

## INTRODUCTION:

# Migrating Technologies at the Cusp of the Early Bronze Age III

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Khirbet Kerak Ware has long been a magnet to students of late Levantine prehistory, offering insights into the long-distance connections at the edges of the Fertile Crescent. Despite a long history of study, the basic issues at stake—how technologies migrate and did the people who employed them migrate as well—remain unresolved. The approaches taken in a series of new studies published in this issue are introduced.

**KEYWORDS** Khirbet Kerak Ware, Early Transcaucasia, Kura-Araxes, Migration, Ceramic technology, Early Bronze Age

In what sometimes appears to be a long, poorly differentiated expanse of time comprising the first half of the 3rd millennium BCE, the Khirbet Kerak Ware (KKW) of the Levant stands out as a bold contour of intentional cultural production, asserting in its polished blacks and reds that it is representing something—a thought, an attitude, a way of life—that the local ware does not. It presents several challenges to stochastic, statistical narratives of progress and change: the sheer chronological fact of an industry maintaining its separateness for centuries; the geographical extent of the phenomenon, representing a tradition that has its ultimate roots beyond the northern margin of the Fertile Crescent; the resistance it shows to technological innovation. It is therefore hardly a surprise that KKW has been and continues to be a magnet for students of late Levantine prehistory. Pry open this Chinese box and perhaps you have opened a window into the minds of ‘prehistoric’ people, people for whom the potter’s craft, its products and the way one went about one’s work mattered vitally.

For more than 60 years archaeologists have been trying to unravel the workings of the KKW phenomenon. Its relation to red and black handmade burnished pottery from the northern and eastern peripheries of the Fertile Crescent was first identified in the mid-20th century (Amiran 1952, 1965; Lamb 1954; Burney 1958; Hennessy 1967). Burney and Lang’s (1971) summary of Early Transcaucasian cultures was the first to offer the

anglophone archaeological community an opportunity to appreciate the magnitude of the cultural phenomenon that was being studied largely by Soviet experts (e.g., Munchaev 1975; Kushnareva and Chubinshvili 1970). In 1984 Sagona published his landmark typological study on the ceramic culture of Early Transcaucasia (ETC or Kura-Araxes complex). In it, he firmly linked the culture of the Transcaucasian heartland of Georgia, Armenia, eastern Anatolia and Azerbaijan (i.e., the basin of the Kura and Araxes Rivers, *sensu lato*) to pottery observed in early 3rd millennium BCE sites in Iran (Yanik Tepe ware), southeast Anatolia (Red/Black Burnished ware) and the Levant (Khirbet Kerak ware), thereby establishing the existence of one of the most extensive ceramic provinces of the Ancient Near East.

The parameters of the KKW discussion have thus been fairly clear from the start: What is the nature of the connection between KKW and its ‘parent’ ceramic groups? Do the pots represent actual migrants or migrant technologies? If migrants, how many were involved? When did they arrive at their various destinations? What was their trajectory? Did they maintain relations with their place of origin and to what extent did they interact with the existing inhabitants? These are all real questions asked about actual people.

As technology lies at the heart of the issues involved, the methods used to address them have tended—although not exclusively—toward the technological. The first-ever petrographic studies of Holy Land ceramics were made on ground KKW paste by Hebrew University geologist Jacob Fruman at the behest of Ruth Kellner (Amiran) (1946). Yigael (Yadin) Sukenik’s first scientific publication (Sukenik 1947) was an attempt to describe the technology used to obtain the red/black coloration of the ware. Bar-Adon conducted re-firing experiments on the ware in the 1950s (unpublished), and Esse and Hopke (1986) conducted NAA trace-element analyses in the 1980s. Most of the analyses were aimed at answering a simple question—are these obviously alien wares of local manufacture? And all returned with the same answer: Yes, not only local, but local to the sites at which the greatest quantities were found.

In the context of mid-20th century archaeological reasoning, the implications of the analytic results seemed quite clear: where diffusion of products and of people is the main mechanism of cultural change, KKW must be a product of human migration. Thus, an association of the ware with Khirbet Kerak ‘people’ became commonplace (Wooley 1953: 31; Kenyon 1979: 110). The exploration of a third option, the diffusion of a technology by a limited number of agents, or perhaps as a response by different people to a similar set of external social and environmental circumstances, occurred only later, as the influence of anthropological approaches percolated into Near Eastern archaeology (Philip 1999; Miroschedji 2000). Once introduced, however, it provided a formidable challenge to the migration option, seemingly relegating the latter to the status of an outmoded and false ‘pots to people’ analogy.

In the case of KKW, however, powerful counter-arguments could be marshaled in favour of retaining migration of families and communities as a viable explanation for the spread of the tradition. These included (a) the considerable quantities of the ware found at the major sites of distribution—even to the point of completely eclipsing traditional local production (e.g., at Tel Beth Shean, Tel Yaquash or Tell esh-Shunah)—suggesting

the presence of a community of consumers; (b) the marked variation in form, decoration and finish evident both within and between sites, evidence of a lack of standardization characterizing a household, rather than a specialist, industry; (c) the return of migration, accompanied by robust theories of migration and cultural boundary-maintenance, into archaeological models: pottery function and styles may be correlated with the presence of migrants (Anthony 1990; Burmeister 2000). To this we may add renewed research in the presumed homelands of the KKW tradition that has revealed new evidence on the development of the Kura-Araxes tradition in south Caucasia (e.g., Trifonov 1994; Kushnareva 1997; Badalyan and Avetisyan 2007; Kohl 2007; Sagona and Abramishvili 2008; Badalyan *et al.* forthcoming) and in the Anatolian sphere (Marro and Hauptmann 2000; Kiguradze and Sagona 2003), culminating in the important theoretical and contextual work of Palumbi (2003), Smith (2005), Frangipane and Palumbi (2007), and the technological studies of Mason and Cooper (1999), Batiuk (2005) and Kibaroglu (2007).

In view of this apparent stalemate, proponents of large-scale migration need to put forward a more convincing case: one that will cover the factors that might have pushed people out of Transcaucasia, as well as those that might have attracted them to the Levant. Also, more criteria need to be met in order to establish the archaeological presence of migrants. These should include a better understanding of the ‘package’ accompanying KKW: if we are seeking a bounded community, it should express itself materially in more than just the ceramic medium, i.e., in architecture, use of domestic space or diet. Furthermore, a better understanding of the qualities that link local to ‘homeland’ technologies is needed, in order to establish the degree of kinship between KKW and other wares associated with the Kura-Araxes tradition. Finally, the nature of the interaction between local people and the newcomers must somehow be accounted for: what was it, at the cusp of EB III, that allowed the apparently peaceful entry of new communities into both living and abandoned sites in the Jordan Valley?

It is within this context that the papers collated in this issue—emerging from the 2008 Aharoni Memorial Conference at Tel Aviv University—are presented. The impetus for the conference was renewed work on the type-site of Tel Bet Yerah (Khirbet el-Kerak)—where some new information on the archaeological context and technological features of KKW began to emerge—and the beginning of a broad comparative technological analysis of Kura-Araxes wares and their derivatives.<sup>1</sup> Rather than suggest definitive answers to questions of Kura-Araxes migration, the papers point to new avenues of investigation and interpretation that will eventually be the key to a new synthesis.

Zuckerman, Cohen-Weinberger and Ziv-Esudri begin with the most comprehensive study to date of the provenance and production locales of KKW found outside the Jordan Valley core area of its distribution. Using an explicitly processual approach based on production models and hypothesis-testing, they identify a more complex portrait of the KKW industry than heretofore suggested. While the existence of some trade between core

<sup>1</sup> The study of KKW at Bet Yerah and in the broader region, conducted by the Tel Bet Yerah Research and Excavation Project and the Laboratory for Comparative Microarchaeology at Tel Aviv University, has been supported by the Israel Science Foundation, Grant No. 102/06.

and periphery areas can be demonstrated, production of isolated objects could occur locally at sites as far south as Tel ʿErani and Lachish. This leads to a certain tension between the identification of specialist craftspeople, implicit in the identification of central KKW workshops, and the possibility that some vessels were made by household potters.

Household production appears to be favoured by Iserlis who, employing some of the same analytical methods used in the first study, takes a more interpretive approach. Viewing technology as knowledge employed in a social context (after Dobres 2000), he contrasts the *chaines operatoires* of KKW and traditional local industries at the type-site, Tel Bet Yerah, in order to bring out the roles of knowledge, memory and skill in the playing-out of social relations. His focus on the choices made by ancient potters as representing meaningful activity allow him to offer some new and perhaps unexpected interpretations of the symbolism embodied by the red/black vessels.

In another study of the type-site, Paz illustrates the arrival and production of KKW in its living context: If people were arriving and entering an already extant society, their archaeological signature should illustrate segregation, followed by some level of integration or even assimilation. As long as they maintain their separate identity, however, they take on the attributes of a diaspora—a dispersed community that actively maintains the memory of its origins. Paz points to some intriguing new elements in the organization of the household that appear to accompany the pottery, and thus begins to add flesh to the ‘cultural package’ that would be expected in a migratory situation.

Yekutieli introduces the largest KKW assemblage found to date south of the Jordan Valley, at the unlikely site of Har Hemar, southwest of the Dead Sea. While he would like to see the bearers of this pottery as possible mercenaries invited by a local urban power to help control trade in the northern Negev, the proximity of Har Hemar to ʿArabah copper makes one wonder if their presence may not soon be detected in that region as well.

The surprising ramifications of KKW mobility bring us back to the issues of population movement and migration patterns. These are taken up, as they relate to the Kura-Araxes homelands, by Kohl, who offers an updated review of the extremely complex and far-ranging issues surrounding 4th–2nd millennium cultural processes in the Transcaucasus and beyond. Clearly the ETC migrants did not move entirely of their own volition, and their migration was conditioned by important developments to their south (the Uruk expansion) and north (the arrival of wagon-driving herders from the northern steppes).

The Kura-Araxes phenomenon, encasing as it does the entire northern and western margin of the Fertile Crescent, remains a most remarkable example of cultural connectivity across geographical and social boundaries. This connectivity falls into no known models: it is neither colonial nor trade-based, it appears to have no political organization and it is certainly not uniform in all its expressions. Yet it maintains an unmistakable distinctiveness that cannot be ignored. With so much new data and the interpretive methods that can be brought to bear upon it, the discussion of KKW is far from being a closed case; in fact, in some ways it seems hardly to have begun.

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