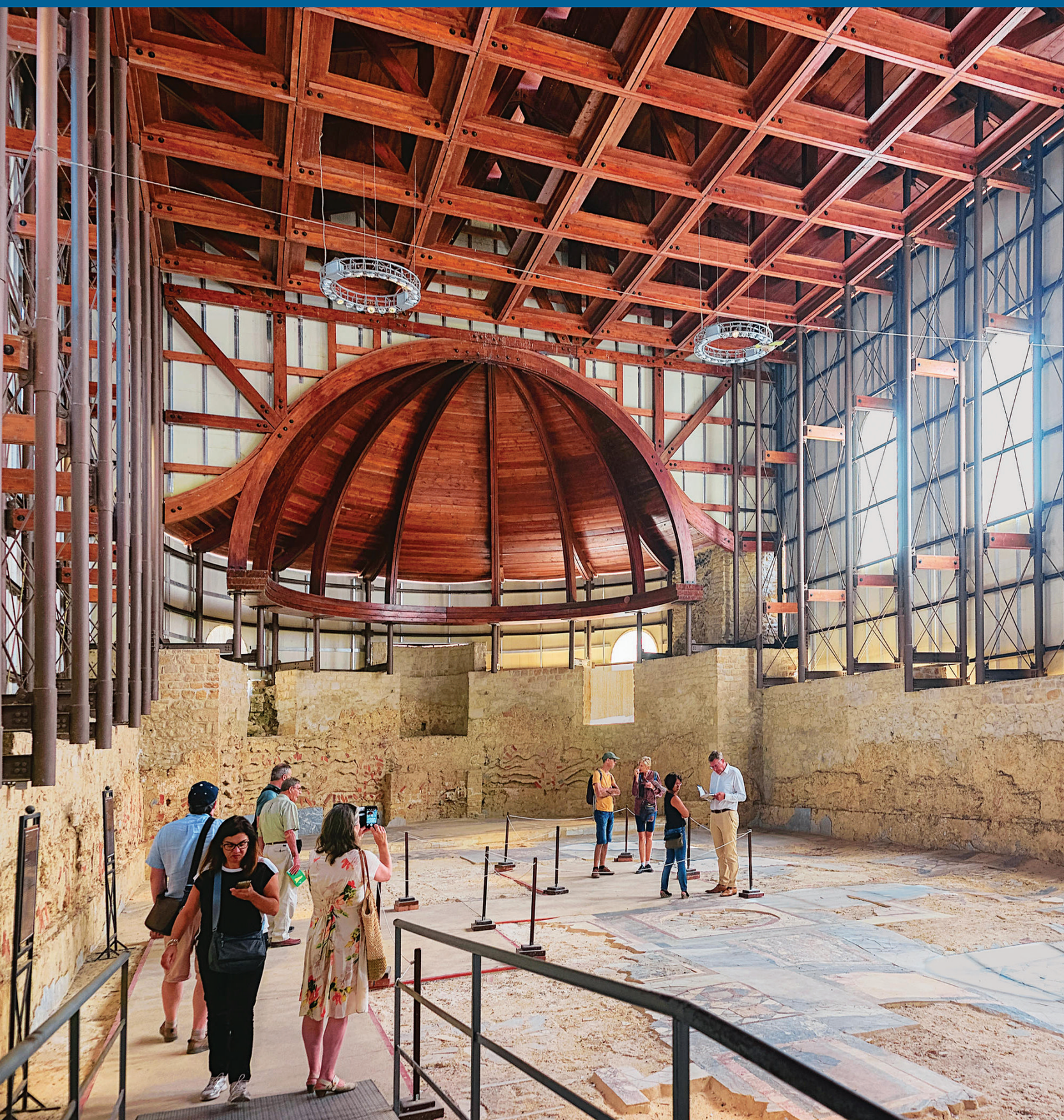
THE CONSERVATION AND MANA
OF ARCHAEOLOGICAL SITES



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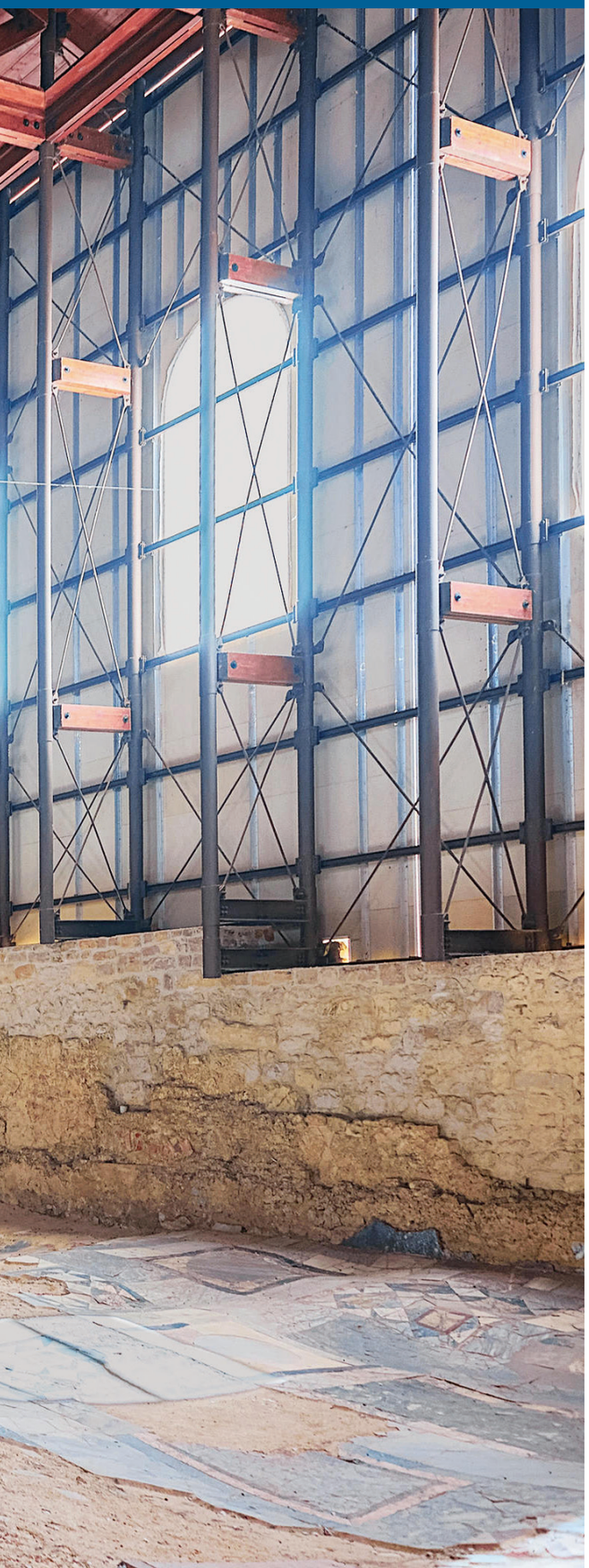


A TWENTY-YEAR PERSPECTIVE

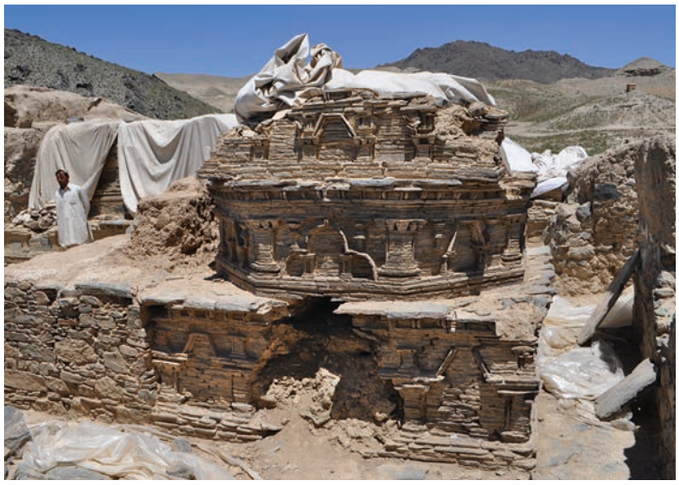
BY TIM WILLIAMS

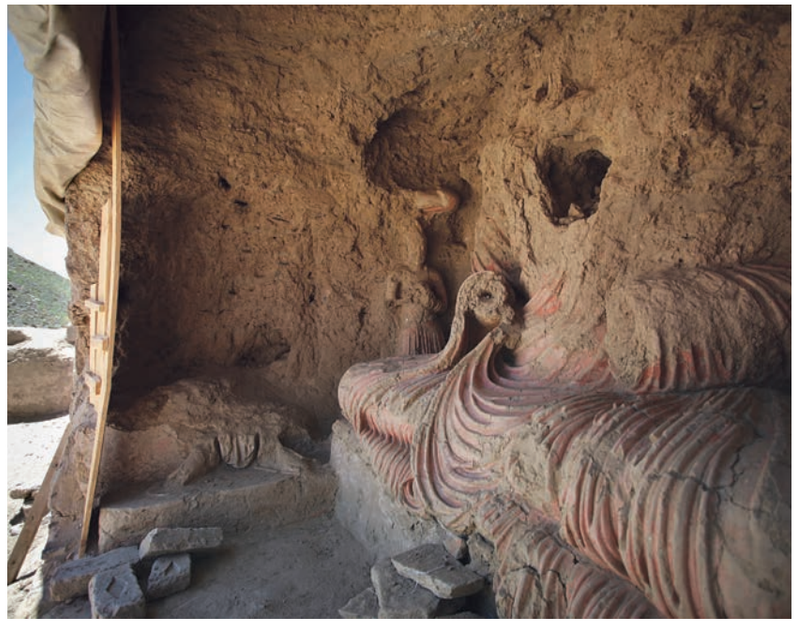
The past two decades have seen globalization, rapid societal change, significant global economic fluctuations, huge increases in tourism, and massive technological innovations. New approaches to the conservation and management of archaeological sites reflect the profession's response to these conditions, as it considers the complexity of societal context; the range of values and rights involved in heritage decision-making; and technological, scientific, and traditional ways to document and sustain archaeological heritage. Nevertheless, despite recent advances in practice, archaeological sites face increasing challenges from development, climate change, tourism, insufficient management, looting, conflict, and inadequate governmental resources.

CHANGES IN THINKING

The first Burra Charter was adopted nearly forty years ago, and over the intervening period, through various editions, its basic principles and procedures for heritage places have had a profound impact on the international practice of archaeological heritage management. This influential document did not prescribe the techniques to be used or the manner in which a place should be cared for but rather established a process that set cultural significance, including its meaning to people, at the heart of the endeavor. It helped pave the way for widespread adoption of values-based management and the involvement of various stakeholder groups, and it asked fundamental questions regarding local community participation in archaeological heritage management. Values-based management recognized that values are attributed by people, are not necessarily intrinsic to the physical remains of the past, and are changeable, not static, driven by opinions, ideas, perspectives, and new circumstances. This conception raised the likelihood that values for any

Villa Romana del Casale, Sicily. The site's iconic original shelter, designed in the 1950s by Franco Minissi, had numerous issues with conservation performance, lighting, and visitor circulation. The new shelter seen here, designed by Gionata Rizzi, uses advances in materials to provide a more effective conservation performance while enhancing the idea of the original space and improving the visitor experience. Photo: Roman Babakin / Alamy Stock Photo.





Mes Aynak in Logar Province, Afghanistan, once an important Buddhist Silk Road settlement. Large-scale copper mining planned for the area now threatens the site. Whether the archaeology, potentially a major tourist attraction if and when the region stabilizes, can be protected and managed while allowing mining to take place is a matter of current debate. Photos: David Fallon.

archaeological site or landscape will be multiple and often in tension. Recognition of the need to sustain values and not simply fabric has serious implications for conservation, raising issues about the universality of conservation principles and the need to manage change. The impact of a values-based approach is reflected in a number of influential publications regarding archaeological site management.

Another major development was the Nara Document on Authenticity (1994), which challenged the supremacy of material authenticity and established that authenticity is never absolute, but always relative. The document also opened the way for greater consideration of the sustainable use of historic buildings and archaeological sites, and thus a wider adoption of maintenance and traditional approaches to site management.

These evolving concepts have been vital in changing attitudes toward participatory engagement and rights-based management for archaeological and heritage resources. Those setting the agenda for archaeological site preservation, including what should be "preserved for future generations," are often those with political power—unsurprising, as participation is an act of political will. Randall Mason's thoughtful analysis of values assessment[1] reflected the complexity with which a specific stakeholder or group could be considered "insiders" or "outsiders" in a particular decision-making process: a fluctuating status depending both on issues specific to the situation and on wider decisions regarding power and power sharing. While heritage professionals actually are seldom "insiders," they often carry some weight in influencing decisions regarding archaeological sites, and thus they have an ethical responsibility to consider their place and power within the process.

Another major development over the past two decades has been the changing conceptualization of archaeological sites and landscapes. We have moved away from a focus on single sites and their environs to a wider vision both of landscape and of the multifaceted nature of archaeology. The discussion of cultural landscapes, cultural routes, and intangible heritage has broadened the previous focus beyond single sites and their tangible remains. All of this has brought strengths as well as complications. For example, Europe has been quick to embrace cultural routes, as the concept worked well in supporting the current political agenda of European hegemony (something Britain sadly has turned its back on); however, it has also been advanced as a mechanism for transnational tourism and as an economic driver, with little real regard for the complexity of the evidence. It is unfortunate that the Convention for the Safeguarding of the Intangible Cultural Heritage (2003) divided the intangible from the tangible, as intangible values are also inherent in material culture. How we integrate these concerns into more conventional site-based conservation and interpretation is a challenge.

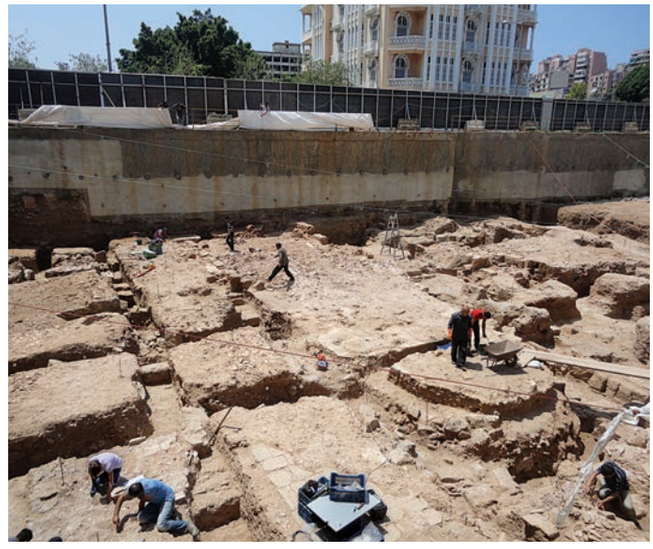
Overall, these changes and developments in the theoretical context of archaeological site management have demanded that we adopt a more holistic and strategic response. It is evident that a simple reactive response to threats is insufficient. For example, the GCI-organized session at the Fifth World Archaeological Conference (2003) addressed the need for the integration of the archaeological and conservation disciplines. In 2005 UNESCO made it mandatory for state parties to include a system for the management of properties in all dossiers for World Heritage nomination; most interpreted this to mean a management plan, but what it actually asked for was some form of management system, which offers a much more flexible approach. However, the value of traditional management systems has been only slowly recognized in this process. In the majority of cases, management planning has followed an overly formulaic implementation, often compiled by external consultants with little local engagement (even from local heritage professionals) and little desire to build capacity for sustaining the process. Examples can be cited where plans have been written in a language none of the archaeological park staff can speak—hardly conducive to having an impact on the management of the site. Fundamentally, this fails to recognize that management planning is a process, not a product. A management plan is only as good as the journey that produces it. It is about the dialogues and decision-making that occur during the process. But there are, of course, examples where an effective and participatory approach was adopted.[2]

RECENT ADVANCES

Archaeological site conservation has advanced substantially over the past two decades. Scientific techniques for conservation practice have developed through the application of new materials (for example, the major advances in geotextiles), combined with a new appreciation of the deterioration problems associated with the aging of some older ones (such as concrete).

We have seen major improvement in the thinking and methods related to the preservation in situ of archaeological remains. Urban development in particular has placed considerable pressure on the reburial of remains, which has led to research in appropriate strategies and materials but also raised concerns over how such buried remains can be monitored. The Preservation of Archaeological Remains In Situ (PARIS) conferences have highlighted approaches to reburial and issues regarding the importance of long-term monitoring, either directly or through proxies.

Another significant development has been advances in noninvasive documentation techniques. Satellite imagery, 3-D laser scanning, LiDAR, digital photography, photogrammetric recording, and unmanned aerial vehicles are radically changing our ability to rapidly and accurately document archaeological site condition and site setting. These data provide a platform for conservation decision-making, monitoring, and interpretative strategies. The cost of equipment and software has dropped dramatically within the last decade, making photographic point-cloud data generation in particular a low-cost and easily implemented strategy for many archaeological sites and landscapes. High dynamic range and infrared imagery are also offering new methods for documentation and site detection. Rendered models and, increasingly, augmented and virtual reality have the potential to build on all these spatial data sources to provide complex visualizations to support site interpretation.



Beirut, Lebanon. Archaeological rescue excavations have taken place in Beirut as part of the massive reconstruction after the civil war. The quality and scale of the archaeology has been extensive. Excavations by a team led by Fady Beayno are documenting this material before it is lost, but urban pressures mean that little is preserved in situ, and the display of what remains has been largely limited. Photo: Tim Williams.

There have been substantive advances in the approaches to the conservation and management of earthen architecture. The numerous Terra conferences—supported by the International Scientific Committee on the Conservation of Earthen Architectural Heritage (ISCEAH) of ICOMOS, the Getty, and CRAterre-EAG, among others—have highlighted the roles of documentation, monitoring, active maintenance, sacrificial material, shelters, and reburial, alongside the more difficult concept of managed decay.

Similarly, considerable work has been undertaken on the design of shelters for in situ archaeological remains. Recent projects have demonstrated a more nuanced understanding of the need to balance interpretation and presentation with conservation performance. Shelter design has placed increased emphasis on consideration of visitor flows, visitor experience, and the potential for the presentation of material culture from excavated sites. However, those calculating capital development costs and sustainable operation and maintenance expenditures often fail to appreciate the gap between potential visitor-based revenue and ongoing expenses. Shelters bring their own maintenance and management costs; while new materials offer considerable improvements in performance (thermal, environmental, etc.), the need to effectively manage and monitor, and to plan for replacement over relatively limited life spans, often exposes the lack of sustainable planning.

At the beginning of the millennium, university-based teaching of archaeological heritage management (as opposed to conservation) was rare. However, we have seen a steady increase in the range of courses offered, with heritage management masters courses now common in a range of Asian, Middle Eastern, European, and North American universities. Perhaps most heartening have been advances in the perception of heritage management as part of the archaeological discipline. The best archaeologists across the globe now routinely consider the consequences of archaeological excavation on archaeological resources, public and local community engagement, sustainable tourism, identities, and power—and they consider the efficacy of preservation in situ strategies at the outset of archaeological projects. Also encouraging is that heritage management is increasingly embedded in undergraduate archaeology courses. Archaeological heritage management is no longer the exclusive province of the conservator but is now perceived by many to be an ethical concern for any practicing archaeologist. This is a necessary and fundamental shift in the discipline of archaeology.

Nevertheless, the integration of conservation and archaeological practice remains a major issue and a point of debate among practitioners and educators. Site conservation, as opposed to artifact conservation, is still poorly represented across conservation and archaeology courses in general.

CONTINUING CHALLENGES AND NEEDS

Despite major changes in thinking regarding values-based management and participation, effective implementation is still some way off. There have been broad challenges to a narrow focus on conservation, driving both the use of archaeological heritage within twenty-

first-century contexts and advocacy for the engagement of local communities. But there has been less progress in translating these concepts into practice. Living heritage, rights-based management, and a range of ethical issues around sustainability and development goals confront archaeological conservation and management as professionals seek to meet the demands of contemporary communities and societies while still considering the need for future generations to make their own choices. In a values-based approach, heritage professionals are not without their own values and opinions, and in an age where specialist knowledge and experience seem discounted in policy development, it is important to recognize the crucial role of advocacy for preservation and sustainable use.

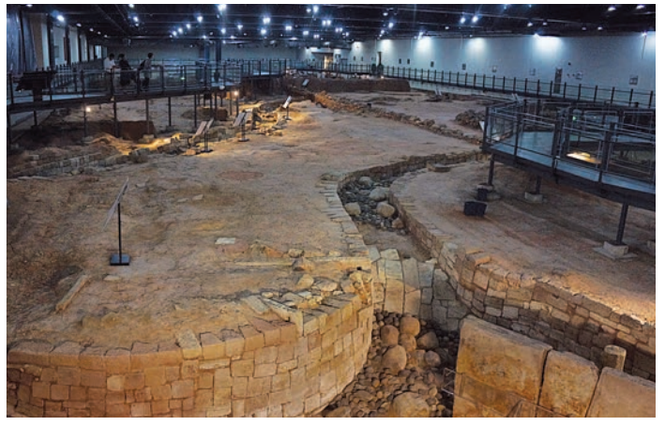
The future of archaeological site conservation and management hinges on establishing it as a component of the wider issue of sustainable development, contributing to the four pillars of sustainability: environmental, economic, social, and cultural. Commercialization and the potential devaluation of local traditions are significant concerns. Indeed, cultural tourism presents a major challenge for the management of archaeological sites—but also a major opportunity. The potential income generation of international tourism is a benefit from the investment in heritage management, even in difficult economic times.[3] In practice, however, much of the revenue derived from tourism, especially in developing countries, has been franchised out, leading to both "tourism leakage"[4] and a lack of capacity, which can have an even more alienating impact on local communities.

The global economic crisis of 2008 exposed the fragility of resourcing for sites, museums, and heritage protection. Such economic considerations are often a veil for political ideologies advocating the disengagement of the state from society. The effects of heritage funding cuts in the UK, for example, are staggering, including the closure of museums, the severe decline in archaeological input to the planning process, and the failure to address the storage of archaeological archives. The loss of expertise is incalculable.

In 2009, for the first time in human history, most of the world's population lived in urban areas. This presents a major challenge for archaeological resource management, and responses must focus on holistic, multidisciplinary, and strategic planning to enable archaeological heritage to play a meaningful role for twenty-first-century communities. Archaeology is not a hindrance but an asset in building sustainable and resilient communities. Archaeological and built heritage can make major contributions to identity building, diversity, distinctiveness, and a sense of place and belonging. In many countries, the presumption of preservation in situ without an intention to communicate, use, or engage has made archaeology seem a mere obstacle to sustainable urban communities. Indeed, the scale of historic cities has meant that we seldom place archaeological heritage at the core of urban planning and development—but that is where it needs to be. We need to emphasize knowledge advancement, excitement, discovery, and sense of place, rather than a tired diatribe of preservation at all costs.

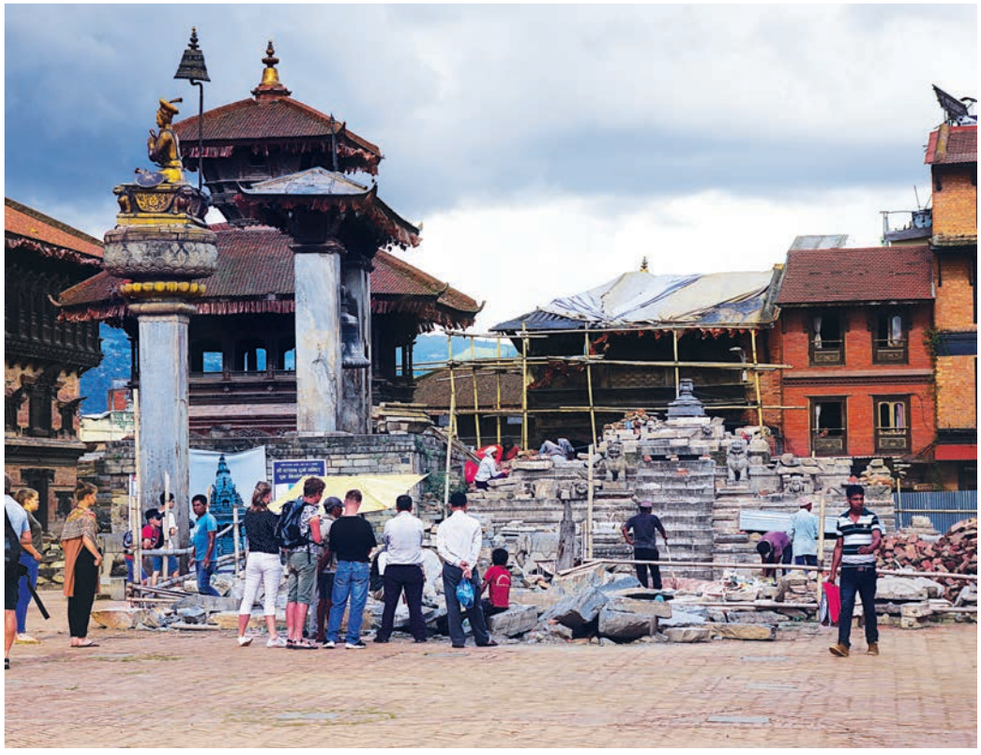
The interpretation of archaeological sites remains incredibly poor. It seldom articulates a holistic vision of the site, recognizing different voices or the complexity of visitors. A particular problem is its failure to engage visitors in the reasons for and the character of conservation. Restorations and reconstructions blur into the historic fabric with little comment, and the recent scale of reconstruction (not conservation or restoration) is a concerning trend. Ellis Woodman has argued that "just as Isis's assault on Palmyra represented an attempt to wipe out one episode of Syria's past, now the digitally produced copy promises to erase another. In a country where the reductive narratives enforced by successive leaders have resulted in so much suffering, it would be a sad irony if the solution adopted at Palmyra represented a further suppression of the complexity of Syria's history."[5]

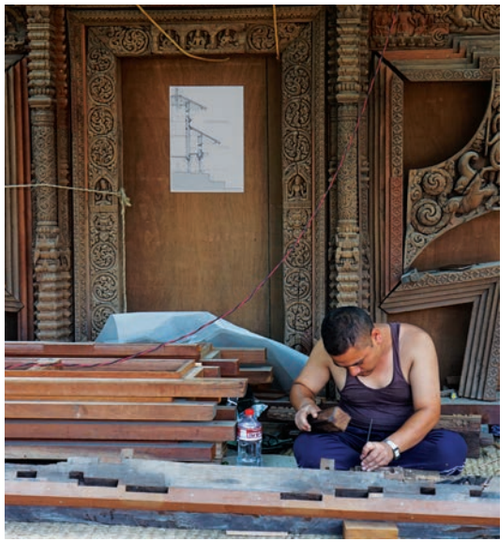
An increasing number of archaeological sites are threatened by development pressures, mass tourism, armed conflict, resource extraction, climate change, and insufficient management—and yet we do not adequately build capacity and skills. Some organizations in both the governmental and the nonprofit sectors have been working to change this, but we need a more sustained engagement with places and projects. We are not short "expert missions," but long-term collaborations are still uncommon. We need to focus on the building of capacity in archaeological conservation and site management, and we need to think about how we utilize apprenticeships and traditional crafts.[6] We must think through the strategic application of archaeological and heritage data to real-world situations. We need more people—not just heritage professionals—taking on the challenge of making heritage and archaeology relevant to contemporary communities.



The well-preserved remains of the palatial gardens of the Nanyue Kingdom Palace gardens in Guangzhou, China. Here an extensive shelter provides a context for displaying and interpreting the formal gardens. Photo: Tim Williams.

War remains a major issue. We must plan for resilience and recovery, and not simply bemoan what we cannot save. There have been some useful recent developments in preparation for post-conflict priority actions in Syria. However, effective planning for the role of heritage in postwar recovery is still poor. Rather than considering individual buildings, reconstruction projects must take a holistic approach, thinking in terms of urban landscapes and working with local communities to identify the priorities for reconstruction and repair. The goal is rebuilding communities, and architectural heritage and archaeology have vital roles in this. Sultan Barakat—the current director of the Conflict Management and Humanitarian





Left: Post-earthquake reconstruction in Bhaktapur, Nepal. Good documentation provides a platform for reconstruction, ensuring that the sense of place, and its economic and social value for the local community, can be recovered. **Above: A positive outcome of the Nepalese earthquake has been the revitalization of traditional crafts.** In Patan, craftspeople are being trained in traditional wood carving to replace thousands of damaged pieces. Photos: Tim Williams.

Action Program at the Doha Institute—formulated nine critical lessons for a holistic approach to postwar reconstruction, highlighting the need for a clear vision of future recovery scenarios as seen by local groups, as much as by external players.[7] If Aleppo, for example, is once again to become a destination for international visitors and resurrect this vital part of its economy, it must place sustainable heritage conservation at the heart of a strategic vision.

Climate change will present many challenges for archaeological site management and conservation. New Zealand has laudably established climate refuge status to support the Pacific Island communities affected by rising sea levels, but this also underscores the scale of loss that coastal heritage will suffer in coming years. Planning the documentation and salvage of archaeological resources in the coastal zone will be a priority for many countries in the decades ahead.

PRESENT AND FUTURE

The past twenty years have demonstrated that reactive responses are not an adequate means of archaeological site management. We need holistic and strategic planning. Despite substantial advances, there are increasingly poor governmental responses in many countries to the pressures on heritage from globalization, modernity, climate change, and urban expansion. The challenge for all of us is to promote the positive and vital role that archaeological heritage and its management play in contemporary society. An example of this is the excellent work of the local council and heritage agencies in Bhaktapur, Nepal, where revenue from heritage tourism, through taxation and entry fees, is channeled into supporting the community as well as the monuments, sustaining a dynamic and vibrant city with an overwhelming sense of place, where the historic urban landscape is a vital part of daily life. Values, and how we sustain them for future generations, demand that we advocate for the relevance of archaeological heritage to communities and governments. We must use heritage to support communities, especially if we are committed to helping lift people out of poverty.

Archaeologists must engage with stakeholders to consider what is excavated, what we leave in situ, and why. The bias toward the preservation of the monumental and the elite serves an appreciation of the complexity of past societies poorly, and it should be reconsidered. Preservation of archaeological sites in situ should be coupled with a commitment to display and interpret; the fulfillment of an obligation to the future does not eliminate the responsibility to address the needs of the present. Ultimately, if we are to convince societies to preserve archaeological sites, we must become more effective at communicating the rich human history and complex values embedded in these fragile remains of the past.

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1. Randall Mason, "Assessing Values in Conservation Planning: Methodological Issues and Choices," in *Assessing the Values of Cultural Heritage*, edited by Marta de la Torre (Los Angeles: The Getty Conservation Institute, 2002): 5–30.
2. Some good examples of this work include Joya de Cerén in El Salvador, the archaeological zone of Monte Albán in Mexico, and Hoi An in Vietnam.
3. The eco-taxation model of the Balearic Islands is an example of this practice.
4. Tourism leakage is the process whereby part of the foreign exchange earnings generated by tourism, rather than being retained by the host country, are retained by tourist-generating countries or repatriated to them in the form of profits, royalties, repayment of loans, and imports (of equipment, materials, capital, and consumer goods) while catering to the needs of the international tourist. In developing countries, the revenue that stays in the host country is often in the form of low-paid menial work, and as little as 10–30% of tourism income is retained in country (see *Tourism and the Sustainable Development Goals—Journey to 2030* [UNWTO, 2017]).
5. Ellis Woodman, "Replicating Palmyra's Temples with 3D Printers Will Not Repair Syria's Hurt," *The Architect's Journal* (March 31, 2016).
6. The work of the Aga Khan Trust in Zanzibar and Trevor Marchand's efforts in Yemen are notable examples.
7. Anyone concerned with the role that archaeological heritage has to play in this process should read Sultan Barakat, "Postwar Reconstruction and the Recovery of Cultural Heritage: Critical Lessons from the Last Fifteen Years," in *Cultural Heritage in Postwar Recovery*, edited by Nicholas Stanley-Price (Rome, 2007: ICCROM) 26–39.