

The Changing Role of Water in the Spatial Construction and Design of Southeast Asian Polities

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ABSTRACT



Investigating historical maps and texts, this essay charts the changing role of water in the spatial understanding and city design of three consecutive polities in Southeast Asia: pre-colonial tributary system, modern nationhood during the colonial period, and contemporary globalized neoliberal government. The role of water shifts from a heuristic device that is interwoven with political and territorial imaginings to a technocratically engineered commodity that is sacrificed in pursuit of modernization. Using the current urban design of Phnom Penh, Cambodia as an example, water remains the blind spot for urban development, despite the discussion of water sustainability at the regional scale.

On February 4th 2011, there was a forty-five-minute exchange of fire at the Thai/Cambodian border. The artillery and rifle fire continued for three more days. According to the New York Times, at least seven people died and dozens of soldiers and civilians were wounded. The reason for this conflict is the dispute over the claim of Preah Vihear Temple, a Hindu sanctuary dedicated to the god Shiva, built during the reign of the Khmer Empire between the 9th and 11th centuries. The temple's long entry stairway climbs the Dângrêk Mountains from the Khorat Plateau in northeast Thailand and surmounts a precipitous cliff facing Cambodia to the south. Its front entrance faces north and it had easier access from Thailand until the construction of a road up the cliff from the Cambodian side in 2003.

The border dispute has a long history. It can be traced back to 1904, when the former Kingdom of Siam and the French colonial authorities ruling Cambodia established a joint commission to delineate their mutual border under the principle that the border would follow the watershed boundary line

along the Dângrêk mountain range. However, the map produced by French officers in 1907 deviated from the watershed line, placing the entire temple complex within French colonial territory. The Siamese authorities at that time did not inquire about the map for various reasons, one of which is that the concept of a surveyed, legal national boundary line was still vague to the Siamese. The Siamese understood a boundary as a hinterland ecotone, a zone instead of a line on a map that demarcates an area within which an authority can legitimately exercise its power.

After the withdrawal of French troops from Indochina in 1954, Thai forces occupied the temple. Cambodia protested and brought the case to the International Court of Justice. In 1962, the court ruled that the temple belonged to Cambodia, due to Siam's long acceptance of the 1907 map. According to the statement from the International Court of Justice, "It was clear from the record, however, that the maps were communicated to the Siamese Government as purporting to represent the outcome of the work of

delimitation; since there was no reaction on the part of the Siamese authorities, either then or for many years, they must be held to have acquiesced. ...If the Siamese authorities accepted the Annex I map without investigation, they could not now plead any error vitiating the reality of their consent" (International Court of Justice, 1962). This did not settle the dispute, although it remained uncontested during the bulk of the Cold War period. The ownership of the temple became increasingly conflictual when Cambodia applied for World Heritage designation by UNESCO, despite Thailand's protest that it should be joint-listed. The World Heritage Committee in Paris granted Cambodia the designation of the Preah Vihear Temple and its surrounding 4.2 square kilometers territory. Thailand protested. The conflict between Thailand and Cambodia continues until now.

This dispute captures two things: first, it demonstrates the ambivalence in the shift of worldview occurred at the turn of the 20th century in Southeast Asia from a pre-colonial boundless tributary kingship system to a Westphalian nation-state system in which a national boundary is a constitutive element. This ambivalence, as demonstrated in Siam's acceptance of the 1907 map, has historical consequences that are still relevant today. Second, it demonstrates the role of built-space needed for the construction of a nation's historical heritage as part of a nation's self-crafted identity. It has to be *constructed* because modern nationhood did not exist in Southeast Asia until the turn of the 20th century. Its emergence is not a coherent linear process as some history textbook might suggest. The Khmer temple was part of a shared, boundless tributary cultural and religious network without belonging to any nation-state. In other words, it was both Thai and Cambodian.

While some scholars (Thongchai, 1994; Askew, 2002; Povatong, 2002) have explored the roles of cartography and urban planning in the construction of modern nationhood in Southeast Asia, in my essay, I aim to specifically draw out the changing role of water in structuring the geopolitics in local urban designs in Southeast Asian polities. I use the word "polity" to denote an organized political structure that corresponds to a geographical body. The organizational logic can take various forms with different structures of governing authority such as kingship, European colony, modern neoliberal government, etc. National maps and the design of the capital city constitute modern nationhood as a polity. The former constitutes a nation by delineating a boundary on a map— what is called the *geo-body*.

The latter constitutes the identity of a nation in architecture and urban design— what I term the *city-body*. Especially significant in the capital city of a modern nation, architecture and urban design, shaped by both political and economical forces, serves as a public face for the governing authority. Water does not have a consistent role in the spatial construction and city design of the Southeast Asian polities. Its role changes from a heuristic device that is interwoven with a broad understanding of the world to a commodity that is technocratically engineered. I will chronologically chart the historical change of the role of water in three consecutive polities in Southeast Asia: pre-colonial tributary kingship system, Westphalian modern nation-state, and contemporary globalized neoliberal government. With Phnom Penh, Cambodia as an example, my discussion of the complex historical developments will aim at eliciting the relationship among water, city design and the organizational structure of polity. Although the issue of water gains importance in contemporary transnational organizations, it is often pushed to the margins in the face of economic development. As shown in the current urban design of Phnom Penh, Cambodia, water is a blind spot in the spatial construction and design of the city.

1. GEO-BODY AND CITY-BODY

Both geo-body and city-body are constitutive to the modern nationhood and especially resonates in a capital city. Capital cities give modern nations— inherently an imaged community according to Benedict Anderson—a visual tangibility. The concept of geo-body is borrowed from Thongchai Winichakul. In his book *Siam Mapped*, he argues "the geo-body of a nation is a man-made territorial definition which creates effects— by classifying, communicating, and enforcement— on people, things, and relationships" (Thongchai, 1994, p.17). It is "merely an effect of modern geographical discourse whose prime technology is a map" (Thongchai, 1994, p.17). In other words, it is by the production of a map, the bounding of an area in relation to other areas, that the geo-body of a nation is created. A map is not a scientific abstraction of something that exists objectively, but it is an active mediator between human beings and their surroundings. It is constitutive to modern nationhood, for a nation exists by, first and foremost, being drawn on a map. Imagine asking someone to draw Thailand, she or he will probably draw the outline of Thailand as it appears on the map. Thongchai points out two functions of a map:

“as a sign, it is an effective and active mediation which can even create a geo-body; as a metasign, it is an object of reference in itself and can create more meanings and values beyond its origin” (Thongchai, 1994, p.138). Taken out of its contextual territorial depiction, an abstracted map— or the outline of a country— signifies the national map, and it acquires another set of meanings that does not necessarily refers back to the territorial definition, thus a metasign. A map signifies what we call a nation and it can also be the signified. Furthermore, by aligning itself with the study of nature and geography, it naturalizes the arbitrariness of the geo-body of a nation, for a nation only emerged after the introduction of European cartography to the boundless Southeast Asian region.

Although Thongchai compellingly describes the gap between indigenous tributary spatial logic and the importance of European cartography in imagining the geo-body of the nation, he does not explicate the status and logic of the hydrological tributary system of Southeast Asia in relation to the definition of this new territorial geo-body. I will further draw out the role of water in the geo-body of Southeast Asia in the next section.

Using the same signifying structure that Thongchai identifies, I argue that the design of the capital city also serves as a manifestation of polity and thereby articulates the self-crafted identity of a nation. I use the term “city-body” to denote the physical city and by extension its images. In pre-colonial time, the human body was used as a metaphor for the kingdom, with the king as the head. Projecting the body to the city, the king’s palace is the head, the most important place of the city. The design of the city did not merely represent the king’s authority, but it was also ingrained with a cosmological significance inseparable from the political. It is in modern nationhood that the capital city bears the task of representing the nation as a whole. The capital city is composed of special monumental architecture and planning device that articulates a supposedly unique “national style”. The construction of the capital city is thus a construction of the image of the nation. As a metasign, the image of the city also takes on another plane of meaning, or, in some cases, borrowed meaning in the network of signifiers. The city-body is a device to arouse national belongings, to secure the identity of a nation, and to exhibit the nation’s power. While the geo-body produced by a map defines a nation on the international political stage, the city-body provides it with an experiential face.

2. WATER, WORLDVIEW, AND THE CITY IN PRE-COLONIAL TIME

The modern concept of a map, and by extension the concept of national boundaries, did not exist in Southeast Asia before the colonial era. Yet, it does not mean that there was no spatial depiction. Space was depicted in accordance with the cosmological understanding, sometimes fusing it with the profane world. For instance, the Traiphum map (Figure 1) from the Ayutthaya period includes the region that spans from what is nowadays-northern Thailand to Sri Lanka. Rivers and seas dominate the map. Instead of geographical “reality,” shown in the map are Buddhist concepts and symbolisms; it tells the story of Buddha’s journey (Suárez, 1999).

The conflation between religious and water symbols demonstrates that water embodies an understanding of the world; it is central for territorial imaginings. Hinduism and Buddhism, the two dominant religions in the pre-colonial period, share the same cosmological model. According to Sumet Jumsai in his book *Naga*, at the center of the model is Mount Meru, “which the Himalayas are invariably equated” (Jumsai, 1988, p.13). Radiating out of the center are rings of cosmic oceans and land, and beyond the rings is the Ocean of Infinity. While the Buddhist model has seven rings, the Hindu model has six rings. In the Buddhist model there are also four island-continent in the Ocean of Infinity. It introduces “an element of orientation thereby, giving architecture and urban planning their needed cardinal points” (Jumsai, 1988, p. 13). Not only is this worldview woven into political and cultural practices of pre-colonial water-based civilization, buildings and cities are also designed according to the cosmological model. Take Angkor Wat as an example, at the center of the complex is a central tower symbolizing Mount Meru. The other towers that encompass that center correspond to the continents. The outer wall symbolizes the edge of the world and the moat encompassing the complex corresponds to the Ocean of Infinity.

Water also plays a constitutive role in the political imaginings in the pre-colonial tributary system. “Tributary” literally means a river or a stream flowing into a larger water body such as a river or a lake. A tributary political system uses this meaning metaphorically to describe a hierarchical system in which lesser kings sent annual tributes to the suzerain state. The overlord expressed its power in terms of force if necessary. “A tributary inevitably had



Figure 1:
Tamnan Map from the *Traiphum Manuscript*. Thongchai, 1994.

to submit itself to the supreme overlord, recognizing its own inferior status" (Thongchai, 1994, p.82). The tributary system operates by a common recognition of this hierarchical world order that is also intertwined with hydrological cycles and flows. What we call pre-colonial kingdoms such as Siam, Burma, Lanna, and the Malay sultanates were all tributary kingdoms with separate networks of lordship. A polity had a precise center based on a *mandala* and a vaguely definable periphery, without any fixed boundary. O.W. Wolters describes a *mandala* as follows: "*mandala* represented a particular and often unstable political situation as a vaguely definable geographical area without fixed boundaries and where smaller centers tended to look in all directions for security. Mandalas would expand and contract in concertina-like fashion. Each one contained several

tributary rulers, some of whom would repudiate their vassal status when the opportunity arose and try to build up their own network of vassals" (Wolters, 1982, p.16-17). The religio-political "god-king" in the Khmer period was associated with water, as he was identified with "Indra's slaying of the serpent-cloud atop Mount Meru" (Jumsai, 1988, p.21), who let the waters of life flow. The significance of the "god-king" is expressed in a stone inscription in Angkor, as Marda Fortmann points out, it "praises the king 'who by raising a holy barrage has made the water to flow where there is little or none...a reservoir beautiful as the [moon], to refresh mankind and to drown the insolence of the other kings'" (Fortmann, 1965, p.33).

In addition to the cosmological articulation, the designs of cities were shaped by natural hydraulic

conditions. According to Brian McGrath in his article “Bangkok: the Architecture of Three Ecologies”, three different city types, corresponding to their location along the river, can be identified: the flood plain model, the river confluence model and the delta model (McGrath, 2007).

The flood plain model is characterized by an orthogonal drainage system of causeways and diked basins (*baray*). Cities such as Angkor and Sukhothai (Figure 2) belong to the flood plain model. Both cities are located at the flat terrain skirting the mountains, thus receive annual flood. The intricate network of hydraulic system was used to capture and channel surface water. In addition to its pragmatic use, the drainage system is a direct manifestation of the cosmological understanding. The temples, walls, and rectangular *baray* form an axial relationship that corresponds to the cosmology. Angkor was the seat of the god-king, both religiously and politically important. The arrangement of buildings was carefully planned to provide the inhabitants with a sacred experience. Compared to other city types, the flood plain cities underwent an orthogenetic transformation, as their designs have remained intact over the centuries due to their inland location and periods of abandonment as their respective kingdom declined.

River cities such as Ayutthaya and Phnom Penh are located in the confluence of different rivers. They

were originally formed as strategic towns along the river as tributaries were brought upstream to the seats of suzerain kings. The cosmological symbolism is less of a driving force for the design of the city than the local hydraulic conditions. Looking specifically at Ayutthaya (Figure 3), the capital of Siam after Sukhothai, it was originally surrounded by the ox-bow of the Lopburi River on three sides, later a canal was dug and turned the city into an island. The city underwent many phases of restructuring as new canals were dug to replace old ones. The city was also connected by waterways to the surrounding rivers, thus creating a larger network of canals for military outpost and trading nodes. “The city then gained control over a large food producing area as well as the northern city-states and the open sea, resulting in the control of the southern peninsula and much of the trade between India and Japan” (Jumsai, 1988, p. 164). From the benefit of international trade and the sophisticated agri-urbanism that are enabled by the design of the city, the Kingdom of Siam was entrenched in power to withstand European colonization.

Closest to the coast are cities that can be identified by the delta model. Coastal cities were mostly formed in the maritime period. Since Southeast Asia is situated in between two greater powers: China and India, entrepôts were first established in the coastal area for Chinese and Indian merchants, and later shaped by European during the colonial period.

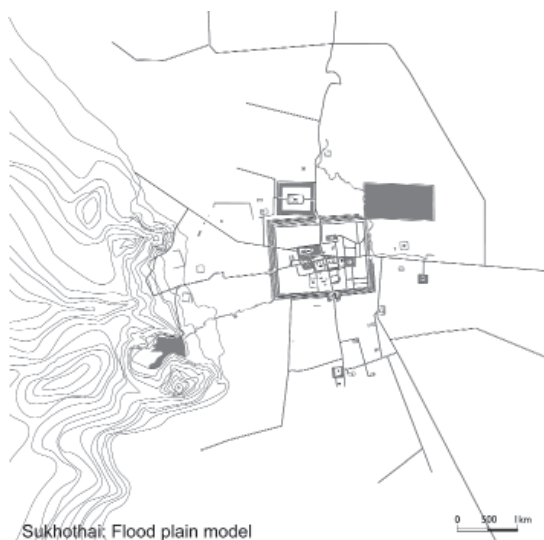


Figure 2:
Sukhothai. Illustration by David Reidel and Seher Aziz.

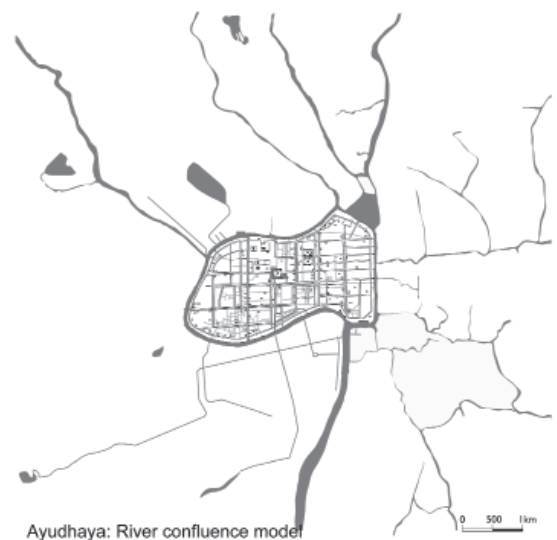


Figure 3:
Ayutthaya. Illustration by David Reidel and Seher Aziz.

They lived in the coastal cities in order to wait for the other traders from different parts of the world to come, following the Monsoon season. The morphology of the delta cities is shaped by foreign influences. What characterize the delta model are networks of agricultural canal and later additions of fortified sectors. When King Rama I moved the capital from Thonburi to Bangkok (Figure 4) in 1782, with an intention to reestablish the symbols of the former capital of Ayutthaya, he built “a strong defense of the city by canals and fortifications in the form of a bow. The half-concentric water system became the spatial and social structuring tool...later defensive walls and fortresses were built along the second canal” (Widodo, 2004, p.79). The royal palace and some governmental buildings are situated in the inner ring between the river and the first canal. Jumsai calls Bangkok a floating city, as “the Chao Phraya River itself, which, together with the canal network, was said to contain some 7,000 floating houses or a floating population of 350,000 people” (Jumsai, 1988, p.169).

It is necessary to emphasize the geographical position of the three city models along the river corresponds to the succession of capital cities from ancient rule to the more recent colonial period. For instance, the capital in the Siamese historical linkage moved downstream along Chao Phraya River (see Figure 5) from Sukhothai in the 13th century, to

Ayudhya in the 14th Century, and finally Thonburi, the west bank of Bangkok was declared the capital in 1767 by King Taksin after the fall of Ayutthaya to Burmese forces. Later it moved to the eastern bank by Rama I, the founder of the current Chakri Dynasty. The oldest form of capital city that manifest the cosmological ideal are located inland. According to Robert Reed, they “acted as the magical catalyst that guaranteed the coalescence of territorial kingdoms in terms of urban authority. Only within the politico-religious precincts of the sacred city, which the South-East Asians envisaged as the *axis mundi* or *omphalos* where the earthly and heavenly realms most nearly approached each other, did cosmic power intrude into the profane world of man and diffuse outwards into the hinterland of the state. The inland capital was, in short, an essential point of ontological transition” (Reed, 1976, p.21). The cities downstream that are closer to the coast underwent a heterogeneous morphology, subject to foreign influences. They became permanently established later than the inland royal cities. It was during the maritime period that the delta cities flourished, serving as the trading centers where foreign traders come and go following the monsoons. Traveling upstream from the coast to the inland cities is therefore a genealogical journey into Southeast Asian city design legacy.

What I have demonstrated is the central role of water embodied in political imagining and the material formation of the city in pre-colonial time. At the turn of the twentieth century, this boundless water-based worldview was replaced by the emergence of modern nationhood, and capital city design became part of the identity of a nation.

3. THE EMERGENCE OF GEO-BODY AND CITY-BODY IN THE COLONIAL PERIOD

European colonizers in Southeast Asia in the sixteenth century brought with them cartographic techniques and a new necessity for the demarcation of national (or in this case, colonial) boundaries. They surveyed the land and created scientific maps. The French map (Figure 6) from 1860 shows how the territory in Southeast Asia was being divided among the French, Portuguese, British, and Dutch. By the mid 19th century, almost all the territory in the region was under European power, except for Siam. Boundaries became necessary for the European authorities to delineate the territory within which a



Figure 4:
Bangkok. Illustration by David Reidel and Seher Aziz.

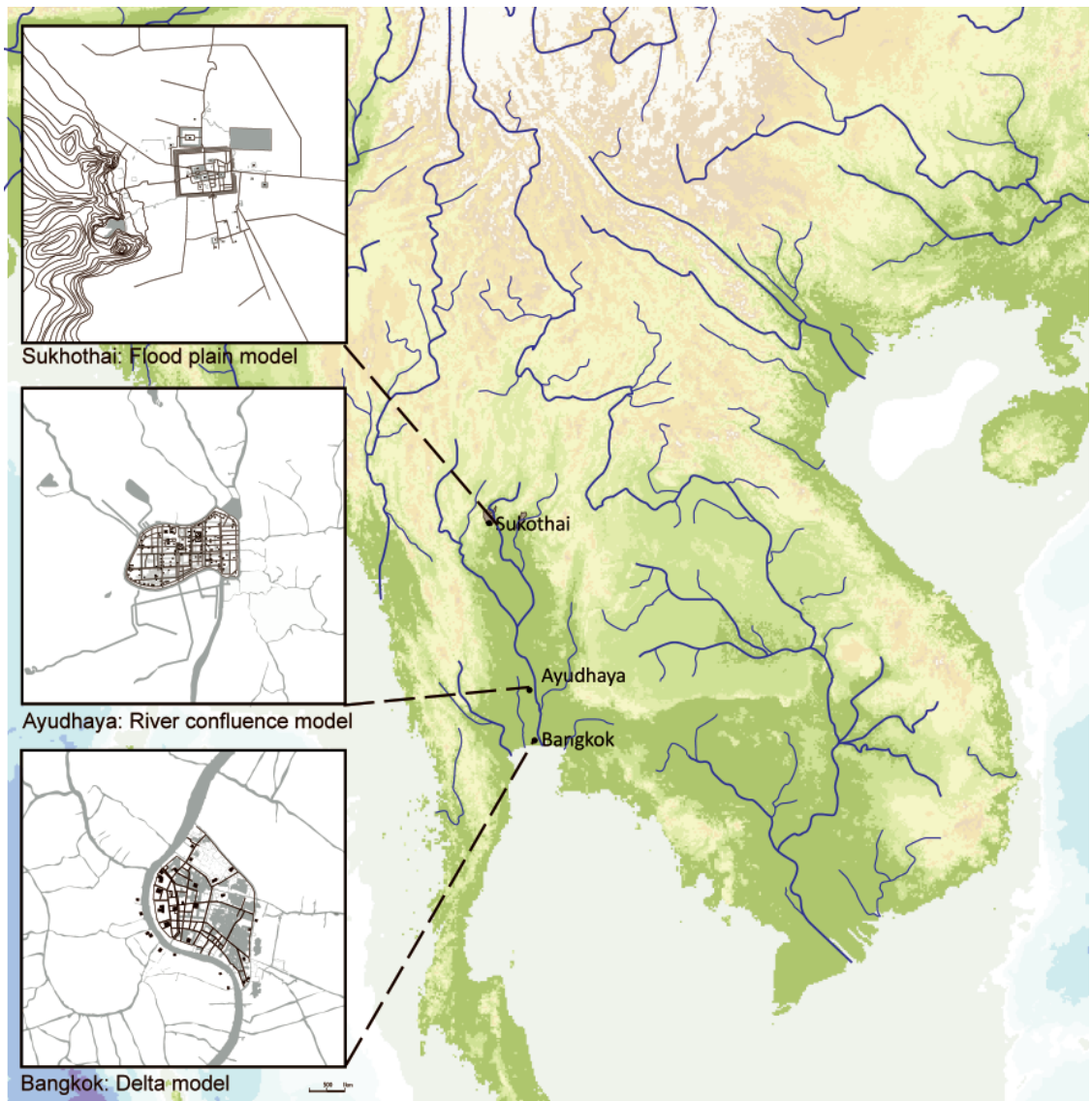


Figure 5:
The succession of capital cities along the Chao Phraya River.

colonizer could legitimately exercise its power. The water-body of Southeast Asia became the logic of drawing boundaries. Looking into the boundary between Siam and Cambodia, in the map produced by the English in 1832 (Figure 7), the Mekong River serves as part of the boundary between Siam and the French Cambodia. The map also indicates that part of the region was under a tributary system and that the Saen Saeb canal built in 1837 was used as a military infrastructure to transport soldiers in the conflict between Siam and Annam over Cambodia.

Nonetheless, the territorial geo-body produced was primarily meaningful to the Europeans. The Southeast Asian authorities, whose worldview consisted of the boundless tributary political and cultural space, did not have the concept of a national boundary. A boundary meant only a limit, without any sense of division between political powers. When the British conquered the southern part of Burma in 1825, the British envoy sent letters to the court of Siam to negotiate their boundaries. The Siamese officers replied: "The boundaries between the Siamese and



Figure 6:
1860. *Asie Meridionale, Inde Anglaise et Indo-Chine*. *Atlas spheroidal & universel de geographie dresse par F.A. Garnier, geographe*. David Rumsey Map Collection.

Burmese consisted of a tract of Mountains and forest, which is several miles wide and which could not be said to belong to either nation.” (Thongchai, 1994, p. 64) The Siamese’s reply shows that they understood the concept of a boundary as an ecotone – a zone of mutual stewardship, instead of a line on a map. As Thongchai claims, when Siam participated in the production of a map with the collaboration of Britain and France, many former small autonomous city-states and tributary kingdoms were consequently bounded within the boundary of the new nation-state. The pre-colonial tributary political was replaced by modern territorial cartographical space. Water as a heuristic device for a broad territorial imagining became a line on a map in modern cartography.

The colonizers also brought with them European architecture and urban design standards. The European model of city design with large tree lined boulevards and municipal buildings is repeated in

many cities throughout Southeast Asia. While the royal seat is politically and cosmologically the most authoritative place in pre-colonial city, the city designed by the Europeans is characterized by dispersed bureaucratic offices where the governing officers resided.

Looking specifically at Phnom Penh, it was first established as the capital city by the Khmer King Ponhea Yat after leaving Angkor due to Siamese’s invasion in 1432. Since 1505, the capital city moved to various locations under the ruling of different kings, it was not until 1866 that King Norodom I and the French Protectorate reestablished Phnom Penh as the capital city. Although the king remained present, it was the French Protectorate who had the administrative power. The French Protectorate referred to King Norodom I as a *roitelet*, a “kinglet”. An area was given by the French to King Norodom I as the site of his palace. According to Michel Igout’s

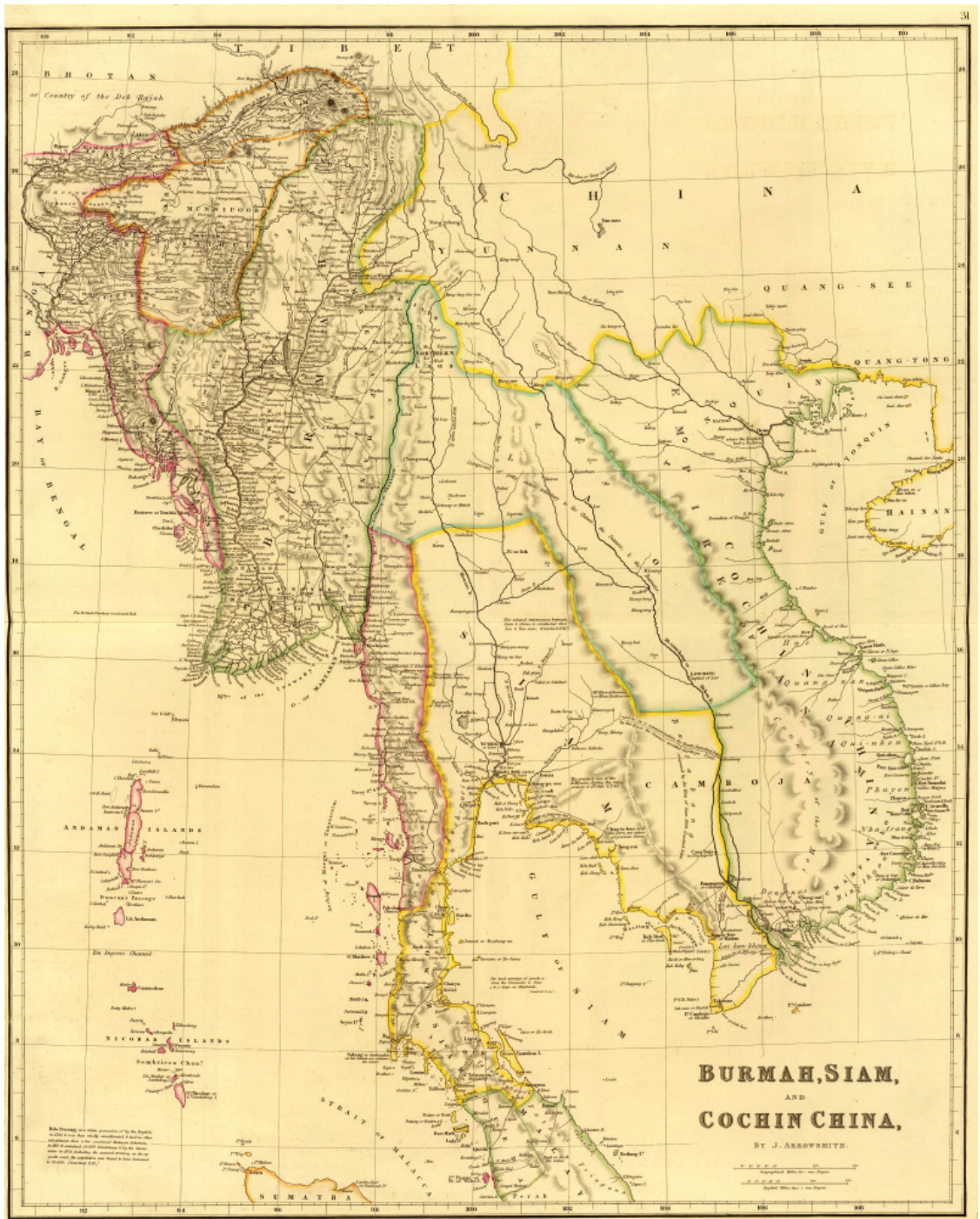


Figure 7:
1832. British map of "Burmah, Siam, Cochin China" by J.Arrowsmith. David Rumsey Map Collection.

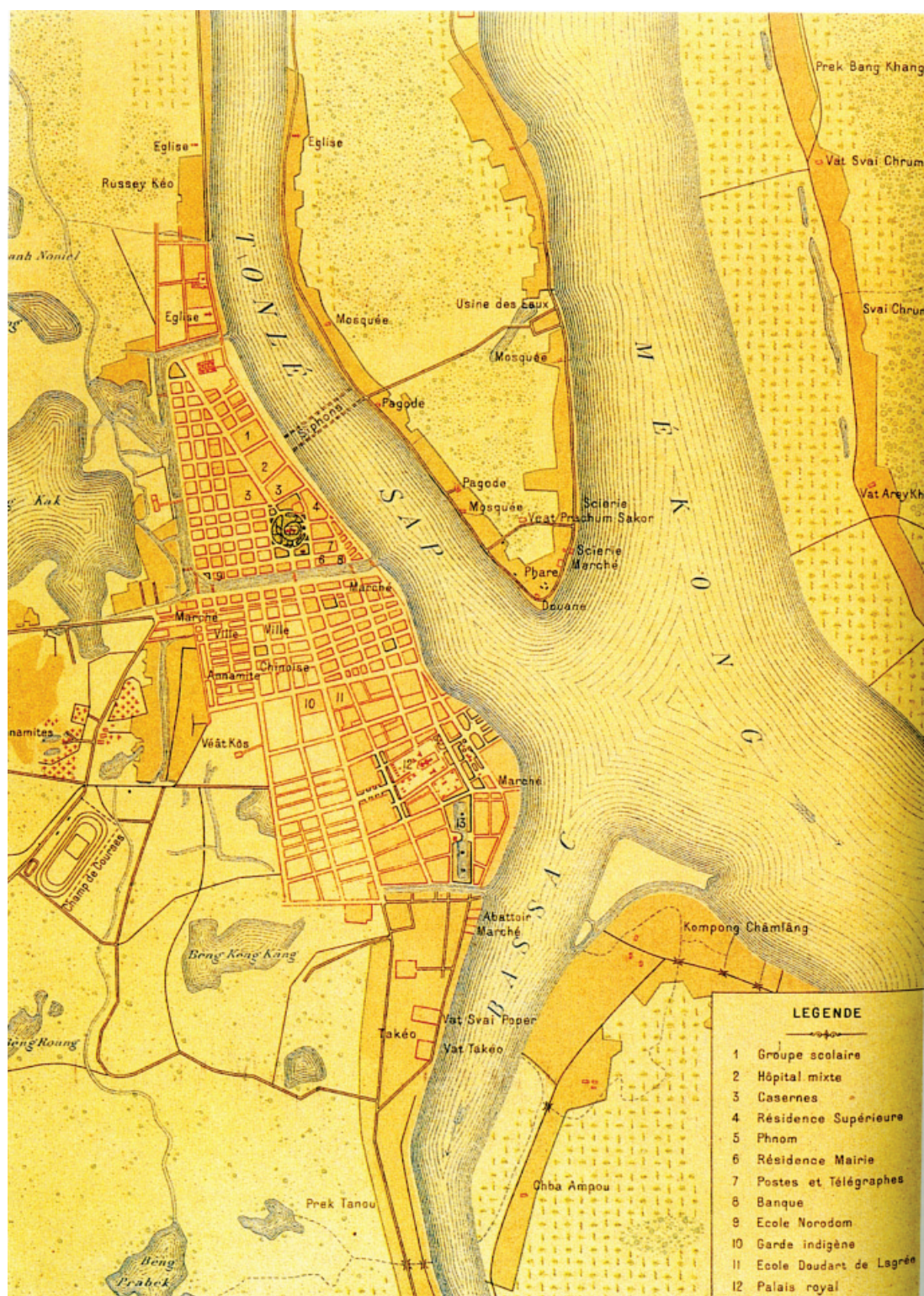


Figure 8:
Plan of Phnom Penh in 1920. Igout, 1993, p.82.

description: “Phnom Penh’s ‘Versailles’ housed a throne room, a dance hall for the royal ballet dancers, a barracks for the royal guard...offices, various workshops and private apartments for the king and his family” (Ignot, 1993, p.40). The style of the buildings “tried to preserve the old Khmer architectural traditions” (Igout, 1993, p.40). Nonetheless, the palace was built without the ontological significance that was prevailed in the pre-colonial royal seat.

The municipality of Phnom Penh was officially established by the French in 1884 and offered an administrative framework for urban management. Massive amount of urban construction were undertaken to turn Phnom Penh into a capital city of Cambodia. Huyn de Verneville was named Résident-Supérieur of Cambodia from 1889 to 1897. Under his planning vision, the Verneville canal around the French town was dug for the drainage of the plain. Many *bengs*, the swampy areas that were flooded in the rainy season, were also filled-in. He also designed new boulevards and bridges. A map from 1920 (Figure 8) shows that Phnom Penh was designed according to Western urban standards. Public buildings such as post offices, hospitals, schools and cathedrals were erected to fit the European need. According to Michel Igout, “the colonial French quarter was a model of modern urbanization with its geometrical street plan, its pavements soon to be bordered by trees, its gardens and the typical colonial architecture of its houses.” As the city developed and the population grew, it underwent major draining and filling works that transformed the center between 1928 and 1933. The Verneville canal was filled in and its southern portion was converted into an avenue lined with public gardens between the new train station and the river. The former Beng Decho is where the Grand Market (Psar Thmei) was constructed. The role of the water in city design during the colonial period became a commodity that has to be technocratically engineered and, in many cases, water was to be rid of.

The French Protectorate created a new capital city according to the European standard of “modernization.” The city transformed from the pre-colonial model that is intertwined with the cosmological and the aquatic to a new city-body symbolic of European power. This is the beginning of modern nationhood that is constituted by both the geo-body and the city-body.

4. WATER AND CONTEMPORARY TRANSNATIONAL POLITY

In the contemporary political stage, the nations in Southeast Asia belong to a larger transnational polity with shared developmental goals. The Association of Southeast Asia, formed in 1961 among Malaysia, the Philippines, and Thailand, became ASEAN, the Association of Southeast Asian Nations, in 1967 with the addition of Indonesia and Singapore. The membership later extended to include Brunei Darussalam in 1984, Vietnam in 1995, Myanmar and Laos in 1997, and Cambodia in 1999. The forming of ASEAN demonstrates a need for the Southeast Asian countries to collaborate for a common regional development. While cultural development and political stability are also issues of concern, the main agenda that the organization is striving for is the establishment of an EU-style single market and production base. Looking specifically in the Mekong River region, the role of water is the political rationale for the establishment of transnational organizations that channel the influence of two other powers: China and the US. The Greater Mekong Subregion, formed by the Asian Development Bank in 1992, includes Cambodia, China, Laos, Myanmar, Thailand, and Vietnam. In addition to channelizing the Mekong to facilitate international trade, one of its biggest projects on the agenda is the construction of a railroad that links Nanning in China to Bangkok. Four different routes have been proposed and the first route is expected to be completed in 2020. Already highways have connected Singapore to Kunming, and new container ports and industrial complexes are planned in Myanmar, Thailand, Cambodia and Vietnam to feed China’s thirst for resources beyond the Indian Ocean. What is seen as a counterweight to the Greater Mekong Subregion alliance is the Lower Mekong Initiative formed in 2009 among the US, Cambodia, Laos, Thailand and Vietnam. The US has been investing in the areas of environment, health and education, as well as assisting in monitoring the ecological development of the region.

Does globalization in post-Cold War Southeast Asia provide an opportunity to renew the geo-body of a region not as competing nation states but as a sustainable development platform defined by water instead of bounded national territory? Are the current extra-national agencies arenas for a new discussion on sustainable futures, or mechanisms for economic

development alone? The promises made by the Greater Mekong Subregion and Lower Mekong Initiative seem optimistic. In the transnational discourse, we see an increasing emphasis on the issue of water. However, at the local level, the status of water still remains a blind spot in urban development. Such is the case in the current city development of Phnom Penh.

Since Vietnam withdrew all of its troops from Cambodia in September 1989, foreign NGOs entered and triggered the opening of many new restaurants and shops. Foreign investments subsequently poured in; *laissez-faire* economy became the tenet for the Cambodian government. Journalist Stan Sesser, who visited Phnom Penh in December 1991 (Sesser, 1993), describes the first impression that he got from Phnom Penh as a city that “embraced capitalism with a vengeance— from the ‘Welcome to Cambodia— Heineken Beer’ sign at Pochentong airport to the abundance of Mercedes-Benz and BMW cars traveling the streets” (Osborne, 2008, p.191). Twenty years from Sesser’s first visit, Phnom Penh is now Cambodia’s center for global trade and investment. The globalization image of “economic prosperity”, represented by glass and steel skyscrapers and western-style shopping malls, has become the driving force of urban design in Phnom Penh.

Cambodian architect Vann Molyvann wrote that “the major constraints on the city of Phnom Penh are flooding and drainage. The history of Phnom Penh’s expansion is, in a sense, a hydraulic history” (Molyvann, 2003, p.112). Situated in the monsoon climate, Phnom Penh relies on the network of dikes, canals, and *bengs* to channel and discharge the rainwater. However, since the 1920s, *bengs* and waterways were filled in to create more land close to the city center. Due to the lack of maintenance, existing blocked drainage networks are hardly functioning to ease the flood. “Used household water and rain water accumulate in drains during the rainy season rather than running through them, causing flooding in many parts of the city” (Molyvann, 2003, p.126). Almost one third of the city is paralyzed by flood during heavy rain. Molyvann, who points out the importance of drainage system, argues that “It is not possible to continue expanding the city through the building of ever larger concentric dikes, filling in the interceding space to provide new areas for urbanization. Such a method of expansion requires too massive and costly public works projects, and

will also destroy Phnom Penh. It is therefore necessary to develop a new approach to the expansion of Phnom Penh. This new plan must respect the natural environment while recognizing that large areas of water, serving as storage reservoirs, will be an integral and attractive part of the future urban landscape” (Molyvann, 2003, p.115). Molyvann’s opinion is largely ignored in the two current large-scaled development projects. The construction of Camko City, a Korean development, and the New East City, a joint Cambodian and Chinese venture, continued to fill in lakes. Both projects plan to turn the new landfills into large complexes of office spaces, residential towers, shopping malls and hotels.

Looking at the digital renderings of the future city (Figure 9), trophies of glass and steel towers filled the city. The city-body represented by the images signifies the borrowed legacy of “prosperity” driven by *laissez-faire* economy that is now the tenet of Cambodia’s neoliberal government. The current economic and real estate boom is expected to transform the least developed capital city in Asia to a modern “metropolis”. This hope is amplified in the plan of a 555-meter tall building, the tallest in Asia. Prime Minister Hun Sen approved the building, which will be located half a mile from the Royal Palace in Phnom Penh, in September 2010 with great enthusiasm. According to a news report by Reuters, the Prime Minister announced, “It will be shorter than the one in Dubai and taller than any buildings in Asia, and I think we can do it” (Reuters 2010). What is shown in his statement is a desire to construct the identity of Cambodia, vis-à-vis the city-body, as a forward-looking modernized nation. The spokesperson of the Diamond Island development Charles Vann is quoted in a new article from the Wall Street Journal, “Phnom Penh has been left behind for a long time and now they’re giving Phnom Penh an opportunity to grow. If you have a good master plan, I don’t think it’s a problem. It will benefit the city” (Barta, 2010, WSJ).

What is the role of water in the current city-body? From the developments of Camko City and New East City, we learn that there is not so much, or at best, a mere digital image rendering feature. While at the transnational level the issue of sustainability of water is being discussed in various organizations, at the local level of urban development, it remains a blind spot.



Figure 9:
Rendering of the master plan of Camko City. Source: <http://www.camkocity.net/>.

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