
Neolithisation of South-East and Central Europe: cultural changes and adaptations to environment

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Abstract

At the Pleistocene/Holocene transition and in the early Holocene the appearance of farming-stock breeding communities, that in western Eurasia replaced hunter-gatherers, was an extremely complex process. The agents in this process were, first of all, groups that migrated from the Near East and brought with them novel economy, but also local pre-Neolithic populations. The process of the diffusion of the new economy was both triggered or slowed down by local environmental conditions and adaptations to them, and also by global climatic cycles, notably by the last cool episode of the Pleistocene (Dryas III) as well as Holocene climatic variability documented by global events.

The presentation deals with the following aspects of the origin of farming-stock breeding economy in the territories from the Near East to Central Europe in relation to climatic fluctuations:

1. The role of the global climatic cooling at the Pleistocene/Holocene boundary (10 800-9 700 cal BC), at the transition of the Natufian to the Pre-Ceramic Neolithic A (9700-9 500 cal BC) in the Near East. It resulted in a greater settlement density, development of clay and stone architecture, a greater importance of plant foods, and dog domestication. Subsequently, groups of the Pre-Pottery Neolithic B population dispersed towards central and western Anatolia (8 600-7 000 cal BC). The onset of this expansion is associated with global IRD 7 episode. However this migration halted at the coasts of the Aegean and the Marmara Seas.
2. The role of marine contacts between the Near East, Cyprus and the Aegean Sea Basin that intensified in the period of climatic aridity in the Near East (7 000-6 500 cal BC). These contacts brought elements of the Neolithic "package" (settlement structures, architecture, a greater role of plant foods, pre-domestication of animals) to Aegean islands which were inhabited by forager-hunter-fisher communities. On Crete and in south-eastern Greece in that period the first groups arrived who commanded a full Neolithic "package" in the sphere of subsistence economy although they did not produce ceramics.
3. The role of continental routes of diffusion of Neolithic groups across the southern Balkans where they encountered relatively few Mesolithic groups with forager-hunter economy. The main routes were: across the Central Balkans (units with painted ceramics), and along the littoral zone of western Balkans (units with impresso ornamented ceramics). The former route was continued in the Carpathian basin, the latter along the coast of the western part

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of the Mediterranean basin. The climatic 8.2 ka BP event (IRD 5a) and regional environmental factors ("agro-ecological barriers") affected this diffusion.

4. The further Neolithic diffusion to Central Europe, mainly its eastern part, after mid-6th millennium cal BC. The formation of the Linear Band Pottery Culture (LBK), along the NW periphery of the complex with painted ceramics, and its spread in Central Europe (ca. 5500-5200 cal BC) took basically place without the involvement of the indigenous Mesolithic populations, as suggested i.a. by genetic data. It is difficult to assess whether these processes were conditioned by climatic factors. The pros and cons of such dependency will be discussed in the presentation. However, during this diffusion a careful selection of potential settlement regions took place, in terms of the ecological conditions most favourable for agriculture. Economic and socio-political disruptions in the LBK development, which can be recorded in the late 6th millennium BC, may be associated with deterioration of climatic conditions (aridization) of 5.1 ka event (IRD 5b?). In the long run, this deterioration contributed to the crystallization of new, post-Linear (Middle Neolithic) cultural patterns.

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