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Politics: Transformation of Landscapes

Ewald Blocher

Dammed Water: Water as a National Commodity

Introduction

“If the wars of this century were fought over oil, the wars of the next century will be fought over water,”¹ remarked World Bank Vice President Ismail Serageldin at the turn of the century. He is not alone in this opinion; many experts expect wars to be waged over the commodity water.² Considering that there are over two hundred major transnational river systems worldwide and approximately 40 percent of the world’s population lives on one of these cross-border rivers, the consequences of this could be severe.³ One such river system is located in the East African Nile basin: encompassing three billion square kilometers, it includes a total of ten bordering nations and a population of nearly 250 million people.⁴ Along the Nile, a multitude of water construction projects—either already underway or in planning—are damming ever increasing amounts of water to be “reserved” for various national objectives, resulting in a considerable potential for conflict in this region.

Since time immemorial, to dam water—in other words, to construct embankment dams to store large amounts of water—has consistently been a strategy to establish a habitable environment for humans and animals in arid regions. The first major embankment dam was erected in 2700 BCE to “tame” the Nile in Central Egypt. From that time on, controlling water, and with it nature, has been pivotal for guaranteeing human survival across the globe. In this context, one must also consider a further characteristic of water: as a good or commodity in and of itself. Having control over a

This essay was originally written in German and has been translated for the *Perspectives* by Rachel Shindelar. Unless otherwise noted, all translations of German sources are also the translator’s.

- 1 “Water,” on Ismail Serageldin’s official website, accessed on 16 March 2012, <http://www.serageldin.com/Water.htm>.
- 2 Terje Tvedt, “Some Conceptual Issues Regarding the Study of Inter-State Relationships in River Basins,” in *The River Nile in the Post-Colonial Age: Conflict and Cooperation among Nile Basin Countries*, ed. Terje Tvedt (London: I.B. Tauris & Co. Ltd, 2010), 237.
- 3 Frank Kürschner-Pelkmann, *Das Wasser-Buch: Kultur, Religion, Gesellschaft, Wirtschaft* (Frankfurt am Main: Lembeck, 2007), 269.
- 4 *Ibid.*, 324

waterway allows a local or regional community to claim territorial possession of it, as well as the water within it. In this context, the artificial damming of water signifies—at least for the time being—the localization and territorial fixation of water for the purpose of claiming dominion over it. Such an encroachment on a hydrological system, however, contradicts the fundamental nature of a body of flowing water, such as the Nile. Interferences of this kind not only change the river system, but also frequently result in the necessity for further artificial measures to absorb the unintended side-effects. As a result, hydraulic engineering has evolved into a means for continually “improving” the river, further compromising the innate character of naturally flowing water. Over the course of the twentieth century, the Nile has been gradually transformed from a scarcely controllable river into an irrigation canal.⁵

As the world’s longest river, the Nile cleaves its way from the central African highlands, through endless plains and deserts, across thousands of kilometers, to spill into the Mediterranean Sea. The natural environment that the Nile traverses is made up of different topographic and climatic zones; not only does the river flow from subtropical to arid regions but it simultaneously crosses artificially constructed borders. Like a lifeline, the Nile flows through numerous politically divided regions and, in the process, is cut up into smaller geographical pieces. The embankment dams or dammed waters along its course are a symbol of the appropriation of water as a *national* commodity.

Modernity and Space

A fundamental characteristic of modernity is the recognition of the nation-state as the basic unit for structuring, organizing, and controlling physical space. Although space has always played a role in human history as a physical component, it was not until the modern age that it won its political and ideological meaning in the form of *territory*. In the last five hundred years, the rise of the nation-state as the medium for political, economic, and cultural interaction on a supra-local level greatly contributed to the emergence of a spatially interpreted national “internal” and “external.” These centuries can be viewed as the era of territorial containment: the discovery of borders and territoriality. From here on, through the alignment with specific territories, individuals subordinated

5 This comparison can be found in Gamal Hamdan, *Shakhsyyat Misr* [The Character of Egypt] (Kairo: Anglo-Egyptian Bookshop, 1970), 254.

themselves to a central and sovereign authority. However, the true significance of territoriality goes beyond the recognition of borders; national territory is more than just a spatial localization, it is a tool for national power and dominion.⁶ This process intensified in the second half of the nineteenth century. A reconfiguration of the territorial state—amplified by widespread industrialization—took place: With the advancement of technology, territoriality became more and more a political and economic resource.⁷ By declaring itself lord of the “content” of a geographical space, the “state” served as supervisor of the national territory. Besides the human population, content especially included the natural resources or, in more general terms, the entire topography of the territory in its capacity as a source of material utility. This meant that all national resources—that is, those located within the territory—were understood to be national commodities and separate from those located outside the specified space.

An important factor in perceiving the content of national territory as a disposable commodity was the construction of causality between territory and national development.⁸ Thus, attributes of geographical territory are decisive for the welfare of the nation; they are the prerequisites for sustained national existence. Geographical space functions as a vessel that can be filled with content, in which historical acts unfold as a preconditioned and preexisting matter.⁹ From this perspective, a territory can be viewed as a living or a cultural space, as a *natural* “container.” This kind of determinism is still evident today, with the alleged natural and spatial trajectory of cultures and societies finding its justification in the notion that the rightful physical dimensions of states are ascertainable, as are the “natural” borders of a cultural area.¹⁰ By way of illustration, the following sentence could be found on the official website of the Egypt State Information Service in 2007: “Egyptians have associated themselves with the River Nile . . . since time immemorial.”¹¹ The message of such a statement is clear: We, as Egyptians, consider the Nile and its surrounding area as *our natural* habitat.

6 Charles Maier, “Consigning the Twentieth Century to History: Alternative Narratives for the Modern Era,” *American Historical Review* 105, no. 3 (2000): 817–8.

7 *Ibid.*, 815–6.

8 Jörg Dünne, “Soziale Räume: Einleitung,” in *Raumtheorie: Grundlagentexte aus Philosophie und Kulturwissenschaften*, ed. Jörg Dünne and Stephan Günzel, 1st ed., Suhrkamp Taschenbücher Wissenschaft 1800 (Frankfurt am Main: Suhrkamp, 2006), 289.

9 Marcus Sandl, “Geschichtswissenschaft,” in *Raumwissenschaften*, ed. Stephan Günzel, 1st ed., Suhrkamp-Taschenbuch Wissenschaft 1891 (Frankfurt am Main: Suhrkamp, 2009), 160–2.

10 Benno Werlen, “Geographie/Sozialgeographie,” in *Raumwissenschaften*, ed. Günzel, 148–9.

11 Birgit Näther, “Ägypten: Entwicklung durch nachhaltige Wasserpolitik,” in *Wasser im Nahen Osten und Nordafrika: Wege aus der Krise*, ed. Meike Janosch (Münster: Waxmann, 2008), 203.

Human beings use certain cognitive processes to determine their spatial environment. These processes allow us to orient ourselves in space and to describe an area in the first place. From this viewpoint, the spatially perceived environment of a human being is not a geographical or territorial reality, but rather the product of an intellectual process, which maps out space in our head. A mental map of this kind contradicts the idea of the territorial container as a predetermined cultural area. Regarding geographical space as the product of a cognitive, (sub-)conscious feat highlights that it isn't just a natural phenomenon with a preordained purpose—like the Egyptians' assertion that the Nile is their natural habitat—but rather, that geographical space is psychologically constructed and determined. From this cognitive point of view, relative perceptions of space are representative perspectives of the space. Each individual's perspective is linked to different identities, which in turn are part of the individual. Identities are critical in constructing perceptual patterns for interpreting space. As a result, competing identities can generate competing perceptual patterns.¹² The deciding moment that leads to the understanding of space as a container is the conscious and subconscious exploitation of a space and projection of personal perceptions thereon by individuals or groups.¹³ They “fill” the space with specific content.

The perception of space as a container implies, moreover, a specific relationship to nature. This spatial perception presupposes a separation of the human and space, in such a way that the human acts against the setting “space” and fashions it according to his or her own design. With regard to human environment, the setting “space” could just as easily be replaced by “nature.” However, instead of an untouched, pure nature there is a creatively and manipulatively constructed cultural landscape. Nature and humankind, nature and culture increasingly appear to coexist: the constantly growing sphere of man-made, processed, and manipulated nature on the one hand, and culture on the other. In other words, humanity's relationship to nature is instrumental and distanced, much like its relationship to space as a setting for human actions.¹⁴ This contributes significantly to the perceived separation between nature and culture. Nature becomes the object of human dominion.

12 Christoph Ulf, “Die Perspektive des Wasserraumes als soziales und kulturelles Konstrukt,” in *Wasser und Raum: Beiträge zu einer Kulturtheorie des Wassers*, ed. Doris G. Eibl (Göttingen: V&R unipress, 2008), 46.

13 Ibid., 47f.

14 Nina Degele and Christian Dries, *Modernisierungstheorie: Eine Einführung*, UTB 2703: Soziologie (München: Fink, 2005), 116–7.

Certain academic views support this dichotomy. The emergence of mathematical and empirical experiments as the defining character of sciences in Europe in the fifteenth and sixteenth centuries changed mankind's perception of nature. Until the Middle Ages, the overriding perception of nature had been formed by ancient philosophy; according to the divine order of nature, man could acquire knowledge (contextual knowledge), but he neither could, nor should attempt to change or create it. Later, understanding nature for its own sake was no longer at the center of contemporary thought, but rather the practice of using scientific methods and experiments to study natural laws and relationships for the purpose of improving the conditions of humankind. The ancient concept of contextual knowledge was replaced by instrumental knowledge; nature was no longer explored according to the question of "what" but "why." This academic approach is based on the dualism between animate and inanimate matter, a separation of the world into subject and object.¹⁵

The ideology of the dualism of subject and object, of mentally inside and materially outside, can be traced back to the seventeenth-century French philosopher and mathematician René Descartes. He expressed a fundamental doubt of the reality of the outside world in his work. Descartes placed the skeptical and thinking "Ego" at the center of the epistemological acquisition of knowledge, laying the cornerstone for the subjectification and objectification of reality. Shifting focus to the internal, thinking Ego as a basic epistemological category had fundamental consequences for the modern scientific understanding of nature; human intelligence won unprecedented appreciation. Therefore, according to Descartes something can only be identified—that is, academically and objectively described and predicted—if it is determined through those strict intellectual concepts and mathematical laws that are tested and protected by methodical doubt. This implies an objectification and reification of nature; nature becomes an object, whose definition and image is dependent on the interpretation of a subject. Everything is objectified: animals, the human body, the world as a whole, everything is classified according to the binary logic of the Cartesian system.¹⁶

A distance evolves between the observer and the observed, which is bridged by means of perceiving the world in the form of representations. Descartes describes this process of visual perception with the help of the *camera obscura*, which projects the light

15 Ibid., 124–5.

16 Ibid., 126.

of the outside world, through a hole in the wall, onto the opposite side of a dark room and thereby produces observable *images* of the world.¹⁷ This same act of measuring and reproducing is accomplished by the sciences; they construct representations of the environment by means of experiments and (simplified) depictions, which (allegedly) perfectly reproduce nature and its processes.

In summary, the cognitive construction of space allows for the conceptualization of a territorially limited and culturally determined entity. With the help of scientifically anchored processes, everything enclosed inside this entity is disconnected from its natural environment—which in reality frequently expands beyond the newly conceived spatial limits—and is connected to a territorial identity.

The spatial and scientific determination of water that takes place in hydraulic engineering is a prime example for both of these processes. Hydraulic engineering has a dual role as a “spatial science”: On the one hand, through the building of dams as a means to control a resource it verifies the physical and material capacities of space and appropriates the collected water to a proprietor. On the other hand, as a science—in a very Cartesian sense—it illuminatingly releases water from its natural environment by scientifically depicting it as an object that can be described by means of surveying and representational practices. In doing so, water becomes an object that is spatially defined and detached from its natural environment: a national commodity.

Territorializing the Nile

With the transition of Egypt and Sudan into nation-states in the mid-1950s, the current territorial organization of the Nile Valley was achieved. The topographical “unit” of the Nile Valley as a whole was definitively broken up and divided into smaller geographical units. The Nile continued to function as a “lifeline” solely because it had technically and scientifically been adapted to respective national needs—because it had been optimized to meet the demand of the littoral states for water, at least temporarily. However, especially in Cairo (Egypt demands by far the largest portion of the Nile’s resources), it was clear that this temporary state of affairs was not acceptable, given the nation’s ambitious

17 Stephan Günzel, “Physik und Metaphysik des Raums. Einleitung,” in *Raumtheorie: Grundlagentexte aus Philosophie und Kulturwissenschaften*, ed. Jörg Dünne and Stephan Günzel, Suhrkamp Taschenbücher Wissenschaft 1800, 1st ed (Frankfurt am Main: Suhrkamp, 2006), 21–2.

modernization and industrialization plans and constantly increasing population. Due to advanced African decolonization and the resulting national and territorial autonomies, Egypt's traditional interpretation of the Nile Valley as a single hydrological entity under its civil and cultural leadership could no longer be maintained. By then, even in Africa an independent and internationally recognized sovereign nation-state was perceived as the basis for social, economic, and political life.

Accordingly, the Nile was also underwent constructive "territorialization." Although British hydraulic engineers might have envisioned the Nile Valley as a single hydrological unit in their comprehensive project plans during the British Empire, this was now the middle of the twentieth century and such an interpretation had no place in the nationalized spatial perceptions of the governments of the Nile riparian states. Numerous generations of engineers had used hydraulic engineering technology to measure and define the Nile down to the last detail. A "second" Nile was composed on paper from an endless amount of tables and statistics on water levels and flow rates for multiple points along the Nile; countless topographical maps and plans; and diagrams and technical drawings of dams, canals, and dikes from a period of nearly one hundred years. An allegedly accurate and realistic copy, a "reproduction," of the Nile emerged.

The scientifically and technically produced duplicate of the Nile had to be adapted to contemporary national configurations, to the modern reality of the Nile Valley. In the second half of the twentieth century armies of experts and engineers—both national and international, of which, in contrast to the British hydro-engineers at the turn of the century, only a few had ever seen and studied the Nile Valley in person—began to draft national development strategies that would enable nationally optimized water usage. New dams were added to the numerous existing ones along the river, which all fit seamlessly to the newest economic concept of modernization. According to the recently developed models, the damming and diversion of more and more water was completely unproblematic. The Nile itself became a model, which could be arbitrarily taken apart and put back together appropriately in agreement with scientific and engineering rules. This meant that in the case of the Nile, the aforementioned natural character of a river appeared to be nullified by its "fragmentation" and its model-like character in the eyes of politicians from littoral states. From then on the highest priority of hydraulic engineering along the Nile became the utility of water inside political borders, fundamentally contradicting the river's hydrological reality. With regard to

the Nile Valley as a harmonious hydrological unit, the riparian countries choose to concentrate on projects for national water usage instead.

The Aswan High Dam is probably the most striking and the most gigantic example of the Nile Valley reconfiguration: a massive Egyptian project, which was constructed in the 1960s with little concern for neighboring states or for the hydrological and ecological characteristics of the Nile basin. The project quite clearly conformed to a national spatial perception of the Nile and was entirely tailored to Egypt's demands. It was the attempt to construct an "Egyptian Nile," which is fed separate from its origin in the African equatorial highlands from an artificial source: a man-made lake behind the dam, one of the world's largest reservoirs today. It was a project based on political premises and scientifically fabricated representations of reality.

Behind these representations, the "real" Nile, and with it an ecosystem that has long ago reached its limits, due to continual hydraulic engineering projects and constant population growth, is hiding. These are the limits of a nationally perceived and used resource, which is based on the supposed accuracy of image-production. The reality of water in the Nile Valley as a commodity is, however, supranational. To this day, political reality and physiographical reality are not consistent. In 1999, all the states along the Nile came together to launch the *Nile Basin Initiative*, intended to bring about cooperative structures for a solution to the water distribution question. Despite the transnational nature of this and similar initiatives, the national representatives continue to act according to their allegiances: Egyptian envoys speak for Egypt, Sudanese for Sudan, Ethiopian for Ethiopia, etc. This may be a reason why the previous achievements of the current initiative are still relatively small. However, this obligation also signalizes a willingness to find a collective solution to the water question; and, more importantly, the realization that this is the only viable way.

The implied inevitability of wars over water in the aforementioned statement of the World Bank Vice President is, therefore, by no means predetermined. It is *one* possibility, but not the only. The Nile Basin Initiative, which had been preceded in the 1970s and 1980s by repeated bellicose rhetoric, especially between Egypt and Ethiopia, is proof of this. A cultural and historical analysis of the recent past of the Nile Valley shows how interpretations and perceptions of territory, space, and nature can evolve, and that these are not necessarily indisputably "true" and definitive principles.

On the contrary, they are constructed and, therefore, changeable. The Nile initiative of the riparian states—admittedly in its infancy—shows how those perceptions of space, which understand water as a national commodity, can *change*. This is only a first step, but a step into a not-so-threatening future.

Further Reading

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