



Book Reviews

TRIPOLYE TYPO-CHRONOLOGY. MEGA AND SMALLER SITES IN THE SINYUKHA RIVER BASIN, by LIUDMILA SHATILO

Sidestone Press, Leiden. 2021. 416pp, 167 figures, 9 photos, 56 tables, 7 appendices, pb, ISBN 978-909-8890-951-1, €60.00

The new decade has got off to a great start for research into Trypillia (Russian 'Tripolye') mega-sites (Gaydarska 2020; Ohlrau 2020) – the largest sites in 4th millennium Europe, if not the world. There has been an acceleration in not only the number of accounts of these extraordinary sites but also the diversity of explanations for their rise and fall. The latest volume, by Liudmila Shatilo, is by far the most surprising. One may suppose that the author's position as a long-standing member of Alexei Korvin-Piotrovskiy's Taljanki excavation team would have led her to moderate criticisms of the traditional Ukrainian views on mega-sites, just as the author's new base in Kiel would have led her to support the neo-orthodoxy of Johannes Müller, René Ohlrau and Robert Hofmann. But Shatilo has steered a different course between the traditional views and come to a series of novel insights into the mega-site phenomenon, aided by the use of some of the statistical techniques and modes of visualization typical of the Kiel team. Shatilo also shows a critical awareness of data and its limitations rarely encountered in the research of her peers. It is a matter of regret – and a function of the speed of appearance of new research - that the publication of the Nebelivka monograph (Gaydarska 2020) came too late for discussion in this volume. Elements of Shatilo's source criticism and social interpretation converge with the Nebelivka narratives, which places her research in a broader social context than the otherwise more cautious Kiel – Kyiv accounts.

Shatilo is indeed to be congratulated for breaking cover and challenging six fundamental aspects of the traditional approach to Trypillia and mega-site typo-chronology. She has realised that the mega-sites have more complex biographies than was previously thought, with houses not all coeval but dating from different times. She is bold enough to make critical comments about the quality of the ¹⁴C dates produced by the Kyiv Lab, relying instead on the larger samples of AMS dates from Nebelivka (88 dates), Maidanetske (78 dates) and Taljanki (43 dates). She uses these dates to demonstrate that the earlier idea of the short duration of 50 years for mega-sites can no longer be supported. She successfully challenges the traditional assumption about mega-site populations moving from one site to the next, as in the now fatally flawed sequence from

Nebelivka to Taljanki to Maidanetske. And she attacks the notion – fundamental to most Trypillia research – that pots can be equated with people, thereby undermining the concept of Trypillia ‘local groups’ which has been pivotal hitherto to the social interpretation of the Trypillia formation. Although it is a step too far to demolish the entire ceramic framework developed by Sergei Ryzhov, Shatilo has made greater steps than any other researcher towards demonstrating the need for a fundamentally new framework.

Shatilo shows awareness of the historical perspective on Trypillia research as much as in her source criticism of basic data. She is especially revealing in pinpointing the Russian/Marxist influences on Trypillia studies, notably Zakharuk’s (1964) emphasis on material culture studies as a way of defining local ‘ethnic units’, which were adopted in Ukrainian archaeology as local tribes, later to become local Trypillia ceramic groups. The author observes that the relative chronology of the Trypillia local groups has hardly changed since the 1960s. The over-arching Marxist concept of an inter-tribal organisation within which regional groups developed has also been basic to Trypillia research for five decades now. More recently, Trypillia local groups have been moved around like chess-pieces to support various chronological schemes, drawing the shrewd observation (p.73) that “the shorter the chronological period for a particular site, the more often its position (in the overall scheme) changes dependent on researchers’ viewpoints”.

Shatilo has also used data cleaning techniques to maximise the potential of the ‘Encyclopaedia of Trypillia Civilization’ (ETC) (Videiko 2004). As many as 140 sites from the total of 450 sites in the study region have no information on precise location, chronological position by sub-phase or size. This leaves Shatilo with 310 sites (or 69%) for division into the seven chronological phases she proposes for the Sinyukha basin in South Central Ukraine. By comparison, in the Nebelivka monograph, Nebbia (2020) reached an even less sanguine conclusion for all ETC sites, with 499 sites (or 25%) left as a sample with reliable data out of a total of 2042.

One of the strongest features of the Typo-chronology volume is the excellence of Shatilo’s illustrations, with a small selection of beautiful site and landscape photographs and a much larger group of figures, including many Bayesian models of AMS dates, box plots of site sizes and coarse ware densities (using PAST Palaeontological Statistics), kernel density and heat maps of Sinyukha Basin site sizes by Phase and rank size distributions for the study region. Shatilo’s mastery of these diverse visualization techniques helps her to convey some complex argumentation with admirable clarity. Since so much of her data concern ceramics, Shatilo has spent much effort on a hierarchical pottery typology based on six types (lids, piriforms, craters, bowls, cups and amphorae) but combining the shapes with fabric analysis. Her most innovative analysis for Trypillia pottery is her volumetric studies which, in combination with shapes (Fig. 89), yield important results. Vessels contained up to 55 litres, with bowls and cups mostly holding 0.5–

1 litre but with some bowls containing up to 7.5 litres. An inter-site comparison of vessel volumes is an interesting way of assessing relationships between mega-sites, with Dobrovody and Taljanki closest on this metric. Less positively, the modern mania for Correspondence Analysis is exemplified here, based upon the dubious assumption (p.123) that time is the main independent variable in each analysis.

It is no surprise that Shatilo devotes much of her research effort to producing a better understanding of the largest Trypillia mega-site – Taljanki. The results of her Correspondence Analysis (CA) of 360 vessel units from 19 houses are summarised in a single diagram (Fig. 25), revealing that serving, storage and food preparation vessels were deposited in all the houses and that the three pottery groupings from the CA were in simultaneous use. There is some support for a sequential use of pottery insofar as houses with ‘older’ (earlier than 3710 cal BC) and ‘younger’ (after 3650 cal BC) dates fall in different parts of the CA, with houses with both kinds of dates in an intermediate position. However, there were few houses which had more than a single AMS date and what Shatilo fails to do is to run Bayesian analyses on the durations of either individual houses or ‘house clusters’ – a Shatilo term which equates to the Nebelivka ‘Neighbourhood’. Shatilo’s analysis purports to show that there were both ‘earlier’ and ‘later’ houses in the same house clusters but a Bayesian analysis would have made this more rigorous. Using a single date from a house to model its duration is akin to picking a year from the electoral register and using it to model the length of time someone has lived in their house (thanks to Andrew Millard for this analogy). It is also uncertain whether there were sufficient AMS dates to demonstrate Shatilo’s conclusions that both the Northern and Southern parts of Taljanki were occupied at the same time, with the first houses in the outer concentric ring and with construction of houses continuing in later periods in **all** parts of the site. Nonetheless, her ideas (p.127) that there was a “much lower building density during the formative stage of the settlement” and that there was “infilling of gaps in the house rows and clusters over time” chimes well with the results of building and AMS Bayesian analysis at Nebelivka (Buchanan 2020; Millard 2020). Shatilo’s main conclusion – that the Taljanki occupation lasted from 3900 cal BC to 3600 cal BC **or a shorter period** – makes it likely that the three mega-sites of Taljanki, Maidanetske and Nebelivka were in coeval use for over a century. This finding has a plethora of social implications for the development and decline of mega-sites which requires much further research. It is encouraging that the Kiel Trypillia team has started to use Bayesian modelling for their AMS dates but it is still puzzling why they have not made better use of in-house specialist knowledge to achieve better Bayesian results.

One of the great strengths of Shatilo’s approach is the way in which she seeks to integrate the mega-sites with smaller sites in the Sinyukha Basin. The delay of 350 years between Phase 1 (Early Trypillia) and the onset of the mega-sites in Phase 3 is a challenging new idea that requires

further study. I suspect that we need far more AMS dates before Bayesian definition of the postulated seven Phases for the study region; the dates shown in Table 52 are a rare example of Shatilo over-reaching her data to reach shaky conclusions. More convincing are the boxplot site size data showing the interplay between the Sinyukha Basin pattern and the whole Trypillia sample. While Phase 3 site size increased by a factor of two in the whole group, a twelve-fold increase is noted for the Sinyukha Basin. In the next Phase, proportionately more small sites emerged in the Sinyukha basin than in the whole group, while, in Phases 5 and 6, Sinyukha Basin sites maintained their sizes although they fell in the whole group. In the final Phase, there was a particularly steep fall in site sizes in the study region (an 85% fall) in contrast to a 50% fall in the whole group. The overall pattern shows that agglomeration in mega-sites relied on major regional demographic change and their abandonment betokened a far more rapid demographic change than has been hitherto recognised. The rank size graph for the study region showed a convex distribution consistent with an agrarian settlement pattern which was either politically fragmented or displayed weak infrastructural linkages.

Most earlier attempts at social interpretations of Trypillia mega-sites relied on the assumption of interactions between the ceramic-based local groups. It is a final strength of Shatilo's approach that she eschews such local groups completely, thinking instead of a social system unified by site layout, economic and political independence and a shared package of finds. Shatilo transfers to the mega-site context Trevor Watkins' notions of a supra-regional network, itself a Neolithic version of Renfrew and Cherry's peer polity interaction model. The interacting polities are not so much Aegean palaces as mega-sites, by which the intensification of exchange and the greater convergence of symbolic imagery (figurines and painted signs) were emulated not only by elites but throughout the whole system. When Shatilo (pp.236–7) refers to the way that the community was maintained by "common symbolic culture", she is approaching the concept of the Trypillia 'Big Other' as elaborated for that group (Chapman & Gaydarska 2018). Shatilo's approach to social structure marks a significant advance in our understanding of the Trypillia world and especially the world of the mega-sites, although she rejects (p.245) the concepts of cities and state formation and never grasps the implications of the changes in **scale of living** together that underpin the mega-site phenomenon.

We should be grateful that Liudmila Shatilo has grasped the nettle of Trypillia typo-chronology and made such a critical impact on an outmoded cultural framework. While not yet ready to demolish the ceramic-based framework of Trypillia studies, Shatilo has shown the way to an eventual stage of research based upon a much-needed framework which relies on a combination of AMS dating and Bayesian modelling with new approaches to the most frequent and visually dramatic of Trypillia finds – the pottery.

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