions to deliver water to the surrounding area efficiently and their height resulted from the need for a gravity feed for distribution. But their positions and town-wide visibility were in fact too preeminent to be merely practical. For example, one water tower was situated on a roundabout-turned-square and marked the entrance to Fahad Al Salem Street, the most modern and chic street at the time. Another water tower was erected on Safat Square, a big open space and the vibrant social and commercial heart of the city. Given the prominent locations and significant visibility, the towers were meant to be seen by all. Surprisingly, although the power and desalination plant was somewhat remote, it consisted of three beautifully designed buildings; in contrast, the water towers were extremely exposed and yet their architectural design seemed inadequate, almost unfinished.

The water towers' plain and utilitarian construction contradicted the prominent locations and the visibility the water towers were given around town. They consisted of two elevated water tanks, each supported by an open-braced steel structure and left unclad. The fine design of water works was considered an important task with a long tradition in Western architecture. The *Manual of British Water Supply*, which the British experts at work in Kuwait supposedly used, delineates: “As the greater part of the skillfully-designed works of a water undertaking is hidden underground it is not unreasonable to demand that those parts displayed to public view shall be of pleasing appearance.”³⁵ In addition to being unadorned structurally, the coffered opaque white volumes of the tanks exposed its contents directly to the sun, as historical photographs show. Neither aesthetic nor purely functional, how can the architecture of the water towers be explained?

A former employee of John Taylor & Sons, who was involved in constructing the Kuwait water infrastructure, recalled that:

each water tower [...] was to have been clad with architectural features, that in the city centre [Safat Square] being designed to be particularly lavish. The Ruler decreed,

however, that they should all be left unclad so that the population could see the benefits the oil had brought them!³⁶

By deliberately not cladding the elevated tanks, the construction put the liquid content on public display. The water towers provided visual proof of the new water source and showcased its immediate availability in each tank, thereby symbolically promising the urban ubiquity of these modern waters. Clearly, in the urban space, the water towers served as *pars pro toto* for the new water infrastructure of Kuwait, for which petroleum provided fuel, technological expertise, and financing. Water was publicly displayed as material evidence of technological success and a symbol of Kuwait's modernization. As Carola Hein has noted, "representation of technology is contingent to historical moments when technology is seen as a major societal achievement," which it was.³⁷ In fact, the government of Kuwait branded the new water infrastructure politically by integrating it into new national symbols. The first-ever series of definitive postage stamps (1959), issued by a Kuwaiti authority and with Kuwaiti motifs, included both a view of the power and desalination plant and of Safat Square with its unclad water tower.³⁸ In the following decades, a new generation of water towers continued to shape Kuwait's landscape in forms of even grander iconic architecture and with even bigger exposure.

A Monumental Sculpture to Water (and Petroleum): Desalination and Water Distribution in the 1970s

Petroleum continued to be the driving force behind Kuwait's water infrastructure, thereby perpetuating and consolidating the spatialization, but also celebration of the petroleum (scape) through the water(scape). In the 1970s, a new elaborate water scheme established a hitherto unprecedented sculptural iconicity of water infrastructure that paid tribute to petroleum as financial and technological motor. In 1965, the Ministry of Electricity and Water commissioned the Swedish construction and engineering company VBB (today SWECO) for a nationwide piped water distribution and storage scheme connected to the extended desalination facilities in Shuwaikh and Shuaiba. Commencing operation in 1976, the mushroom-shaped, light blue (sometimes gray) and white striped water towers became the spatial but also symbolic manifestation of the new large-scale water system (Figure 9.5). Looming above their flat surroundings, they left a lasting imprint on the landscape. Swedish architect Sune Lindström initially developed "The Mushroom" as a multifunctional water tower, including a transmitting station with antenna, a restaurant, and a viewing platform for the town of Örebro, Sweden.³⁹ For Kuwait, he adapted the design to function as a water tower only, exchanging the TV antenna with a flat roof and changing the color.⁴⁰ Placed in groups of varying numbers and heights at five strategic locations across Kuwait, the "mushroom" has become a landmark, an iconic element of Kuwait's urban and environmental landscape that today serves in color or shape as inspiration for souvenirs, stamps, and postcards.

The government of Kuwait continued to enhance the great symbolic value of water towers not only with the "mushrooms," but also with three water towers of even more elaborate design known as *abrāj al-Kuwayt* or the "Kuwait Towers" (Figure 9.6). This group of water towers was built as the final phase of the VBB's water scheme and is located at the eastern tip of Kuwait City's waterfront as part of an artificial leisure island. The Danish designer Malene Bjørn of Bjørn & Bjørn Design developed the unique architecture after Emir Jaber al-Ahmed



FIGURE 9.5 A group of mushroom-shaped Kuwait Water Towers built in the 1970s in the neighborhood of Abdullah Al-Salem, Kuwait City. *Source:* Photograph taken by author, February 2018.

al-Sabah (r. 1977–2016) demanded a different concept for this sixth group, which would be in sight of his residency—or so the story is usually told—and finally opted for Bjørn’s design.⁴¹

The Kuwait Towers consist of three white shafts of different heights made of reinforced concrete and finished with silver spires of stainless steel that serve as lightning conductors. The highest tower (185 m) combines the shaft with two spheres covered with a multitude of enameled steel disks of blue and green shades that deflect solar radiation. The larger sphere contains a restaurant, a banquet hall, and an indoor garden in its upper half and a water tank in the lower, while featuring a horizontally extending shade much like a planetary ring. The upper, smaller sphere houses a rotating café and a viewing platform; the sphere’s skin consists of dark blue triangular glass shapes to allow for a view. The second, smaller shaft (140 m) carries one sphere that serves as a water tank. Harnessed with lighting equipment, the third and smallest needle-like shaft (100 m), with no sphere, illuminates the other two and completes the ensemble harmoniously.⁴²

Officially inaugurated in 1976 and 1977, respectively, the Water Towers (mushrooms) and the Kuwait Towers were awarded the first Aga Khan Award for Architecture 1980, and thus attracted much international attention to Kuwait. The award statement argued that the Kuwait Towers, an impressive technological achievement, references mosque architecture in its “minaret-like quality of the shafts” and green-to-blue steel disks, “recalling the tiled domes of historic mosques and shrines,” and hence praised the architecture as a model for the “Islamic world of tomorrow,” the designated scope of this award.⁴³ However, designer Malene Bjørn provided a different narrative of the design inspiration at the time:

I asked myself: What’s going on today, what’s life, what’s future? And so without really being conscious of it, there was “the globe” the earthy human warmth, and



FIGURE 9.6 Kuwait Towers at the waterfront of Kuwait City. *Source:* Photograph taken by author, February 2018.

there were “the missiles” too, long sharp logic thoughts, fired against the heavens, and suddenly the globe was pierced and there were more globes, speared by the rockets. It was not my intention to make the towers look like minarets, but obviously they have something in common.⁴⁴

The statement suggests that the design reflected the global political events of the 1960s and 1970s, like the Cold War, space exploration, and the first images of Earth from deep space. It contrasts sharply with the award committee’s interpretation, which has remained influential. Even further, in light of Bjørn’s concept and the ramifications of the “oil crisis” (1973) around the time of the towers’ inauguration in the mid-1970s, the referentiality between water towers, oil rigs, and oil tanks is remarkable. Infrastructure of oil and water both stand out impressively from their surroundings; they mark violent processes of extraction, storage, and distribution of the Gulf countries’ most precious goods and in the case of Kuwait, they come to “represent

the rise of an economic power.”⁴⁵ When Kuwait’s new water infrastructure received an iconic architecture that achieved an unprecedented spatial presence and visual prominence, Kuwait’s “fabulous development [...] from a small town to a modern capital” fueled by skyrocketing oil revenues had indeed received a monument to petroleum as well as water.⁴⁶

Water Coolers: The Symbolic Power of Giving Water as Long as Oil Lasts

Petroleum has acquired the status of Kuwait’s most precious property as a globally priced commodity at the heart of petroleum’s value system. Meanwhile, the status of water, the once sought-after commodity, has also shifted throughout the twentieth century. Stabilizing its power as (oil) welfare state, the state deliberately “normalized” potable water as ubiquitous and free of charge. This has given way to new social practices around water. Today, in front of many luxurious villas (which constitute much of the urban fabric of Kuwaiti neighborhoods) and in front of some public and commercial buildings, a water cooler provides drinking water for free to anyone passing by (Figure 9.7). Connected to the building’s water supply, some of these coolers have adopted various pop art-like sculptural designs, like plastic bottles or even the striped mushroom towers.

These water coolers, called *sabīl al-mā’*, are not just erected by the state, but also by Kuwaiti citizens, who consider their installation an act of charity in the memory of someone deceased. Literally, *sabīl* means “a road” or “a path,” while its Quranic use “referring to a work done on behalf of God” probably explains its use for charitable fountains.⁴⁷ Water (*al-mā’*) in Islam is essential for ritual ablution and spiritual purity and framed as a life-bearing gift by God. The name might also derive from *‘ābir sabīl*, meaning the one passing by.⁴⁸ Giving water to passing humans and animals, especially to pilgrims on their way to Mecca, is described as a Muslim charity in the Hadith.⁴⁹ Yet, in a country notorious for its high motorization, where even walking to the next kiosk can be socially questionable, usually only migrant laborers use the water dispensers. Also, many water coolers are neglected. Therefore, they serve a symbolic rather than a functional purpose, demonstrating the power to give water, but their complex, multivalent symbolism gives rise to many more questions: Does the social practice of the Kuwaiti *sabīl* echo the welfare state’s function of providing its citizens with water? Are they miniature versions of the national water distribution system, yet also symbolic of religiously inspired historical practices? Do they serve as visible tokens of the enduring abundance of drinking water and therefore as symbols of petro-prosperity? Have they become nostalgic reminders of a once-powerful oil state and its reassuring water infrastructure, which has not received a contemporary update equally grand as the projects of the 1950s and 1970s?

In Modern Kuwait, Life without Oil Is Life without Water

A full-page advertisement published in 1988 in *Al-Kuwayti* (the KOC’s Arabic language magazine established in 1961) depicts a drawing of a mushroom water tower in the desert framed by a desiccated tree, a historical oil tin water carrier, and the beaming sun (Figure 9.8). The water tower looms majestically above the landscape and—the way the viewer sees it from below—serves as a sculptural monument to technical, financial, and political power. The image brings to mind the modern history of potable water in Kuwait that has



FIGURE 9.7 Water cooler in Kuwait in the shape of a mineral water bottle located in Salmiyah, Kuwait City. *Source:* Author’s photograph, taken January 2018.

manifested as the complex interweaving of the architectural, social, and symbolic layers of the petroleumscape and the waterscape—from early practices of distributing water in oil tins to the establishment of salt water desalination and the massive fossil-fueled plant built in 1953 and its unclad distribution towers, to the mushroom-shaped water towers and the sphere-shaped Kuwait Towers of the 1970s, and finally to today’s outdoor water coolers. In the absence of petroleum as a fluid material, another commodified liquid, water, has been celebrated as the harbinger of modernity and prosperity. The water infrastructure laid the foundation for petroleum infrastructure and the commodification of petroleum as “precious property.” The water architecture and the social and symbolic practices around it have spatialized oil, have fixed oil in Kuwait’s urban space. The long-standing practice of physically erected structures, such as water infrastructure, has served to uphold the image of Kuwait’s water and oil abundance, despite the finiteness of these precious properties. Still, given the water structures’ spatial permanence and sculptural beauty, it is difficult to overcome the inherent oil celebration and therefore fossil fuel dependence.



FIGURE 9.8 Advertisement by the Ministry of Electricity and Water, Kuwait. *Source: Al-Kuwayti* magazine (July 1988), 2.

The 1988 advertisement also contained a caption. It reads, “Handle the water in accordance with its measure of scarcity because there is no life without it,” and includes greetings from the Ministry of Electricity and Water. The government’s advertisement called for moderate water use by imagining the water tower not in a booming modern urban environment, but instead in the desert, which still covers most Kuwait’s territory today. This collage-like *Verfremdung* recalls the pre-oil, pre-desalination life world of Kuwait, asking the reader to be humble in view of Kuwait’s history. But the image could also be read as a menacing future vision of Kuwait, which has one of the highest water consumption rates worldwide, without the fossil-fueled means of extracting and commodifying petroleum to maintain the current hydrological

lifestyle inherent in the petroleumscape. A bitter taste of precisely such a future came with the first Gulf War, two years after the advertisement was published. The war turned Kuwait's oil fields into one big burning oil lake and brought the oil industry to a standstill. Several desalination plants were destroyed by Iraqi forces or severely damaged by crude spilling into the Gulf. It is said that there is life without oil, but not without water, but in modern Kuwait, it seems, there is no life without oil or without water; the two go hand in hand.

Notes

- 1 Political Agency, Kuwait, to Arabian Department, Foreign Office (FO), London, December 6, 1960, in Anita L. P. Burdett, *Water Resources: In the Arabian Peninsula 1921–1960*, two vols., Vol. 2: Kuwait (Slough: Archive Editions, 1998), 605.
- 2 British Embassy, Kuwait, to Foreign Office (FO), London, March 10, 1962, in Burdett, *Water Resources*, 611; see also P. Beaumont, “Water in Kuwait,” *Geography* 62, no. 3 (July 1977): 190.
- 3 British Embassy, Kuwait, to Foreign Secretary, FO, London, September 26, 1962, in Burdett, *Water Resources*, 622.
- 4 Maria Kaika argues convincingly that modern city building always demands the transformation of nature, especially of water sources and waterways. Maria Kaika, *City of Flows: Modernity, Nature, and the City* (New York: Routledge, 2005).
- 5 Carola Hein, “Oil Spaces: The Global Petroleumscape in the Rotterdam/The Hague Area,” *Journal of Urban History* 44, no. 5 (2018): 887–929, doi:10.1177/0096144217752460.
- 6 *Ibid.*, 903. The academic debate on “oil urbanization” or “petro-urbanism,” which started in the 1980s, usually situates the watershed moment between pre-oil and post-oil periods in the 1970s rather than in the 1950s. See, for example, Mohamed Riad, “Some Aspects of Petro-Urbanism in the Arab Gulf States,” *Bulletin of the Faculty of Humanities and Social Sciences*, no. 4 (1981).
- 7 “Note on the Drinking Water Available in Kuwait and the Immediate Vicinity,” Political Agency, Kuwait, December 1933, in Burdett, *Water Resources*, 4.
- 8 British Consulate-General, Basra, to British Embassy, Baghdad, November 17, 1950, in Burdett, *Water Resources*, 104. On APOC's development of Khorramshahr as petroleumscape, see Carola Hein and Mohamad Sedighi, “Iran's Global Petroleumscape: The Role of Oil in Shaping Khuzestan and Tehran,” *Architectural Theory Review* 21, no. 3 (2017): 349–74, doi.org/10.1080/13264826.2018.1379110.
- 9 “Note on the Drinking Water,” Political Agency, Kuwait, December 1933, in Burdett, *Water Resources*, 3.
- 10 *Ibid.*; Tom G. Temperley, “Kuwait's Water Supply,” *Journal (American Water Works Association)* 57, no. 4 (April 1965): 419–20; Ministry of Energy, Electricity and Water, *Water and Electricity in the State of Kuwait* (Kuwait: Center for Research and Studies on Kuwait, 2005), 23–24.
- 11 “Note on the Drinking Water,” Political Agency, Kuwait, December 1933, in Burdett, *Water Resources*, 4.
- 12 Temperley, “Kuwait's Water Supply,” 419; Yūsuf ‘Abd al-Muhsin al-Turkī, *Lamahāt Min Mādī Al-Kuwayt* ([Kuwait]: [s.n.], 1979), [Glances from Kuwait's Past], 54.
- 13 In contrast to Saudi Arabia, where water was of crucial agricultural importance, in Kuwait, potable water was an urban commodity in the first place. On Saudi Arabia, see Toby Craig Jones, *Desert Kingdom: How Oil and Water Forged Modern Saudi Arabia* (Cambridge: Harvard University Press, 2010).
- 14 Political Agency, Kuwait, to Political Residency, Bushire, November 13, 1912, in Richard Trench, ed. *Arab Gulf Cities: Kuwait City*, Vol. 4 (Cambridge: Archive Editions, 1994), 81. On the continuous use of kerosene tins, see Burdett, *Water Resources*, 4.
- 15 Sir Percy Cox, Political Residency, Bushire, to Secretary, Government of India, Foreign Department, Shimla, November 26, 1912, in Trench, *Arab Gulf Cities*, 79.
- 16 Trench, *Arab Gulf Cities*, 79. The “political resident” in the Persian Gulf was in charge of managing British India's relationship with the Gulf region.
- 17 *Ibid.*
- 18 See Laura Hindelang, “Photographing Crude in the Wild: Sight and Sense among Early Oilmen,” in *The Life Worlds of Middle Eastern Oil*, eds. Nelida Fuccaro and Mandana E. Limbert (forthcoming).

- 19 Historical descriptions of discovering the first oil field in Kuwait and of geophysical prospecting of water indicate similar methods of surveying. Paul D. Foote, "The Discovery of an Oil Field," *Proceedings of the American Philosophical Society* 92, no. 1 (March 1948); Aubrey T. Hobbs, ed. *Manual of British Water Supply Practice* (Cambridge: W. Heffer & Sons, 1950), 123–26.
- 20 The concept of producing purified water by evaporating sea water can be traced back to Aristotle. The polymath Abu Mūsā Jābir ibn Hayyān (c. 721–815) wrote one of the first treaties on the distillation of liquids through evaporation. For an historical account of purification through distillation, see Moses Nelson Baker, *The Quest for Pure Water: The History of Water Purification from the Earliest Records to the Twentieth Century* (New York: American Water Works Association, 1948), 357–60.
- 21 Political Residency, Bushire, to Secretary, Government of India, Foreign Department, Shimla, November 26, 1912, in Trench, *Arab Gulf Cities*, 81.
- 22 Political Residency, Bahrain, to India Office, London, July 24, 1947, in Burdett, *Water Resources*, 72; Ministry of Energy, Electricity and Water, *Water and Electricity in the State of Kuwait*, 38.
- 23 Burdett, *Water Resources*, 72.
- 24 Mr. Kemp, London, to Middle East Secretariat, FO, London, May 2, 1950, in Burdett, *Water Resources*, 93.
- 25 Political Agency, Kuwait, to Eastern Department, FO, London, November 13, 1950, in *Ibid.*, 105; FO, London, to Political Residency, Bahrain, December 6, 1950, in *Ibid.*, 107; Gwilym Roberts and David Fowler, *Built by Oil* (Reading, MA: Ithaca Press, 1995), 103.
- 26 Mr. Kemp, London, to Middle East Secretariat, FO, London, May 2, 1950, in Burdett, *Water Resources*, 93; William Kitson, "Kuwait's Distillation Plant for Domestic Water," *The Times Review of Industry and Technology*, December 1951, 22.
- 27 Roberts and Fowler, *Built by Oil*, 104. Apparently, 1950 was the last year of Shatt al Arab water imports; see Fātima Husayn Yūsuf al-'Abd al-Razzāq, *Al-Miyāh Wa-L-Sukkān Fī Al-Kuwayt* ([Kuwait]: [s.n.], 1974), [The Waters and the Inhabitants in Kuwait], 153.
- 28 Political Agency, Kuwait, to Political Residency, Bahrain, July 5, 1947, in Burdett, *Water Resources*, 71.
- 29 English translation of Abdulla Mulla Saleh's speech, in Trench, *Arab Gulf Cities*, 96.
- 30 On the persuasiveness of development discourse since World War II, see Arturo Escobar, *Encountering Development: The Making and Unmaking of the Third World* (Princeton, NJ: Princeton University Press, 1995).
- 31 Most big development contracts of the time were given to British firms. This reflects the strong influence of the KOC and the British government, represented by the Political Agency in Kuwait, in the British quasi-protectorate Kuwait.
- 32 [s.n.], "Power Station at Kuwait, Architects Farmer and Dark," *Architectural Review* 120, no. 714 (July 1956).
- 33 I thank Bader Al-Anzi, Ahmad al-Azmi, Noura al-Deffeeri, Mr. Pallayat, Paul Frain and Fahad Alzuabi for organizing and facilitating my visit to the plants of Shuwaikh and Shammal Azzour in January and February 2018.
- 34 Elizabeth Monroe, "The Shaikhdome of Kuwait," *International Affairs* 30, no. 3 (July 1954): 278.
- 35 Hobbs, *Manual of British Water Supply Practice*, 420. Reference given by Gwilym Roberts, *Chelsea to Cairo, 'Taylor-Made' Water Through Eleven Reigns and in Six Continents: A History of John Taylor & Sons and Their Predecessors* (London: Thomas Telford, 2006), 363.
- 36 Roberts, *Chelsea to Cairo*, 364.
- 37 Hein, "Oil Spaces," 899.
- 38 See my work on Kuwaiti stamps: Laura Hindelang, *Iridescent Kuwait: Petro-Modernity and Urban Visual Culture in the Mid-Twentieth Century* (Berlin: De Gruyter, 2022), (forthcoming).
- 39 Developed by Lindström for VBB, the "Vattentornet Svampen" (water tower mushroom) opened in May 1958. It is vertically striped in two different shades of grey and its top is capped with a dome-shaped antenna.
- 40 Additional offspring of the mushroom series are the water towers in Riyadh and Jeddah, Saudi Arabia. VBB completed them in 1970 and 1977, respectively, for the Ministry of Agriculture and Water based on the Lindström design. Udo Kultermann, "Water for Arabia," *Domus*, no. 595 (June 1979).
- 41 Malene Björn, *The Light and the Airy: How It All Began in Sweden in 1945* (Växjö: Baltic Books, 2013), 24–35.

- 42 [s.n.], “Wassertürme in Arabien (VBB),” *Deutsche Bauzeitung*, no. 4 (1979); Udo Kultermann, *Contemporary Architecture in the Arab States: Renaissance of a Region* (New York: McGraw-Hill, 1999), 176–78.
- 43 Renata Holod and Darl Rastorfer, eds. *Architecture and Community: Building in the Islamic World Today* (Millerton: Aperture, for the Aga Khan Award for Architecture, 1983), 173–81 (Kuwait Towers), 180.
- 44 *Ibid.*, 252.
- 45 Mokhless Al-Hariri, “Water Towers on-Site Review Report” (prepared for the Aga Khan Award for Architecture, 1980), <https://archnet.org/publications/213>. On oil and violence see Nelida Fuccaro, “Reading Oil as Urban Violence: Kirkuk and its Oil Conurbation, 1927–1958,” in *Urban Violence in the Middle East: Changing Cityscapes in the Transition from Empire to Nation State*, eds. Ulrike Freitag, Nelida Fuccaro, Claudia Ghrawi, and Nora Lafi (New York: Berghahn, 2015).
- 46 Jan Östlin, “Architect’s Record of Water Towers” (submitted to the Aga Khan Award for Architecture, 1980), <https://archnet.org/system/publications/contents/214/original/FLS0218.pdf?1384747203>.
- 47 Mostafa L. Saleh, “The Cairene Sabil: Form and Meaning,” *Muqarnas* 6, no. 1 (1988): 34. Saleh establishes his argument based on Quranic textual sources and historical examples the *sabil* as part of mosques.
- 48 I thank Deema Al-Ghunaim for this comment.
- 49 Saleh, “The Cairene Sabil,” 34–35. See also Mandana Limbert’s work on the moral, religious and social ideal of providing drinking water in Oman, sometimes in form of water coolers (as signs of development): Mandana E. Limbert, *In the Time of Oil: Piety, Memory, and Social Life in an Omani Town* (Stanford: Stanford University Press, 2010), 123–28.