

This paints a fundamentally different picture of technological knowledge and the organization of society. It does not imply social inequality, but the importance of cooperation is clearly visible. Vinča communities may have passed on their technological knowledge, and this flow of information is reconstructed in the direction of the Kodžadermen-Gumelnița-Karanovo VI communities in present-day Bulgaria.

From this point on, the task of future research is to reconstruct how this technological knowledge survives or is transformed in the next period after the abrupt end of the Vinča culture. After all, the period after 4450 cal BC is the heyday of the mass production of copper artefacts, with extensive formal variety. However, not enough is known about the communities of this period in present-day Serbia. We also know little about how the knowledge of metallurgical technology was integrated into the life of communities Bulgaria during the same period.

Overall, the result is an impressive and convincing volume that will be indispensable in the following decades for research into the Neolithic and Copper Age of southeast Europe, as well as the beginnings of metallurgy. I am sure that Borislav Jovanović, to whom this volume was dedicated, would read it with appreciation.

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Iza Romanowska, Colin D. Wren and Stefani A. Crabtree. *Agent-Based Modelling for Archaeology: Simulating the Complexity of Society* (Santa Fe: The Santa Fe Institute Press. 2021. xiii and 429 pp., numerous illustr., pbk, ISBN 978-1-947864-25-2)

Agent-based modelling, or ABM for short, is a popular computational simulation technique widely used by several disciplines. By contrast, despite its long-term use and recent growing interest, it remains niche in archaeology. Two main reasons

explain this state of affairs. Firstly, there is a relatively widely shared incomprehension—and thus reluctance—among many archaeologists about what modelling and simulation entail. Secondly, they may have a general difficulty in assessing a technique

whose main medium is computer code, with all that this implies, rather than more familiar and immediate written expressions. This textbook co-authored by Iza Romanowska, Colin Wren, and Stefani Crabtree aims at breaking this second barrier by introducing archaeologists to coding in ABM through one of its main platforms, NetLogo. In this sense, the primary audience of this book is assuredly not archaeologists seeking an introduction to what ABM is and does (see, from a more general point of view Railsback & Grimm, 2019), though the volume does contain a few things about this, but rather archaeologists who are already convinced about its potential for archaeological research and reasoning.

The organization of the book in three sections aptly named ‘Learning to Walk’, ‘Learning to Run’, and ‘Learning to Fly’ leaves no doubt about its pedagogic ambition and contents. Each chapter combines, often in unequal quality, general introductory sections and comments with a, systematically stronger, majority of pages dedicated to code. These take the form of practical and effective tutorials exploring an array of models linked by common themes including mobility (e.g. dispersal and population dynamics), economics (e.g. trade and exchange), subsistence practices, and, to less extent, cultural transmission. There is no doubt that the first two sections, with their focus on walking through the NetLogo interface and code snippets, constitute the strongest part of this book. In addition, all models explored here are also freely available in a dedicated online repository (<https://github.com/SantaFeInstitute/ABMA>), true to the core values of replicable and open science which are, it must be applauded, dutifully followed.

To convey the technical content of their teaching, the authors adopt a friendly tone, directly addressing the reader. Although this is arguably a matter of

personal taste, it must be said that, whilst largely effective, this editorial decision occasionally borders on the patronizing (the unfortunate, and frankly unnecessary, section on how to create a scatter plot in Excel being the most noticeable example). In a related way, the book makes extensive but inconsistent use of annotations in the margins. Sometimes these are used for required formal definitions and pointers to technical issues; sometimes for more light-hearted, distracting comments that do not add much to the general content.

As said, Part I, aside from the introduction, and Part II constitute the highlight of the book, with their emphasis on teaching code. By contrast, both the introduction and Part III (“Learning to Fly”, on the interface between ABM, GIS, network analysis, and data science) are noticeably weaker in practical and conceptual terms. Admittedly, the authors stress that the book does not intend to offer a fully-fledged introduction to ABM in archaeology. Yet, the introduction and general sections often feel like missed opportunities that fall short of conveying some of the fundamentals. For instance, on several occasions, the reader is exposed to the outcomes of a particular model, but with limited, if any, explanation of the underlying mechanics, that is how and why the coded variables and model architecture lead to a particular behaviour. In line with the overall progressive structure, some of these questions and associated concepts and techniques are discussed in Part III, but this is too often done in an abstract, general way. Far more attention could and should have been devoted to the analysis of the outcome of a model, not simply in view of understanding the functioning of the model, but also for its potential relevance to archaeological reasoning. The acquisition of the required coding skills is clearly necessary and the focus of the present volume, but the

comparatively limited engagement with some of the more conceptual dimensions leads, in my opinion, to a somewhat unfinished pedagogic experience.

On a practical note, the existence of a freely accessible online pdf version is noteworthy (available in the aforementioned github repository and here: <https://www.sfpublishing.com/books/agent-based-modeling-archaeology>). This matters especially for the excellent appendix on the use of colour-blind palettes, whose quality and importance are obviously lost in the grey-scale paperback used for this review.

All in all, this never intended to be and indeed is not the ultimate introduction to ABM in archaeology. This being said, this volume and its repository of models provide the companion of choice to

supplement and illustrate classes on ABM in archaeology and, thus, to teach this fundamental technique to a new generation of practitioners.

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Max D. Price. *Evolution of a Taboo: Pigs and People in the Ancient Near East* (Oxford: Oxford University Press, 2021, 320 pp., b/w illustr., hbk, ISBN: 9780197543276)

In academic life, we are often expected to produce the greatest amount of high-quality data in the shortest amount of time possible. As a result, we write and read hundreds of scientific articles each year, but we rarely have the luxury of publishing, or even reading, a book. However, there are thousands of valuable reasons for giving ourselves a bit of time to sit down with a book—especially when it perfectly fits with our research interest. Reading scholarly books allows us to enjoy the flow of information and process data in our minds without frantically jumping from one article to another. I have been studying pig taboos for several years, as part of my zooarchaeological research on the Islamic period of the Mediterranean. I wish this book had been available during my PhD, when I was looking for such an insightful, informative, and well-written

overview of the evolution of one of the most famous taboos in history: the pork taboo.

The book is organized into ten chapters, which are discussed below. Chapter 1 is the beginning of our journey into the highly debated and controversial topic of prohibited pork. Over the past few decades, many anthropologists, historians, and archaeologists have addressed this topic in a variety of different ways. The author chooses to examine the pig taboo through a zooarchaeological lens, namely by studying pig remains found at various archaeological sites in the Near East, and by contextualizing them in a broader socioeconomic, cultural, and political framework.

In Chapter 2, Price outlines the research area chosen for the study of pig taboo: the Near East, a melting pot of