between the "East" and the "West" (Rankama & Kankaanpää), modern geographical borders are fruitfully transgressed by archaeological research collaborations towards the eastern Baltic and Northern Scandinavia. Both Lapland and the eastern Baltic constitute regional eco-zones that obviously were exploited in their entirety by mobile prehistoric hunter-gatherer societies. Thus, by enlarging the geographical scope and comparing and discussing national derived typologies and terminologies of "cultures" and "tool categories" across nations and regions much new information and understanding is achieved. Especially the paper by M. A. Manninen and K. Knutsson should be emphasized as a very valuable contribution, as it presents a vast amount of data (site locations, assemblages and radiocarbon dates), concerning the middle-late Mesolithic (7^{th}–5^{th} century BC) at a superregional scale of Fennoscandia and Scandinavia. It seems from analysis of characteristic lithic artefact morphologies (oblique points and core types) that technological shifts during these periods took place at a much larger geographical scale than anticipated in earlier and more regionally focused studies!

Should I be critical it would be in regard to the theoretical, methodological direction that some of the papers take. Hertell, Manninen and Tallavaara often employs a processual methodology with references to much ethnographic literature, which is relevant, e.g., when discussing large-scale hunter-gatherer mobility. However, by adopting a strict processual approach, including all definitions, there is also a chance of too uncritically (re)producing results. For example, the idea of efficiency, as a main parameter in human behaviour and technology, is problematic as shown in much anthropological and sociological literature (e.g., Mauss 1979; Bijker 2010). Along the same line, some of the mathematically based analyses and graphs on human behaviour in relation to, e.g., ecology and stone tools types, typical to the processual school, documents statistical trends, but are generally not easily understood. The goal in many lithic studies of today is to analyse and present a case in a dynamic way, so that artefacts are explained and understood as parts of processes – and then link to broader perspectives.

Lastly, I would like to congratulate the editor with the quality of the graphical design. Designer Mikael Nyholm has done a splendid job in producing a book design that is so "appetizing", that you instantly like to open and browse the volume and read the eight papers. The volume includes an impressive number of high quality colour photos, drawings, graphs and tables. I would also like to emphasize that it is highly valuable that lithic artefacts in many instances are both drawn and represented by colour photos, as it gives the reader a chance of understanding the crucial variation in the raw material qualities and properties unearthed in the region.

To make it short, the volume „*Mesolithic Interfaces – Variability in Lithic Technologies in Eastern Fennoscandia*" should be part of the library of every archaeologist with an interest into Stone Age societies in Northern and Eastern Europe. Buy the hard cover to have the beautiful book, or download for free from: http://www.sarks.fi/masf/masf_1/masf_1.html

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GIS Simulation of the Earliest Hominid Colonisation of Eurasia

Kathryn Holmes, ArchaeoPress, Bar International Series 1597, Oxford 2007, 148 pages, £ 33.00, ISBN 978 1 4073 0013 9

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Despite the constant cry of academic papers for more data it is often new approaches that are needed in order to understand the old problems. The study of early hominid dispersals is a complex academic issue integrating data from several very different disciplines: archaeology, biological anthropology, paleozoology, palaeoclimate studies, geology and, most recently, genetics. The multidisciplinary nature of this topic is challenging as it forces an individual to combine highly specialist knowledge (and a lot of it) from several very different fields. The threshold of how much one person can process and make sense of has been met a long time ago leaving us with too much information to understand this complex, global phenomenon using only qualitative techniques. However, the nature and amount of data related to the first "Out of Africa" is also a blessing as it allows for a richer interpretation of the different aspects of the dispersal and enables crosschecking hypotheses against independent data types, if the right method is used.

Kathryn Holmes introduced one of these methods in "GIS Simulation of the Earliest Hominid Colonisation

of Eurasia". Using GIS-based predictive modelling and crosschecking it with a statistical approach she attempted to interpret the flood of data we currently struggle with. In clearly described steps she takes the reader through the process of designing research questions, collecting data and critically assessing it, recognizing where bias can come from and trying to prevent it. Finally, the last part of the book explains in detail the methodology used for the analyses and what we learned about the past as a result of it.

GIS has been applied for early hominid dispersal before, however, never in its predictive modelling form which makes this research a truly innovative approach. Apart from shedding light on a few issues concerning the first "Out of Africa" the volume clearly shows the potential of this particular analytical technique especially for confronting the patchiness of the archaeological record.

In the first two chapters the author introduces GIS and how it can be used for predictive modelling. She briefly discusses the basics of using layers, vectors and raster data structures, and gives a short account of some previous applications of GIS in archaeology. A comparison between deductive and inductive/empirical models and their pros and cons is presented followed by an outline of validating/testing methods. Chapter four provides an extremely detailed account of the issues affecting the Pliocene and Pleistocene palaeoenvironmental dataset including: inhospitable climate, no-go zones due to war, terrorism or hostile regimes and global inequalities in the level of development of higher education which affected the amount of research done in different parts of the world.

In chapter five, the author thoroughly discusses the pitfalls of taking the palaeoenvironmental record at face value. From the taphonomic biases that affect the sample to difficulties in identifying bones at a species level to uncertainties regarding adaptation patterns of now extinct species, a great deal of diverse factors can affect the environmental reconstruction of a site's surroundings. All these factors are identified and critically assessed with regards to the PRISM 2 palaeo-environmental dataset introduced in the following chapter and used as a benchmark throughout the analysis.

Chapters seven and eight concentrate on all currently known geographical and climatic factors impacting the late Pliocene and early Pleistocene mammal migrations and therefore the dispersal of early hominids as well. The most important of them were the constantly fluctuating pattern of desertification of the Sahara and the uplift of the Himalayas and the Tibetan Plateau affecting the monsoons in East Asia and causing expansion of the C_4-type grassland over large expanses of land. Other areas including the Levantine region and the Middle East, the Arabian Peninsula, Central Asia and China are also mentioned. This is done with an impressive attention to detail with particular sites discussed in length and the evidence coming from them approached very critically.

Chapter nine is dedicated to a thorough discussion of the evidence coming from India/Pakistan and Indonesia. The former provides researchers with the longest and most detailed terrestrial sequence of Neogene deposits crucial for any reconstruction of global climate changes. Indonesia, on the other hand, adds to general confusion more than anything else. Recognized as a primary location in the early 20th century hunt for the "missing-link", it produced important fossils with unexpectedly early dates. However, these are still highly controversial and the complicated geological record of the island does not help in confirming or rejecting their chronology.

In chapter ten the author takes the reader through the process of predictive modelling by describing in detail each step including the preparation of the base map with the PRISM2 dataset enhanced with data derived from a literature review, deciding on the projection used for the map, the analysis (using the Weights-of-Evidence tool) and validating the model. The discussion highlights a few particularly interesting results showing which of the dispersal routes were the most likely to be followed by hominids and where we should expect to find more sites attesting of the first hominid dispersal. Sudan, Zambia, Zaire, Botswana and Namibia were identified as the most likely locations for further discoveries of early hominids in Africa. Not surprisingly the most probable way out of the continent was the Levantine route leaving Gibraltar and Bab el Mandeb sea crossings open to doubt but not impossible. Finally, the model predicted a whole set of areas, namely Georgia, Ukraine, Russia, Kazakhstan and China, where the conditions were favourable for early occupation indicating that we could expect there a lot of new discoveries in the (hopefully) near future.

Finally, in chapter eleven a Principal Components Analysis was undertaken in order to crosscheck the predictive modelling results. My compliments should go to the author for following the good practice of using an independent quantitative method to verify the accuracy of the findings and therefore demonstrating the overall high standard of the research. This adds a lot of credibility to the final results. Especially that the author explains in detail why in some cases the model did not return the values that were expected, which almost always reflects the patchiness of palaeoenvironmental data and problems with exact modelling of the coastal areas.

The current methodology in archaeology for the study of the first dispersal is largely based on qualitative considerations where common sense arguments are being thrown back and forth without quantitative validation or making sure that the assumptions are explicitly presented. I believe that the discussion should be complemented with more quantitative approaches and Kathryn Holmes achieved exactly that. Because of the quantitative approach she took all

her assumptions are "on the table", sources of biases are clearly identified and the results are sure not to represent a random pattern that appears to be meaningful. The fact that this volume reads more like a PhD thesis rather than a book could be seen as a drawback, however, it adds to the general impression of a thorough, meticulous and unbiased research where no facts have been missed or hidden behind fancy phraseology. My hopes are high that it is just a starting point and the journey will continue.

Jalons pour une paléohistoire des derniers chasseurs (XIV^{e}-VI^{e} millénaire avant J.-C.)

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Die Urgeschichte als wissenschaftliche Disziplin bewegt sich durch ihre Quellen und Methoden im Spannungsfeld zwischen Geschichtswissenschaft und Kulturanthropologie (vgl. dazu Eggert 2006). Historische Aussagen beschränken sich dabei traditionell auf typologische Reihen oder Abfolgen von Artefaktvergesellschaftungen. Einen Schritt darüber hinaus zu gehen und auf der Grundlage technologischer Beobachtungen Geschichtsschreibung im Sinne einer Historie der Entwicklung von Traditionen zu betreiben, ist das Anliegen Boris Valentins.

Welche theoretischen Grundlagen dabei zu beachten sind und inwieweit die letzten Jäger und Sammler Europas und des Nahen Ostens historisch untersucht werden können, zeigt der Verfasser in der hier zu besprechenden Monographie. Sie stellt die überarbeitete Version seiner Habilitationsschrift dar, die er 2007 an der Université Paris 1 (Panthéon-Sorbonne) verteidigte. Gleichzeitig bildet sie den ersten Band einer Monographienreihe, die von derselben Universität herausgegeben wird.

Die akademische Tradition in Frankreich sieht die Habilitationsschrift als Resumée der bisherigen Arbeiten eines Wissenschaftlers oder einer Wissenschaftlerin an, ergänzt durch bislang unpublizierte Ergebnisse. Dies lässt sich auch an der Gliederung dieser Monographie ablesen, denn nach einem einleitenden theoretischen Abschnitt werden die spätglazialen Traditionen im Pariser Becken, die das Hauptarbeitsgebiet des Verfassers darstellen und bereits Thema seiner Dissertation waren, ausführlich im Sinne einer Paläogeschichtsschreibung behandelt. Eher perspektivisch gehalten sind dagegen die folgenden Kapitel zum französischen Mesolithikum und zum, insbesondere israelischen, Natoufien, denen der Autor sich im letzten Jahrzehnt zu widmen begann. Seine Reisen in Regionen, deren Inventare einen Vergleich mit denen des Pariser Beckens wert sind, schlagen sich wiederum in der Binnenstruktur dieser Kapitel nieder. Abgerundet wird der Band durch einen Epilog, der sich der Zukunft der Technologie als einzigem Ansatz zur Beantwortung historischer Fragen schriftloser Kulturen widmet. Für die des Französischen nicht mächtige Leserschaft wünschte man sich zusätzlich eine englische Zusammenfassung.

Formal erscheint es mir erwähnenswert, dass das Werk durch zwei parallele Systeme untergliedert wird, zum einen drei übergeordnete Sektionen und zum anderen sieben Kapitel plus Epilog, die fortlaufend durch alle Sektionen gezählt werden. Diese Art der Kapitelzählung wird in Frankreich immer öfter verwendet und bietet neben einer leichteren Orientierung den Vorteil, Zusammenhänge zwischen den Kapiteln verschiedener Sektionen deutlicher zu machen.

In der Einleitung definiert der Verfasser das Arbeitsgebiet als den Zeitabschnitt vom Anfang des 14. bis zum Ende des 7. Jt. v. Chr., und zwar vor allem im Pariser Becken. Sozio-ökonomisch charakterisiert er die zu untersuchenden Gesellschaften als solche mit aneignender Wirtschaftsweise, die kurz vor dem Übergang zur produzierenden Wirtschaftsweise stehen oder ihn gerade durchlaufen. Dabei ist wichtig, dass es sich um Gesellschaften im Wandel handelt, genauer gesagt einem vielfältigen Wandel, den es zu verstehen gilt.

In den ersten beiden Kapiteln wird weiterhin dargelegt, mit welchem Forschungsansatz dies geschehen soll und welche Ziele und Methoden dabei wichtig sind. Zunächst wird die Abgrenzung der Urgeschichte, die keine Protagonisten und keine Ereignisse aufweise, zur Geschichte diskutiert und der Frage nachgegangen, wo und wann der Begriff "paléohistoire" oder sein Äquivalent in anderen Sprachen bereits benutzt wurde. Dies sei in den wenigen gefundenen Fällen ohne Definition des Begriffs geschehen, wobei die im deutschsprachigen Raum geführte Diskussion zur "Vorgeschichte" oder "Urgeschichte" an dieser Stelle keine Erwähnung findet. Für seine Definition von "paléohistoire" zieht der Autor zunächst Fernand Braudels verschiedene Zeitebenen der Geschichte heran und benennt eine mittlere Zeitebene, die jedoch die Grundzüge aller drei Braudelscher Ebenen beinhalte, als Maßstab urgeschichtlicher Betrachtung und somit Hypothesen in der Art der middle range theory als möglichen Ertrag derartiger Untersuchungen. Außerdem betont er, und dies erscheint mir als einer der zentralen Punkt dieser Arbeit, die Untrennbarkeit von "palethnologie" und "paléohistoire", die gemeinsam eine "historische Paläoanthropologie" bildeten, deren Ziel eine Annäherung an die von den