There is an intriguing debate about the function of the Jewel Tower (built 1365–1366): was it a treasury building (the traditional view, Ashbee), or was it a garden tower (Everson), where Edward III could be private and/or view his gardens, and annoy the Westminster monks by overlooking their property (the site of the tower itself having been previously requisitioned from them)? There was certainly treasure in the 1360s (despite the death of the ransom cash-cow John II in 1364), and in certain respects the tower was a forerunner of muniment towers and other projects built in the following decades and involving members of the same team, such as Herland, at Wykeham's New College and Winchester College. An intriguing and open-ended debate, keying into theoretical discussions of growing 'closure' in the later Middle Ages when compared to the open visuals of the royal bed, for example in the Painted Chamber, a century earlier (Wilson). The palace volume closes with a weighty and well-illustrated piece by Collins tracing developments, survivals and losses between the cessation of the use of the palace as the principal royal residence *c.* 1531 and the infamous fire of 1834, when over two-thirds of the buildings were gutted.

The volumes are not, and could not have been in any sense, comprehensive, but they open windows on the buildings both in the medieval period (e.g. the Romanesque abbey; Woodman; Harrison & McNeill), through the medieval period when Edward the Confessor became literally enshrined as the national saint in the thirteenth century, to the modern period. Re-evaluation of the contribution of G.G. Scott is offered by Brindle, and Rodwell makes severe criticism of the restoration and rebuilding work of Stephen Dykes Bower between the 1950s and 1970s. Rodwell also explains how statutory provision to ensure the proper recording of works at the abbey was only established as recently as 1998.

These are excellent and highly scholarly productions that will be of great value to all future students of both abbey and palace. There are inevitably a few minor flaws, the scale of reproduction of drawings, the misuse of apostrophes and the like, but such shibboleths are insignificant compared to the overall achievement. The promptness of publication will also help to ensure the protection of these battered and abused structures, where, not least due to the editors of the volumes and their contributors, so much has been achieved in the face of so many culpable and unfortunate losses. These volumes reveal the unique combined significance of palace and abbey over so many centuries, and which for so long embodied the seat of rulers and their ecclesiastical servants before continuing down to the present as the seat of the legislature and the Westminster royal peculiar of the monarch respectively.

Reference

MEARA, D. 2014. Review of *Robert Willis and the foundation of architectural history* by Alexandrina Buchanan. *Antiquaries Journal* 94: 409. http://dx.doi.org/10.1017/S0003581514000511

TOM BEAUMONT JAMES
Department of Archaeology,
University of Winchester, UK
(Email: tom.james@winchester.ac.uk)

JAN J. BOERSEMA. *The survival of Easter Island: dwindling resources and cultural resilience*. 2015. xvi+296 pages, 44 b&w illustrations, 1 table. New York: Cambridge University Press; 978-1-107-02770-1 hardback $99.

Much has been written about ancient Easter Island and its supposed 'collapse' following resource depletion and overpopulation. The island's past has been frequently cited as the quintessential case study of 'ecocide', and offered up as a warning about impending global catastrophe. Much has now also been written about how this Easter Island collapse is a myth that grew out of misunderstandings and various agendas. In this book, Boersema takes up this question of Easter Island's prehistoric resource use and cultural resilience.

In Chapter 1, Boersema introduces the well-known collapse narratives of Ponting and Diamond, as well as Flenley and Bahn, who describe Easter Island's dwindling resources and overpopulation leading into a downward spiral, and ultimately to societal and demographic catastrophe. Boersema notes that observations of the first European visitors to the island in 1722 portrayed a healthy and peaceful society with productive gardens, thus raising the question of how the notion of collapse developed in the first place.

In Chapter 2, the author recounts speculations on the origins of the islanders (Polynesian or

https://doi.org/10.15184/aqy.2016.159 Published online by Cambridge University Press

American?)—an issue long resolved on the strength of multiple lines of evidence. Boersema goes on to outline some aspects of the island's environment and Polynesian colonisation in Chapter 3. In terms of eastern Polynesian colonisation and its chronology (including Easter Island), recent research confirms dramatic expansion across the region in the thirteenth century AD, later and more rapid than previously assumed. Chapter 4 describes some dimensions of traditional religion and monumentality, including the statues (*moai*) and topknots (*pukao*). I would take issue with regard to some of the details he offers about *moai* and *pukao*, and they matter in relation to points made later in the book.

Boersema addresses Easter Island's resilience and sustainability in Chapter 6. Concerning the popular notions of collapse, he rightly asks, "could it turn out to be a textbook example of collective error?" (p. 107). This seems to be the case. But some of the details offered here for Easter Island's archaeology and natural history are off the mark. For example, the giant palms (*Jubaea chilensis* or a close relative) were a dominant part of the island's vegetation, but their 'wood' was unsuitable for making large seaworthy canoes. The suitable species that were available on the island were much smaller in trunk diameter and were therefore unlike the trees used to build sea-going canoes on other Polynesian islands. Thus, the causal connection suggested by Boersema between deforestation and the loss of access to deep-sea fishing overlooks the botanical evidence, as well as the archaeozoological record. On another point, recently published evidence illustrates that the statues were not, and could not have been, transported by rolling them on palm trunks. Instead, the statues were 'walked', using the ingenious engineering of the statues themselves, ropes, and human effort. Yet the author assumes transportation using logs, and this then enters into his reasoning later in the book. Boersema's estimates for the island's population (pre- and post-contact) are probably correct at a few thousand, but his discussion of human demography and carrying capacity would benefit from further consideration of the literature on human population dynamics, demographic transition and varying concepts of carrying capacity. Finally, the author correctly frames deforestation as a multi-dimensional process involving the use of fire and rat predation that occurred over as many as five centuries of human occupation.

In outlining the history of foreign visitors to Easter Island (Chapter 7), the author opines that early Europeans had a limited effect on the island's population; 'true collapse', he argues, was the result of epidemics and human trafficking in the late nineteenth century. Certainly, the impacts on the native population in the late nineteenth century are well documented. One might suggest, however, an overlooked and unanswered question concerns the introduction of Old World diseases, island epidemics and potentially significant population loss (and some rebound?) that may have followed visits by the Dutch, Spanish, English and French in the eighteenth century, but which have remained largely invisible to history. This happened repeatedly in the Americas and the Pacific Islands. Might accounts of Easter Island and its population written by the Forsters, on Cook's second visit in 1774, reflect the aftermath of epidemic(s) and catastrophic population loss? Addressing the question of undocumented epidemics and population decline remains critical.

In the final chapter, Boersema outlines his main thesis: "the theory claiming that deforestation caused hunger, armed conflict and collapse is clearly untenable" (p. 178). He suggests that environmental degradation did occur but that the island "ended up in an impoverished but reasonably stable and sustainable state" (p. 179); his use of the phrase 'dwindling resources' in the title of the book implies the same. It seems that the underlying assumption in this argument is that the palm forest provided critical resources, and its gradual loss therefore lowered environmental carrying capacity. But competition from the rats, introduced by the Polynesian colonists, for palm nuts meant that these forests probably offered few critical resources for the human population. Loss of the palm forest, while unfortunate from a biodiversity perspective, came about as the islanders (with help from the rats) transformed the natural environment into an agricultural landscape over about five centuries. This kind of transformation has occurred countless times in human history, raising, not lowering, environmental carrying capacity. The ancient islanders, as with those today, faced a persistent problem from day one: the marginal climate for tropical cultigens and the weathered, nutrient-poor soils that made cultivation challenging. Burning forest would provide short-term nutrient additions. Seabirds would also offer soil nutrients, but soon after the arrival of humans and rats—and use of fire—the island experienced a rapid loss of such ground-nesting birds. The ancient islanders met the challenges of

https://doi.org/10.15184/aqy.2016.159 Published online by Cambridge University Press

climate and nutrient-poor soils by extensive use of rock mulching.

Boersema's narrative draws largely on post-contact historical sources. His close attention to the original historical accounts demonstrates that they do not support the popular collapse story, thus adding another voice to the well-established critique. But the book adds little that is new or different to the growing literature reporting primary archaeological evidence for Easter Island's remarkable past. Notions of collapse grew out of early European misunderstandings, continued with added speculations, and were then reified in an oft-repeated narrative that subverted historical, archaeological and other evidence of what actually happened.

TERRY HUNT
Robert D. Clark Honors College & Department of Anthropology, University of Oregon, USA
(Email: tlhunt@uoregon.edu)

https://doi.org/10.15184/aqy.2016.159 Published online by Cambridge University Press