THOMAS TERBERGER / DETLEF GRONENBORN (eds), Vom Jäger und Sammler zum Bauern. Die Neolithische Revolution. Archäologie in Deutschland Sonderheft 5 / 2014. Theiss, Darmstadt 2014. € 14.95. ISBN 978-3-8062-2189-3. 112 pages with colour images.

"Archäologie in Deutschland" is an archaeology journal for a wider public and this special issue seems to be meant to inform this audience about German research on the Neolithic during the past 10–20 years. This at least can be concluded from its content. There is no preface which would have made this more explicit. Some of the contributions have, however, a more synthetic character, but the volume as a whole does not seem to be meant as such.

So in this special issue twelve short papers and nine features are brought together under the heading "From Hunters and Gatherers to Farmers – the Neolithic Revolution". All have been written by outstanding German scholars, supplemented by two staff members of Basel University, Switzerland. The volume, however, is not on the 'Neolithic Revolution', being the autochthonous development of agriculture as in the Near East. It focuses on the Neolithisation of Central Europe, 'Neolithisation' not restricted to the transition phase, but conceived as "the process between the end of the 7th millenium and c. 3500 cal BC", as specified in the introductory paper. In other words: the full Neolithic period. The chronological and geographical range of topics dealt with is moreover wider, including two papers on Southeast Europe, two on the Mesolithic and a Europewide view in some others. The nine features at last mainly highlight some non-German special finds and topics. It is a full colour issue with beautiful photographs, carefully composed maps and a series of line drawings and graphs.

The volume opens with an introductory chapter by the editors, with a rather wide scope and partly introducing some of the following thematic chapters. It deals with the roads along which agriculture was introduced in Europe, with global postglacial climatic changes, the development of German Neolithic research in the past 100 years, the improvements in chronology, the development of large scale settlement research, application of botany and zoology, the DNA revolution, and the shocking discovery of mass graves and large scale violence. There is one topic on which I would like to comment: the 'third road of Neolithisation', embodied by the ceramics of the hunters of Russia and beyond. How interesting these pots may be, they have nothing to do with Neolithic or Neolithisation in the generally accepted (non-Chinese) sense. This is unnecessarily confusing, together with the arrows in map C at p. 13.

There are nine chapters on Central Europe itself, two of which on the Mesolithic of southern and northern Germany, four treating the main Neolithic phases and three thematic papers on various LBK ("Linearbandkeramik") themes: subsistence, religion and – more methodological – on the analysis of human skeletal remains. The remaining two contributions are on German research in southeastern Europe, on tell settlements and on early copper.

The nine features are short notes on sites and finds, ranging from a two page analysis of the impressive Okolište site (Bosnia) to a brief note on the 'pintadera' from Arconciel (Switzerland). Others are on the social interpretation of the LBK settlement of Vaihingen, the first results of the investigations at the Michelsberg hill top site of Kapellenberg in the Taunus, the TRB ("Funnel Beaker Culture") cemetery of Ostdorf in Schwerin, notes on Lepenski Vir and Anatolian copper, the spectacular Swiss Schnidejoch finds and an (earliest LBK) animal figurine from Pityerdomb, Hungary. A rich and varied menu indeed.

The various chapters are written with rather different scopes, ranging from wide and rather private views or a systematic scholarly treatment of the period involved to the focus on a specific microregion or site. For the Mesolithic of southern Germany, Detlef Gronenborn first shows us the exceptional site of Rottenburg-Siebenlinden in the Neckar Valley, as an example of Mesolithic settlement layout. He subsequently concentrates on the evidence for far ranging external contacts of the later Mesolithic, between 6100 cal BC and the advent of the LBK. Thomas Terberger presents current research on the northern sphere, especially on Ertebølle along the German Baltic coast, on the exploitation of aquatic resources, the introduction of pottery from the east and the regions beyond, the southern contacts and the apparent gradual adoption of agriculture in the beginning of the 4th millennium.

The last story is continued by Johannes Müller with a short reflection on the structuring of the landscape in a microregion of Schleswig-Holstein, on the basis of megaliths and especially of the Dieksknöll earth work, a part of his DFG research project. He argues that the construction and maintenance of such earthworks in the TRB world reflects a new world view ("Weltanschauung") as a consequence of population increase and improved agricultural practices.

A fully different view on the same period is offered by the Alpine lake margin settlements in Switzerland at the opposite end of Germany, discussed by Thomas Doppler and Renate Ebersbach. They concentrate on our superb view on the detailed settlement layout and dynamics as allowed by dendrochronology, at the one hand showing the short lives of sites, on the other hand long term continuity in the use of some places. They end up in a reflection on future research perspectives.

In two chapters covering the full German Neolithic from the earliest LBK up to and including the Michelsberg culture, Detlef Gronenborn unfolds similar broad views as in the introductory chapter. Central topics for the LBK are not its origins or internal dynamics, but its external relations with indigenous communities, as reflected in its flint and in some (scarce) imports. He acknowledges that aDNA research has definitely shown that the first farmers were intrusive immigrants from the southeast, but still stresses the native contributions. The second chapter mainly seems to be meant to place his own recent investigations at the Kapellenberg near Frankfurt am Main in a wide context. He argues for the rise of an elite of sacred rulers in the 5th millennium, from the Black Sea to the Atlantic, exemplified by a pan-European horizon of conspicuous burials, like the Bulgarian Varna cemetery and the Tumiac barrow in the Morbihan, Brittany. These rulers are considered to have controlled the distribution of the early copper axes in south-eastern Europe and that of jadeite axes in the west. It may however be a bit too far-fetched to view the Middle Rhineland as an 'impulse generating' region in this period on the basis of the modest evidence. We only can guess the number of inhabitants of the Kapellenberg and of other similar enclosures like Urmitz and Spiere (Belgium) and their function in the former settlement system and social organisation. On which evidence exactly is it based that the site was an important point on a trade route in salt from the east and jadeite axes from the west? And what about the suggestion that dispersed human remains elsewhere are the bones of slaves? Were these communities really the 'first complex socio-political organisations', only to be fundamentally changed in late historical times?

Southeast Europe is represented by two chapters. Johannes Müller gives an impressive concise outline of the Neolithisation of the entire Balkan peninsula, as an extension of the primary centre in Anatolia. He sketches the growth and decline of the tells, the differentiation of settlement layout in space and time, the acculturation of the native hunter-gatherers and the growing diversity in material culture, especially pottery. He considers population growth and social tensions in the local communities, causing youngsters to start new pioneer settlements in new areas, as the driving forces behind the process. This is just conform with the current pioneer colonisation model. His survey ends up in the extensive site of Okolište, its extent and dynamics in the trajectory 5200–4700 cal BC. Did the settlement really count 500–750 houses and 3000 inhabitants at its floruit, equal to the estimation for Çatal Hüyük a thousand years before? Spin-off of his research are population curves for entire Europe, calculated on the basis of "methodological progress in archaeol-

ogy and data analysis ('Hochrechnung')". Unanswered questions – at least in this presentation – are the reliability, especially of the fluctuations on this wide scale, and the upper and lower margins of the calculations. To what extent can we know 'the truth'?

Wolfram Schier discusses early Balkan copper mining and the role of copper artefacts in Neoand Eneolithic society, from 4900 cal BC onward. The implements seem to have been used as status symbols and used as a privilege by the Balkan elite, like the jadeite axes in the west. The relation of both studies to the German Neolithic is restricted. Culturally both represent another sphere. The specific characteristics of the LBK will develop around 5500 outside the tell communities, in Transdanubia, and the copper implements will spread to Central and Northern Europe only in a mature stage of the Balkan metallurgy, after 4000 cal BC.

The last three contributions cover LBK research specialisations. Physical anthropology (Christian Meyer) covers the conventional analyses of sex, age, pathology and traumas, but aDNA as well, including lactase (in)tolerance. Subsistence (Angela Kreuz) has a critical paragraph on the presumed Mesolithic crop cultivation, earlier addressed to in the Mesolithic chapter. She self-evidently presents the botanical and zoological data on crops and domestic animals, but also the ¹³C / ¹⁵N analysis of the Vedrovice cemetery, and the isotope and biochemical evidence for milk consumption. But in sketching the option for a transhumance system, I miss reference to Amy Bogaard's model of intensive garden cultivation and a critical view on the possibilities for herding in the Atlantic landscape. Central in the study of the religious system by Valeska Berger are the circular enclosures like the enigmatic LBK monument of Herxheim, with its traces of large scale excarnation and long distance relations. Fragments of 300 human and animal figurines recall Balkan roots, be it that their meaning other than 'sacral' is beyond our knowledge. The more formalised 'rondelles' of the Middle Neolithic are treated as well, with their combination of offerings and astronomical orientations, like Goseck and Ippesheim. All three are state of the art syntheses.

But apart from the questions and remarks made above a more general point should be put forward. Climatic change is used throughout the volume as a major factor for the explanation of culture change and 'crises'. References are made to periods of (severe) drought or cold and wet weather, for example as the triggers for rather different aspects: changes in belief ("Glaubenswelt") at the end of the LBK, expansion to the north or the change in flint technology at the Middle / Later Mesolithic boundary. There are however quite some objections to be made. The Holocene part of the Greenland Oxygen Isotopes curve shows a very horizontal trend with frequent but minor fluctuations, with the exception of the 6.2 ka cal BC event, as the readers can verify in the figures at p. 8 and 67. I also wonder how reliable the precipitation curves are for their fine tuning with archaeology. At any rate do the published complex graphs (as at p. 8) not 'speak for themselves' but need extensive explanation. Under European conditions - in contrast to the marginal zones in the Near East – the effects will not have been disrupting. It should in addition be assumed that prehistoric farmers in their agricultural practice were buffered against the year to year uncertainties of the climate, be it temperature, precipitation or both. Instead of climate it are population growth, increased social differentiation, and intergroup conflicts that nowadays generally are considered the major factors behind (re)structuration of societies, like Johannes Müller argues in his contributions. The climate argument has a rather old-fashioned deterministic flavour, underestimating the flexibility and adaptability of the societies involved.

It would have served the goal of this volume – reflection on Neolithisation –, if a special paper would have been devoted to the discussion around the process, from the 'Wave of Advance' via Marek Zvelebil's 'Availability Model' and the 'Pioneer Colonisation' of David Anthony up to the recent decisive aDNA analyses. Now this topic is treated rather casually (p. 12, 31–32, 84–86), embedded in other chapters. It would at last have given some more coherence, if short connecting

texts would have glued the contributions together, and some figures would have been better comprehensible with better specifications (e. g. p. 35, 77, 78) or simplification (p. 10, 57).

However, altogether the volume offers us a wealth of information in a condensed format, combining two German traditions. The traditional one of 'firm' texts, that need attentive reading, and a newer one of full colour culture maps and photo's in the line of Spuren der Jahrtausende (U. VON FREEDEN / S. VON SCHNURBEIN [eds], Spuren der Jahrtausende. Archäologie und Geschichte in Deutschland [Stuttgart 2003]) and the Atlas der Vorgeschichte (S. VON SCHNURBEIN [ed.], Atlas der Vorgeschichte. Europa von den ersten Menschen bis Christi Geburt [Stuttgart 2009]). As such it is a good window on recent research, and a good acquaintance with the various approaches of leading researchers of this period.

NL–6961 LJ Eerbeek Imbosch 5 E-Mail: louwekooijmans@planet.nl Leendert P. Louwe Kooijmans Het Jachthuis

CLARE MANEN / THOMAS PERRIN / JEAN GUILAINE (eds), La transition néolithique en Méditerranée. Actes du colloque « Transitions en Méditerranée, ou comment des chasseurs devinrent agriculteurs », Muséum de Toulouse, 14–15 avril 2011. Editions Errance / Archives d'Ecologie Préhistorique, Arles 2014. € 59.00. ISBN 978-2-87772-574-3. 462 pages.

The publication of this volume emerged from a colloquium in Toulouse in 2011 which focused on the latest findings on the theme of the transition to agriculture in the Levant and Mediterranean area. Much important work is brought together and it makes an original addition to knowledge on this pivotal region by linking work across this vast zone. The ambition was to present the current state of knowledge, and demonstrate advances in new interdisciplinary approaches that explore the complex socio-economic-environmental changes that domestication and farming imposed on hunter-gatherers. How successful can such a wide-ranging collection be however? Are the contributions consistently novel or interdisciplinary and are the scholars all aiming at the same goal here? It is always difficult to maintain consistency with many diverse contributions from sub-disciplines of archaeology that reflect regional and temporal diversity. Nevertheless, the discussion is firmly placed in current theoretical and scientific approaches and presented as 26 papers by 42 authors, in French or English, most with translated summaries, illustrated by excellent colour photographs and diagrams. The first section deals with the Near East and Anatolia, the second focuses on the eastern Mediterranean and Aegean-Adriatic area, whilst the third examines the central and western Mediterranean. Given the current military disruption to field research in Syria and Iraq, this important collection of ideas and data may be the major statement on the field research for some time to come.

One evident difference that emerges between the three regions is in the scholarly questions and perhaps expectations, posed to examine the theme of Neolithic transition. The eastern zone presents fundamental questions of socio-economic transformation dealing with a world of the 10th–9th millennium BC, whilst the mode and speed of Neolithic transmission in the 6th millennium BC dominates scholarly work in the west. The balance between such different approaches is difficult to achieve, and the core differences in approach are stark, but a critical discussion of these different views is not apparent in many of the papers. Possibly the linking theme, outlined by Guilaine in the introduction, needs to be heeded further. Nevertheless, comparison of the earliest Neolithic over the full extent of the Mediterranean is a valuable exercise, and it raises enticing questions about how we measure and interpret the evidence for final hunter-gatherers and first farmers every-