Feature Articles

Heritage Management: Global Aspirations and Local Realities in Thailand

MONTIRA HORAYANGURA UNAKUL

This article examines the gap between advancements in global heritage rhetoric and the realities of local heritage practice at a time when heritage concepts and management issues are rapidly transforming. It looks at the Historic City of Ayutthaya World Heritage site in Thailand in the aftermath of catastrophic floods which inundated the site for weeks on end in 2011. The analytic lens of adaptive capacity, widely used in climate-change studies, is then used to delve into the institutional dynamics that became evident in responses to this event. In conclusion, the article argues that for transformative change to occur in heritage management, it will be insufficient to merely alter formal techno-bureaucratic management structures; fundamental heritage concepts and underlying informal processes will also need to change.

While the vanguard of the heritage profession has already leapt ahead to tackle resilience to climate change, promote sustainable heritage-based livelihoods, champion rights-based approaches to heritage management, and extend protection to typologies such as cultural landscapes, many of the actual heritage agencies working on the ground, at least in Southeast Asia, are still grappling with monument-conservation issues dating back to the Venice Charter. The results of this gap between discourse and practice may be seen in the operational outcomes and shortcomings in managing many World Heritage sites. And yet World Heritage monitoring mechanisms remain narrowly confined to prescribing technical fixes to the problem. Scholar-critics point out that more structural solutions related to institutional reform are needed, rooted not only in the realm of conservation but in the broader political economy as part of wider efforts to achieve sustainable development. Meanwhile, crises such as the COVID-19 pandemic have only exacerbated the structural challenges facing heritage-management agencies and revealed underlying institutional vulnerabilities.

In response, this article intends to unpack the mechanisms of heritage practice at the level of institutional practitioners in a wider societal context. It seeks to better understand

Montira Horayangura Unakul *is an architect, urban planner, and culture program officer at UNESCO Bangkok.*

how evolving concepts, pressures, and governance ecologies (particularly those filtering in through global mechanisms like World Heritage) contribute to transforming — or failing to transform — formal and informal rules of engagement on the ground, a condition needed for structural change in more holistic site management to occur.

World Heritage site management will be looked at in the context of expanded boundaries of practice that place a strain on heritage-management institutions and their capacity to address emerging challenges. The past forty years have seen significant shifts in the conception of heritage, and attendant shifts in the way heritage is governed. Heritage literature has identified three such major shifts: (i) in how definitions of heritage are evolving away from a focus on monuments and archaeological sites; (ii) in how heritage management is increasing in complexity and must now confront challenges beyond narrow conservation concerns and engage with new, emerging threats and sustainable-development issues; and (iii) in how heritage institutions are being forced to adapt their management and governance practices accordingly.

The evolution in heritage practice will be traced here by delving into institutional mechanics of change and by questioning how change comes about at the level of organizations, individuals, and other social actors interacting within a larger social system. Current heritage literature tends to paint this evolution using broad brush strokes, highlighting only major milestones such as the 1994 Nara Conference and new international conventions or doctrinal recommendations. Moreover, there are gaps in understanding practice at the level of individual World Heritage sites, the interactions of institutional actors involved, and the ways that governance and management institutions negotiate such evolutions in their everyday operations. This study also seeks to address a gap in the literature regarding uncertainties in the role adaptive capacity plays in generating system change and in the ability to operationalize adaptive capacity in practice.[1]

Reflecting the inherently conservative nature of the field, institutional innovation within the heritage sphere has been slower than in other cultural sectors, where the past two decades have seen fertile experimentation in governance reform. At the heart of these efforts has typically been an acknowledgement of failures in centralized approaches predicated on the authority of the nation-state, as rooted in the seventeenth-century Westphalian system. Scholars and practitioners have also identified constraints in state institutions and tools, which is particularly the case in areas where *metis* (intangible local knowledge and capacities) is important. Such concerns, as identified, for example, in 1998 by James Scott in fields as diverse as forestry and town planning, are even more pronounced with cultural heritage, which is fluid and multifaceted, and thus not easily categorized, recorded or governed.[2]

Centralized, state-led heritage-management systems often face limitations. Given the great number of heritage properties for which they may be responsible, state heritage agencies are perennially cash strapped. And unable to compete with the private sector on the job market, they often face a lack of qualified in-house personnel. Technological knowhow is also typically lagging, with a reliance on basic, often manual tools and techniques. Furthermore, their hierarchical decision-making mechanisms are rarely nimble, particularly in the case of unanticipated occurrences and especially disasters. And because they are rarely designed to be participatory, they struggle to engage meaningfully with external stakeholders, or laterally with other sectors, even other state agencies.

Yet even in the heritage field, some governance reforms are occurring, albeit more slowly. Heritage sites are now seeing the emergence of alternative management models such as public-private partnerships or multi-actor network models. In comparison to the more centralized model of heritage management under the primary authority of a heritage agency, these more polycentric models seem to offer the possibility to overcome some of the limitations of state governance.

Nonetheless, in Southeast Asia at least, these polycentric models are still the exception rather than the norm, and heritage management is still largely the purview of state agencies. Across the region this begs several research questions. How will such antiquated organizations and institutional systems adapt to increasingly complex issues in managing World Heritage sites and shifting from a purely heritage agenda to a broader mission that encompasses development issues and other concerns? And, where institutional innovations are seen, what factors have facilitated them?

The article looks at Ayutthaya World Heritage site as a case study of centralized heritage management. The site is under the primary responsibility of a technocratic heritage agency with a hundred-year legacy, with limited lateral connections. The institutional system was put to the test by major floods in 2011, which led to an outpouring of support and funding, but also to a secondary crisis triggered by the World Heritage Committee's criticism of the poor quality of extensive post-flood restoration work. These events forced a reckoning with the need to expand management concerns, from conserving individual monuments and archaeological sites to dealing with the prospect of future disasters at a territorial landscape scale, as well as the need to reexamine existing practices and standards in general in terms of heritage conservation and management.

CONTESTED IDEAS OF AYUTTHAYA

How should we think of the World Heritage site known today as Ayutthaya? As an agglomeration of ancient monuments and archaeological sites? A historic urban settlement? A hydraulic city? A cultural landscape or historic urban landscape? A living town? The royal seat of Thailand's second historic kingdom? A cosmopolitan commercial entrepôt

bearing the traces of multiple cultures? A palimpsest of ruins bearing lingering scars of past battles? The changing reality of the site and its evolving conceptualizations from various vantage points over the centuries have given rise to the conundrum of defining and managing Ayutthaya today.

Dating back to the fourteenth century, the historic city of Ayutthaya lies at the confluence of the Lopburi, Chao Phraya, and Pasak rivers in the central plains of Thailand. The seat of an eponymous Thai kingdom, the city was strategically designed with a well-planned network of fortifications, canals and moats, with operable gates that ensured the management of water flows through and around it. The city was also a major trading hub, maintaining connections with both Asian and European partners, whose representatives established settlements in designated areas. Commercial success also created great prosperity, reflected in the density and elaboration of its ancient buildings, notably its temples. At the height of the Ayutthaya kingdom in the seventeenth century, accounts recorded how the kingdom had more than 14,000 "pagod[a]s . . . [whose] magnificence are Arguments of their Piety."[3] However, in 1767 the city was sacked by an invading Burmese army. And afterward it served only as the template for the layout of a new Thai capital in Bangkok under the later Rattanakosin dynasty. Today the remaining extant temples still number more than 300 in total (FIG. 1).

Abandoned after its fall, Ayutthaya became the object of attention again under the reign of King Rama IV, who commissioned comprehensive surveys and restored the ancient palace grounds. Under King Rama V, the entire city island was subsequently put under protection as crown property. And in 1911, under King Rama VI, the Fine Arts Department (FAD) was formed within the royal government, laying the foundation for the current management of the site and other historic properties. With the end of absolute monarchy in 1932, title to the crown property and its abandoned temples (*wat rang*) was then transferred to the Ministry of Finance, with the intention of enlivening the city again. And as part of an accelerated program of development, the Pridi Thamrong Bridge was built to link the city island to the mainland, roads were built, and land parceled out for sale.

Under the government of Field Marshall Phibun Songkram, the government also began to pay attention to conservation at strategic sites, with a view to promoting nationalism under the banner of "nation, religion and king." Following a major heritage-restoration program at the earlier historic capital of Sukhothai, initiated by Luang Vichit Vadhakan in 1940, the government also sought to promote conservation as well as tourism activities at Ayutthaya. This led to the restoration of important monuments such as Wat Mahathad, Wat Rachaburana, and Wat Phra Si Sanphet and the development of tourism infrastructure, including parking lots and roads.

With mounting pressure from looting and new urban development, a total of 1,810 *rai* (289 hectares) was established as an ancient monument zone [*thi din boransthan*] under a Royal Gazette announcement on July 27, 1976. And six years later the Ayutthaya Historical Park project was launched. The protected area centered around the palace precinct and its immediate surroundings, where the most significant temples and monuments were concentrated. This essentially occupies the western half of the historic island,

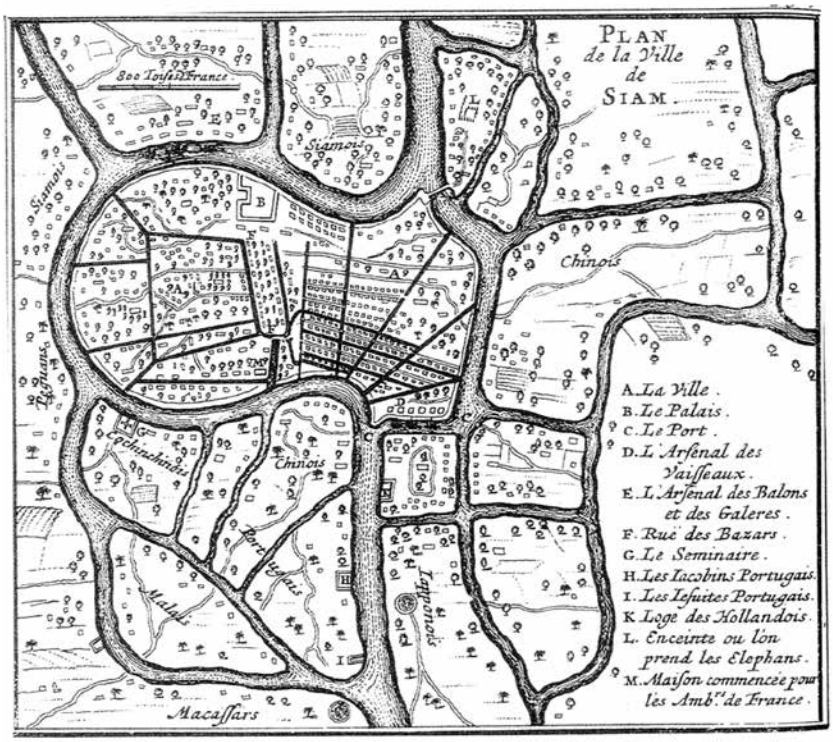

FIGURE 1. *Historic map of Ayutthaya (1691) by Simon de La Loubère. Source: virtualhistoricalpark.finearts.go.th/ayutthaya/images/ebook/ebook_map.pdf.*

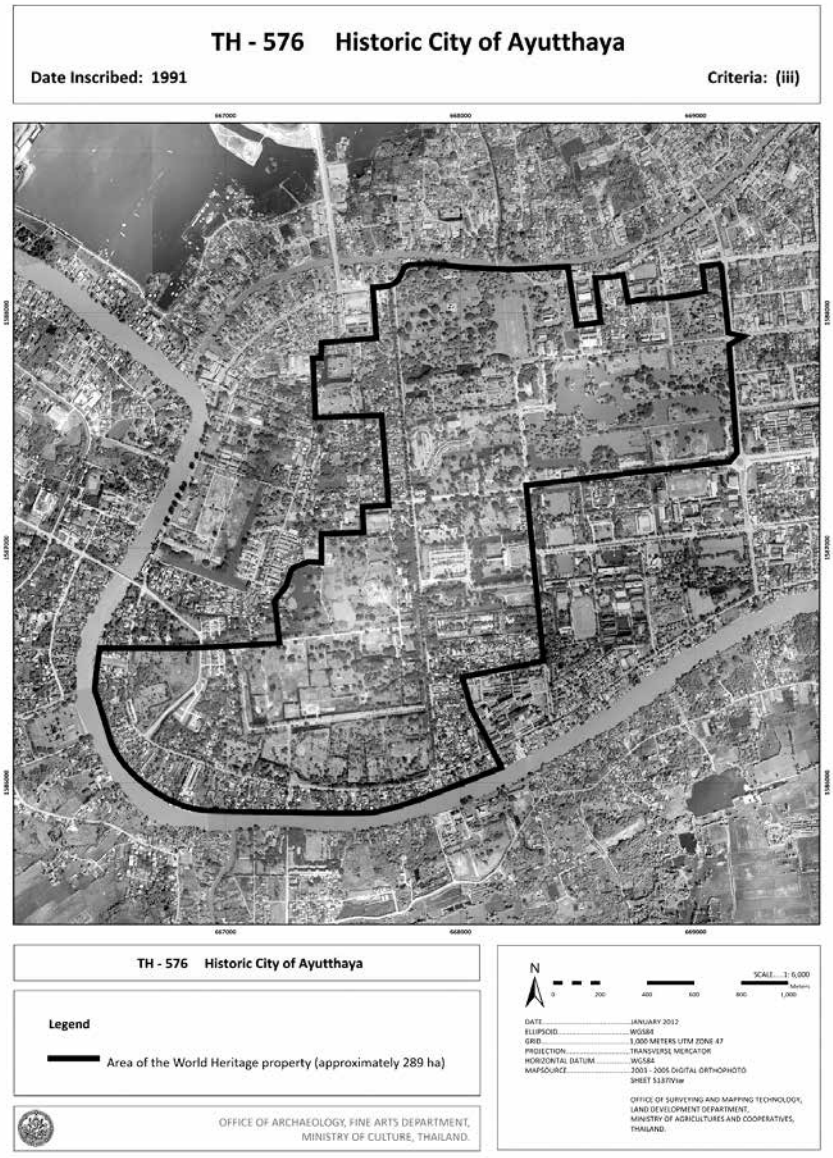

FIGURE 2. *Scope of Ayutthaya World Heritage site. Source: whc.unesco.org.*

including key monuments like Wat Phra Si San Phet, Viharn Mongkon Bophit, and Wat Phra Ram, along with ancient remnants such as water features.

The gazetted area corresponding to the Ayutthaya Historical Park was subsequently inscribed on the World Heritage List in 1991 under the name of the "Historic City of Ayutthaya" **(FIG. 2)**.[4] Specifically, it was recognized under criterion (iii), which refers to the testimony of an ancient civilization: "The Historic City of Ayutthaya bears excellent witness to the period of development of a true national Thai art."[5] In connection with this single criterion, the original ICOMOS assessment of the site primarily noted the importance of "the remains of tall *prang* (reliquary towers) and Buddhist monasteries of monumental proportions, which give an idea of the city's past size and the splendor of its architecture."[6] Scant mention was made of its other, equally notable urban planning features, such as its canals, which had once earned it the moniker "Venice of the East," nor its extensive rural hinterland and surrounding ancient settlements. Contrary to popular misunderstanding, the World Heritage site also did not include nearby prominent monuments such as Wat Chai Wattanaram, which is popularly recognized as one of the area's most iconic structures. Nor did it take into account the various foreign enclaves — the Portuguese Village, the Dutch Village, the Japanese Village — located downstream of the ancient city. Neither did it contain the ancient settlements in Ayodhaya, to the eastern side of the island, nor those located on the surrounding periphery, outside the island.

From the outset, the gazetting of only the western half of the island as a historical park, clustered around the palace complex — followed by its recognition as a World Heritage

site largely on the basis of this monumental heritage — created tension in the conceptualization of the site and the realities of its management. As a historical park, the site came to be managed primarily by the Thai government's Fine Arts Department (FAD) under the Act on Ancient Monuments, Antiques, Objects of Art and National Museums, BE 2504 (1961), amended BE 2535 (1992), which accords protection to listed monuments and archaeological sites. And the technical expertise within this department was heavily geared to architecture, archaeology, and objects such as murals.

Yet the official World Heritage name, the "Historic City of Ayutthaya," suggests something of the territorial scale and character of the site and the implied intention to encompass not only singular monuments, but also urban morphology and ancient infrastructure such as the city's water system. Indeed, this larger understanding was embedded in the 1993 master plan for the site, which sought to grasp the entirety of the ancient settlement, and which proposed two zones — a Nucleus Zone (the Historic Park) and a Buffer Zone (the remaining part of the island and areas surrounding it).[7] While legislation at the time provided legal protection only for the Nucleus Zone, the master plan noted the future intention of heritage authorities to eventually expand this designation to actively manage six other areas radiating outwards from the historic park: Area 2, which covers the remainder of the historic island, and Areas 3–7, on its periphery (FIG. 3). Using the Dutch-inspired concept of polders, these latter areas were specifically seen as providing a landscape-scale mechanism for managing water inundation, detention and drainage within a larger urban-rural complex, as well as offering a means for controlling urban encroachment. These six proposed areas would thus constitute the protective buffer encasing the Nucleus Zone of the historical park.

This larger scope was further seen not simply in geographic terms, but as providing a conceptual template to recognize, and thus protect, the holistic footprint and functioning of the ancient city in its various dimensions. In a nod to this holistic concept, and in response to increasing urbanization pressures, the FAD subsequently gazetted the remaining eastern half of the island and a sliver of its western periphery in 1997. This put an additional 3,000 *rai* (480 hectares) — corresponding to Area 2 in Figure 3 — under legal protection, extending the coverage of the archaeological site to encompass the entire historic island.

Although statutory conservation protection for the other surrounding areas has yet to be enacted, the intention to more comprehensively recognize and protect the historic capital city was reinforced when the Thai authorities submitted its Retrospective Statement of Outstanding Universal Value to UNESCO in 2012. Per the requirements of the World Heritage Committee, this document officially defined, and thus recognized, the significance of the larger area as a World Heritage site as a basis for management and monitoring. Specifically, it did not refer to the city as containing a limited number of key monuments and archaeological sites; it noted that its historical value was intertwined with important features at an urban scale:

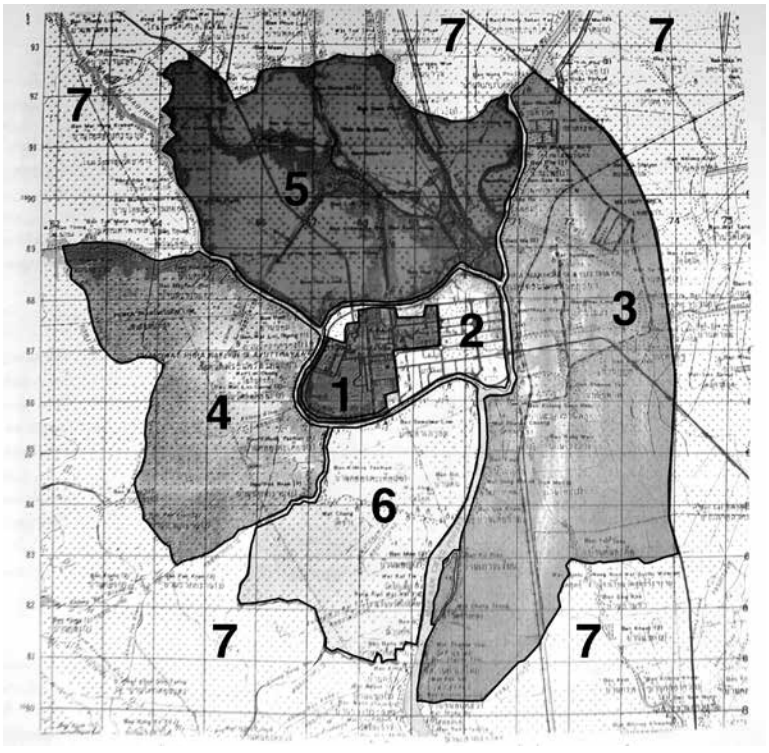

FIGURE 3. *Proposed extension areas for managing Ayutthaya's wider territory, surrounding the current Historical Park. Source: FAD, 1993.*

> *. . . the urban morphology, the originality of which is known from contemporary maps of the time prepared by several of the foreign emissaries assigned to the Royal Court. These maps reveal an elaborate, but systematic pattern of streets and canals throughout the entire island, dividing the urban space into strictly controlled zones each with its own characteristic use and therefore architecture. The urban planning template of the entire island remains visible and intact, along with the ruins of all the major temples and monuments identified in the ancient maps. Wherever the ruins of these structures had been built over after the city was abandoned, they are now uncovered.*[8]

To reflect the importance of this larger vision, the statement went on to announce the intention of the Thai authorities to extend the World Heritage property, in order to

> *. . . cover the complete footprint of the city of Ayutthaya as it existed in the 18th century, when it was one of the world's largest urban areas. This will bring other important ancient monuments, some of which are outside of the presently-inscribed area under the same protection and conservation management afforded to the current World heritage property. In addition, new regulations for the control of construction within the property's extended boundaries are being formulated to ensure that the values and views of the historic city are protected.*[9]

To date, this World Heritage extension has not been carried out and remains an object of intense debate among the management authorities. Interestingly, despite alluding to the more comprehensive urban concept of the site, the statement placed its main emphasis on using the extension as a vehicle to protect additional monuments, alongside the more vaguely defined "values and views of the historic city."[10] And this monument-centric approach is now at odds with conceptual advancements in the larger heritage world, where issues of cultural landscapes and historic urban landscapes have gained increasing currency.

Indeed, many historic cities that were recognized as World Heritage sites in the same time period as Ayutthaya were also initially framed primarily as urban architectural ensembles. This was typical of an era of heritage practice up through the mid-1990s, which was still largely focused on material fabric, architectural authenticity, and urban integrity. Among such other sites were the notable examples of Lijiang Old Town in China in 1997 — under criteria (ii), (iv), and (v) relating to cultural exchange as seen in built or urban remains, building typology, and settlement patterns; and San Gimignano in Italy in 1990 — under criteria (i), (iii), and (iv) relating to outstanding design, traces of civilization, and building typology.

As subsequent experience has shown, such a narrow framing of the Outstanding Universal Value of historic towns — many of which were still inhabited — failed to consider their qualities either in terms of a holistic understanding of the urban landscape (including the value of nonmonumental architecture), or their living heritage, ways of life, and local culture. Yet, following their World Heritage inscription within the narrow rubric of "urban architectural ensembles," heritage-management practices at these sites were typically designed to deal primarily with their historic monuments, and to a lesser extent, their townscapes. This has meant that, beyond preserving their physical features, these sites have experienced challenges with larger, multifaceted issues not originally included within the purview of their definition as heritage.

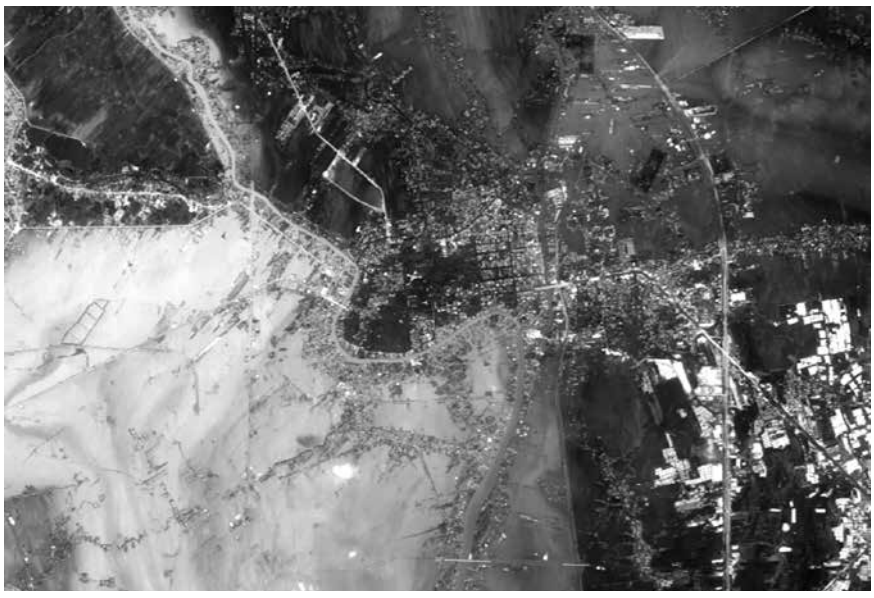

FIGURE 4. *Water engulfing the historic city and its vast floodplain in October 2011. Source: https://earthobservatory.nasa.gov/images/76234/floods-swamp-historic-city-in-thailand.*

FIGURE 5. *Prolonged flooding at the iconic Wat Chai Wattanaram in 2011. Photo by author.*

While historic monumental properties are normally protected under well-defined laws, the integrity of the larger urban landscape — comprising vernacular buildings, public spaces, streetscapes, and ecological systems — often was never the subject of inventories, regulations, or other protective regimes. Similarly, local cultural practices were never addressed by mechanisms that might have anticipated or coped with pressures that threatened their continuity. One might think here of changing social mores, which may disrupt traditional institutions; or of market forces, which may crowd out access by local residents to affordable goods and real estate, leading to gentrification and commodification. Hence, in the World Heritage town of Luang Prabang, in Laos, for instance, conservators have now identified threats relating to "social cohesion and changes in the local population and community," as well as a shortage of affordable housing resulting from the explosion in visitor accommodation and infrastructure.[11] At this site, retroactive measures (for instance, inventories of intangible cultural heritage) were only recently undertaken — which, at this stage, may prove too little too late to counter dislocations that have already occurred.

These cautionary tales showcase the problems that arise when heritage institutions — organizations, professionals, regulations, laws — are still primarily geared to protect monuments and archaeological sites, and when they are not able to fully anticipate, interface or manage issues related to a larger urban territory or to living heritage. While increasingly diffused into heritage discourse and practice from the 1990s onward, these two concepts were given formal heritage recognition and further impetus with the adoption of the Historic Urban Landscape Recommendation (2011) and the Convention for the Safeguarding of the Intangible Cultural Heritage (2003), respectively.[12] Such movements at the global statutory level, however, have not automatically translated into action at the local level.

In the case of Ayutthaya, problems related to decades of following a monument-centric approach, within a constricted, gazetted footprint, came to a head in 2011. Following a series of storms that battered much of Thailand, on the evening of October 3, 2011, floodwaters rushed into the northeast corner of the historic island following the failure of barriers upstream. Within 24 hours the entire island flooded, with the low-lying World Heritage area occupying the western half of the island bearing the brunt of the floodwaters **(FIG. 4)**. Altogether, the historic city, modern settlements, and low-lying areas around the island were then submerged for a month, with floodwaters rising as high as two meters in some locations. While floodwater began to recede on the island by November, the surrounding landscape remained partly flooded until mid-December.

The Fine Arts Department eventually estimated that more than one hundred historic monuments in and around the World Heritage site were subject to damage **(FIG. 5)**. The flood presented the greatest challenge the World Heritage site and its management authorities had ever been subjected to. Yet, in theory, it could also have provided a pivotal moment in reframing the concept of the site and its management regime.

Ultimately, it was the unprecedented scale and rapidity of the flooding throughout the island, the height of the water, and the prolonged length of the inundation that turned the incident into a disaster. In the absence of adequate warning or scientific predictions, the local residents and staff had relied on previous experience to guide their actions. Without sufficient preparation or equipment to fight the floodwater,

sandbags, water pumps, and boats had to be requisitioned and deployed to the monument sites on an emergency basis. And staff were stationed at the museum to keep watch over precious artifacts, with colleagues delivering supplies to them by boat. In the end, floodwater was pumped out of affected sites until water engulfed all surrounding areas, leaving no place for additional floodwater to be drained.

The major national and international media attention given to the flooding of Ayutthaya triggered a wave of support. International partners, acting in a show of solidarity with Thailand, extended their assistance, including a high-profile visit by the then U.S. Secretary of State Hillary Clinton. Corporations and private individuals also provided donations. Yet by far the largest source of emergency funding was the Thai government itself. It provided an unprecedented allocation of Baht 356,344,000, which was put toward emergency repairs and the restoration of 94 temples at the site. This represented almost a ten-fold increase compared with the regular annual budget for projects there.[13]

INSTITUTIONAL DYNAMICS AND ADAPTIVE CHANGE

To what extent did the flooding in 2011 have an impact on the long-term institutional framework for managing the Ayutthaya World Heritage site? Subscribers to the exogenous shock theory would no doubt predict that such a grave catastrophe would have had a fundamental impact, altering its whole system of management. Echoing other scholars in institutional studies, Royston Greenwood et al. have thus proposed that "jolts in the form of social upheaval, technological disruption, competitive discontinuities, or regulatory changes might enable institutional entrepreneurship" — that is, bring about structural change in institutions.[14] Complex, multifaceted problems, such as environmental crises, are also seen as the type of threat that might drive actors across organizations to create institutional change.[15]

However, other scholars have argued that ascribing an outsize role to exogeneous shocks is perhaps not the best way to understand institutional change. Peter Senge has thus cautioned against the "mistaken belief that fundamental change requires a threat to survival. This crisis theory of change is remarkably widespread. Yet, it is also a dangerous oversimplification."[16] Likewise, the work of Shmuel Eisenstadt and Paul DiMaggio, laying the foundation for studies in new institutionalism, has placed a greater emphasis on endogenous factors, particularly the agency of actors within the system who can affect institutions.[17] According to this point of view, internal actors and movements may also exercise strategic behaviors to influence institutional processes, in terms of creating institutions, supporting institutions, or even abolishing them.

Yet the study of institutions and their evolution also suggests that institutions are inherently conservative, and that they typically react only incrementally to problems.[18] Most importantly, the capacity to react may be weakened through processes of institutionalization, whereby previous interactions, views, and power relations become self-reinforcing.[19] Previous experience thus creates an ethos of "path dependency" that limits a system's ability to change or innovate. According to this theory, initial conditions play an outsize role in determining the dynamics within an institution and allow for inefficient equilibria to persist. Thus, Claudia Pahl-Wostl et al. have pointed to how "historical investments and institutional path dependencies have generated an interdependence of system elements, e.g., institutional design, technical infrastructure, knowledge, and distribution of power, that guarantee the functioning of a system and the convergence of expectations of actors."[20]

The persistence of informal rules may likewise be important to undermining the possibility of institutional change. Douglass North has thus noted how "following a change of formal rules, the informal rules . . . survive the change," so that the end result "tends to . . . produce a new equilibrium that is far less revolutionary."[21] And he pointed out that informal constraints represent the major source of institutional inertia, as they change slowly in an evolutionary manner. In this way, new formal rules may not have any effect, if "people generally expect others (including those charged with enforcing the rule) to act in a way which makes it effective" and so ensure that the "rule-in-form" becomes a "rule-in-use."[22]

In the end, therefore, success at changing informal rules, particularly related to traditional norms, requires addressing underlying power structures. Senge thus explained that "The norm is entrenched because the distribution of authority and control is entrenched. Rather than pushing harder to overcome resistance to change, artful leaders discern the source of the resistance. They focus directly on the implicit norms and power relationships within which the norms are embedded."[23]

Such deeply entrenched norms with regard to the distribution of authority are especially apparent in centralized systems, particularly state-centered ones. This has been a notable condition within the global framework of World Heritage governance, which is still largely predicated on the role of the nation-state, centralized state institutions, and experts wielding technical knowledge, despite fledgling efforts to move to more participatory models. Today, however, all three of these power centers have come under increasing attack, not only within the heritage sector, but on the broader terrain of contemporary governance. Critics such as Laurajane Smith have questioned how state-dominated governance of heritage, grounded in expert values and knowledge, "set the agendas or provide the epistemological frameworks that define debates about the meaning and nature of the past and its heritage."[24] And the authorized role of experts becomes even more worrisome when experts strive to maintain the privileged position "of their knowledge claims within both state apparatuses and wider social debates."[25] Dissenting views gleaned from empirical observation suggest that the state and experts are in

fact far from all-knowing and rational, including in the governance of World Heritage sites.[26]

These concerns echo the Foucauldian idea of "governmentality," according to which expert knowledge is mobilized by bureaucracies to control the conduct of populations by "rendering the world thinkable, taming its intractable reality by subjecting it to the disciplined analyses of thought."[27] In so doing, social problems become "amenable to interventions by administrators, politicians, authorities and experts."[28] It is just such state-centric, expert-based epistemologies of governance that James Scott has sought to critique, including techniques such as the master plan that reduce the illegibility of the world to an untenable artificial rationality.[29] In general, he has questioned the priority given to technical knowledge, which seeks to simplify the complications of local context and knowhow in a utilitarian effort to bring about progress.

The difficulties here are only amplified in the context of heritage management, where the multivalent and ephemeral nature of heritage (with its multiple layers of dynamic meaning and many unknowns) eludes a centralized gaze, and thus renders the technocratic exercise of governing it imprecise and heavy handed. The pared-down concept of Ayutthaya as an agglomeration of monuments and archaeological sites clustered in a royal quarter reflects this tendency toward bureaucratic simplification in centralized management systems. In such cases, the struggle to maintain a grasp on authority may encourage a mulish tendency on the part of site-management institutions to define and undertake management tasks on their own well-established terms, and to resist change.

Two intellectual frameworks provide useful insight into these issues as part of an examination of the evolution of management efforts at the Ayutthaya World Heritage site after the floods of 2011. One establishes a typology characterizing the overall orientation of an institution toward change based on its internal dynamics and interactions. The other offers a framework for defining dimensions of adaptive capacity, allowing analysis of factors contributing to possibilities for change within a system, or the lack thereof. Understanding these two frameworks will enable a better understanding of the pathways and frictions inherent to recent attempts to adapt the heritage-management regime at Ayutthaya to better address the growing certainty of future disasters.

With regard to the first framework, Thomas Lawrence and Roy Suddaby developed a typology of actions within institutional settings that govern the dynamics of change. These they saw as involving actions aimed at *creating* institutions, *maintaining* institutions, or *disrupting* institutions.[30] In addition to these, this study suggests a fourth institutional dynamic, *regressing*, which may be understood as a variant of "disrupting" (in the sense that it seeks to disrupt the status quo) and "maintaining" (in that it seeks to push the institutional framework back to an earlier state).

In describing their typology, Lawrence and Suddaby observed that different actors are capable of exerting different levels and forms of agency within an organization. As they wrote, "different forms of institutional work demand different categories of actor, [including] ones that are immune or somehow less affected by the governance mechanisms of their institutional environment."[31] And in the specific case of "disrupting" institutions,

> *. . . the ability of an actor to engage in practices that exist just outside of the normative boundaries of an institution reflects a high level of cultural competence; thus, normative work of this sort is mostly likely to be accomplished by members of a field or organization with sophisticated understanding of the cultural boundaries and meanings of institutions. . . . [In] undermining beliefs or assumptions, [this requires] an actor . . . capable of working in highly original and potentially counter-cultural ways.*[32]

The second framework referenced above employs the idea of adaptive capacity as a lens through which to understand factors that may support or inhibit institutional change in World Heritage site management. In the context of climate change, Joyeeta Gupta et al. defined this idea of adaptive capacity as involving

> *. . . the inherent characteristics of institutions that empower social actors to respond to short and long-term impacts either through planned measures or through allowing and encouraging creative responses from society both ex ante and ex post. It encompasses: the characteristics of institutions (formal and informal rules, norms and beliefs) that enable society (individuals, organizations and networks) to cope with . . . change, and the degree to which such institutions allow and encourage actors to change these institutions to cope with . . . change.*[33]

Dimensions of adaptive capacity have been described in various ways in the literature on systems change. Particularly influential models include the "adaptive capacity wheel" proposed by Gupta et al. and other work by Yvette Bettini et al., Philippa Cohen et al., Claudia Pahl-Wostl, and Gary Yohe and Richard Tol.[34] For the purposes of this study, these factors have in turn been grouped according to three key determinants articulated by Marco Janssen and Elinor Ostrom: investing in information and knowledge, encouraging appropriate institutions, and increasing resources.

Of these three determinants of change, the first, investing in knowledge and information, is proposed to encompass two key concerns: cognitive frames and learning capacity. The second, encouraging appropriate institutions, spans three other factors: agency (that is, empowerment and ability to decide and act, reflecting authority and status); formal governance structures (legislation, organizations, regulatory

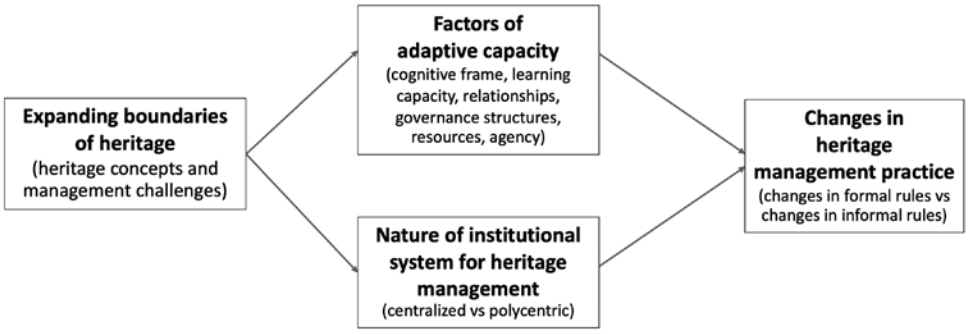

FIGURE 6. *Proposed conceptual framework. Diagram by author.*

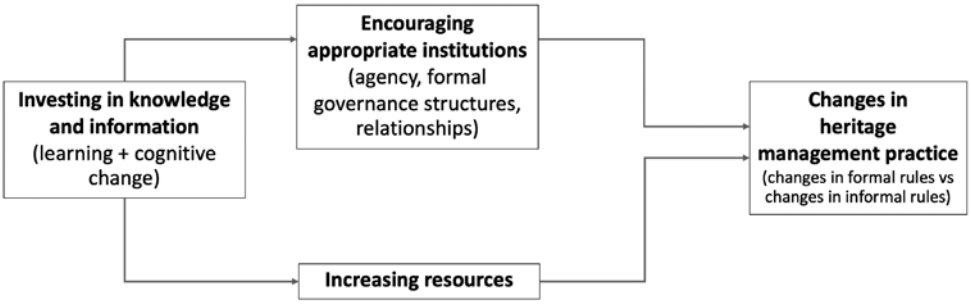

FIGURE 7. *Proposed model of institutional change, showing interaction among different factors of adaptive capacity. Diagram by author.*

processes); and relationships (both for formal and informal institutions). The third determinant, increasing resources, refers not only to financial resources but to human resources and social capital as well.

As an integrated conceptual framework, it is possible to suggest that both management challenges and changes in heritage concepts may trigger change in heritage-management institutions. But the level of change that may then emerge in actual heritage-management practice will be mediated by two key variables: factors of adaptive capacity within the institutional system as defined above, and the nature of the institutional system — i.e., whether the system is centralized or polycentric in nature (FIG. 6).

Taking this framework into account, it is also possible to suggest that investing in knowledge and information (through learning and cognitive change) may provide the starting point for bringing about change. However, to leverage this initial momentum, appropriate institutions should be encouraged, and the level of available resources needs to be increased. This may then serve as a proposed model for change in practice, both in terms of formal rules and informal practices (FIG. 7).

MANAGING AYUTTHAYA AFTER THE FLOODS: *PLUS ÇA CHANGE . . .*

Based on an analysis of empirical data from the Ayutthaya case, and applying the theoretical discussion above, it becomes apparent that institutional orientation within the management agencies on site was strongly characterized by a "maintaining" dynamic. One might expect such an orientation from a centralized, top-down institutional set up. According to the model above such an administrative regime would also be less likely to display traits of adaptive capacity in general and learning capacity in particular. That said, some change has played out in the dynamics on site, both in dealing with disaster risks and restoring monuments.

The complete inundation of the site in 2011 provided incontrovertible evidence of an ongoing real threat of future disaster. This contrasted with earlier attitudes toward floods, which regarded them as an annual fact of life, causing at most minor inconvenience. Following the prolonged flooding in 2011, during which major monuments at Ayutthaya were submerged under deep water, it was thus inevitable that some learning would take place, with the result that the cognitive frame at Ayutthaya shifted to recognize the real future risk. Recognition of risk, however, did not necessarily translate into appropriate action or a long-term framework for action.

The shift in cognitive frame did, however, lead to a major temporary increase in funding for work at the site, disrupting, at least in the short term, the formal governance setting. However, it should be noted that all the projects carried out in the aftermath of the flood, while representing a major change in the volume of funding channeled to Ayutthaya, were monument-restoration projects (FIG. 8). This situation prevailed despite the fact that post-flood expert analysis showed that the monuments themselves did not suffer much damage directly from the flooding. In this sense, the underlying cognitive framework for managing Ayutthaya did not change much from the normal practice of the site-management authorities, which still saw their primary mandate as involving the conservation of monuments and archaeological sites.

Nonetheless, in response to external pressure from the World Heritage Committee and to domestic concern by the Thai public and government about the need to prevent future damage to the site, the management authorities made efforts to ramp up efforts to address the flood-risk issue. For instance, they participated in a project to develop a flood-risk mitigation plan based on hydrological modeling. The project was anchored by the UNESCO Institute for Water Education (UNESCO-IHE) with inputs from national and international experts.[35] Based on extensive computer simulations and consultations with the FAD, local agencies, and community members, the plan suggested a number of hard and soft measures for mitigating flooding.[36]

FIGURE 8. *Example of a post-flood restoration project, with new plastering and landscaping. Photo by author.*

Attempts to engage with other agencies in the course of this project were, however, fraught. The municipality of Ayutthaya developed its own, parallel proposal for fighting floods, using German-manufactured steel plates that could be installed around the perimeter of the island and stored when not in use. The Thai government's Department of Disaster Prevention and Mitigation likewise adopted separate protocols, within which heritage was a minor concern compared with ways to ensure the safety of local residents. Nonetheless, the efforts to bring other agencies into heritage consultations underscored the multidisciplinary nature of the flooding problem and an apparent openness for collaboration — or at least some recognition of the need to involve other sectors.

However, following its completion, the externally driven expert plan was ultimately set aside, and FAD staff set out to draft a new Disaster Risk Management (DRM) plan, which would reflect a range of hazards, not only floods. This plan did incorporate a number of recommendations related to mitigating flood risks from the expert plan. Yet the stand-alone DRM plan again was also eventually shelved when a change in leadership took place in site management. Instead, in its third reincarnation, the DRM plan was incorporated into an effort to completely update the 1993 master plan of Ayutthaya and its various thematic sub-plans, and took the form of a new DRM sub-plan.[37]

On the one hand, including a DRM sub-plan in the overall master plan represented a welcome disruption in the formal governance structure of Ayutthaya, as disaster had never before been considered a management planning issue for the site, despite previous floods. The international rhetoric around disaster risk reduction and World Heritage, bolstered by political pressure and supported by internal converts within the FAD staff, helped to bring about this new development. Yet a comparison of the expert plan and the DRM sub-plan shows a certain intractability in approaches to addressing the prospect of future disasters such as flooding.[38]

To begin, the DRM sub-plan was prepared internally, with limited consultation with other relevant agencies such as the Department of Disaster Prevention and Mitigation. And the same detachment played out in the overall scope and actual recommended measures. The earlier expert plan had emphasized the need to start with a landscape and territorial planning perspective, from macro (regional) to meso (city) to micro (historic park and monuments) scale (FIG. 9). At the territorial scale, it had suggested interprovincial bypass channels to minimize future flood impacts on the historic island.

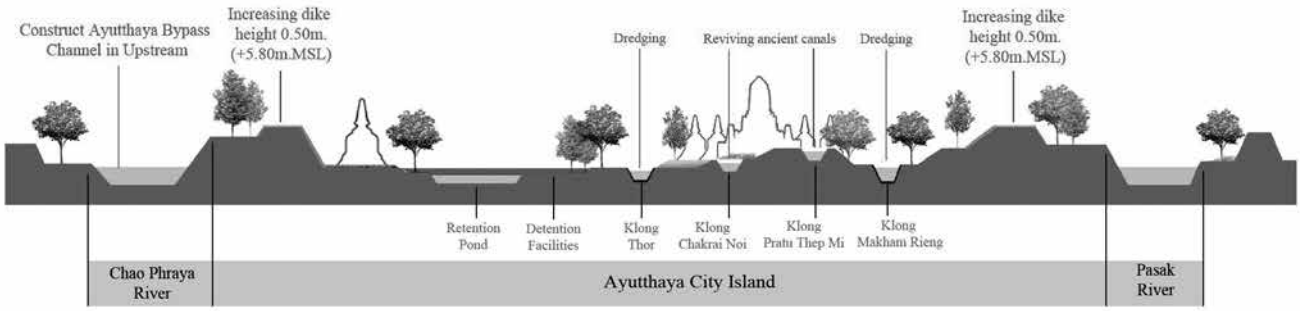

FIGURE 9. *Expert recommendations for a combination of regional, provincial and localized measures for flood mitigation. Source: UNESCO Institute for Water Education*

At the city scale, it had suggested reviving ancient canals for drainage, creating a ring-road dike around the island, and adding detention capacity. And at the localized scale, it had proposed measures to protect individual archaeological sites and monuments. By comparison, the DRM sub-plan focused mainly at the localized level, where it proposed measures to reduce the vulnerability of individual monuments and called for the drafting of various related plans to ensure the safety of people at the Ayutthaya historic park itself (for example, an emergency response plan and an emergency evacuation plan).

The difficulty in generating a change in institutional perception at a more fundamental level — from seeing the site only as an ensemble of monuments, to thinking of it on a more urban, territorial scale — can ultimately be traced to what is known in the literature on institutional change as the paradox of embedded agency. Embedded agency occurs when organizations confront tension between institutional determinism and agency, making it difficult for them to "innovate if their beliefs and actions are determined by the institutional environment they wish to change."[39] Thus the FAD sees itself as the champion for heritage safeguarding, having that as its legal mandate under the Act on Ancient Monuments, Antiques, Objects of Art and National Museums. And it likewise views itself as the sole stronghold of technical knowledge and know-how in these fields, accumulated over its 108-year history.

The extreme event at Ayutthaya in 2011 ultimately proved unable to alter interinstitutional relationships in dealing with the World Heritage site, with existing silos being maintained between the heritage authorities and other agencies. In other words, the increased coordination which occurred during the emergency event and the initial response to it did not translate into long-term platforms or mechanisms for collaboration. This outcome was particularly striking given the macro-level nature of the flood event, which affected the entire Chao Phraya River basin, and which raised serious concern over the nature of future control measures, which would require responses at a territorial scale. The intensity of the 2011 flooding could have been the wake-up call to create closer collaboration among macro- and micro-level approaches to managing water in Ayutthaya as part of the entire river basin. However, in the aftermath of the flood, there continued to be limited coordination between the macro level and the micro level in terms of policy and practical operational measures in mitigating flood risk and responding to emergencies.[40]

The self-imposed limitations created by embedded agency and lack of functional lateral relationships materialized in another area as well: the geographic scope of the updated master plan. Adopting a vision for expanded landscape-scale protection for the Ayutthaya heritage site, which would have had benefits for both local and regional hydraulic management, the original master plan had proposed extending the heritage protection zone to encompass the rural periphery surrounding the gazetted historic city island. This idea was echoed by the subsequent promise to extend the World Heritage property in plans submitted by the Thai authorities to the World Heritage Committee in 2012. However, the idea of expansion was shelved in the updated master plan, which limited the scope of the plan to the core protection zone, i.e., the historic park. And interestingly, the updated master plan footprint does not even include the additional area of the historic island that had been gazetted at a later stage in 1997.

By reemphasizing its focus on the inner core protection zone rather than the larger area, the updated master plan thus narrows down the possible menu of management options and tools. Any flood-risk management that can be carried out within this limited footprint will involve only last-resort measures, without explicitly engaging with other upstream measures at a regional or urban scale. Accordingly, almost a decade after the 2011 flood, and despite the lessons and experiences accumulated from the event, the heritage authorities today continue to focus on maintaining their previous practice of protecting individual monuments — as can be seen in seasonal interventions at Wat Chai Wattanaram. This involves increased monitoring of the flood-warning status during rainy season, installing sandbags, and strengthening perimeter walls and embankments surrounding temples — at best a stop-gap measure. By not engaging with the geographically larger area, and the enlarged network that is involved, this approach undermines the effectiveness of disaster protection for the monuments **(FIG.10)**.

FIGURE 10. *Temporary and localized approach to flood risk protection continues to be the norm today. Source: Fine Arts Department.*

Such restricted evolution in institutional dynamics related to disaster management in the wake of the 2011 flood can be compared to the massive response when it came to the restoration of monuments. Assessing the damage at Ayutthaya in 2011, a Venetian expert warned Thai authorities to beware not only of floodwater but of the damaging flood of money that would follow. This warning proved prescient, as the subsequent historic increase in funding for the site spurred restoration efforts at multiple locations across the site, which were later widely criticized for their poor quality. Concerns identified by UNESCO and the World Heritage Committee eventually led to questions being raised in the National Legislative Assembly about the conservation situation of Ayutthaya. Accordingly, the World Heritage Committee recommended that Thailand undertake training to improve the quality of conservation using both traditional craftsmanship as well as scientific conservation techniques, which was consequently carried out through a series of workshops.

In theory, these critiques should have prompted a shift in mindsets and capacity. And, following three years of training activities, some changes in cognitive frame at an individual level were seen. Specifically, quite a number of participants in the workshops expressed a newfound appreciation for using traditional materials such as lime plaster and mortar, as well as for the value of a multidisciplinary, scientific approach. Some of the individuals engaged in this process also demonstrated learning, not only in post-course evaluations (which tend to be inflated), but also in the quality of their workmanship after the course. Conservators on site are beginning to commission material-sampling and analysis as a preliminary step in restoration work, for instance. There has also been an increase in the number of staff who voluntarily contact colleagues in other units, such as the materials conservation team, indicating greater internal collaboration across internal silos and changes in relationships at an individual level.

However, individual learning among operational-level staff has not filtered into formal heritage-management systems in terms of upgrading conservation standards and processes. Following several workshops, recommendations were developed by the participants to reform working procedures. This included extending the length of projects to provide adequate time for scientific study before designing a restoration plan. Another recommendation was to increase the time and budget needed for actual programs of restoration work, to allow the use of traditional lime mortar and plaster, which requires longer to set and additional labor to prepare. The need for clear conservation standards and operational guidance was also suggested, as was a system for certifying trained conservation workers. However, none of these recommendations have so far been adopted.

One result of these initiatives, however, has been that unchanged formal governance structures now clash with the individual-level learning that occurred among staff members. Thus, while staff may now recognize the necessity to implement conservation work differently, and are willing to work more closely with other departments to ensure that specialized expertise is used, they ultimately do not have the support of the organization to do so. This has inevitably led to maintaining older approaches to the quality of restoration. This is illustrated poignantly in the example of the pilot site used during the course of training, where the best-intentioned exercises in improved restoration practice devolved into business as usual when the actual work was undertaken (FIGS. 11, 12).

Thus, for both disaster risk management and monument restoration, changes in cognitive frames did not result in substantial institutional transformation in the management regime at Ayutthaya following the 2011 floods. The strong "maintaining" dynamics in both instances were characterized by different mechanisms, however. The series of new DRM plans reflected a change in formal governance struc-

tures. However, this change did not translate into actual on-the-ground changes in DRM practice. Ultimately, the heritage authorities continue to deal with flood risks through the deeply established lens of conserving monuments and archaeological sites, rather than taking on the larger territorial-scale issues. This would have required a more radical change in the conception of the site as a cultural landscape, as well as changes to the tasks and working relationships among the relevant authorities.

Meanwhile, in terms of monument restoration, change was even more difficult to come by. The heritage-management authorities have decades' worth of established regulations, work processes, and knowhow related to conservation, which proved difficult to alter. Therefore, training only changed cognitive frames at an individual level, and did not feed into changes in the formal governance structures of the system as a whole.

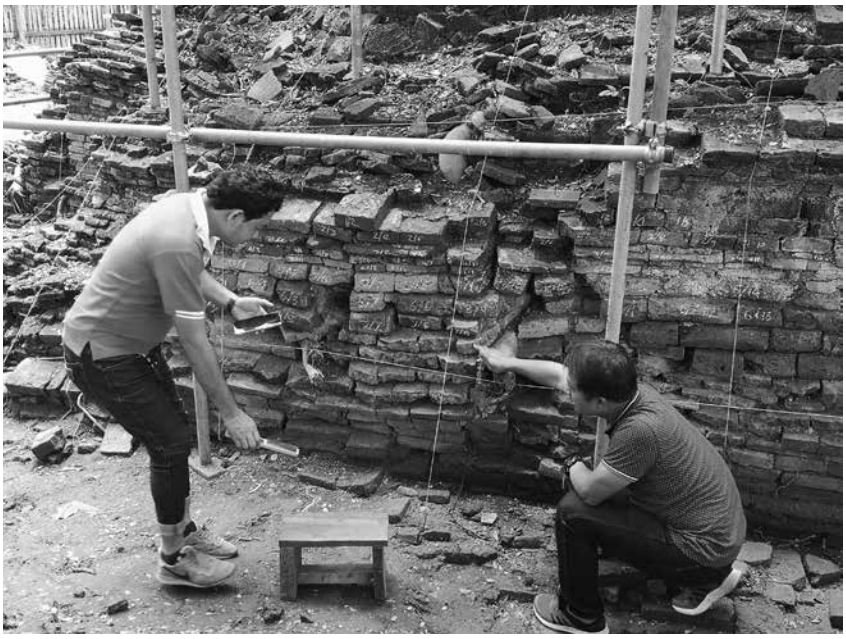

FIGURE 11. *During pilot training at an ancient monument in Ayutthaya, specialists engaged in detailed documentation of individual bricks in the plinth, suggesting this historical profile would be retained (June 2019). Source: https://www.facebook.com/RakWatKrachee/*

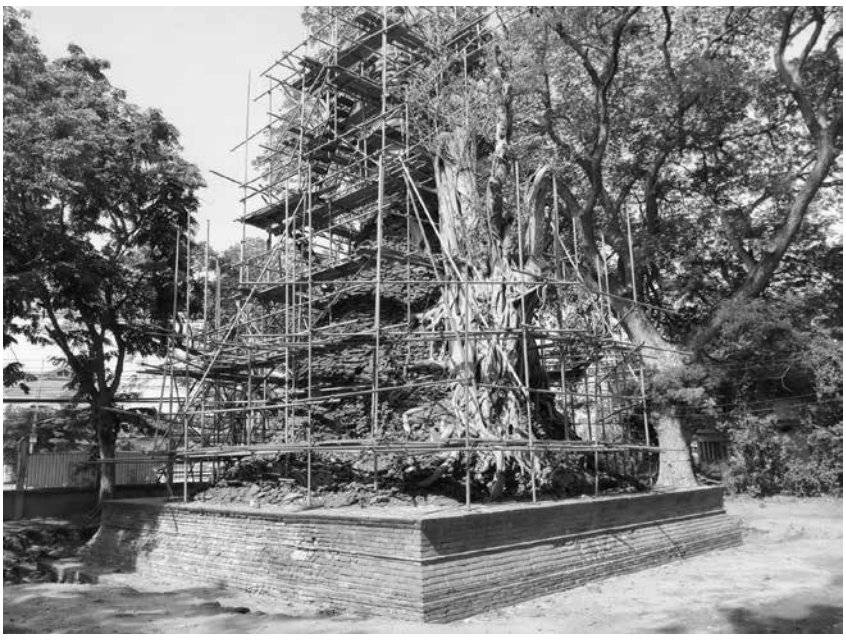

FIGURE 12. *The total reconstruction of the same plinth, largely using new bricks. Photo by Fine Arts Department.*

AGENCY TO CHANGE: IMPLICATIONS FOR WORLD HERITAGE MANAGEMENT

In the heritage sector, there have been major conceptual evolutions within the past forty years. Indeed, as comprehensively mapped by Thompson and Wijesuriya, heritage practitioners have seen a sea change from being defenders of heritage islands populated by monuments and archaeological sites (1960s–1990s); to acknowledging living heritage, which required opening up to other voices (1994 onwards); and finally to mobilizing heritage in the broader quest for sustainable development (2010 onwards).[41]

In terms of structure and vision, many national heritage institutions in Southeast Asia remain legacies of the first era of heritage work focused on monuments and archaeological sites. However, they are increasingly confronting the changing concepts and norms of heritage practice that are fomenting within international heritage circles. These new ideas include not only more expansive definitions of heritage (cultural landscapes, historic urban landscapes, living heritage, and industrial and modern heritage), but also participatory and rights-based approaches to heritage governance. Whereas many Southeast Asian institutions have become more familiar with (and even adept at) adapting their rhetoric to align with international heritage discourse, it is evident their efforts at operationalizing such rhetoric still lag. This signals at best a partial cognitive shift (at least at the level of discourse) — not the total cognitive shift needed as the basis for transformations in actual heritage practice.

The observations from this study suggest that agency is at the heart of institutional change. While cognitive frames and learning are instrumental in the early stages of transformation, agency (and its linkages to both formal governance structures as well as informal relationships) is the arbiter of long-term change in practice. Informal processes need to feed iteratively into formal processes, creating changes in underlying organizational relations. At the same time, formal processes are needed to institutionalize gains from informal settings in order to bring about systemic transformation, as shown in the accompanying diagram **(FIG. 13)**.

Unfortunately, the centralized, top-down organizations that tend to dominate heritage management in Southeast Asia today must contend with strong legacy mandates and an unswerving sense of organizational identity; it is thus difficult to bring about transformation in their management regimes, even with catalytic disruptions such as disasters. Such technical agencies, with their extensive and deep expertise (or at least, self-perceived expertise), have a difficult time "unlearning" old routines in order to adopt new approaches.[42] Organizations (and their staff) have a tendency to be mythologized within existing mandates and thus stymied by embedded agency. As a result, it becomes difficult to change cognitive frameworks and alter governance structures, resource allocations, and institutional relationships.

In the future, heritage-management systems may need to shift in favor of organizations with looser mandates, which could be more flexible in learning and thus more adept in adaptation. Not having a fixed heritage mindset and a permanent group of staff with corresponding competencies could actually create space for more learning and more innovative solutions. This means not treating all problems as heritage problems requiring heritage solutions, which is the natural tendency of organizations with strictly defined heritage mandates. The evolution in heritage concepts and practice away from purely technical concerns to embrace more complex issues with social and environmental dimensions and a sustainable-development agenda should imply that organizations involved in heritage management have a wider mandate than heritage

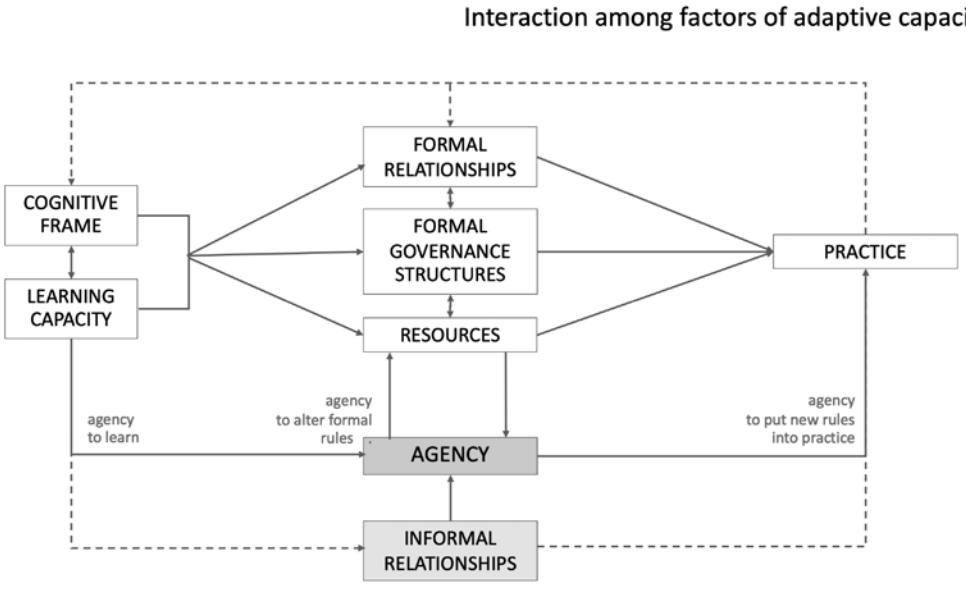

FIGURE 13. *Refined model of institutional change showing the key role of agency in mediating changes in practice. Diagram by author.*

protection. This applies both at the site level as well as at the international level, particularly in terms of World Heritage.

The fact that informal rules are persistent, and can thus even undermine the transformations sought by altering formal rules, also suggests that the current World Heritage system needs to move beyond its current preoccupation with tweaking formal institutional rules. The findings from this study show that informal factors — whether changes in cognitive framework, learning at an individual level, knowhow and operational work practices, as well as underlying political alignments — play a major role in determining or limiting the ability of an institutional system to change. In this sense, simply seeking to effect formal change by undertaking yet more formal plans, enacting regulatory reform, or setting up formal coordination mechanisms like committees will be unable to bring about the transformative change that may be necessary to respond to issues of growing complexity.

This concern has particular resonance in the midst of U.N.-wide reforms which question existing channels of international diplomacy and the architecture of global development institutions, in an age experiencing a steady decline in the influence of nation-states. The governance of global public goods such as heritage, particularly World Heritage, likewise needs to be reconsidered in this light. The trickle-down mechanism of governance from the World Heritage Committee to the national authorities to the site authorities has proven to be inadequate to engage with or influence the host of informal rules at play within the system. Informal rules, which operate pervasively, often put in place through generations of accumulated practices or interests, are unimpeded by such attempts to change formal rules and organizations.

Thus far, the toolbox of World Heritage management has largely relied on sticks — legislative and regulatory mechanisms — rather than carrots, that is, incentives. Using incentives to align interests can be a powerful way to move formal and informal rules in the same direction and to overcome underlying conflicts and points of friction. Aligning interests among different organizations and stakeholder groups is particularly relevant in the midst of the overall conceptual shift away from the narrow endeavor of conserving and managing heritage to pursuing the larger goals of linking heritage with sustainable development. The rhetoric within UNESCO and the World Heritage Committee, alongside other international bodies, governments, and private-sector and civil-society counterparts is already well developed on this issue. To a certain extent, this indicates a cognitive shift which is occurring. However, governance, management and operational mechanisms do not yet support rhetorical and cognitive shifts toward seeing heritage in a broader context. Legislation and regulations need to be reformed; participatory mechanisms need to be broadened and deepened beyond current top-down systems; and the intersection of heritage and sustainable development in an operational manner needs to be implemented. These recommendations would help move World Heritage institutions beyond their current techno-bureaucratic limitations.

REFERENCE NOTES

1. W.N. Adger and K. Vincent, "Uncertainty in Adaptive Capacity," *Comptes Rendus Geosciences*, Vol.227 No.4 (2005), pp.399–410; and M.C. Lemos, E. Boyd, E.L. Tompkins, H. Osbahr, and D. Liverman, "Developing Adaptation and Adapting Development," *Ecology and Society*, Vol.12 No.2 (2007), p.26.
2. J.C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven, CT: Yale University Press, 1998).
3. G. Tachard, *Voyage to Siam* (Bangkok: White Orchid, 1981 [1688]), as quoted in P. Krairiksh, "A Brief History of Heritage Protection in Thailand," in C. Baker, ed., *Protecting Siam's Heritage* (Chiang Mai: Silkworm, 2013).
4. To be exact, the original name of the site was the "Historic City of Ayutthaya and Associated Towns." However, this was deemed to be an error caused by simulating the name of the pevious "Historic City of Sukhothai and Associated Towns" World Heritage site. The name was later corrected at the request of the Thai authorities.
5. UNESCO, "Historic City of Ayutthaya (Thailand)," accessed June 7, 2019, at http://whc.unesco.org/en/list/576.
6. Ibid.
7. Fine Arts Department, *Master Plan for the Project to Conserve and Develop the Historic City of Ayutthaya (1994–2001)*, 1993.
8. UNESCO, "Historic City of Ayutthaya (Thailand)."
9. Ibid.
10. Ibid.
11. UNESCO, "State of Conservation — Town of Luang Prabang (Lao People's Democratic Republic) — 2007," accessed July 5, 2019, at http://whc.unesco.org/en/soc/1079.
12. UNESCO, "Recommendation on the Historic Urban Landscape," 2011; and UNESCO, "Convention for the Safeguarding of the Intangible Cultural Heritage," 2003.
13. The total budget for the five-year period from 2011–2015 was Baht 632,566,034. It was intended to address the conservation and development of 145 monuments in total.
14. R. Greenwood, R. Suddaby, and C.R. Hinings, "Theorizing Change: The Role of Professional Associations in the Transformation of Institutionalized Fields," *Academy of Management Journal*, Vol.45 No.1 (2006), pp.58–80.
15. N. Phillips, T.B. Lawrence, and C. Hardy, "Inter-Organizational Collaboration and the Dynamics of Institutional Fields," *Journal of Management Studies*, Vol.37 No.2 (2000), pp.23–44.
16. P. Senge, *The Fifth Discipline: The Art and Practice of the Learning Organization* (New York: Doubleday, 1990).
17. S.N. Eisenstadt, "Social Skill and Institutional Theory," *American Behavioral Scientist*, Vol.40 No.4 (1980), pp.397–405; and P. Dimaggio, "Interest and Agency in Institutional Theory," in L. Zucker, ed., *Institutional Patterns and Organizations* (Cambridge, MA: Ballinger, 1988).
18. J. Gupta and J. Dellapenna, "The Challenges for the Twenty First Century: A Critical Approach," in J. Dellapenna and J. Gupta, eds., *The Evolution of the Law and Politics of Water* (Dordrecht: Springer Verlag, 2009).

19. E.H. Klijn and J.F.M. Koppenjan, "Governing Policy Networks: A Network Perspective on Decision Making in Network Society," in G. Morcol, ed., *Handbook of Decision-Making* (New York: CRC Press, 2006).
20. C. Pahl-Wostl, G. Becker, C. Knieper, and J. Sendzimir, "How Multilevel Societal Learning Processes Facilitate Transformative Change: A Comparative Case Study Analysis on Flood Management," *Ecology and Society*, Vol.18 No.4 (2013), pp.58.
21. D. North, *Institutions, Institutional Change and Economic Performance* (Cambridge: Cambridge University Press, 1990).
22. M. Aoki, *Towards a Comparative Institutional Analysis* (Cambridge, MA: MIT Press, 2001).
23. Senge, *The Fifth Discipline*.
24. L. Smith, *Uses of Heritage* (London: Routledge, 2006).
25. Ibid.
26. N. Rugkhapan, "Technopolitics of Historic Preservation in Southeast Asian Chinatowns: Penang, Bangkok, Ho Chi Minh City," Ph.D. Diss., University of Michigan, 2017.
27. N. Rose and P. Miller, "Political beyond the State: Problematics of Government," *British Journal of Sociology*, Vol.43 No.2 (1992), pp.173–205.
28. N. Rose, "Government, Authority and Expertise in Advanced Liberalism," *Economy and Society*, Vol.22 No.3 (1993), pp.283–99.
29. Scott, *Seeing Like a State*.
30. T.B. Lawrence and R. Suddaby, "Institutions and Institutional Work," in S. Clegg, C. Hardy, T.B. Lawrence, and W.R. Nord, eds., *The SAGE Handbook of Organization Studies* (second ed.) (London: Sage Publications, 2006).
31. Ibid.
32. Ibid.
33. J. Gupta, C. Termeer, J. Klostermann, S. Meijerink, M. van den Brink, P. Jong, and E. Bergsma, "The Adaptive Capacity Wheel: A Method to Assess the Inherent Characteristics of Institutions to Enable the Adaptive Capacity of Society," *Environmental Science and Policy*, Vol.13 No.6 (2010), pp.469–71.
34. Ibid; Y. Bettini, R.R. Brown, and F.J. De Haan, "Exploring Institutional Adaptive Capacity in Practice: Examining Water Governance Adaptation in Australia," *Ecology and Society*, Vol.20 No.1 (2015), p.47; P. Cohen, S. Lawless, M. Dyer, M. Morgan, E. Saeni, H. Teioli, and P. Kantor, "Understanding Adaptive Capacity and Capacity to Innovate in Social-Ecological Systems: Applying a Gender Lens," *Ambio*, Vol.45 No.3 (2016), pp.309–21; C. Pahl-Wostl, "A Conceptual Framework for Analysing Adaptive Capacity and Multi-Level Learning Processes in Resource Governance Regimes," *Global Environmental Change*, Vol.19 No.3 (2009), pp.354–65; and G. Yohe and R.S.J. Tol, "Indicators for Social and Economic Coping Capacity — Moving toward a Working Definition of Adaptive Capacity," *Global Environmental Change*, Vol.12 No.1 (2002), pp.25–40.
35. The project was conducted from 2013 to 2015 with funding from the Asian Development Bank.
36. UNESCO Institute for Water Education, "Flood Risk Assessment for the Historic City of Ayutthaya, Thailand," May 2015.
37. The 1993 master plan was originally set to lapse in 2001; however, in practice, it continued to be in use. The justification for its continuance was that its various proposals had not been fully accomplished more than 25 years later, largely due to budget shortages.
38. Fine Arts Department, *Master Plan for Conservation and Development for the Historic City of Ayutthaya (2017–2026)*.
39. B. Leca, J. Battilana, and E. Boxenbaum, *Agency and Institutions: A Review of Institutional Entrepreneurship* (Cambridge, MA: Harvard Business School, 2008).
40. A. Ratanawaraha, *Institutional Issues in Integrating Land Use Planning and Water Management in Thailand* (Bangkok: Thailand Development Research Institute, 2016). It was not until seven years later, in 2018, that national-level policy coordination was launched, with the establishment of the Office of National Water Resources under the Prime Minister's Office.
41. J. Thompson and G. Wijesuriya, "From 'Sustaining Heritage' to 'Heritage Sustaining Broader Societal Wellbeing and Benefits': An ICCROM Perspective," in W. Logan and P. Larsen, eds., *World Heritage and Sustainable Development: New Directions in World Heritage Management* (London: Routledge, 2018).
42. Gupta and Dellapenna, "The Challenges for the Twenty First Century."