Dawn of the Metal Age: Technology and Society During the Levantine Chalcolithic


Reviewed by 115.4
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The Chalcolithic of the southern Levant is represented by a rich and varied array of material culture, among which sits an impressive repertory of metal objects. While such material ought to generate exciting debates, discussion of the period has often been constrained by a well-established culture-historical framework. Anthropologically orientated studies have been infrequent, and they often rely on the “chiefdom” concept, first introduced to the period by Tom Levy 25 years ago. The title of this volume, which highlights both technology and society, promises a new approach, although its fulfillment depends on the manner in which these topics are approached and their interconnections explored.

The book’s 11 chapters fall into three sections. The first reviews the evidence. Data from key sites are summarized in chapter 2, permitting Golden to lay out the space-time framework, examine the social and economic contexts within which metallurgy took hold, and consider how best to investigate the impact of metal technology on society. Golden places metal technology within a wider set of changes that he believes distinguished the Chalcolithic from the preceding Neolithic. The latter he views as characterized by village communities centered around primary subsistence production, with additional activities organized on a small scale. He considers the Chalcolithic an indigenous development from the local Neolithic, but characterized by larger communities, growing socioeconomic complexity, panregional cult centers, and an elaboration of mortuary practices. For Golden, the appearance of specialist metallurgy is facilitated by new subsistence possibilities, such as the cultivation of olives and specialist animal herding.

Chapter 3 reviews the evidence for copper production. The local density of settlement, the proximity of copper sources in southern Jordan, and the limited manufacturing evidence recovered from more northerly sites such as Teleilat Ghassul all suggest that the Negev dominated the industry. That said, at an intraregional level, the evidence appears to have been well dispersed, and it is hard to identify a predominant center.

Chapter 4 offers a valuable review of the Chalcolithic burial record, which highlights the variety of mortuary practices. The most striking element is the cave burials that appear throughout the region, several of which have produced concentrations of luxury objects. Golden sees these as connected to wealthy or elite lineages. This ties the consumption of metalwork to exchange networks; the materialization of both connections among, and differences between, people; and perhaps to specific locations in the landscape. One passing suggestion warrants further attention: that the modification of natural caves for burial roles might echo efforts to reshape the landscape for agricultural purposes.

Chapters 5–8 examine the evidence for metallurgy and metalwork and consider how metal procurement and technology, and the production and use of metal artifacts, might relate to wider societal developments. Chapter 7 presents interesting new evidence on copper production from Jean Perrot’s excavations at Abu Matar, including analyses of copper ores (most of which appear to have originated in Faynan), slags, crucibles, and furnace remains. The key comparison of Golden’s results with those of Aaron Shugar, who examined the metallurgical remains from Gilead’s more recent work at the site, would have been easier to follow if the latter’s data had actually been presented. Unfortunately, the reader is simply referred to Shugar’s...
A number of interesting points emerge in this section. The recognition of a premetallic phase of the Chalcolithic leads Golden to posit a “copper horizon” in the later fifth millennium B.C.E., when this new material resource became influential in reshaping economic and social relationships, particularly within the communities of the northern Negev. However, the paucity of radiometrically dated sequences and the slow development of Chalcolithic ceramics hamper Golden’s effort to attain really solid chronological control.

The evidence for specialization is examined using Costin’s concepts of context, concentration, scale, and intensity (C.L. Costin, “Craft Specialization: Issues in Defining, Documenting, and Explaining the Organization of Production,” Archaeological Method and Theory 3 [1991] 1–56). On this basis, Golden believes that while the Negev demonstrates concentrations of activity, these imply nothing more than independent specialists. The traditional division between a utilitarian copper industry using ores from Faynan and a “prestige” industry producing objects in complex alloys derived from nonlocal ores is confirmed. In fact, he believes that the two metals differ so much in their properties that they may have been viewed as distinct materials. The presence at Bir es-Safadi of what may be part of an ingot of copper-arsenic-antimony appears to confirm that the prestige alloy was worked in the southern Levant, whatever its origin.

The last three chapters consider the implications of metallurgy for matters such as the transmission of technical knowledge, the management of labor and resources, the social and political impact of the distribution and exchange of copper, and the consumption of “luxury” metal artifacts on Chalcolithic society. The key issue for this reviewer is that the analytical framework is rooted in the theoretical literature of the late 20th century and does not take full advantage of more recent themes such as materiality, regimes of value, Gell’s notion of the “enchantment” of technology (e.g., A. Gell, Art and Agency [Oxford 1998]), or the role of communities of practice in the reproduction of technical knowledge. All of these appear germane to a study of “technology and society.”

The book might have been strengthened by a greater geographical range. That similar “prestige” metalwork has not been recovered from Syria, which is closer to the complex copper ores of Anatolia, is interesting. However, this might simply reflect the paucity of contemporary burials from the north. Moreover, the abandonment of settlements in the Negev has rendered fifth–fourth-millennium B.C.E. deposits readily accessible in a way that is not generally the case in the northern Levant. However, recent evidence for the presence of luxury goods in later fifth-millennium contexts at Tell Brak (J. Oates et al., “Early Mesopotamian Urbanism: A New View from the North,” Antiquity 81 [2007] 585–600) suggests that the Palestinian Chalcolithic may be unusually well documented rather than unique.

The text generally reads well, although the absence of a map locating all the sites mentioned (some of which are not well known) will make it hard for many readers to follow the arguments without referring to other sources. There are also issues with the references. In terms of the regional literature, these are fairly comprehensive as far as 2002, although Hauptmann’s volume on the Faynan copper mines is a notable absentee (A. Hauptmann, Zur frühen Metallurgie des Kupfers in Fenan/Jordanien [Bochum 2000]). However, more recent entries are sparse, and when they appear, it is often in the form of in-text references with no corresponding entry in the bibliography—presumably the result of a hurried update.

At the start of this review, I suggested that the success of the book would depend on the way in which technology and society were approached and their interconnections explored. While Golden has moved discussion forward, he remains within the general framework established by Levy in the 1990s. Thus, while the volume constitutes a useful addition to work on the Chalcolithic, and many readers will find it informative, those seeking a new approach to the Chalcolithic will have to wait a little longer.

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