

## Book Reviews

Anne Teather, Peter Topping and Jon Baczkowski, eds. *Mining and Quarrying in Neolithic Europe: A Social Perspective* (Neolithic Studies Group Seminar Papers 16. Oxford & Philadelphia: Oxbow Books, 2019, 224pp., 64 b/w illustr., 11 tables, pbk, ISBN 978-1-78925-148-7)

It has been a maxim since the early 1990s that all technologies are socially constructed (Killick & Fenn, 2012). Happily for a publication subtitled *A Social Perspective*, the premise that past lithic extraction practices were socially meaningful underpins these thirteen papers. Interested in Bronze Age copper mining, I approached this collection looking for insights into how to write socially-informed narratives of ore extraction.

Written and edited by prominent scholars at various career stages, this volume represents the latest published addition to the Neolithic Studies Group (NSG) seminar series. Comprising papers presented at a NSG meeting in 2017, it conveys the variety, ubiquity, and longevity of stone procurement practices in Britain, Ireland, and southern Norway. Covering more than seven millennia of stone exploitation from the Later Mesolithic to the recent historic period, it discusses the procurement by mining, quarrying, and surface collection of a wide range of different lithic types for a variety of purposes, from megaliths to microliths. The contribution by Greaney (Ch. 13) is not directly about stone mining or quarrying, but the digging of a shaft into the chalk in an enclosed pit circle during the Neolithic, a practice, she argues convincingly, shared conceptual and physical similarities with flint mining. Such is the volume's scope that it could more appropriately have been entitled 'prehistoric lithic procurement'. As only two papers touch on continental

material (Chs 5, 12), the way that stone procurement practices in Britain relate to wider continental traditions is not fully articulated here.

As the editors point out, there has been more than thirty years of research into how and why certain lithic materials were used by Neolithic societies and the social processes with which stone acquisition was entangled. The papers in this volume both demonstrate the debt owed, and give fresh impetus, to this earlier work, particularly the notion of stone sources as 'special places' and the ways in which this impacted on how their products were consumed (e.g. Bradley & Edmonds, 1993).

This volume will be of interest to researchers of all periods investigating 'mobility' or how and why past people, ideas, materials, and things moved and were interconnected, a theme interwoven with advances in the archaeological sciences and the on-going acquisition of new and better data (e.g. Armada et al., 2018). The papers identify patterns and relationships in the evidence to understand better the processes and motivations underlying lithic acquisition. None offers a radically new research methodology but collectively they draw on a multi-disciplinary array of techniques and approaches, including advances in aDNA research (Chs 6, 12) and provenancing of lithics and people (Chs 4, 8, 10, 13); refined radiocarbon dating and Bayesian data modelling (Chs 2–4, 6); new site excavations (Chs 4, 6, 8, 10); and detailed study of lithic sources,

assemblages, and archival records (Chs 1, 5, 7, 9, 11). Part of a trend for studies increasingly blurring the boundaries between archaeological science and theory, they overall exemplify a contextual approach to interpretation and the consideration of data at multiple spatial and temporal scales of analysis.

Chapters 1–3 discuss Neolithic flint mining in southern and eastern England. Perhaps intentionally, the other papers are not presented in any obvious chronological, geographic, or thematic order. Some structure to guide readers unfamiliar with the chronology of the British Neolithic would have been helpful. I looked in vain for a map of flint mine location in Chapter 1 (by Holgate), only for it to appear finally on p. 22 in Chapter 2 (by Baczkowski). Cross-referencing between papers would have brought out these links. Although the quality of the illustrations—photographs, maps, and line drawings—is generally good, the reproduction size in some cases makes the detail difficult to read. Some photographs lack source credits. One of the risks of a multiple-authored, co-edited volume is variety in style and editing consistency. Further attention to this would have produced a more even publication, but this is a minor issue.

The articles highlight two main research questions, which cut across issues of geology, technology, location, and chronology: 1) the role of lithic extraction in social change and the development of local cultural identities; and 2) ways to rethink the relationship between past people and ‘natural’ places and things. A number of the contributions present conclusions that modify or challenge existing models (e.g. Chs 2–3, 5, 8, 10). Others remind us of the importance of the specific historic context for our interpretations of life in the Neolithic, or any other period (e.g. Chs 5–6, 8–10). Whitaker (Ch. 7) inverts this lens by investigating sarsen quarrying

across southern England in the recent historic period as a means of identifying prehistoric occurrences of this activity. Her preliminary results of this little-studied extractive technology are interesting and certainly left me wanting to know more.

Turning to the first theme, Holgate (Ch. 1) draws on his extensive experience studying lithic assemblages from Neolithic flint mines and their intra- and inter-site variability to raise interesting possibilities concerning the size and structure of flint-working groups and where they might have come from. Baczkowski (Ch. 2) offers a novel take on the notion of flint mines as ‘special places’ caught up in the reproduction of Early Neolithic world-views in ways grounded not in their remoteness from everyday experience but their centrality to the seasonal round of community activity. Teather (e.g. Teather, 2016) typically adopts an explicitly theoretical stance to challenge traditional interpretations of flint mining. Here (Ch. 3) she instead contributes to the debate on the role that lithic extraction played in the development of the British Neolithic by using a new series of radiocarbon dates to refine the chronology of flint mining in southern England.

Cooney and colleagues (Ch. 4) move our focus to the far north of Scotland, to explore how the Neolithic exploitation of riebeckite felsite in the Shetland Isles was caught up in the development of a specific local island identity. This is an excellent example of the interpretive potential of a multi-disciplinary research project applying the latest advances in geochemical and landscape characterisation to the study of a well-preserved stone quarry and the character, distribution, and use of its products. Another multi-authored paper, by Brown, Dickson, and Evans (Ch. 10), argues for the on-going importance of the north-west of England as a node for social interaction across the Mesolithic-Neolithic

'divide'. This challenges the pre-eminent role typically assigned to the well-researched stone axe quarries in the same region for the development of the Neolithic way of life (e.g. Bradley & Edmonds, 1993). One of only two finds-focused articles (see also Stewart, Ch. 9), this is the sole contribution arising from a developer-led excavation of a single site. It indicates the exciting potential of the results from such projects for transforming our knowledge and understanding of lithic procurement strategies.

Topping (Ch. 12) outlines a near-global, ethno-archaeological comparative model for understanding the significance of stone axes, intended to act as a bridge between archaeological data and past practice. His research is influential in Neolithic stone procurement studies (see e.g. Cooney et al., Ch. 4), reminding us that lithic acquisition was not a strictly utilitarian activity and providing valuable insights into alternative ways of doing. For me, however, this paper was perplexing, for several reasons. I found it difficult to follow the logic of the argument through from the ethnographic model to conclusions about the significance of stone axes in Neolithic Britain. The problems with applying ethnographic analogies directly to the past (no matter how many examples are used) are well documented elsewhere (e.g. Barrett & Fewster, 1998). Topping's approach also perpetuates the notion of a fixed dualism between ritualised and non-ritualised activity at lithic procurement sites.

Nyland (Ch. 5) challenges this dichotomy, in a well-argued and thought-provoking study of the role that lithic procurement strategies played in the Mesolithic-Neolithic transition in southern Norway, in which she combines the method and theory of the *chaîne opératoire* (Bradley & Edmonds, 1993) with more recent ideas about material-human entanglements. For her, what gave quarry sites

significance was the meaning-filled act of quarrying itself as a deeply material engagement with the world.

This leads into the second theme, on the relationship between people and natural places/things, which the volume takes up in various ways. Parker Pearson (Ch. 6) uses the fascinating results from recent excavations at two bluestone megalith quarries in south-west Wales to refresh familiar ideas about how and why Stonehenge was built. For Parker Pearson, it was not the act of quarrying that made a stone source special, but the value Neolithic people assigned to the stone itself, which he argues was grounded in Later Mesolithic perceptions of place and should be understood using gift exchange theory. How compelling you find his argument will depend partly on your views of the 'mass migration' hypothesis for the start of the British Neolithic (e.g. Brace et al., 2018). Stewart (Ch. 9), in the second finds-based contribution, borrows from Richard Bradley (2000) to suggest that objects of Greenstone and Portland stone had value in the Neolithic of south-west England as 'pieces of places' that embodied a strong identification with a restricted source area and, by extension, with a specific landscape, regional identity, and relations of kinship.

Darvill, Dickinson, and Greaney (Chs 8, 11, 13), like Nyland (Ch. 5), adopt a theoretical approach informed broadly by the 'material turn' in archaeology. Darvill uses Heidegger's (1971) 'theory of thingness' to explain that it was the very physicality of the quarried extract itself that made people choose to take stone from Carn Menyn in south-west Wales from the Later Mesolithic to the Late Bronze Age. Dickinson argues that the act of quarrying at stone axe sources in north-west England was understood during the Neolithic as a propitiatory, reciprocal relationship between two 'living' entities: people and mountains.

Both of these contributions are highly readable, but raise questions: what was specifically 'Neolithic' about the relations Dickinson describes? At Carn Menyn, Mesolithic and then later Neolithic people extracted different stone types using different techniques. How would interpretation of this place be affected if these important distinctions in material and practice were also taken into account?

In the final paper, Greaney (Ch. 13) explores a novel approach to understanding flint extraction and its role in Middle Neolithic social reproduction in southern England. I found her analysis, in which she examines the features, finds, and practices associated with an enclosed pit circle from a perspective of ontological equivalence between people and things, compelling and well contextualised—a case of saving the best for last, perhaps.

So, what insights will I be taking back to the Bronze Age? Greaney's study, together with the other papers grounded in 'new materialist' aspects of archaeological thought, for me provide an inspirational new direction for the study of Bronze Age copper mining, a way to refine and rethink existing ideas around relations between people, mining, and ore sources. In my view, the most powerful interpretive potential is offered by studies such as Nyland's, which take as their focus not only the material being procured and its consumption context but also the detailed technical sequence of procurement practices at the source, whether mining, quarrying, or surface collection. Neolithic researchers could perhaps also gain from Bronze Age mining research. Study of cross-craft interaction in Bronze Age mining communities is beginning to produce useful insights into the ways in which mining technology, knowledge, and practice were socially constituted (e.g. Stöllner et al., 2016), an issue only Baczkowski (Ch. 2) and Stewart (Ch. 9) touch on here. People in the Neolithic,

like those in the Bronze Age, inhabited a world not only of stone.

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