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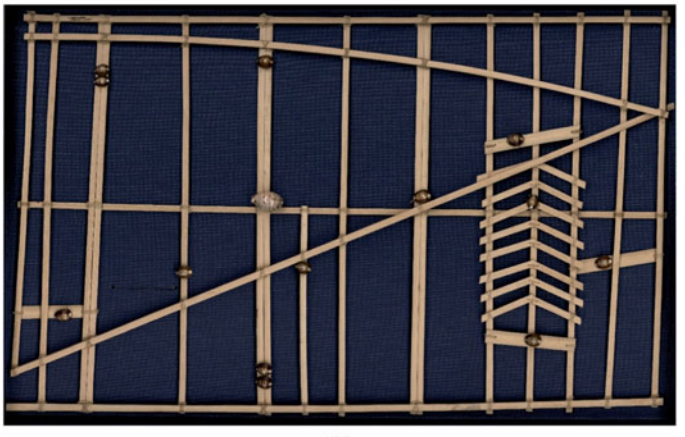
doi:10.1017/eaa.2020.49

Mark Gillings, Piraye Hacıgüzeller and Gary Lock. *Re-Mapping Archaeology: Critical Perspectives, Alternative Mappings* (London: Routledge, 2020, 324pp., 76 figs, hbk, ISBN 978-1-138-57713-8, eBook ISBN 978-1-351-26772-4)

Re-Mapping Archaeology is presented as 'a book about how archaeologists map, what they map, and why they seek to map it' (p. 1). This ambitious tricephalous agenda sits within a broader aim to actively engage archaeology within debates cutting across the humanities and the social sciences on critical cartography, map agency, and alternative mapping practices, and to encourage experimentation in mapping practice within archaeology. So far, so good. Subjecting any area of archaeological practice to ongoing critical reflection, undertaking methodological experiments, and actively working against slipping into uncritical routines and habits of mind because 'that is how it is done' will, in all likelihood, benefit its practitioners and students.

The book, a collection of twelve papers by different authors with an introduction by the editors and a concluding commentary by Monica Smith, grew out of a pair of conference sessions in 2015. As conference sessions often draw together broadly like-minded individuals with shared interests and a degree of common background, the book represents the views of a specific community of archaeological mapping practice. While the title implies alternative, plural mappings, many of the approaches collected in this book are remarkably similar at their core. The emphasis is on a strong push back against maps as tools of modernity, 'modernity's fifth column' (p. 2) in the editors' words, within a perceived current hegemony of Cartesian mapping (i.e. indexical,

(a)



(b)

Figure 1: *(a) Cartographic map of the Marshall Islands, a Cartesian representation of a place (Illustration: Public domain, Wikimedia Commons). (b) Meddo type stick chart of the Marshall Islands, a non-Cartesian representation of a place (Illustration: Public domain, US Library of Congress https://www.loc.gov/item/2010586181/).*

mimetic, ostensible objective mapping on a grid, using coordinates to define locations in Euclidean space), technocentrism, and unaccountable uses of Big Data. Instead, the editors propose to recontextualize maps in archaeology by foregrounding critical cartographic practice, the role of maps as mediators in knowledge production, and *mapwork* drawing predominantly on 'non-/post-/more-than-representational', experiential, and performative praxes. This broad proposal is developed into a manifesto for a future of archaeological maps and mapping.

Two core questions emerge from this manifesto for a new way of doing archaeological maps and mapping: Firstly, what constitutes an alternative map and how

https://doi.org/10.1017/eaa.2020.50 Published online by Cambridge University Press

would we, the archaeological map users, learn to look at one, engage with it intellectually on its creators' terms, and get something out of it? Secondly, how do we, the archaeological map makers, carry out an alternative mapping practice, and how do we evaluate if we are doing it well?

If the collected papers in this volume form an initial response to the challenges of the manifesto and to these questions, it is, I would argue, only a partially satisfying one. A reader might hope to find diverse, even occasionally radical, proposals from the authors, but the contributions seem to paint a fairly consistent picture of the future for alternative maps and mapping in archaeology. This coherence is rather ironic, as Hacıgüzeller, in her contribution (Ch. 12), defines progress as bringing more diversified perspectives and more relationships into the mapping process.

The concrete suggestions for future practice emphasize hand-crafted work. Lee (Ch. 7), Lightfoot and Witmore (Ch. 9), Kavanagh (Ch. 10), and Valdez-Tullett (Ch. 8) in particular make strong arguments for approaches based explicitly in artistic practice. Hacıgüzeller (Ch. 12) and Tomášková (Ch. 4), through their different lenses, are concerned with the politics and political baggage of why we map. They point towards future practice that is more self-aware and inclusive. They call for more diversity and variation in both mapping practice and map representations, with an emphasis again on customized approaches as a guard against the uniformity of strongly codified or normalizing methods that might too easily suppress minority voices and small stories. Flanking the core of the book, which emphasizes 'non-/post-/more-than-representational' practices and situated subjectivity, Poller (Ch. 6), Aldred and Lucas (Ch. 2), and Fradley (Ch. 5) draw on landscape archaeology and topographic survey traditions, including their emphasis on the process of landscape interpretation. Scullin (Ch. 11) and Valdez-Tullett (Ch. 8) employ cartographic design and data visualization traditions to explore alternative modes of representation, highlighting its mutability. Green's contribution (Ch. 13) stands out in this context for its adherence to a more conventional, late-twentieth-century mapping practice.

Drawn together, the contributions to this volume replace the Cartesian objectivist mapping hegemony with the hegemony of self-consciously politicized, multi-vocal, custom-made, reflexive, experiential, and deep, mapping. These mapping practices are, I emphasize, valuable and worthy of pursuit; but, by implicitly replacing one set of norms with another, the volume may have inadvertently strayed away from precisely the kind of experimentation and diversification of practice that is a central aim of the contributors' and editors' collective project. Mapping approaches that are more explicitly embedded in data practices, notably, are not represented, leaving them side-lined. No contributions engage deeply with modes of mapping practice that employ algorithmic or computational approaches (e.g. Robinson et al., 2017), attempt to leverage nascent machine learning (e.g. Bogucka & Meng, 2019; Lambers, Verschoof-van der Vaart & Bourgeois, 2019; Petrie et al., 2019), explicitly explore the affordances of interactivity in maps (e.g. Abend & Harvey, 2017; Gupta & Devillers, 2017; Cook, 2020), draw on principles of user interface or user experience design, or engage with the burgeoning literature from VR and game design on provoking feelings of presence and immersion in an alternative worldview to experience place (e.g. Bostan & Tingoy, 2016). The lack of contributions focused on the intersection of these various digital media and data-embedded practices and mapping practice seems a missed opportunity, as they sit at the core

https://doi.org/10.1017/eaa.2020.50 Published online by Cambridge University Press

of knowledge production. Data-embedded practice in particular deserves attention as the current push for open science and reproducibility, together with improved environments and tools for scripting, may finally be slowly turning the tide towards a more serious engagement with techniques of decomposition, pattern recognition and representation, and abstraction.

This gap may reflect that the focus of the volume's core agenda is on maps as part of a *cartographic visual representation* toolset, rather than as part of a *spatial analytical* toolset. One important question introduced by this volume, emerging from its focus on cartographic visual representation practices is how to translate the emphasis on diverse perspectives into the analytical side of archaeology's spatial work, a point picked up by M. Smith in her concluding reflections on maps as analysis. It should be noted that the same editorial team has brought out *Archaeological Spatial Analysis: A Methodological Guide* almost in parallel (Gillings et al., 2020), a volume with much more emphasis on analytical methods, and an introduction from the editors reminding us to embed our execution of these methods in theory. Reading the two volumes together is an interesting exercise, one that both rebalances the perspectives represented in each book and highlights tensions and gaps between archaeology's spatial analytical and cartographic representation discourses.

Underlying this unmet challenge is the question of how the proposed new approaches to mapping recast our relationship with data. The term 'data' is mentioned a little over 150 times in the book, outside of indexes and bibliography, variously in the context of being rendered, processed, described, and analysed. Reflecting on the abundance of digital (spatial) data to hand, Lee, getting to the heart of the matter, asks, 'How could this mass of data be pushed further?' (p. 158). Archaeology's data practice is entangled with its mapping practice, and a closer look at data practice in itself would open further lines of enquiry for those seeking to pursue alternative cartographies. One potentially aligned approach is 'data intimacy' as discussed by Richards-Rissetto and Landau (2019). Taking a similar tack to advocates of mapping as performance, they contend that, 'as we transform, integrate, and analyse these data, we are not simply digitizing data but rather we are performing datafication' within 'an iterative process of "translating" analog and digital data that goes beyond "end-products" but rather considers datasets as part of a non-linear process of archaeological investigation that offers new insights to guide transformations of archaeological practice into rich digital scholarship' (Richards-Rissetto & Landau, 2019: 130). The same might be said of trans-media translations and transformations of archaeological practice into maps, particularly in a digital context.

The aim of acquiring 'data intimacy' through map production and engagements through uses of maps, of close reading of the evidence, is felt in several of the contributions (notably Fradley (Ch. 5) and Poller's (Ch. 6) close engagements with topographic evidence and Lee's (Ch. 7) detailed readings of movement as recorded through GPS tracking) which describe intimate engagements particularly through the process of collecting data. While the practice of collecting or creating data is described in the language of engagement, it is with the landscape or materials or daily practices that we have these close-knit relationships. The overarching discomfort with Cartesian mapping leads the authors to continue to implicitly cast data (cold, objective, the distanced view) and intimacy (warm, subjective, the close-up view) in opposition. To fully answer Lee's question, we may have to learn to hold our data closer rather than push it further.

https://doi.org/10.1017/eaa.2020.50 Published online by Cambridge University Press

A second question posed by this volume relates to the critical consumption of maps. The book contains many good examples of the critical use of maps produced through conventional practices. Aldred and Lucas (Ch. 2) discuss the role of active critique of these maps as part of fieldwork and landscape archaeological practice, Hacıgüzeller (Ch. 12) emphasizes critical use of paper and digital plans in the context of excavation practice, and Wickstead (Ch. 3) reflects on the role of existing maps and the drive to improve their archaeological content or enrich regional information in spurring further mapping projects and creating networks of trained and amateur mappers acting as critical map users as well as producers, to mention a few. But how do we become good readers of the kinds of maps the authors of these chapters propose to produce? While the book provides critical perspectives on using conventional maps, the perspectives around alternative maps are predominantly those of producers and creators.

A thorough and explicit discussion of map consumption practices and experiences is needed in any discussion of design and production. Maps, after all, being designed interfaces to spatial data, models, ideas, and points of view, are intended for consumption by map user-reader-viewers. Asking an archaeological map user to engage with a non-/post-/more-than-representational map in a publication perhaps can be compared to when Picasso and Braque began exhibiting paintings in the early twentieth century in Paris and asked their viewers to engage with a new, non-representational form of painting. The producers of these maps are asking their readers to take part in a disquieting experience that will stretch their capacities and require new literacies. The critical perspectives of those grappling with these alternative, unconventional maps as readers and users, attempting to work their own archaeological practice through and with them, are needed to fully understand the implications of the proposed shift in practice.

Borrowing the final section title, 'When all is said and Done' (p. 301), questions about how the proposals of this book are to be enacted abound. For *Re-mapping Archaeology*, acting as a provocateur, this is not a failure. It aims to encourage experimentation and the strong implication of the rhetoric around alternative cartographic practice is that anything can and should go. The ironic reality is that the practices represented in the volume are perhaps a little too conservative and taken collectively form a reasonably consistent and coherent picture. Looking across the mapping practices presented in this book, the agreed form of alternative mapping practice is critical and self-aware practice, but otherwise is largely recognizable within the existing traditions of landscape archaeology and broader archaeological field practice, particularly in the British tradition. Coming as a reader expecting a vision for future mapping practice, I was at no point shocked or outraged by this book's proposals and, in a way, I rather wish that I had been.

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doi:10.1017/eaa.2020.50