authors rightly resist the temptation of simplistically extending this characterisation into earlier and later centuries; as argued for high-status Anglo-Saxon sites such as Flixborough, settlements might pass through monastic and secular phases depending upon the changing dictates of politics and ideology.

The coverage of the monastic phase itself in Chapter 5 is a masterclass in archaeological reconstruction that succeeds in maximising the interpretive potential of a rich array of evidence derived from the inner liturgical core of the settlement as well as outer zones associated with highly specialised craftworking. In some cases (e.g. the detailed appraisal of archaeological evidence pertaining to vellum production), the conclusions have implications that extend well beyond the confines of Portmahomack itself and indeed of Pictish archaeology. The results of scientific analysis of the human and other remains help to enrich the reconstruction while at the same time offering a critical perspective on the identification of 'monastic signatures'. For example, isotope analysis of contemporaneous human burials reveals that the religious community practised a typical terrestrialbased diet with no evidence for the consumption of marine fish at a significant level, underlining the impression that the dietary regimes of some pre-Viking monastic institutions could deviate significantly from medieval norms and expectations.

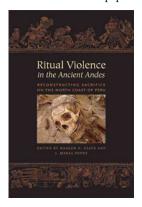
While the range of evidence for this phase is extensive, it is instructive to note that only 20 per cent of the enclosed area was sampled by the excavations, resulting in some significant ambiguities. Not least of these is the original location and form of the Pictish church, which, on the tantalising evidence of several carved architectural fragments recovered from secondary contexts, was likely to have been an elaborately decorated masonry structure of some pretentions. In light of this partial view, it is somewhat surprising that the report fails to pose more questions on what might be represented in the unexplored portions of the enclosure, perhaps the most obvious of all given their apparent absence from the various excavated sectors, being the domestic dwellings of the monastic brethren.

The concluding chapter of the report contextualises the results of the excavations by considering the changing connections that Portmahomack's inhabitants enjoyed with their immediate locality and the wider world. From this discussion the reader gains a clear sense of the degree to which enduring centres of power and social action such as Portmahomack were shaped by interactions between external forces and persistent and highly localised cultural traditions; providing multiple perspectives on "indigenous responses to an exotic initiative" (p. 337), the monastic phase archaeology of the site is especially reflective of this theme.

Overall this is an expertly crafted volume that does full justice to the spectacular sequence of archaeology unearthed at Portmahomack. It will stand as an enduring legacy for the pioneering achievements of the underlying excavations, and serve as a vital guide for future studies of Pictish and medieval Scotland and the archaeology of Insular monasticism more generally.

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HAAGEN D. KLAUS & J. MARLA TOYNE (ed.). Ritual violence in the ancient Andes: reconstructing sacrifice on the north coast of Peru. 2016. xvi+468 pages, 130 b&w illustrations. Austin: University of Texas Press; 978-1-4773-0963-6 paperback \$34.95.



Amply featured in the art of Moche Peru (first millennium AD), Moche ritual killing has only recently been documented archaeologists as an activity performed in the real world and not in some mythological universe. Archaeological search has also

demonstrated that human sacrifice was practised in post-Moche cultures such as the Chimú and Inka, where ethnohistoric accounts complement the material record. Due to this proliferation of evidence, archaeologists of the Andes have become adept observers and interpreters of sacrificial behaviours, and this book presents an excellent overview of current approaches, thinking and results on this often sensitive subject. Of particular significance are the advances made in bioarchaeological methods and analyses, and it is these that take centre stage in the volume.

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The book begins with a thoughtful introduction by the editors, who provide an interpretive framework for the monograph and stress that sacrifice must be understood as part of a "multifaceted social and ceremonial process" (p. 2) that involves far more than the killing itself. The volume is divided into four parts, 'Ancient ritual variation and methodological advances in studies of sacrifice', 'Ancient identities, ambiguous deaths, and complex burials', 'Continuums of killing: sacrifice of animals and objects' and 'Perspectives from beyond the North Coast of Peru', but there is a fair amount of overlap between the different sections.

Illustrative of the different approaches employed is the chapter by Klaus, Turner, Saldaña, S. Castillo and Wester on human sacrifice at Chotuna-Chornancap in the Chimú and Inka periods. Through a variety of methodologies, the authors investigate activities performed prior to sacrifice, the ritual killing itself and post-mortem treatments of the victims' bodies. In order to consider the selection and preparation of victims for sacrifice, stable isotope analysis is used to test whether victims were fed unusual or high-status foods prior to their deaths. As there are no significant differences between the diets of victims and non-victims, the answer is in the negative. Palaeopathological analysis reveals that victims characteristically were in poor health with evidence for biological stress, implying that they originated from non-elite social strata, and cut marks on bones indicate that chest-opening was commonly practised. Finally, the presence of fly puparia and beetle carapaces in association with the sacrificial victims indicates that the bodies were left exposed for a significant period of time following death.

As in Mesoamerica, the sacrifice of captured warriors was common in the Andes. Verano and Phillips provide a comprehensive review of the evidence for this practice. At the Moche site of Huaca de la Luna, Verano and Phillips are able to identify sacrificed warriors through the study of young male victims whose bones display healed fractures suggestive of battle injuries. Also practised in the Andes was retainer sacrifice, in which a person of high rank was interred together with others who died to accompany that individual into the afterlife. Bentley and Klaus observe the frequent ambiguity of the archaeological evidence for this activity, as it can be difficult to demonstrate that the individuals accompanying the main burial died at the same time as the primary interment. Tellingly, they remark that "the additional

bodies accompanying a principal personage in highstatus tombs may always reside in the space between empirical certainty and evidence-based inference" (p. 290). Such uncertainties are also evident in the chapter by Tomasto-Cagigao, Lund, L.J. Castillo and Fehren-Schmitz, where burials from San José de Moro are interpreted as cases of retainer sacrifice, yet there is little evidence of violent death or simultaneous interment of the hypothesised retainers.

Given the profuse and extraordinary evidence, the attention of Andean archaeologists has been directed primarily to human sacrifice, but the ritual killing of animals was also important, as detailed in the chapters by Gaither, Kent, Bethard, Vasquez and Rosales, and by Szpak, Millaire, White, Bourget and Longstaffe. In their study, Szpak et al. investigate the preparation of llamas for sacrifice at firstmillennium AD Huancaco, concluding from stable isotope analyses that the sacrificed animals were not kept in a separate herd or fed a special diet. Moving beyond animals, Millaire discusses the 'killing' of non-living objects as part of sacrificial ritual in contexts such as foundation deposits. Studies such as these elicit the question of whether human sacrifice should be considered separately from animal or even object sacrifice. As Millaire notes, the Inka had a value hierarchy of sacrificial media, with humans as the most precious sacrificial offering and non-living objects the least. As a result, the choice of a human, animal or non-organic entity for sacrifice may have been determined as much by the economic resources of the sacrificer as by religious considerations.

While the mechanics and social context of sacrifice are abundantly explored in this volume, less attention is devoted to the meanings behind sacrifice and the reasons for its practice. This is no doubt due at least in part to the lack of contemporaneous texts as well as the absence of ethnohistoric accounts prior to Inka times. But attempts are made by such contributors as Klaus and Shimada in their paper on sacrifice in the post-Moche middle Sicán culture, in which they propose that the mass burial of nearly 200 people in a plaza at Sicán was associated with the unease caused by an El Niño climatic event. A similar explanation has been advanced elsewhere by Steve Bourget for Moche sacrificial rituals at Huaca de la Luna, but here Verano and Phillips are sceptical of that interpretation. Considering the symbolism of sacrifice, Chicoine's paper on Moche ritual strangulation posits an intriguing correlation

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between cutting or piercing the sacrificial body and the actions of feline predators, while strangulation is correlated with the lethal actions of snakes. As Tiesler notes in her discussant chapter, the wide variety of sacrificial activity evinced in the Andean data signals multiple meanings for sacrifice rather than monolithic interpretations.

The diverse approaches illustrated in this volume, together with the rich and well-preserved dataset,

provide a model for the archaeological investigation of sacrifice. Students of sacrifice elsewhere in the world will find a wealth of methodological and interpretive possibilities to consider.

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