

The Reconstruction of Ruins: Principles and Practice

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Introduction

Reconstruction has always been one of the most controversial issues for those with an interest in the material evidence of the past. The urge to make whole again a valued building or work of art that is incomplete is a very strong one, similar in some ways to the urge to improve or correct someone else's text. Both involve a strong desire to see an object that is complete and integral to one's own satisfaction, rather than tolerate a creative work that has been diminished in its intelligibility.

The idea that the object may have a greater value in its incomplete state than if it is reconstructed, runs counter to this strong compulsion. Yet that idea has been central to much of the theory of conservation and restoration that developed primarily in the Western world and has subsequently been diffused worldwide.¹ The core of Western conservation theory is epitomized in the question as to how far restoration should be taken.

Different attitudes towards this fundamental question have given rise to some of the most notorious controversies in conservation. For instance, disagreements over the extent to which paintings at the National Gallery of London should be cleaned, and what methods should be used, led to official Commissions of Enquiry in 1850 and 1853 and remarkably, a century later, were revived following the criticisms by Cesare Brandi and others of what they considered the Gallery's excessive cleaning of early paintings.² Another example is John Ruskin's critique in the nineteenth century of the 'stylistic restoration' of historic buildings that aimed at reviving earlier styles rather than respecting the age-value and patina that a building had accumulated through time.³

A number of important concepts, such as reversibility (or, better, re-treatability) and minimum intervention, are at the heart of an ever-growing library of Codes of Ethics and Charters. Nevertheless, there are no textbook rules about when restoration should be carried out or how far it should go. Instead, each case is deemed

to be different and must be judged on its merits.⁴ This is perhaps what gives conservation/restoration much of its perpetual fascination.

In order to examine the question here, I consider the reconstruction of ruins, which represents in many respects an extreme example of restoration. In order to define the question as clearly as possible, I limit the discussion to buildings from the past whose existence was known primarily from their excavated remains before being reconstructed. In other words, although there may be other references – literary, folkloric or pictorial – to their previous existence, it is mainly through their insubstantial visible remains that they have become known again.

I have deliberately limited the argument in this way, in the hope of avoiding the confusion that could be introduced by including other types of building reconstruction. I do not consider here buildings that have been reconstructed immediately following a natural disaster or a war. These differ because there usually exists ample documentary evidence of the destroyed buildings. Examples include the main hall of the Horyu-ji Temple at Nara in Japan, burnt in 1949; the Campanile in the Piazza di San Marco, Venice that suddenly collapsed in 1902; the Old Town of Warsaw; the Frauenkirche in Dresden destroyed during WWII; and the Old Bridge at Mostar destroyed during the recent war in the Balkans.

Nor do I consider projects to reconstruct historic buildings that are known to have existed in the distant past but for which only sparse literary and pictorial references survive. (This practice is often referred to as re-creation, if the result is highly conjectural.) The strong trend, especially in former Communist states, towards reconstructing such vanished buildings, often on the basis of flimsy documentary evidence of their original appearance, is generating its own critiques.⁵ Several of the arguments adduced below are relevant to these cases, but they are not the focus of this chapter.

So the question that is posed here is: When should such excavated and incomplete buildings be reconstructed to a state similar to how they might once have appeared? The chapter examines in turn the following questions: What widely accepted principles are there concerning reconstruction? How has the practice of reconstruction been justified (whatever the accepted principles may be)? What are the arguments against it? And finally, in the light of arguments for and against, what principles can be proposed to help guide issues of reconstruction?

Principles enshrined in conventions and charters

In international legislation and guidelines, the answer to the question as to whether incomplete buildings should be reconstructed is clear. It is strongly discouraged.

At the highest level of international consensus, the obligations of UNESCO's World Heritage Convention (1972) are legally binding on the states party to it; the number of states party is in fact the highest of any UNESCO Convention.

The Operational Guidelines for the Implementation of the World Heritage Convention address the question of reconstruction of buildings as follows:

In relation to authenticity, the reconstruction of archaeological remains or historic buildings or districts is justifiable only in exceptional circumstances. Reconstruction is acceptable only on the basis of complete and detailed documentation and to no extent on conjecture.⁶

To repeat, the obligations of international conventions of the United Nations are legally binding on their states party. Charters, on the other hand, tend to have an exhortatory role in encouraging professionals to adopt commonly agreed principles in their work. The content and eventual impact of a Charter depends, de facto, on the authority of those who drafted and approved it, and thence its acceptability to the professional field in general. Several Charters in conservation have addressed the question of reconstruction of sites on the basis of their archaeological remains.

For example, the influential Charter of Venice (1964) states with regard to the reconstruction of archaeological sites (Article 15): ‘all reconstruction work should however be ruled out. Only anastylosis, that is to say, the reassembling of existing but dismembered parts, can be permitted.’

The strong presumption against reconstruction expressed in the Operational Guidelines for the Implementation for the World Heritage Convention and in the Venice Charter is echoed in many subsequent documents. For instance, the revised version (1999) of the Burra Charter of Australia ICOMOS, originally developed for the Australian context but cited much more widely as a coherent set of guidelines, states:

Article 1.8. Reconstruction means returning a place to a known earlier state and is distinguished from restoration by the introduction of new material into the fabric.

Article 20. Reconstruction.

20.1. Reconstruction is appropriate only where a place is incomplete through damage or alteration, and only where there is sufficient evidence to reproduce an earlier state of the fabric. In rare cases, reconstruction may also be appropriate as part of a use or practice that retains the cultural significance of the place.

20.2. Reconstruction should be identifiable on close inspection or through additional interpretation.

The language of the Venice Charter is uncompromising in proposing what constitutes acceptable reconstruction on archaeological sites (‘the reassembling of existing but dismembered parts’). But the interpretation of reconstruction in the

Burra Charter (Article 1.8 above) as being ‘distinguished from restoration by the introduction of new material into the fabric’ is at variance with the Venice Charter and with common usage outside Australia. There must be few restorations that do not require the introduction of any new material. If the Burra Charter definitions were to be widely adopted outside Australia for where they were developed, they could not fail to cause confusion. For instance, the current long-term project on the Acropolis of Athens would have to be characterized as a reconstruction, a term that would be rejected by the Greek authorities.⁷

What is common to all such documents, whether they are international conventions or charters produced by groups of professionals, is that reconstruction constitutes an exceptional case and should be carried out only when there exists sufficient primary evidence. As the World Heritage Operational Guidelines state, reconstruction is ‘acceptable only on the basis of complete and detailed documentation and to no extent on conjecture.’

In reality, the strictures of these international documents have prevented neither the continued practice of reconstruction nor the inscription of sites with reconstructed buildings on the World Heritage List nor new reconstructions on sites already so inscribed. It is striking that a recent volume of essays on site reconstructions contains but one reference to the Charter of Venice, and mentions World Heritage only in the context of sites inscribed on the List that feature reconstructions, e.g. the prehistoric Aztec Ruins and Mesa Verde in the USA.⁸ It is as if such reconstructions are justified for their public interpretation value whether or not they meet the criteria of international restoration documents.

In fact, and not only in the USA, despite the almost universal consensus of the charters against reconstruction unless firmly based on evidence, it still holds a strong appeal – both for cultural heritage managers and for the public. So how has the reconstruction of buildings known from their excavated remains been justified, and what are the arguments against the practice?

Justifications for reconstruction

A number of justifications have been given for the reconstruction of buildings that are known primarily from excavated evidence.⁹ These include:

1. **National symbolic value.** The building played an important role in the country’s history, or was associated with an outstanding figure.

I give only two examples of what is probably the commonest impulse towards reconstruction, both of them from former capitals in their countries. Because of its important role in what was the capital of Virginia until 1775, the Governor’s Palace (1706–1791) was the first major building to be reconstructed after the project to ‘restore’ Colonial Williamsburg began in 1927.¹⁰ Much of today’s

reconstructed Palace interior is quite hypothetical, but the footprint for the reconstructed building was established by non-expert excavation in the 1920–1930s to expose the original foundations (the first professional archaeologist was not appointed at Williamsburg until as late as 1957).

In Japan, at the eighth-century AD Heijō Palace site of Nara, a place of immense symbolic value in Japanese history, the insubstantial traces of the wooden buildings revealed by excavation have led to full-scale reconstructions of the Suzakmon Gate (1990–1997) and, since 2001, of the Daigokuden Hall of the Palace.

2. **Continuing function or re-use.** The reconstructed building can continue to serve its previous function or makes possible a new, different function.

Rarely are excavated buildings reconstructed to serve their previous or original function. The principal exceptions are Greek and Roman theatres and other places of performance. Buildings that have been extensively reconstructed from archaeological evidence to serve new functions would include the Stoa of Attalus in the Athenian Agora, reconstructed in 1953–1956 to serve as a museum, store and workspace for finds from the continuing excavations there.¹¹

3. **Education and research.** The process of reconstruction can be a rewarding research project, and the resulting building is an important didactic tool for visitors. ‘Visitors love them.’

If interpreted broadly, this justification holds true for the great majority of reconstructed sites. Whatever the primary motivation for it, a reconstructed building has the potential to have a high educational and research value. The very process of researching, testing and building unfailingly leads to a better understanding of the past by specialists. Non-specialists benefit from the new knowledge accumulated during the process and from viewing the built embodiment of it. The many reconstructions of timber buildings based upon archaeological evidence in the USA, northwest Europe and Japan exemplify the combined research and popular education roles of reconstructions.

4. **Tourism promotion.** A reconstructed building can attract tourism and thus generate income for the public or private authorities that manage it.

The massive reconstruction of pre-Hispanic sites in Mexico, Guatemala, Belize and Bolivia (Tiwanaku) in the 1950s and 1960s aimed to promote tourism while also demonstrating national pride in the pre-Colombian past.¹² The motivation behind the proposed reconstruction of the Hwangnyongsa Temple in Gyeongju (Republic of Korea) is first and foremost the economic development of the city, especially through increased tourism, and not its potential re-use as a Buddhist temple.¹³

5. **Site preservation.** Reconstruction, by showing that the site is being actively used, helps protect it from development pressures; alternatively, it may serve to stabilize precarious ruined structures.

If a salvage excavation has taken place in advance of commercial development, reconstructing the building whose foundations have been excavated can prevent the alternative development going ahead.¹⁴ A classic case of reconstruction (or reconstitution as he called it) being justified in order to stabilize excavated ruins is Arthur Evans' work at Knossos.¹⁵ In fact, as C. Palyvou perceptively observes,¹⁶ it was Evans' concern for preservation through reconstruction that led to his interest in site presentation (aided also by his communication qualities as a journalist), rather than the more common path of a concern for site presentation leading to reconstruction.

If these points summarize some of the main justifications that have been cited for reconstructing buildings from excavated remains, what are the arguments against this practice?

Arguments against reconstruction

- A. *The evocative value of ruined buildings.* A ruined building left as it is can be more evocative of the past than that same building reconstructed.

The romantic appeal of ruins has been extensively written about,¹⁷ if sometimes rather simplistically attributed to nostalgia for the past, which is supposedly characteristic of the European Romantic tradition. But the creative role of ruins in inspiring art, literature, and music cannot be discounted, nor the deliberate retention of ruins as memorials to tragic events. The preservation as a ruin of the A-Bomb Dome at Hiroshima is one example from outside Europe.

- B. *The difficulty (impossibility?) of achieving authenticity.*¹⁸ Reconstructed buildings are de facto new buildings, tending to reflect the culture and times of their creators, rather than being faithful reproductions of the original.

Very few reconstructions from excavated remains would meet the standard requirement of the Charters that they be based on full and complete documentation. It is hard to see how excavated remains alone could provide that. Because reconstructions do involve conjecture to a greater or less degree, the tendency will be for their architects to be unconsciously prone to other influences. Thus the influence of Beaux-Art ideals has been noted in the reconstructed Capitol building at Colonial Williamsburg and as a possible inspiration for Evans' use of colour in the Knossos reconstructions.^{19,20} But the latter seem also to have been strongly influenced by contemporary Art Deco styles (Figure 4.1).²¹



Figure 4.1 *North Lustral Basin, Knossos, Greece as restored by Arthur Evans in 1929. Photo reproduced with permission from the Ashmolean Museum, Oxford.*

C. *The ethical issue of conveying erroneous information.* Inaccurate reconstructions can mislead the professional and lay publics unless identified as such.

Despite the laudable justification of education and research goals (see point 3 above), if the reconstruction is inaccurate or simply wrong, both scholars and the lay public can be misled if not warned. The use of comparative evidence from other pre-Columbian sites for reconstructing Pyramid B at Tula in Mexico (Figure 4.2) led astray future scholars who were unaware of what had been reconstructed and how.²² If professionals can be misled, what false impressions are non-specialist visitors to gain unless informed as to what has been reconstructed on a conjectural basis?

D. *The destruction of original evidence.* Many reconstructions have either destroyed or rendered inaccessible the evidence on which they are based, to the detriment of future scientific research.

The reconstruction of buildings *in situ* on their original foundations, however credible it may be, is likely to limit the options for future research as ideas change. The ICOMOS *Charter for the Protection and Management of the Archaeological Heritage* (1990), Article 7, evidently has this risk in

mind: 'Where possible and appropriate, reconstructions should not be built immediately on the archaeological remains and should be identifiable as such.' The horizontal displacement of any reconstruction work to another site as 'experimental archaeology' avoids this problem, as does 'vertical displacement' to some extent – I refer to the practice in Japan of leaving a layer of earth or concrete to separate the original subsurface remains from the foundations of the reconstruction.²³



Figure 4.2 *Pyramid B, Tula, Mexico, as restored by Jorge Acosta, 1941.*

E. *The disruption of landscape values.* A reconstructed building in an otherwise ruined landscape distorts visual and spatial relationships.

If only one or two buildings are reconstructed on an otherwise 'flat' site, they tend to influence visitors' 'desire lines' (preferred circulation routes around the site). The reconstruction may enhance an appreciation of the original form of those particular buildings but the inequalities of scale will risk diminishing an understanding of the site as a whole. The monumental scale of the reconstructed Stoa of Attalus in the Athens Agora, already referred to (see point 2 above), the Gymnasium of the Baths at Sardis (Figure 4.3) and the Temple of Hatshepsut at Luxor exemplify this phenomenon.



Figure 4.3 *Gymnasium of Baths at Sardis, Turkey, as reconstructed in 1964–1973.*

F. *Distorted site interpretation.* The complexities of sites with a long history are obscured if they are reconstructed to feature a single period.

In technical terms it is relatively easier to reconstruct to a single period, but the evidence of other periods may have to be sacrificed. At Knossos ‘the casual visitor – and often even the specialist – can forget that Knossos is the largest Neolithic site on Crete...and...is one of the two largest Greek and Roman sites on the island.’²⁴ On the Acropolis of Athens, almost all evidence of post-Classical building had already been demolished in the nineteenth century as part of the post-Independence glorification of the remains of Classical Greece, thus facilitating the current project.²⁵ In other cases, political pressures may require a specific historical occupation phase to be emphasized on a multi-period site.²⁶

G. *Cost.* Reconstruction projects tend to be very expensive and often can only be financed by the political authorities who insist they be undertaken.

Without the support of a Rockefeller (who financed the plan to restore Colonial Williamsburg), it tends to be public authorities, using public funds, who make possible major reconstruction projects. So the decision to undertake them, and the criteria that define their scope and result, are usually not

those of professional heritage managers. Moreover, the subsequent maintenance costs are often not taken into account, and the costs of reconstructed sites tend to reduce the budgets available for other, less spectacular sites. An extreme case is the lavish reconstruction of Babylon, undertaken for political reasons while Iraq was engaged in a long-term and costly war with its neighbour Iran.²⁷ In a different kind of war, B. Mackintosh describes several battles, some successful and some not, fought by the National Park Service (NPS) in the USA to counter reconstruction projects advocated by Congressional representatives in their home districts.²⁸ The very popularity of the conjectural restorations of Colonial Williamsburg from their earliest results created amongst members of the public expectations that sites would be reconstructed, even where the evidential basis was lacking. Politicians did not hesitate to exploit their populist appeal and to make the necessary funds available, despite the official NPS policy or the views of the professionals.

Towards some principles for site reconstruction

On this controversial topic, it is difficult to propose guidelines – the gulf that exists between the statements of Charters and the World Heritage Convention guidelines and actual practice demonstrates this point. Nevertheless, in this concluding section I try to propose some principles. They take into account the previous discussions of justifications usually made for reconstruction and of arguments against it.

1. A reconstructed building – if based primarily on excavated evidence – must be considered a new building (reconstruction as a creative act).
2. Reconstruction of one or more buildings is to be considered only if the values (including the landscape value) of a site will be better appreciated than if the buildings are left in a ruined state (the ruin as a source of inspiration or as a memorial).
3. The surviving evidence for the former building must be fully documented in such a way that this record is always available in the future (a scientific and ethical obligation to record for posterity).
4. The surviving evidence for the former building, or for different historical phases of it, must not be destroyed or made inaccessible by the very act of reconstructing it (a scientific obligation to allow (built) hypotheses to be verified or rejected).
5. The evidence – its strengths and its limitations – for the reconstructed form must be interpreted clearly to all visitors (an ethical obligation not to mislead or misinform the public).
6. Buildings that have been wrongly reconstructed in the past could, on a case-by-case basis, be preserved as they are (reconstructions as part of the history of ideas).

It seems axiomatic that reconstructions of the kind described here are to be considered new buildings (as they are by contemporary architects who adopt bold solutions for adapting old buildings). They are not incomplete old buildings that have been 'restored to their former glory,' in the phrase beloved by the media. How many reconstructions have even attempted really to reproduce the conditions that are assumed to have obtained in the past? Criticisms of the 'too-clean Williamsburg' are well known and could be applied to all reconstructed sites. Evans' use of colour at Knossos is an exception to the general rule of non-painted architectural reconstructions in Classical lands. Significantly, Evans' colours were later toned down in the 1950s in accordance with changing taste, but have now been revived as part of the conservation project that considers Evans' work as part of the history of the site.²⁹ So, in short, reconstructions are new buildings; they do not reproduce original conditions.

The obligation to record and preserve evidence for future investigators must be inherent to any field of study that considers itself scientific. So any reconstruction should avoid impact on the original remains by means of either vertical or horizontal displacement (see D above). Equally, a reconstruction should aim at respecting the integrity of a building that has evolved through time. The removal of the remains of any one phase in the interests of the reconstruction of other phases must be justified and fully documented.

The requirement to convey to visitors accurate information about the fidelity of a reconstruction to the current state of knowledge seems paramount. Knowingly to convey inaccurate information without disclosure is unethical (or actually criminal) in other spheres of communicating with the public. Why should conjectural reconstructions be exempt from this requirement? The standard criterion in restoration of 'visibility of the intervention' applies here. It can be met either by employing subtle differences in the technique or texture of materials or more strikingly by using quite modern materials, perhaps reproducing only the volumes of the vanished buildings and not their solid form (i.e. volumetric reconstruction, as practiced for example at Benjamin Franklin's House in Philadelphia, the Forges St Maurice industrial installation in Québec, and the Temple of Apollo at Veii, on the northern outskirts of Rome).

A different argument can be made for retaining erroneous reconstructions carried out in the past, on the basis that they possess their own value in reflecting the history of taste and ideas (as in Evans' work at Knossos). A parallel exists with the restoration of antique sculpture, for which there is a value in retaining previous restorations even though erroneous.³⁰

Conclusion

There is no doubt that the international normative documents and the ever-growing number of Charters guiding conservation practice have had a strong influence on

conservation practice. But within the built heritage field the particular case of reconstruction exhibits a clear divergence between principles and practice.

In this chapter I have attempted to summarize some of the justifications that have been used for reconstructing buildings now known mainly from their excavated remains, and also some of the arguments against this practice. The hard line taken against reconstruction in the normative documents must stem from experience; in other words, a consensus has developed among professionals that the arguments against outweigh the justifications for. And yet vanished buildings continue to be reconstructed. Is there a way out of this paradox?

One way out lies in responding differently to the enormous popular appeal of reconstructed buildings. The advent of multimedia and virtual realities makes it possible to explore competing hypotheses about the past without requiring any intrusion into the original physical remains on-site. The high costs associated at present with the development of such projects will decline as technology evolves. Thus a visit to the ‘real thing’ in the field, appropriately conserved and interpreted as found, will be a test of the credibility of the electronically generated image of the past. An ability to appreciate the authenticity of the past depends in the end on the observer, and not on the observed. Or, put another way, it is the visitor who should be treated, and not the building.³¹

Notes

1. As it has spread, the philosophy of ‘conserve as found’ has come into conflict with traditions that provide for the regular renovation of buildings of continuing religious or other functions. It is now more widely admitted that it is the preservation of the spiritual values of such buildings (‘living heritage’) that is more important than conservation of their physical fabric alone.
2. See various readings in Part VI “Cleaning Controversies,” *Issues in the Conservation of Paintings*, eds. D. Bomford and M. Leonard (eds) (Los Angeles: The Getty Conservation Institute, 2004) 425–547.
3. See introduction and readings in Part V “Restoration and anti-restoration,” *Historical and Philosophical Issues in the Conservation of Cultural Heritage*, eds. N. Stanley Price, M.K. Talley, Jr. and A. Melucco Vaccaro (Los Angeles: The Getty Conservation Institute, 1996) 307–323.
4. See the different contributions in W.A. Oddy, ed. *Restoration: Is It Acceptable?*, British Museum Occasional Paper 99 (London: British Museum Press, 1994) and in *Faut-il Restaurer les Ruines?*, (Actes des Colloques de la Direction du Patrimoine.) Entretiens du Patrimoine (Paris: Picard, 1991).
5. For example, H. Stovel, “The Riga charter on authenticity and historical reconstruction in relationship to cultural heritage: (Riga, Latvia, October 2000),” *Conservation and Management of Archaeological Sites*, Volume 4. Number 4, (2001): 240–244; N. Dushkina, “Reconstruction and its Interpretation in Russia – 2,” *Proceedings of the*

- Scientific Symposium*, Session II, paper 12, ICOMOS 15th General Assembly, Xi'an, China, 17–21 October 2005, accessed 6 February 2007, www.international.icomos.org/xian2005/papers.htm; and J. Pirkovic, "Reproducing lost monuments and the question of authenticity," *Varstvo spomenikov*, Volume 40 (2003): 209–221.
6. *Operational Guidelines for the Implementation of the World Heritage Convention* (Paris: UNESCO, revised 2005) §86. The wording is almost identical in the previous version of the Operational Guidelines concerning authenticity, with the significant addition of the words 'of the original': '(the Committee stressed that reconstruction is only acceptable if it is carried out on the basis of complete and detailed documentation of the original and to no extent on conjecture)' (Paris: UNESCO World Heritage Committee, 1998) §24(b) (I).
 7. F. Mallouchou-Tufano, "Thirty years of anastelosis work on the Athenian Acropolis, 1975–2005," *Conservation and Management of Archaeological Sites*, Volume 8, Number 1, (2006): 27–38.
 8. J.H. Jameson, ed., *The Reconstructed Past. Reconstruction in the Public Interpretation of Archaeology and History* (Walnut Creek: Altamira Press, 2004).
 9. See, for example, J.M. Fitch, *Historic Preservation. Curatorial Management of the Built World* (Charlottesville: University Press of Virginia, 1990); P.G. Stone and P.G. Planel, eds., *The Constructed Past. Experimental Archaeology, Education and the Public*, *One World Archaeology* 36 (London: Routledge, 1999); and J.H. Jameson, ed., *The Reconstructed Past. Reconstruction in the Public Interpretation of Archaeology and History* (Walnut Creek: Altamira Press, 2004).
 10. M.R. Brown III and E.A. Chappell, "Archeological Reconstruction and Authenticity at Colonial Williamsburg," *The Reconstructed Past. Reconstruction in the Public Interpretation of Archaeology and History*, ed. J.H. Jameson (Walnut Creek: Altamira Press, 2004) 47–63.
 11. H.A. Thompson, *The Stoa of Attalos II in Athens*, Excavations of the Athenian Agora Picture Book no. 2 (Athens: American School of Classical Studies, 1959).
 12. A. Molina-Montes, "Archaeological Buildings: Restoration or Misrepresentation," in ed. E.H. Boone, *Falsifications and Misreconstructions of pre-Columbian art*, *Dumbarton Oaks*, 14–15 October 1975, (Washington, DC: Dumbarton Oaks Institute of Meso-American Studies, 1982) 125–141; D. Schávelzon, *La Conservación del Patrimonio Cultural en América Latina. Restauración de Edificios Prehispánicos en Mesoamérica: 1750–1980* (Buenos Aires: Instituto de Arte Americano e Investigaciones Estéticas "Mario J. Buschiazco," 1990).
 13. H-S. Kim, "Utilization Plan of Hwangnyongsa Temple after Reconstruction," *Preprints of International Conference on Reconstruction of Hwangnyongsa Temple, April, 28–April 29, 2006, Gyeongju-si, Korea* (Seoul: National Research Institute of Cultural Heritage, 2006) 385–401.
 14. K. Okamura and R. Condon, "Reconstruction Sites and Education in Japan: a Case Study from the Kansai Region," *The Constructed Past. Experimental Archaeology, Education and the Public*, *One World Archaeology* 36, eds. P.G. Stone and P.G. Planel (London: Routledge, 1999) 63–75.

15. A.E. Evans, "Works of reconstitution in the palace of Knossos," *Antiquaries Journal* Volume 7 (1927): 258–267.
16. C. Palyvou, "Architecture and Archaeology: The Minoan Palaces in the Twenty-first Century," *Theory and Practice in Mediterranean Archaeology: Old World and New World Perspectives*, Cotsen Advanced Seminars 1, eds. J. K. Papadopoulos and R.M. Leventhal (eds) (Los Angeles: The Cotsen Institute of Archaeology, University of California at Los Angeles, 2003), 205–233.
17. For example, C. Woodward, *In Ruins* (Vintage, 2002).
18. H. Schmidt, "The impossibility of resurrecting the past: Reconstructions on archaeological excavation sites," *Conservation and Management of Archaeological Sites*, Volume 3, Number 1–2 (1999): 61–68.
19. C.R. Lounsbury, "Beaux-arts ideals and colonial reality: the Reconstruction of Williamsburg's Capitol 1928-1934," *Journal of the Society of Architectural Historians*, 49.4 (1990): 373–389.
20. C. Palyvou, "Architecture and Archaeology: the Minoan Palaces in the Twenty-first Century," *Theory and Practice in Mediterranean Archaeology: Old World and New World Perspectives*, Cotsen Advanced Seminars 1, eds. J.K. Papadopoulos and R.M. Leventhal (Los Angeles: The Cotsen Institute of Archaeology, University of California at Los Angeles, 2003) 218–219.
21. See for instance the striking photograph of the North Lustral basin at Knossos as restored in 1929 reproduced here as Figure 4.1.
22. A. Molina-Montes, "Archaeological Buildings: Restoration or Misrepresentation," *Falsifications and Misreconstructions of pre-Columbian art*, *Dumbarton Oaks*, 14–15 October 1975, ed. E.H. Boone (Washington, DC: Dumbarton Oaks Institute of Meso-American Studies, 1982) 125–141.
23. H. Kanaseki, "Reconstructing a Ruin from Intangible Materials," *Nara Conference on Authenticity*, UNESCO World Heritage Centre, Agency for Cultural Affairs Japan, ICCROM, ICOMOS, ed. K.E. Larsen (Trondheim: Tapir, 1995) 337–338; K. Okamura and R. Condon, "Reconstruction Sites and Education in Japan: A Case Study from the Kansai Region," *The Constructed Past. Experimental Archaeology, Education and the Public*, *One World Archaeology* 36, eds. P.G. Stone and P.G. Planel (London: Routledge, 1999) 63–75.
24. J.K. Papadopoulos, "Knossos," *The Conservation of Archaeological Sites in the Mediterranean Region: an International Conference organized by the Getty Conservation Institute and the J. Paul Getty Museum, 6–12 May 1995*, ed. M. de la Torre (Los Angeles: Getty Conservation Institute, 1997) 115.
25. F. Mallouchou-Tufano, "Thirty years of anastelosis work on the Athenian Acropolis, 1975–2005," *Conservation and Management of Archaeological Sites*, Volume 8, Number 1 (2006): 27–38.
26. For example, A. Killebrew, "Reflections on a Reconstruction of the Ancient Qasrin Synagogue and Village," *The Reconstructed Past. Reconstruction in the Public Interpretation of Archaeology and History*, ed. J.H. Jameson (Walnut Creek: Altamira Press, 2004) 127–146.

27. R. Parapetti, "Recenti Interventi sul Patrimonio Archeologico in Iraq," *Restauro*, Volume 19, Number 110 (1990): 94–102.
28. B. Mackintosh, "National Park Service Reconstruction Policy and Practice," *The Reconstructed Past. Reconstruction in the Public Interpretation of Archaeology and History*, ed. J.H. Jameson (Walnut Creek: Altamira Press, 2004) 65–74.
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