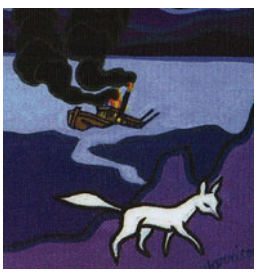
Review article
Transforming cremation?

John Pearce*

ZOË L. DEVLIN & EMMA-JAYNE GRAHAM (ed.). *Death embodied: archaeological approaches to the treatment of the corpse* (Studies in Funerary Archaeology 9). 2015. 174 pages, numerous b&w illustrations. Oxford & Philadelphia (PA): Oxbow; 978-1-782979-43-2 paperback £38.

IAN KUIJT, COLIN P. QUINN & GABRIEL COONEY (ed.). *Transformation by fire: the archaeology of cremation in cultural context*. 2014. viii+323 pages, 18 b&w illustrations, 10 tables. Tucson: University of Arizona Press; 978-0-8165-3114-1 hardback $60.

TIM THOMPSON (ed.). *The archaeology of cremation. Burned human remains in funerary studies* (Studies in Funerary Archaeology 8). 2015. xii+244 pages, numerous colour and b&w illustrations, and tables. Oxford: Oxbow; 978-1-78297-848-0 paperback £38.



These three volumes concern the metamorphoses of the body after death and the associated behaviour of participants in funerary ritual. As argued in the introduction to *Death embodied*, the dead body itself is often written out of funerary archaeology, as if a skeleton were the original deposit rather than the corpse. Nonetheless, cremation as the ritualised combination of fire and the body, as a physical and chemical process, as a behavioural sequence and as a meaningful spectacle, has been a productive focus of recent scholarship in funerary archaeology. After outlining the contents of these three new collections, this review assesses the key insights into cremation raised by the contributors. As the volume edited by Devlin and Graham includes papers that address a wider variety of themes in funerary archaeology, the emphasis here will be on those papers that focus on cremation. It is important to note, however, that the volume contains valuable discussions of other topics: for example, so-called deviant burial practices (Devlin, Hofmann, Aspock, Perego *et al.*).

Originating in workshops in 2011, the volume edited by Kuijt, Quinn and Cooney (*Transformation by fire*) presents 13 studies of cremation in New and Old World contexts; with the exception of Williams's paper on Anglo-Saxon England, the latter focus on prehistoric north-west Europe. The main emphasis lies on cremation as a social process, with many contributors exploring the sensory engagement between the living and dead in cremation rituals, and the tension between context-specific and (potentially) universal symbolic properties. Investigation of the body's transformation after death, and of interactions with that transformation by the living, connects the nine papers edited by Devlin and Graham (*Death embodied*). These explore archaeological and/or osteological data in European settings from collective burials in Neolithic Malta through to Anglo-Saxon churchyards. Finally, the nine papers in the volume edited by Thompson (*Archaeology of cremation*) stem from a network of forensic and archaeological projects that investigate cremation, mainly in later prehistoric and first-millennium AD Europe, although contributions on the Neolithic Channel Islands (Cataroche & Gowland), fifteenth- to seventeenth-century AD Brazil (Ferreira Ulguim) and contemporary Chile (Garrido-Varas & Intriago-Leiva) extend the spatial and temporal range. The contributors to this volume examine the cremation process using macroscopic, microscopic and chemical analysis of ancient cremated bone, drawing on observations from modern crematoria and forensic science.

Of the three volumes, that edited by Kuijt *et al.* coheres best, being more fully integrated through framing chapters, cross-referencing and indexing. Yet the introductions by Thompson and Graham to their respective volumes also provide clear accounts of their rationale and signposting of thematic linkages between the papers. Several individual contributions

* *Department of Classics, King's College London, Strand, London WC2R 2LS, UK (Email: john.pearce@kcl.ac.uk)*

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ANTIQUITY 90 350 (2016): 528–531 doi:10.15184/aqy.2016.30

https://doi.org/10.15184/aqy.2016.30 Published online by Cambridge University Press

would, however, have benefited from more editorial intervention (e.g. the clarity and accessibility of the papers by Piga *et al.* and Harvig in *Archaeology of cremation*), but all three collections are otherwise well produced.

Across the three volumes, several contributors reflect on the historiography of cremation studies. This can be read as a narrative of a scientific sub-discipline, maturing as the analytical value of cremated bone was increasingly acknowledged during the later twentieth century. Here, the personal observations in McKinley's biographical sketch nicely complement Thompson's schematisation of developing approaches (both in *Archaeology of cremation*). Nilsson Stutz and Thomas (*Transformation by fire*), however, demonstrate how political and socio-cultural factors continue to condition the study of cremated human remains. The disputed future analysis of such material excavated at Stonehenge exemplifies the contestation that may take place beyond New World settings (Pitts 2015). Quinn *et al.* (*Transformation by fire*) observe that ambiguous terminology is a legacy of earlier scholarship; the term 'cremation' potentially references an act of combustion, a ritual sequence within which burning takes place, or a burnt-bone deposit. They argue for retaining 'ashes' as evocative of the "fiery transformation" (p. 28) that the body undergoes even if it is misleading in relation to the properties of burnt human remains. 'Burial' also emerges as a problematic term, especially given the lower-than-expected bone weights typically recorded in deposits of 'cremains' (a portmanteau term favoured in these volumes but to which some readers may be allergic).

The contributions of both Thompson and Ubelaker (*Archaeology of cremation*) synthesise recent key developments in understanding pyre craft, especially for the measurement of skeletal exposure to high temperature (also summarised by Schurr, *Transformation by fire*). In their mapping of rituals from specific contexts, papers from all three volumes provide an up-to-date exposition of knowledge of the cremation process in many settings in the Americas and Europe. As a combustion process, cremation is inordinately varied. Piga *et al.* (*Archaeology of cremation*) identify the recurrent partial burning of corpses at the Punic cemetery of Monte Sirai, Sardinia, perhaps with the intention to remove soft tissue. Further instances of partial combustion from European prehistory and the Roman period are collected by Rebay Salisbury (*Death embodied*). A forensic case from Chile, in which human remains were subject to disarticulation, animal action and partial burning, reveals the difficulty of establishing behaviour even where soft tissue does survive (Garrido-Varas & Intriago-Leiva, *Archaeology of cremation*). Where fuller combustion is achieved, analysis of bone colour reveals significant differences. Cremation ceremonies at Roman Mérida, for example, were characterised by lower temperatures and a shorter duration than other contemporaneous examples (Cortesao Silva, *Archaeology of cremation*). Papers by Piga *et al.* on cremations from first-millennium BC Sardinia and Squires on Anglo-Saxon cemeteries (*Archaeology of cremation*) illustrate the enriched understanding of pyre temperatures that can be achieved by combining evidence from macroscopic changes to bone colour and form (twisting, fissuring and so on) with microscopic changes in structure revealed in the examination of thin sections and through Fourier transform infrared spectroscopy (a technique for determining chemical composition through infrared spectrum data) and X-ray powder diffraction. The stage of corporeal decomposition at which bones were exposed to fire also varies. Cooney's (*Transformation by fire*) analysis of cremated remains from Neolithic Ireland reveals the burning of both disarticulated bone and still-fleshed remains (see also Cataroche & Gowland, *Archaeology of cremation*). Schurr and Collins Cook (*Transformation by fire*) use stratigraphic context, osteological indicators and biomolecular evidence to identify whether the apparent burning of human remains within tombs in later first-millennium AD Yokem, Illinois, was a secondary ritual or the attempted destruction of human remains of earlier periods.

Following combustion, the collection and deposition of cremated bone manifests myriad possibilities. For example, the weight of skeletal material from 'burials' at Mérida (Cortesao Silva, *Archaeology of cremation*) suggests that nearly all of the remains were collected from the pyre; most contributors, however, find that significantly less bone is documented than might be expected from (adult) cremations. From the recurrently low weight of cremated bone in funerary contexts from Bronze Age Britain, Brück (*Transformation by fire*) proposes that human remains were distributed among the living after burning. The discovery of small quantities of burnt bone from settlements in Mesolithic and Neolithic north-west Europe is attributed to just such a scenario (Larsson & Nilsson Stutz, *Transformation by fire*; Hofmann, *Death*

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embodied), while Cooney (*Transformation by fire*) finds similar deposits incorporated into the structural fabric of megalithic tombs in Ireland. Through case studies from Iron Age Portugal and Bronze Age Denmark, however, Goncalves *et al.* and Harvig (*Archaeology of cremation*) examine methodological problems in evaluating these weights. The former emphasise that 'cremation weight' is an amalgam of cremated human and other material, as well as noting the limitations of reference data for expected weights and the difficulties of evaluating the representation of skeletal areas. Using CT scans of cremation containers prior to their laboratory excavation, Harvig *et al.* suggest that the excavation process may itself be responsible for misleading statistics concerning the weight and fragmentation of cremated bone.

Many contributors challenge the view that inhumation and cremation are antithetical treatments of the dead, and emphasise the complex relationship between the two, foregrounding similarities more than differences. In Mesolithic and Neolithic northern Europe, cremation is identified as one technique alongside others, including defleshing, disarticulating and decomposing, for converting bodies to fragments as a symbolic resource for future manipulation and redistribution (Cataroche & Gowland, *Archaeology of cremation*; Hofmann, Rebay Salisbury, *Death embodied*; Larsson & Nilsson Stutz, Cooney, *Transformation by fire*). The partibility of these 'body-objects' is connected in several settings to a 'dividual' model of personhood; Brück (*Transformation by fire*) proposes that the greater frequency of women than men in cremation burials from Bronze Age southern Britain is the outcome of the ritualised sharing of cremated remains after burning, linked to women's embodiment, real and symbolic, of inter-group connections. Examining the artefacts accompanying the dead, Williams argues that the use of ceramics in Anglo-Saxon burials, either to contain cremated bone or to accompany the inhumed corpse, reveals similar principles for 'sustaining' the dead during transformative rituals via the presence of real foodstuffs, or allusion to them, in the form of ceramics of the kind used to make or store food and drink.

Others, however, emphasise polarities between cremation and inhumation. With occasional exceptions, there is less emphasis than might be expected on cremation's potential to define status through the spectacular consumption of resources (Squires, *Archaeology of cremation*; Perego *et al.*, *Death embodied*). Instead, shared symbolic properties are identified between the funeral pyre and other pyrotechnologies, such as metalworking or the production of ceramics (e.g. Brück, Goldstein, and Williams in *Transformation by fire*). Graham (*Death embodied*) contrasts the efforts to maintain corporeal integrity in Roman-period inhumation rituals through dress, wrappings and (sometimes) embalming, with the deliberate destruction of the body during professional cremation. Sørensen (*Transformation by fire*) emphasises the opaque character of cremation; in the varied ways in which burnt remains of the dead were deposited in Bronze Age Denmark, he finds a reflection of the uncertainty among the living over the status of burnt bone as body or object, a product of the occlusion of the transformation process by fire, smoke and debris.

Notwithstanding the wide scope of the volumes, there are omissions. Ferreira Ulguim's (*Transformation by fire*) discussion of the economic and symbolic significance of probable pyre components for cremations in the southern Brazilian highlands is one of the few papers where pyre fuel receives more than a passing reference. This absence is not for want of potential data; a substantial corpus of observations on pyre charcoal is now available, for example, from Iron Age and Roman contexts in Europe (e.g. Challinor 2010; Coubray 2013). The focus on smaller-scale societies, especially by the papers examining the cultural context of cremation, may explain the limited attention paid to the question of cremation economics. The timber required for the several hundred funerals occurring at a typical Roman town each year—a significant demand on woodland in urban hinterlands—illustrates, however, the potential resource implications of cremation (Veal 2013). In general, later Iron Age and Roman Europe are overlooked in the contributions examining the socio-cultural context of cremation; the misdating of 'Late Republic Rome' to AD 100–500 in *Transformation by fire* (p. 8) is indicative in this respect. Yet the conceptual linkages in the Roman world between sequences of animal sacrifice and cremation ritual provide further illustration of the context-specific significance of cremation (Scheid 2007).

Despite the shared concern with interpreting cremation as both a cultural and physical process, the differing emphasis of the two cremation-focused volumes also reveals an enduring divide. At the risk of over-generalisation, using the terms defined by Thompson, contributors to *Archaeology of cremation*

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focus more on 'fire and the body'—that is, the high resolution reconstruction of the physical changes during and after burning, including deposition, excavation and analysis. By contrast, papers in *Transformation by fire* (and *Death embodied*) mainly investigate 'fire and the people'—that is, the socio-cultural meanings of cremation. The quasi-forensic reconstruction of transformations undergone by human remains during and after burning cannot, by itself, deliver interpretive insights into funerary rituals, whether for cremation or other burial modes. Nonetheless, it has fundamental implications for interpretation. For example, the analyses by Goncalves *et al.* and Harvig should prompt significant caution concerning inferences from low bone weight to the redistribution of cremated bone among the living (see above). The effects of excavation technique on quantitative data derived from cremated bone—especially where cremated bone is mixed with pyre debris—also receives limited attention but remains fundamental for establishing ritual process (McKinley 2013; van Andringa *et al.* 2013). Given the analytical potential of the scientific analyses explored here, contributors might have considered more explicitly how far their regular application should complement the osteological analyses recommended for the post-excavation study of cremated human bone.

These volumes collectively and successfully demonstrate that the study of cremation is a dynamic area of funerary archaeology. They document key developments in understanding the body's transformation through fire, a more nuanced mapping of cremation in its own right and the relationship of cremation to other rituals in multiple settings. They also offer a rich set of interpretive frameworks for future study, both in the historical contexts examined within these volumes and beyond.

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