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Water Heritage in Asian Cities Symposium, 29 November - 1 December 2018, Shanghai, China

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ABSTRACT

The *Water Heritage in Asian Cities* Symposium took place between 29 November and 1 December 2018, in Shanghai. In response to the increasing water risks of a warming planet, four institutes SASS, UKNA, IIAS and NYU Shanghai organized the symposium drawing on their urban studies network in Asia and beyond. The symposium encouraged diversity in perspectives, approaches and research methods concerning water and water heritage. This report explores presentations on three prominent topics discussed during the symposium: the Shanghai Master Plan 2035 (and the waterfront redevelopment it promotes), changing waterscapes, and water-based cultural heritage. Participants discussed how water utilization and management in the history of urban construction and expansion have accompanied the rise and fall of human societies. They emphasized the importance of thinking from a perspective focused on water and of placing water-related practices, studies and cooperation into global narratives.

KEYWORDS

Water Heritage In Asian Cities; Symposium Report; Shanghai Master Plan 2035; Waterscapes; Water-Based Cultural Heritage; Network Asia.

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The Water Heritage in Asian Cities Symposium, held between 29 November and 1 December in 2018, focused on water and water heritage in Asian cities in a historical context. Four institutions collaborated and organized this symposium: Shanghai Academy of Social Sciences (SASS); the Urban Knowledge Network Asia (UKNA) of the International Institute for Asian Studies (IIAS) from Leiden, the Netherlands; the Centre for Global Asia of New York University (NYU) Shanghai and Fudan University's Department of Cultural Heritage and Museology. This symposium was convened by SASS and took place in Shanghai, which has expanded symbiotically with water. Situated in the Yangtze River Delta, Shanghai and its abundant water systems, including the Huangpu River and its tributary Suzhou Creek originating in Lake Tai, provided an ideal context for a diverse group of participants to engage in discussions, debates and learning experiences.

The Shanghai Master Plan (2017-2035) and its goal of "striving for the excellent global city" presented an opportunity to promote this symposium. In this respect, the symposium aimed to encourage scholars from Asia and other parts of the world to rethink the politics of water and its discourse. As with most Asian cities, water has served as the lifeblood of Shanghai for centuries and it has constantly shaped its social, economic, political and ecological character throughout history. However, water has also been considered a threat to humans and their settlements as decision-makers contend with risks posed by, for example, land subsidence, flooding, water-logging, rainwater discharge, natural disasters and extreme climates. Water and its relationship to culture and technology has not been fully recognized; instead, dedicated "prevention" and "control" and "monitoring" approaches narrowly limit water-related discourses. More attention has been given to resistance, the capacity to withstand a water attack, than to the synergistic effects between water and human societies.

The Water Heritage in Asian Cities Symposium provided an opportunity to develop cross-cultural discourse on water-related issues. Two additional topics besides Shanghai 2035 revealed relationships between water, water landscape and human history, among all the panels organized by the four institutions. Presentations on the topic of changing waterscapes explored historical practices and the influential consequences in delta regions and water towns; water-based cultural heritage was defined as distinctive intangible or tangible legacies concerning water issues. Discussion around these three topics highlighted the importance of placing water-related practices, studies and cooperation into global narratives. It also encouraged thinking from a position alongside water and of living adaptively in an era of climate change.

Nature of water and community: Keynote speeches

Facing rapid climate change and water-related problems, professionals' research and practices have focused increasingly on the relationship between human engineering and nature, and the role of water researchers in various dimensions of public life. With her presentation entitled "Water and Community: Controlling Water through Nature", Maria E. Montoya, associate professor of history from NYU Shanghai, discussed water from four perspectives, including its functions for public benefits, infrastructures and commodity and its relationship to governmental structures. Focusing on the example of a flood from a bursting dam, she discussed the diverse public benefits provided by water in the United State, including recreation, irrigation, farm ponds, hydroelectric generation and navigation, and raised questions about whether water is a "public good" or "public bad". Montoya compared dam projects across the world and looked back on water infrastructures in ancient China (500 BCE). She emphasized the necessity to involve and encourage governments to supply large-scale water infrastructure, from decision-making to construction. Considering how to work with nature and how to deal with nature through governmental structures, Montoya used the example of Chinese legalist reformers and governors in the Qin Dynasty and their contribution to Dujiangyan System in the Sichuan Basin. This keynote ended with a discussion of water in contemporary society, its property as commodity, accessibility issues, and water's relationship to human rights.

In the second keynote speech, Professor Han Meyer (Delft University of Technology) explored the possibilities of embracing the uncertainty of nature rather than resisting it, discussing mitigation and adaption approaches in dynamic and evolutionary delta regions. He also reflected on his forty years of experience with water heritage in the Netherlands. Titled "True (Hi)Stories on Water Heritage", his presentation pointed out that water was treated as "a source of wealth and pleasure" over the past 150 years. In hundred years of a fossil fuel economy, transshipment and storage in delta areas have left many urban questions unanswered. Waterfronts have been regenerated on abandoned docklands since the 1970s, with the aim of creating public space for coastal cities. However, the vulnerability of river banks, sea walls and outer dike areas presents important risks to urban waterfront areas. Investigating possibilities to reduce economic and ecological losses and the number of human activities, Meyer elaborated the risks of approaches based on resilience and resistance. On account of his knowledge and experience of forty years of delta research, Meyer called for moving away from human beings' sense of superiority. He called for greater attention to resilience and adaptation, as well as ways of combining those strategies with resistance. Living in and with uncertainty, considering the "young, alluvial and dynamic"

nature of landscapes in delta territories, Meyer ended his speech by emphasizing the importance of “building with nature” and “creating a new relation between urban patterns and the water landscape”.

Shanghai Master Plan 2035 and waterfront redevelopment

Reflecting on Shanghai’s development history of waterfront regeneration, the panel titled “Waterfront Redevelopment and Urban Transformation” discussed approaches to making Shanghai an innovative, ecological and humanistic city by celebrating water systems, water heritage and the landscape of Shanghai and utilizing its central location in the Yangtze River Delta. This panel explored Shanghai’s planning strategies regarding water and water heritage from three scales: regional and municipal planning, water system strategies focusing on the Huangpu River and Suzhou Creek, and one specific case of the post-Expo riverbank.¹ With an introduction to the Shanghai Master Plan 2035, Professor Qiyu Tu (SASS) elaborated the goals of planning strategy from the perspective of improving community services, embedding industrial hubs in the city centre, developing an innovation ecosystem, enhancing regional and global networks and shaping public space. Scholars repeatedly stressed in their presentations that waterfront redevelopment is multi-disciplinary work.

Shanghai started its first round of waterfront redevelopment in 2002 with concerns about sustainability, water capacity and water heritage. Addressing why new strategies are required and how to improve current master plans of waterfronts, senior engineer Dongfan Xi, an urban planner from Shanghai Urban Planning and Design Research Institute, explained that both the Huangpu River and Suzhou Creek play important roles in Shanghai’s plans for regenerating the riverside. Describing the Huangpu River area as a “showcase of urban development capacity” and Suzhou Creek as a “typical demonstration of livable features of the ultra-large city”, Xi explained the complexity of planning, construction and management of waterfronts. He stated that ecological values, dynamic urban neighborhoods and livable sizes and atmospheres for the public are all taken into account in planning Shanghai’s waterfront regeneration. Ning Su analyzed the large scale inner-city renewal along the Huangpu riverbank in the former Expo area and he compared different phases of regeneration before and after Shanghai Expo. He illustrated current problems from this specific case, including the insufficiency of detailed guidance and coordination, industrial homogenization, management fragmentation and unbalanced district development. An overarching political urban plan can never be sufficient for practical, sustainable and long-term waterfront redevelopment, which requires multi-party cooperation and broad perspectives.

1. Shanghai held the Expo in 2010 and the Expo Park laid on both riversides of the Huangpu River.

Overall, the presented strategic plan and practices on the banks of the Huangpu River were positively received by the audience. Han Meyer commented on potential problems. He noted that the riversides of the Huangpu River and Suzhou Creek are linear. Aiming at building a coherent public space, this urban pattern could lead to an uneven usage of Shanghai's waterfronts. For example, although the visiting population in the Bund area along the Huangpu River can reach more than five million on a single day in Shanghai, most planned public waterfront squares and parks are functionless and unattractive with only a few elderly local residents making use of them. He furthermore affirmed the values of historical neighborhoods in Shanghai, praising them as the "golden element" for a vibrant urban environment. In the past, water transportation and port treaties have brought immigrants and concessions to Shanghai, but those extraordinary neighborhoods have been deteriorating. Qiyu Tu and Dongfang Xi indicated that administrative actions and planning strategy could not practically help with community improvement when the inhabitants cannot appreciate the values of their own living environment. The discussion concluded that the urban master plan of Shanghai and water issues included within are indeed public policy, and the duty of professionals is to propose recommendations for long-term development and to provide guidance for flexible adaptation.

Changing waterscapes and histories of water

To investigate possible methods for dealing with water problems, professionals are working on developing advanced technologies and learning from historical experiences. In the first-day panel "Urban Water Infrastructure", two presentations reflected this issue. In his presentation entitled "A consolidated archipelago: outlining the role of water engineering in the urbanisation of the Yangtze River Delta", Christian Nolf, an associate professor from Xi'an Jiaotong Liverpool University, clarified how five successive phases of water management have guided the localization and the structure of urban development from an archipelago of islets to consolidation in the Taihu Basin in the Yangtze River Delta. With this case study, Nolf argued that it is essential to combine the value of water landscape as cultural heritage and enrich technical solutions with a cultural dimension whether addressing the Yangtze River Delta or other delta regions in Asian cities and worldwide. Independent urban designer and critic Harry den Hartog (Tongji University; Delft University of Technology) compared old and new water towns in and near Shanghai. He indicated that although increasingly new water towns have provided a large number of employment opportunities to younger generations under the guidance of national and regional planning strategy, water systems in these towns have become more like decoration with no practical functions; such waterscapes can rarely affect the development of urban patterns

and forms, and it cannot enrich the lives of new citizens, nor promote the improvement of the ecosystem in the Yangtze River Delta. Overall, the papers in this session investigated people's diverse approaches to water throughout history and in the future, arguing that water and water heritage help to perpetuate civilization.

Several presentations in the panel titled "Linked Histories of Landscape and Waterscapes" reflected on the limited capacity of humankind to predict and manage water risks and global warming. Two of the presenters emphasized the dominating role of political resolutions and governing tools in Indian water management. Entitled "Almanac of a Tidal Basin", Debjani Bhattacharyya (Drexel University) introduced her recently published book *Empire and Ecology in the Bengal Delta: The Making of Calcutta*.² She introduced the concept of property-thinking, a bureaucratic tool, which the Indian government utilized for colonial land speculation in the Bengal Delta from 1760 to 1920. Bhattacharyya argued that speculative behaviour has had an irreversible impact on ecological systems and the built environment in this largest tidal delta. Another Indian scholar, Rohan D'Souza (Kyoto University), discussed the variability of deltaic human society in the Anthropocene through the analysis of flooding caused by the limited capacity of weather prediction. With examples of floods and their consequences in Pakistan, India, Thailand and America, he further illustrated that policy for water control and management is "art of humiliating politics through 'Good Science' and art of governing without mastery over nature"; in this respect, it seems that authorities are utilizing techniques and management science to evade responsibilities through well-designed but superficial political strategies. A water disaster is always the result of a process. By taking relief, history, engineering technology, expert roles, environment flows, control and management into consideration, he claimed that a flood is a process involving a series of initiatives rather than a simple event.³ Maurits Ertsen (Delft University of Technology) presented a case study of Surabaya's water heritage and shared a similar position as Rohan D'Souza: that the tangible and intangible water landscape in which we are living today is a consequence of a series of events that happened in the past and will be ever-changing in the future. Ertsen emphasized that recognizing the "essentialism of meaning" of a water-related city is more important than only considering "continuous redefinition of meaning", since our cities are constrained by precedent. Applying the work of Dutch ethnographer and philosopher Annemarie Mol, Ertsen attempted to claim the unicity of political creation and the multiple realities of water in the real world.⁴ In this respect, "redefinition", as a political means, could

2. Debjani Bhattacharyya, *Empire and Ecology in the Bengal Delta: The Making of Calcutta* (Cambridge: Cambridge University Press, 2018).

3. Rohan D'Souza, "Framing India's Hydraulic Crises: The Politics of the Modern Large Dam," *Monthly Review* 60, no. 3 (2008): 112.

4. Annemarie Mol, *The Body Multiple* (Durham, NC: Duke University Press, 2002).

only demonstrate the accomplishments of politics in different historical periods, but not provide effective solutions for complicated water-related issues in a city.

Considering changing waterscapes in human society, presenters agreed that ontology, the essence of water and water heritage, is worth more attention and further study. This theme aims to establish a circle between humankind and water, a sustainable future by considering both sides.

Water-based cultural heritage

The perspective of water-based cultural heritage presented in this symposium, focuses on water heritage and its role in transforming populations, settling immigrants and shaping cities' distinctive cultural values. This multidisciplinary perspective aims to build links between different generations of urban society and water-based landscape, figuring out both the universal status and local identity of water heritage by looking to the past and analyzing similar situations around the world.

Cultural heritage is a legacy with distinctive intangible meanings and it is strongly related to narratives of water in a particular region. In the panel "Diversities of Water-based Cultural Heritage", Emma Natalya Stein, a curatorial fellow for Southeast Asian art at the Smithsonian Institution, demonstrated the relationship between art and landscape in urban temples, specifically Prambanan and Bakong in Indonesia, which reflect a sacred and quiet religious atmosphere. Ding Shi (Fudan University) introduced a historical water defence system, Diaoyucheng in southwest China, and interpreted its significance as an outstanding universal value (OUV) by comparing it with many other hill fort defences in the World Heritage Site (WHS) List. Shi emphasized two characters of this cultural landscape: its ingenious integration with the natural landscape and its non-negligible military role in withstanding the Mongols' invasion in the 13th century. Songfeng Chu and Yifei Wang from Fudan University emphasized the necessity to recognize heritage values of the listed Tilanqiao Historical and Cultural Area in the Hongkew District of Shanghai. They explained that Tilanqiao is an archive for academic research, a place to collect vivid historical memories and a shelter that serves as a reminder of the glorious resistance of humanity during wartime. Similar to the case study of Diaoyucheng, Chu and Wang's paper emphasized the global and national significance of the area because of its connection to the Second World War and the Jewish community. Two presentations investigated cases in Shanghai. In "Zaanheh as historical counterfactual", Yifei Li (New York University Shanghai) described the ancient city of Shanghai from the perspectives of hydraulic infrastructure, rivers, demotic livelihoods and a moral economy related to water. Utilizing the traditional and colloquial *Zaanheh* to replace the more recognizable word *Shanghai*, Li focused on describing a shabby and backward Shanghai with its dampness and

stagnant water, its befouled, culverted and vanished flows, its dredging engineering and its pestilence. To investigate connections between local rituals, water gates and the canal system in the old city of Suzhou, in her presentation entitled “Gate, River and Ritual: The Collective Memory of Wu Zixu in Suzhou”, Mengyuan Zhou (Soochow University) explored Chancellor Zixu Wu’s contribution to the cultural waterscape of ancient Suzhou in the era of Wu State, when he organized the digging of trenches and canals for cereal transport and irrigation. She indicated that it was Zixu Wu who affected the formation and continuity of ritual and collective memory in Suzhou among the local populace, as a response to its long-standing history. In contrast to Ding Shi and Songfeng Chu, Li and Zhou looked more into the unique aspects of the cities themselves. For water-based cultural heritage, the value inherent in one area is usually different from that of any other place. Individual scholars and global heritage institutes can merely provide evaluative criteria of water heritage from their respective positions.

This panel ended with a discussion initiated by Simone Ricca, vice director of the World Heritage Institute of Training and Research for the Asia and the Pacific Region, under the auspices of UNESCO. The discussion in this theme enriched the comprehensive scope and significance of water heritage, by considering water heritage within separate scenarios of localization and globalization. Ricca pointed out that water heritage or any type of heritage is a representation of politics. The way people understand water heritage and their sense of the continuity of heritage traditions might reflect particular attitudes towards social sustainability, shifting values of water and urban landscape and exchanges of culture. Therefore, Ricca and Philippe Peycam (IIAS) also reminded the audience that scholars should be critical of the so-called outstanding universal value of the WHS and its corresponding assessment criteria. Overall, water-based cultural heritage is the production of various human communities, this type of heritage is utilized to express the distinguishing spatial images of a specific time and set of events.

Cross-border cooperation: Book presentation and roundtable discussion

The symposium closed with a roundtable discussion and a book presentation intended to investigate the possibilities for future cross-cultural collaboration. Kaiyi Zhu (Delft University of Technology) started the discussion with the book presentation. Edited by Professor Carola Hein (Delft University of Technology), the book *Adaptive Strategies for Water Heritage: Past, Present, Future* addresses the topics from five aspects: drinking water, agricultural water, land reclamation and defence, river and coastal

planning, port cities and waterfronts.⁵ This book follows the agenda on water and heritage issued by ICOMOS Netherlands, which has and will organize a series of academic activities. Zhu introduced a closely related 2019 conference in Chiayi at the end of her presentation. Titled “Water as Heritage”, this ICOMOS-organized conference will contain more inclusive topics, such as water-related cosmology and philosophy, water energy, waterscapes and waterways. As Debjani Bhattacharyya and scholars from NYU Shanghai noticed, the cosmology and philosophy of water are topics rarely mentioned in mainstream discourses. Nevertheless, cosmology and philosophy exert a fundamental influence on people’s thinking, at all levels in every sector, and dominate perceptions of water heritage. Engineering innovation is also necessary in order to solve the puzzle of natural water systems and to connection their history to the future. This part of the symposium enabled participants to consider more extensive topics related to water heritage and their practical application.

Besides consolidated perspectives, new approaches and methods that could be applied to conduct cooperation projects are needed. In this closing discussion, to enhance common knowledge of water issues among the public, Han Meyer emphasized the importance of pedagogy. Pedagogy could pay more attention to water heritage and water risks in a situation of climate change, Meyer believes in the potential of this approach for developing more solutions in a positive direction. Scholars from different continents proposed possible grants which scholars can apply for and possible sponsors the symposium participants could work with. The scope of these grants and sponsors should be far beyond Asian countries, such as China, Japan, India and Indonesia, and might include European, North American and African cooperating organizations and programmes as well. There are barriers to such worldwide cooperation, but participants are dedicated to establishing networks. The limitations placed on foreign applicants still persist. Looking back at the symposium topic “Water Heritage in Asian Cities” and thinking about the proposal to establish a concrete and regular platform for Asian studies, participants in the discussion agreed that Network Asia needs to take the responsibility to include anything relevant to Asian studies. Scientific research is not the only approach that can enhance the status of water heritage and people’s awareness of the critical nature of water problems, but one of many. Issues of water heritage in Asian cities and delta regions have gained attention globally. As an outstanding and comprehensive case, practices and experiences in Asia are worth more research, supervision and dissemination, to strengthen cross-cultural exchanges pertaining to water narratives and technologies.

5. Carola Hein, *Adaptive Strategies for Water Heritage: Past, Present and Future* (Dordrecht: Springer International Publishing. 2019).

Conclusion

In order to enjoy a sustainable life with water, it is crucial to understand how water has shaped our living landscape. This is only possible by sharing various perspectives and narratives of water. Asking how far humankind can go is to ask what strategy people prefer to pursue in the future, based on their long-lasting but shifting awareness of water. Scholars have discovered the wisdom of past practices, but also the constraints that result from political and legislative strategies. This symposium brought professionals of water together and gave them a platform to discuss and criticize and to share, culturally, socially and ecologically sensitive perspectives; they also presented a clear view of water risks that are currently beyond humans' capacity to manage. Water heritage in Asia represents an emerging issue for scholars not only in Asia or among scholars with Asian backgrounds. Realizing that all problems related to water can trigger a butterfly effect in an era of globalization, water and water heritage issues are catching attention of people on every continent.

During the Water Heritage in Asian Cities Symposium, several under-researched topics and narratives were given attention. Urgent water problems resulting from climate change were such a topic. No clear solution was found for the water risks that are increasingly threatening our cities. The slogan "thinking like a river" was proposed by Rohan D'Souza during the symposium as a guide and mission for this generation. The unpredictable environmental situation, investigated and discussed repeatedly during the symposium, presents the biggest challenge. Within the short term, it is not possible to turn the artificial intervention of the past into nature-based solutions. For example, the banks of the Huangpu River have become artificial landscape belts, filled with public squares and buildings at the expense of the natural ecosystem alongside the Huangpu River. Although regarding water as one key element for urban development, the government of Shanghai still privileges anthropocentrism in its Master Plan 2035. In this respect, there is a still deep misunderstanding of future uncertainties. Generally, this symposium revealed the need to acknowledge the increasingly urgent task for Asian cities: to understand the natural threat represented by water. People from various disciplines, including those focused on policy making, urban design and planning, agriculture, environmental techniques, ecology, water risk defenses, economics and clean water supply must find an approach to sustain humankind in deltas and water towns. The Water Heritage in Asian Cities Symposium in 2018 provided a platform for scholars to think broadly from multiple perspectives. It offered important opportunities for balanced collaboration; this is nevertheless still a superficial and insufficient step, without concrete solutions to enable a livable and sustainable future for humankind.

Zhu Kaiyi is a PhD candidate at the Faculty of Architecture and the Built Environment, Delft University of Technology (Netherlands). Her current research focuses on the urban transformation of historic residential districts in Chinese big cities after 1978, and stakeholders' interpretation and utilization of urban and architectural conservation.

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