

Book reviews - Buchbesprechungen

Mesolithic Interfaces – Variability in Lithic Technologies in Eastern Fennoscandia

Tuija Rankama (ed.), The Archaeological Society of Finland, 2011, 253 pages, Hardback and electronic, ISBN 978-951-98021-9-0

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reviewed by

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Something new has happened in European Mesolithic research – something that researchers concerned with the early prehistory of Scandinavia have waited long for. Personally, I first discovered this in 2005 at the Seventh International Mesolithic Conference in Belfast. However, at most large “Mesolithic conferences” since then, as well as in international journals, this has become increasingly clear. What I hint at is of course that the investigation and publication of the early Stone Age in Eastern Fennoscandia, i.e. modern day Finland, has increased significantly during recent years. The edited volume „Mesolithic Interfaces – Variability in Lithic Technologies in Eastern Fennoscandia“ can in this context be seen as the latest culmination of an ongoing process. Editor of the volume, T. Rankama (in the *Foreword*), and E. Hertell and M. A. Manninen (in the *Introduction*) reveal what has started and driven the process. The foundation of the Interfaces in the Mesolithic Stone Age of Eastern Fennoscandia Project was laid in the late 1990's when T. Rankama started a volunteer study group at the department of archaeology at the University of Helsinki. The group included former students E. Hertell, M. A. Manninen and M. Tallavaara, who since then have become distinguished Stone Age specialists. Not much attention had been given to knapped lithic artefact materials in finish archaeology prior to the forming of this project. This probably has several reasons, e.g., much of the early industries are made from quartz, a material that is not easily analysed and understood archaeologically, as well as a vast, often forested, finish landscape that is not easily surveyed for lithic scatters. However, as this volume, along with other published research papers of the group members, demonstrates, there was a lot to come for in the eastern Fennoscandian lithic material. Simply the definition of worked lithic raw material types and their outcrop areas shows mobility, regional origin and contact of the colonizing societies as discussed in the first paper *High Mobility or Gift Exchange – Early*

Mesolithic Exotic Chipped Lithics in Southern Finland (Hertell & Tallavaara).

Thanks to the group, it is today evident that high mobility pioneering societies using exotic flint materials deriving from the western Baltic, and culturally from the “post-Swiderian” tradition, roamed around eastern Fennoscandia, reaching Lapland and the coast of northern Scandinavia. The site that more than any other has explicated this fact is the Sujala site located in northern Lapland (Rankama & Kankaanpää 2008). However, recently the site Fällegohtesajeguolbba in the Varanger Fjord region has been acknowledged too (Rankama & Kankaanpää 2011). The Sujala site is spatially analysed in the volume by J. Kankaanpää and T. Rankama (*Spatial patterns of the Early Mesolithic Sujala Site, Utsjoki, Finnish Lapland*), a much appreciated contribution that explains about this enigmatic site, its excavation, lithic material and spatial find distribution. The Sujala area 2 is, so far, the only site in northern Scandinavia with a “post-Swiderian” type of lithic assemblage that is fully excavated. From the spatial analysis a single component site, including a dwelling place, is convincingly interpreted. Thus, also from an intra site spatial point of view, high mobility seems to be evidenced.

As mentioned, the key to unlock the early prehistory of Finland was to address questions and methodologies concerning chipped lithic artefact materials. The “post-Swiderian” is signified by a specific lithic technology, in which regular lithic blades are produced from particular high quality lithic raw materials, from regular conical core types, while later Mesolithic groups increasingly employ quartz materials and different lithic concepts, as investigated earlier by the group (Tallavaara *et al.* 2010). The papers *Hunter-Gatherer Mobility and the Organisation of Core Technology in Mesolithic North-Eastern Europe* (Hertell & Tallavaara) and *Far and Few between – an Archive Survey of Finnish Blade Finds* (Manninen & Hertell) employ this approach and identify characteristic blade and core morphologies, while ascribing them to different techno-complexes and discussing their meaning culturally, economically and technologically.

A central theme of the project is signified by the concept “interfaces”, understood as border zones, whether it is geographical, cultural or chronological. In the papers *Stone Age Flint Technology in South-Western Estonia: Results from the Pärnu Bay Area* (Kriiska, Hertell & Manninen), *Northern Inland Oblique Point Sites – a New Look into the Late Mesolithic Oblique Point Tradition in Eastern Fennoscandia* (Manninen & Knutsson) and in the last paper *The Kaaraneskoski Site in Pello, South-Western Lapland – at the Interface*

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 (7th-5th 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 palaeoenvironmental 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 C₄-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.)

Boris Valentin, Cahiers Archéologiques de Paris 1 – 1, Publications de la Sorbonne, 2008, 325 Seiten, Paperback, 35,00 €, ISBN 978-2-85944-597-3

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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 Universität 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 Resümee 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 beinhaltet, 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 Punkte dieser Arbeit, die Untrennbarkeit von "palethnologie" und "paléohistoire", die gemeinsam eine "historische Paläoanthropologie" bildeten, deren Ziel eine Annäherung an die von den

urgeschichtlichen Menschen erlebte Zeit sei. Die von André Leroi-Gourhan bei den Ausgrabungen in Pincevent eingeführte palethnologische Arbeitsweise war und ist prägend für die Pariser Forschung, in deren Tradition Boris Valentin sich einreihet. Indem er die Beschränkungen, denen die "paléohistoire" unterliegt, aufzeigt, wirft er die in den weiteren Kapiteln verfolgten Forschungsfragen auf, unter denen diejenigen nach der Verbreitung von Ideen und nach den Rhythmen dieser Verbreitung zentral sind.

Im zweiten Kapitel illustriert er am Beispiel der Veränderungen vom Magdalénien zum Azilien im Pariser Becken, wie mit dem paläohistorischen Ansatz Antworten, oder besser Antworthypothesen, auf diese Fragen gebildet werden. Unterschiede in der Herstellung und Verwendung lithischer Werkzeuge und Projektilsätze finden in diesem Fall Parallelen in der Ökonomie der Jäger-Sammler-Gruppen – vorausschauendes Handeln bei denen des Magdaléniens gegenüber einer größeren Flexibilität bei denen des Aziliens – und damit sicher auch in der Ausprägung sozialer Normen. Aus den im ersten Kapitel genannten Grenzen der "paléohistoire" ergeben sich gewisse Vorsichtsmaßnahmen im Umgang mit Begriffen, die sonst nur allzu leicht ohne großes Nachdenken verwendet werden. So bevorzugt der Verfasser für die Einheiten, die wir archäologisch definieren, den Begriff "Tradition" im Sinne eines auf bestimmte Tätigkeiten bezogenen Systems von Entscheidungen und Regeln, die durch die archäologischen Hinterlassenschaften erfassbar sind, gegenüber dem Begriff der "Kultur", aber auch dem der "archäologischen Kultur". Ebenso bezeichnet er europaweit auftretende Phänomene inzwischen lieber als "courant" (Strömung) denn als "civilisation" (im Deutschen am ehesten mit Kultur wiedergegeben). Bei aller Vorsicht hält der Autor es durchaus für legitim, soziologischen Fragen nachzugehen, aber eben auf einer Ebene, die mit den Mitteln der Paläogeschichte zugänglich sei.

Angewandt werden diese erkenntnistheoretischen Vorgaben ab dem dritten Kapitel, das die interne Entwicklung des Magdaléniens im Pariser Becken mitsamt den Vorläufern des Aziliens zum Thema hat. Nach der – generell im Fach noch intensiv geführten – Diskussion der Zeitstellung des Magdaléniens in dieser Region, bei der die dort vorhandenen Schwächen der Datierung nicht verschwiegen werden, verfolgt Boris Valentin die Variabilität bestimmter Werkzeuge und Geschosseinsätze auf den verschiedenen Magdalénien-Fundplätzen mit dem Ziel, chronologisch relevante Veränderungen auszumachen. Deutliche, im Sinne einer Entwicklung interpretierbare Unterschiede, wie die in Etioilles zwischen der unteren, vor den Beginn des Spätglazials datierten Fundschicht und der in diesem Bereich des Platzes obersten, in das frühe Spätglazial gestellten Fundschicht, lassen sich jedoch kaum finden. Eine Ausnahme bildet die sogenannte

Fazies Cepoy-Marsangy, die sich vor allem durch einen höheren Anteil an Kerb- und geknickten Rückenspitzen als an Rückenmessern sowie durch die Herstellung der Grundformen für diese Spitzen mithilfe eines weichen Schlagsteins auszeichnet. Sie wird unter anderem vom Verfasser in das regionale Entwicklungsschema vom Magdalénien zum Azilien zwischen das "klassische" Magdalénien und das Azilien ancien im unteren Fundhorizont von Le Closeau eingeordnet, wobei die untere Fundschicht von Hangest III.1 in der Picardie durch das Auftreten von "bipointes" und die ausschließliche Verwendung des weichen Schlagsteins bei der Klingenherstellung eine Sonderstellung noch vor dem ebenfalls GI-1e zugeordneten frühen Azilien einzunehmen scheint.

Die weitere Entwicklung des Aziliens steht im Mittelpunkt des vierten Kapitels, in dem der Autor sich bewusst auf neue Ergebnisse zu den lithischen Projektilsätzen konzentriert. Seine Beobachtungen zu den beiden Azilien-Inventaren in Bois-Ragot in Kombination mit Hugues Plissons an diesem Material durchgeführten Mikrogebrauchsspurenuntersuchungen zeigen über die morpho-typologische Trennung in "bipointes" und "monopointes" hinausgehende Unterschiede in der Herstellung und Schäftung der Rückenspitzen zwischen Azilien ancien und récent. Während die frühen Exemplare an regelmäßigen schmalen und dünnen Klingen durch sorgfältige Kantenretusche erzeugt und schräg zur Längsachse des Projektilschafts eingesetzt wurden, glich eine raumgreifendere Retusche die weniger normierte Auswahl der Grundformen für die späteren Rückenspitzen aus, die regelhaft distale, auf ihrer Symmetrieachse liegende Spitzenbereiche aufweisen, jedoch variabel in der Basengestaltung und Konvexität des Rückens sind. Um noch einen Schritt weiter zu gehen bei der Suche nach Zusammenhängen zwischen der Art der Projektilbewehrung und den Modalitäten der Grundformerzeugung, beruft sich der Verfasser auf Jacques Pelegrins (2000) Modell, demzufolge Jagdbedingungen mit hoher Verlustrate an Projektilen zur Bevorzugung lithischer Geschosspitzen und der daraus resultierende erhöhte Bedarf an schmalen Klingen mit geradem Längsprofil zur Bevorzugung eines weichen Schlagsteins zur Klingenherstellung führen. Weiterhin diskutiert er alternative Gründe, die für die Ablösung organischer Projektilspitzen durch lithische Spitzen und des organischen Schlegels durch den weichen Schlagstein im frühen Azilien ausschlaggebend sein könnten. Einer der potentiellen Faktoren sind Veränderungen in der Mobilität der Jäger und Sammler, die Boris Valentin auch als mögliche Erklärung für die unterschiedlich hohen Anforderungen an die Herstellung von Steinartefakten im weiteren Verlauf des Aziliens ansieht.

Der bei der Lektüre dieses Kapitels aufkommende Einwand, derlei soziologische Schlüsse ausschließlich auf der Basis von Steinartefakten zu ziehen, sei gewagt, wird vom Verfasser bereits vorweggenommen, indem

er unterstreicht, hier lediglich den Forschungsstand zur Entwicklung der Projektileinsätze abzubilden und erst in Zukunft die Entwicklungen verschiedener Subsysteme der Tradition Azilien vergleichen zu können. In Anbetracht der geringen Anzahl an Fundstellen, die Aussagen zu vielfältigen Themen erlauben, wären in diesem Zusammenhang jedoch überregionale Betrachtungen begrüßenswert.

Zwischen dem Azilien récent und dem Belloisien, das Thema des fünften Kapitels ist, liegen im Pariser Becken rund 1200 Jahre, für die bislang jeglicher Nachweis menschlicher Anwesenheit fehlt. Folglich konzentriert sich der Verfasser auf den Übergang von der Jüngeren Dryas zum Präboreal und die zu jener Zeit auftretende Vorliebe für lange regelmäßige Klingen. Zunächst fasst er die Ergebnisse der hauptsächlich in den 1990er Jahren erfolgten Untersuchungen zu diesem Phänomen zusammen, denen zufolge es ein deutliches Übergewicht an spezialisierten Schlagplätzen gegenüber generalisierten Lagerplätzen gab. Dieses Bild hat sich seitdem durch die Entdeckung weiterer, vor allem in der Normandie gelegene Fundplätze leicht verändert, denn manche von ihnen weisen neben den charakteristischen Klingen auch verschiedene Werkzeuge und Projektilspitzen und somit ein breiteres Spektrum an Aktivitäten auf, so dass Boris Valentin nun eine feinere Abstufung der Fundstellenfunktionen vom reinen Atelierplatz bis zum Multifunktionsplatz vornimmt und eine größere Fraktionierung der Subsistenzaktivitäten als in den anderen spätglazialen Traditionen postuliert. Die Variabilität der Geschosseinsätze auf den Belloisien-Fundplätzen im Pariser Becken – insofern sie überhaupt dort präsent sind – veranlasst den Verfasser außerdem dazu, Vergleichsinventare im Norden und Süden unter die Lupe zu nehmen. Zukünftige Vergleiche zwischen den verschiedenen Regionen mit long blade-Komponente sollten den neueren Beobachtungen im Pariser Becken zufolge nicht nur technische Fragen der Klingenherstellung und -nutzung stellen, sondern auch ökonomische.

Auch die Datenlage zum Mesolithikum im Pariser Becken, das im Mittelpunkt von Kapitel sechs steht, hat sich in den letzten Jahren positiv entwickelt und wird es weiterhin tun in Anbetracht der Dynamik, mit der diese Forschung betrieben wird. Das Interesse des Verfassers am Mesolithikum spiegelt sich beispielsweise in der Ausweitung des von ihm geleiteten PCR (Projet collectif de recherche) zum Spätglazial im Pariser Becken auf das frühe Holozän und die Mitorganisation der Tagung "Palethnographie du Mésolithique: recherches sur les habitats de plein air dans la moitié septentrionale de la France et ses marges" im November 2010 wider. Er fasst in einem ersten Schritt den Forschungsstand zum französischen Mesolithikum zusammen, um dann Vorschläge für weitere technologische Analysen, insbesondere zu den Mikrolithen, zu machen.

Ebenfalls perspektivischen Charakter hat das

nächste Kapitel zum Natoufien in Israel, das dem Verfasser vor allem durch seine Beteiligung am Forschungsprojekt zu Ain Mallaha bekannt ist. Im Unterschied zu den in den vorangehenden Kapiteln behandelten Traditionen deutet sich hier die Neolithisierung bereits an, was trotz der Dominanz der vom Verfasser durchgeführten Untersuchungen an Mikrolithen auch durch die Vielfalt der angerissenen Forschungsfragen gezeigt wird. Die Neolithisierung als Prozess mit zahlreichen Faktoren bildet ein Thema par excellence für die Anwendung der "paléohistoire".

Die Rolle der Technologie bei der Verfolgung eben dieses Ansatzes wird schließlich im Epilog beleuchtet. Zentral ist in diesem abschließenden Abschnitt meiner Meinung nach Boris Valentins Überwindung des zumeist betonten Gegensatzes zwischen Typologie und Technologie, indem er auf technologischen Beobachtungen fußende Typologien als Ziel seiner Materialanalysen beschreibt.

Insgesamt sind neben Inhaltlichem die übersichtliche Satzgestaltung und sauberen Abbildungen positiv hervorzuheben und lassen auf weitere Bände dieser Reihe hoffen. Konsequenterweise wird im vorliegenden Band das Thema der "Ur-geschichte" nicht nur inhaltlich, sondern auch in formalen Dingen, wie Zeitangaben vor Christus und in Jahrhunderten, durchgehalten. Über eine Seite hinausgehende Zitatpassagen mögen zunächst verwirren, lassen sich jedoch durch die Entstehungsgeschichte des Buches erklären. Diese ist sicherlich auch verantwortlich für die bisweilen recht unterschiedliche Gestaltung der Kapitel. Ebenfalls der Habilitation entsprechend zeigen die zahlreich zitierten Arbeiten von ihm betreuter Studierender, wie aktiv der Verfasser als akademischer Lehrer ist.

Mit seiner umfangreichen Bibliographie ist dieses Buch als Nachschlagewerk zu den genannten Themen wohl geeignet. Doch es ist weit mehr als das, auch wenn die Quellenlage es oft nicht ermöglicht, Entwicklungen zu verfolgen und zu erklären, welchem Umstand der Autor durch den Begriff "jalons" gerecht wird. Der größte Beitrag dieses Werkes besteht in meinen Augen darin, dass es zu einem Blickwechsel bei der Betrachtung unserer Funde und Befunde sowie zum Nachdenken über den eigenen Forschungsansatz anregt und zeigt, wie wirkungsvoll der technologische Ansatz sein kann. Dies erscheint mir umso wichtiger in Zeiten wie der unseren, in der sich der Methodenfortschritt im Fach weitgehend auf die Verwendung neuer naturwissenschaftlicher Verfahren und verbesserte computergestützte Anwendungen beschränkt.

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Becoming Neanderthals: the earlier British Middle Palaeolithic

Beccy Scott, Oxbow Books, Oxford and Oakville, 2011, 243 pages (hardback), £50.00, ISBN 978-1-84217-973-4

reviewed by

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"Becoming Neanderthals" stems from the long-awaited Ph.D. thesis of a rising star – one of the few females to have successfully established herself in the harsh male-dominated field of the British Palaeolithic. I would like to boast that Beccy Scott is a close colleague, but my only "claim to fame" is that she and I were both students of Mark White at Durham University (although at different times). Indeed, White's influence is felt throughout the book, not only in the numerous citations of his work but also as Scott engages with many of his ideas. Often it is to disagree, which is a sign of a healthy relationship between student and thesis advisor. It also proves the maturity of her research.

Although based on a Ph.D. thesis, the book clearly is not just a thesis reprint. Scott has made real efforts to transform it into a reader-friendly structure, for example by putting details of the methodology into the Appendix. The book is divided into 8 chapters which can be considered as 6 sections. Chapters 3 and 4 both contain site data, and Chapter 8 is basically a "long abstract" summarising the entire book.

Chapter 1 sets out the aims and objectives of the research: to apply continental approaches to "re-animate through technological analysis" the lithic assemblages of southern Britain, in order to find out how Neanderthals lived on the edge of their range during the Middle Palaeolithic. The very first opening paragraph of Chapter 1 is immediately captivating by its colourful and evocative writing style peppered with subtle humour. It could easily attract general public readers. It provides a nice fly-by overview of the field which gently sets the scene for the study.

Chapter 2 is a second introductory section, which goes into more detail about the rationale for the study. Using the "expanded definition" of the British Middle Palaeolithic – from late MIS 9 to MIS 3 – Scott views Levallois as the first manifestation of a set

of behavioural innovations which characterise the hominins that are in the process of "becoming Neanderthals" during the early Middle Palaeolithic. There is a long consideration of Levallois, with a good digest of Boëda's work and of the debates in both French and English over the definition of Levallois, which is excellent for English readers. This chapter is an excellent cross-Channel integration. It shows that Scott is as well-versed in the French literature as she is in the British. The introduction to Breuil and Bordes will be known to continentals but is welcome for UK readers. The introduction to key work in Britain is welcome for readers of both sides, as it contains a detailed history of UK chronostratigraphy. However, some key references are lacking: despite telling Breuil's story, she does not include any of his work; it would be nice to see references for Simondon rather than secondary citations; her discussion of "technique" and "method" on page 10 omits to mention the classic book by Inizan et al. (1999), which is in her bibliography. I will return to this last point later.

Chapter 2 lacks the light writing style that was so refreshing in chapter 1. Pages 5 to 7 are full of typos. All of Scott's sentences are far too long; despite an excellent use of punctuation, that lack of which I often reproach my undergraduate students for, Scott does not vary her sentence length, instead making each one several clauses long, as this one illustrates. Many of her well-meaning semicolons could be replaced with full stops to improve readability. By page 6 I began writing full stops into the book!

A French influence on Scott's work is evident in the bottom-up approach of this research, starting with observations to produce theories, which contrasts with the Anglo-Saxon preference for top-down work, starting from hypotheses to produce data (Pelegrin 2001-02). This might annoy English readers because by the end of chapter 2 it is still not clear what Scott is seeking. Her aim to "relate landscape exploitation to wider patterning in industrial variability" (page 9) is rather vague for a hypothesis-driven audience. Furthermore, to relocate Britain "at the centre of key debates in European Middle Palaeolithic research" (page 15) it would be good to know exactly what are some of the key debates, in a more specific way.

Chapters 3 and 4 are data-heavy. MIS 10, 9, and 8 are the focus of the first; the second is on assemblages dated to MIS 8, 7, and 6. Each site studied is described in its own section, with the same text structure for each: introduction to the site, history of excavations, geology, brief summary of location, climate, and dating, followed by description of assemblages, condition of the material, technological analysis with numerous charts and graphs showing summary data, and a final section summarising the findings and Scott's interpretations of site function. The brief summaries and behaviour discussions in each site's section are excellent for readers who just want to find the information in a clear and concise manner.

But skipping the details would mean missing some noteworthy information, such as the intriguing discussion on page 53 about the function of Levallois points, or the tantalising suggestion on page 154 that the knapping of Sequence 5 at Crayford was a display or teaching demonstration. It is a shame that the photographs of the Crayford refitting sequences on pages 140-151 are not in colour, especially as the book's front cover shows a beautiful example of one.

Chapter 5 examines the origins and spread of Levallois. Scott rejects an African origin, although she accepts that the concept was present in Europe and Israel first. Scott interprets Levallois as a multi-tool allowing the transport of raw material with the option to make it into cores or flakes. Levallois emerged patchily in north-west Europe, with people immediately adapting it to their local conditions. Scott's argument rests on literature reviews, and I would have been more reassured if she had studied some of the continental assemblages herself. A key point Scott makes in the book is that hominins travelled along river corridors during interglacials. These would have been kept clear of forests by large grazing animals and also provided herds of prey for easy hunting.

The biggest problem I found with this chapter was Scott's dreadful confusion of Technique and Method, where she continually refers to Levallois as a technique. It is clear from her misuse of the terms that Scott has not understood the terminology that she herself reviewed in chapter 2. According to the very clear definitions given by Inizan et al. (1999: 13), Technique is "The physical modality according to which raw material is transformed. The practical manner of accomplishing a task, i.e. one of the procedures of the knapping craft (e.g. direct percussion, anvil percussion, use of hard or soft hammer or a punch, pressure-flaking, aspects of body position, etc.)" and Method is "An orderly set of rational procedures devised for the purpose of achieving an end. The method followed to create a prehistoric tool is thus an orderly sequence of actions carried out according to one or more techniques, and guided by a rational plan." Levallois is a method and no continental archaeologist would dare call it a technique. Unfortunately for Scott, this crucial mistake could potentially give French readers a reason to shun her book.

Chapter 6 summarises Scott's findings in the British assemblages and considers how Neanderthals were using the different sites. Most of the eight sites she studied are "Extraction and Production" sites for large flake blanks. Exceptions are Crayford, where Levallois cores were also taken, and Creffield Road, where exhausted cores were discarded (presumably upon returning from a journey where no flint was available). Creffield Road was a reprovisioning site for making and modifying Levallois points and cores, and for maintaining tools and prepared cores. A key point is

that most of the sites are known by archaeologists because they are located at raw material sources, which is where hominins were knapping repeatedly, thus building up enough material to ensure preservation. Scott reminds us it is rare to find places of tool use, giving an excellent review listing a few examples of sites far from raw material sources with only 1 to 5 artefacts.

Although chapter 6 has a good discussion of Levallois, one of Scott's arguments seems contradictory. She writes that hominins were not able to innovate because their reduction methods were flexible (page 180). But I would argue that too much rigidity in reduction sequences was not possible when the raw materials varied so widely in shape, size, and quality. Scott hints that Levallois does not impose a method and states hominins "acted as technological automata" and did not make "innovative leaps between available options" (page 181). This seems to contradict her statement that trajectories were never imposed. It would have been helpful to give some specific examples here.

Some interesting insights are given in chapter 6. Scott suggests Levallois was quickly adopted in favour of handaxes because it offered an easier way to make a lightweight handaxe-shaped object without the risks of breakage from thinning a biface. This is a thought-provoking perspective because most literature considers Levallois to be more difficult to make than handaxes. There is a mention of sites where flint nodules were deliberately "scratched" to test their quality (page 182); readers might have appreciated a reference to this fascinating occurrence. Scott supports the function of Levallois points as hafted to foreshafts on spears, so that for one spear hominins could carry several hafted foreshafts in case of point breakage. These hafted foreshafts could double as knives, which are known from the ethnographic record and attested by microwear on Levallois points. Finally, Scott's discussion of landscape use in south-east Britain does not consider distances between the sites. At Boxgrove the different sites were frequented by the same groups of people (Pope & Roberts 2005). Hunter-gatherer range sizes are known from the ethnographic literature, and it is possible that Neanderthal groups travelled much greater distances than today.

This chapter – and indeed the whole book – leaves readers wondering about percussion techniques. Scott does not mention the availability of hammerstones anywhere at all. Hominins were carrying one or more cores with them for mammoth hunting episodes, but did they also carry one or two hammerstones? It is evident that carrying cores and blanks to be knapped on demand requires at least one hammerstone. Were these available in the vicinity of the hunting sites, or did they also have to be curated? The conclusion follows that some sort of bags or carrying containers were necessary, if not for hammerstones, then at least

for the multiple cores. This important element is lacking in Scott's argument about Levallois as the ideal portable toolkit.

Chapter 7 serves as a conclusion while focusing on Neanderthal behaviour and demographics. It is a nice digest of the settlement prehistory of Britain through the entire Middle Palaeolithic. Scott covers far-ranging topics such as why Britain was not re-colonised in MIS 6-5, the spread of the mammoth steppe, and the handaxe technology that came after the heyday of Levallois. Scott argues hominin populations reached their peak at MIS 8-7, then declined as the climate warmed, but did not crash. She suggests one reason might be that flint was easier to find during colder times. In interglacials there were fewer exposures, as exemplified by examples of sites that were abandoned when "raw material outcrops were masked by progressive sedimentation" (page 191). This is a logical remark. Considering hominins probably relied entirely on flint for sharp cutting tools, they would naturally have left the country when no more flint was available. Was Levallois a clever way to maximise dwindling flint resources?

Becoming Neanderthals is augmented by occasional nice extras, such as photos of John Allen Brown and Spurrell from the 1880s, stratigraphy charts, and exact dates of Brown's artefact collecting events. The summary table of results for all sites on pages 183-184 is excellent. One of the strengths of "Becoming Neanderthals" is the impressive archive work Scott has achieved on the written records of old British excavations.

There are few negative points to mention, except that it would be useful to subdivide the Table of Contents into site sub-sections. Since chapters 3 and 4 are more like data catalogues, they will most likely be used to find information, not read in sequence. The Appendix contains details of Scott's methodology and nice drawings, but no actual raw data. The Index is broad but does not cover the appendix as promised (at least, not for "tranchet"). A reference is frustratingly missing from the bibliography (White & Jacobi 2002). The site of Cotenin (or Contenin) is not shown in figure 5.1 as stated (page 194).

Occasionally Scott lets her scientific rigour lapse. She claims (page 18): "A large collection of material from Bapchild, Kent is clearly heavily reworked (personal observation)." If this is true then it should be published, as otherwise this is not a scientific way to exclude an assemblage. Furthermore, Scott does not follow her own criteria for site selection; for instance, she accepts "likely dating" (page 19) and sites with no environmental information in the deposits (pages 36 and 69) even though these go against her selection criteria (pages 17-18). In the display of data there is inappropriate use of line graphs to show numbers of pieces for each grouping of maximum dimensions (e.g. page 90).

Overall, "Becoming Neanderthals" is an impressive

piece of work which will be useful to students and professionals. Scott gives enough information on context for readers to make up their own minds about site stratigraphy. For readers seeking detailed data on specific assemblages, these are provided. The book is dedicated to Roger Jacobi, and I believe it is a very worthy tribute to his life and work.

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Homo Symbolicus: The Dawn of Language, Imagination and Spirituality

Christopher J. Henshilwood & Francesco d'Errico (eds.), John Benjamins Publishing Company, Amsterdam & Philadelphia, 2011, 237 pages, Hardback, € 99.00, ISBN 978 90 272 1189 7

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Interdisciplinary trends in evolutionary sciences are quickly reshaping the focal lens from which archaeologists peer into the past. Integration with disciplines including cognitive science, psychology, neuroscience and ethology has dramatically increased our ability to retrieve information about the evolution of *Homo sapiens*. While this trend has expanded the scientific horizons of archaeology, it has also highlighted enormous difficulties in constructing unified theories to interpret the fragmented remains of our past. There is perhaps no better example of this challenge in archaeological research than the contentious debate surrounding the role of "symbolism" in the rise of human modernity. Symbolism as a behavioral and cognitive manifestation has long been held as a hallmark of humanity, defining the uniqueness of our species, although recent archaeological and ethological research has challenged such claims. As a result, archaeologists have been hard pressed to discuss wider issues of symbolism and cognition outside the modern human arena. Nonetheless, *Homo Symbolicus* spearheads these problems in adjoining various interdisciplinary reflections upon the "symbolic conundrum", and in doing so develops a unique

understanding of the emergence of symbolism from a multi-disciplinary point of view.

The book begins with an insightful review of issues surrounding symbolism from a primatological outlook. McGrew (Chapter 1), and Savage-Rumbaugh and Fields (Chapter 2) highlight the "Homo-centric" nature of research perspectives centering upon symbolism, and the challenges of considering the evolution of symbolic capacities from a wider comparative ethological viewpoint. These chapters, in part, contest the usefulness of the *Homo symbolicus* concept, most notably McGrew who details culturally-driven communication and behaviours within chimp populations, and the need to consider *Pan symbolicus* in these debates. Furthermore, Savage-Rumbaugh and Fields provide an in-depth review of how DNA and language are not likely to be the cornerstones of human uniqueness. Instead they propose that the divide between great apes and modern humans may lie in the motor systems of human infants, which are inherently structured to explore self/object relations from birth, unlike great apes. These motor tendencies of human infants are further structured by a robust socio-cultural scaffold that promotes reflection upon self-agency during the ontogeny of consciousness, which may account for differences in linguistic and symbolic capacities between *Pan* and *Homo*.

The volume's archaeological focus is met in d'Errico and Henshilwood's (Chapter 3) review of the current state of knowledge regarding the Palaeolithic origins of symbolism. A succinct, yet comprehensive overview of symbolic remains from Africa and Eurasia are presented in conjuncture with the latest problems plaguing our understanding of their development, including climate change. They also consider the highly debated issue of the "Symbolic Neanderthal" (p. 50), which stands to further extend the capacity for symbolism beyond *Homo sapiens*. Zilhão (Chapter 6) presents extensive evidence to support the "modern" range of Neanderthal symbolic and cognitive capacities. He correlates genetic evidence to support a multi-species argument for the emergence of symbolism that refutes the "hard-wiring" hypothesis supported by the long-standing Human Revolution model. Furthermore, Pettitt (Chapter 8) attempts to deconstruct the concept of "symbolic behavior" in archaeology and presents a detailed analysis of Middle and Upper Palaeolithic burial practices, which has been perceived as another defining characteristic of human modernity. However, Pettitt outlines the antiquity of social interactions with the dead and burial that extends well beyond our species, providing more strength to the multi-species model of symbolism.

Focusing upon modern human archaeology, Henshilwood and d'Errico (Chapter 4) and Wadley (Chapter 5) present intriguing arguments of how symbolic capacities can be observed in Middle Stone Age (MSA) personal ornaments and compound

adhesive manufacturing practices, respectively. Henshilwood and d'Errico examine the symbolic meanings embedded within engraved materials from the Still Bay levels at Blombos Cave (BBC) and the Howiesons Poort levels at Diepkloof Rock Shelter (DRS). They suggest that these engraved goods functioned on different levels of symbolic communication based upon the quantity of engraved materials and frequency of motifs, where BBC engraved ochre pieces were imbued with personal meanings, while DRS engraved ostrich eggs shells operated on a cultural scale. Wadley describes the complex cognitive competencies of modern human populations from Sibudu Cave necessary for the hafting of segments, or small, crescent-shaped stone tools. Her personal experience with manufacturing these adhesives led to the realization that the multi-level operations involved require complex cognitive capacities to manage such tasks. Wadley employs Wynn and Coolidge's (see e.g. Coolidge & Wynn 2005) model of "enhanced working memory" to structure an argument supporting the modern nature of the cognitive capacities underlying adhesive manufacturing in the MSA, including abstraction and mental rotation.

The interdisciplinary discussion of symbolism begins with Wilson's (Chapter 7) argument for the interaction of cognition, culture and cooperation as an essential component for the evolution of symbolic behaviours and language. His focus upon the suppression of competition within the hominin lineage as a driving factor in the emergence of symbolism presents a unique view from an archaeological standpoint, which may be corroborated by quantitative trends in sexual dimorphism and morphological adaptations related to tool use. Ellis (Chapter 9) focuses upon how the structure of language endows modern humans with distinct propensities for meaning-making and symbolism, which he argues as developing from the interaction between sensory, emotional and cognitive capacities. Within the framework of ontogenetic development, these internal (emotion and cognition) and external (social and natural environments) factors influence the structuring of symbolically-laden abilities that are crucial to language, including communication, theory-of-mind and recursion. Dubreuil (Chapter 10) perhaps provides the most archaeologically significant argument within the interdisciplinary chapters. He reviews important issues surrounding the use of middle range theories in archaeology that attempt to account for complex cognition and behavior linked to the emergence of symbolism within the hominin lineage. Dealing with the current models focused upon recursive syntax, working memory and theory-of-mind, he outlines a critical problem in cognitive archaeological theory, in which these capacities are suggested as the cornerstones of modern human cognition and behavior, yet they all rely upon similar neuro-cognitive structures. The problem thus being,

how do we separate one capacity from the other and prove one as the basis of modern symbolic capabilities? Dubreuil goes on to propose a new framework for investigating these issues that focuses upon comparative cognitive, developmental neuroscience and palaeo-neurological research, which can develop specific agendas for testing current cognitive models in archaeology. Lastly, Barrett (Chapter 11) closes the volume with a discussion that focuses upon the nature of meta-representation as a key for the development of *Homo symbolicus* and *Homo religiosus*. His perspective of these issues stems from the cognitive science of religion paradigm, in which he outlines current cultural and adaptational views for the emergence of religious practices. In developing an argument for the concurrent evolution of capacities for modern human behavior and religious beliefs and practices, Barrett proposes that the "lynch-pin" of symbolism lies in a *meta-representational theory-of-mind*, or the ability to think about another's thoughts, which opens new avenues for cognitive, linguistic and cultural expressions underlying religion.

The true strength of the volume is found in its interdisciplinary focus, which appeals to a common interest of researchers from different fields to gain perspective from the variety of theories and methods employed to examine the symbolic origins of language, imagination and spirituality. The intention of the volume is to discuss the wide-range of issues surrounding the emergence of symbolism from the multi-disciplinary viewpoint, which is well-developed within its chapters, and yet to maintain a common thread in focusing upon how symbolism has shaped the human condition. This goal is certainly achieved in „Homo Symbolicus“, that further focuses upon integrating biological, philosophical and psychological perspectives with archaeological research, which creates a critical review of the problems and advances for students of the evolutionary sciences who are interested in the issue of symbolism. However, the volume is not without its challenges, which might be expected of any book attempting to bring together such a wide range of disciplines to discuss a common topic (especially one as contested as symbolism). One significant issue that the volume neglects to discuss in earnest is how to define the concept of "symbolism" that might apply throughout the different disciplinary perspectives presented within its chapters. Issues such as the role of language and various cognitive capacities as either central or marginal to the capacity of symbolism make this task difficult, and as a result, each chapter seems to redefine the concepts of "symbolism" from the previous. This leaves the reader to interpret the caveats that each author emphasizes as the critical features for capacity for symbolism, which can range from very specific linguistic to cognitive to neurological structures. This also creates an unclear picture of how the primatological perspectives (which downplay the role of language

and cognition in modern human symbolism), archaeological perspectives (which primarily focus upon material culture issues) and interdisciplinary perspectives (which focus upon the linguistic and psychological uniqueness of modern humans) actually interrelate in discussing and bridging the theoretical disparities that exist between these frameworks. The last issue of the volume is its organizational structure, which presents no clear bounds between chapters written from different disciplinary viewpoints. Sections demarcating primatological, archaeological and interdisciplinary (biological, philosophical and psychological) chapters might bring about a more coherent outlook in preparing the reader for how these sections might conceptualize and define symbolism in terms of their field of study. Despite these challenges, „Homo Symbolicus“ presents a unique multi-disciplinary background for any scholar interested in the wealth of aspects surrounding the critical issue of how the capacity for symbolism has shaped humanity.

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Prehistoric minds: human origins as a cultural artefact, 1780-2010.

Matthew D. Eddy (ed.), *Notes & Records of the Royal Society* 65 (1), Special Issue, 2011, 98 pages.

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Ceci n'est pas une recension – this is not a book review. Instead, this review treats a collection of one editorial and five papers first delivered at a conference held under the auspices of the British Society for the History of Science at the Royal Society in London late in December 2009, the much-celebrated bicentennial of the birth of Charles Darwin and the publication of his *Origin*. The papers are published as a special issue of the Royal Society's very own journal dedicated to the history of science, the *Notes & Records of the Royal Society*. Not all the presentations given at that conference are represented in this special issue, but those that are – by Matthew Eddy, Paul Pettitt and Mark White, Clive Gamble and Theodora Moutsiou, Marianne Sommer, and Peter Kjærsgaard – make for

a sleek volume of just under 100 pages that ranges widely over conceptual and historical issues connected to early antiquarian Palaeolithic and palaeoanthropological research. As the volume's title indicates, it is the notion of the "prehistoric mind" that provides a common focus. So, is this a special issue on early cognitive archaeology? Not quite. The prehistoric mind is here treated as a cultural artefact, or in other words, what lends focus to the different papers is the important linkage of antiquarian, archaeological, and anthropological interpretations of material remains from the distant past with salient general and specific cultural factors at work during the 19th and early 20th centuries: metaphysics, race, gender, class, economics, and politics.

Matthew Eddy opens the volume with an introductory editorial. He sets the scene for the remaining papers by both linking the original conference and its resulting publication to ongoing debates of the human condition in, for instance, the British newspaper *The Guardian*. He also underlines the novelty of the research presented in the five papers to follow: They go beyond traditional historical research in considering both archival but at the same time also archaeological and anthropological material. This is important because the evidential shift from prioritising literary sources to also seriously including material remains in the form of artefacts and bones in an attempt at reconstructing ancient lives and minds was itself truly novel in the middle of the 19th century. Darwin and the new chronology based on geological timescales made such ideas possible and indeed pressing. However, as Eddy points out, there is a sort of terminological stratigraphy inherent in such historical discussions. The meaning of seemingly innocuous terms, such as "prehistoric" and "mind", change over time, along with their cultural loadings. Eddy thereby reminds the reader to be aware of the difficulties of reading not so much the prehistoric but rather the Victorian minds of the men (no women here) whose works are discussed in the special issue.

The first research article following the editorial is by Eddy himself. The central character of his paper is the Edinburgh professor of rhetoric and *belles lettres* Hugh Blair. Blair is not a character that will be familiar to many archaeologists, but he aptly represents the beginnings of the above-mentioned evidential shift from a focus on literacy and Classical sources to a more decidedly archaeological approach to prehistory. Blair's attempts at inferring prehistoric cognition were rooted in an analysis of linguistic structure that, from today's point of view, can easily be shown to be not only Eurocentric, but also strongly Anglocentric. Blair drew on the then emerging ethnographic reports from the British colonies to make arguments about natural progression of cognitive abilities, expressed by language. As Eddy points out, Blair only referred to actual artefacts in passing, but his linguistic model of cognitive evolution – argued by

Eddy to be representative of the time – provided a background against which later scholars would interpret the stratigraphically ordered material remains. Indeed, "primitive" tools acquired from far-away peoples were then used to support notions of Western superiority, closing the Victorian circle of reasoning (e.g. Owen 2006).

The next paper, by Pettitt and White, turns towards some of the "usual suspects" in the history of early (British) Palaeolithic archaeology. We meet Lubbock, Worthington Smith, Pengelly, and other antiquarians who excavated in British caves. Providing a richly and interestingly illustrated account of the intellectual and institutional scene of British Palaeolithic archaeology between 1830 and 1880, Pettitt and White reach the conclusion that prehistoric cognition was in fact not explicitly addressed in any of the works written at the time. These were primarily (perhaps understandably) concerned with issues of chronology, and with reconstructing prehistoric life from the artefacts they found. What Pettitt and White show clearly is that ethnographic information was used to illustrate these interpretations of past life, and that they were saturated with tacit, contemporaneous notions of cognition, intelligence and morality. Gamble and Moutsiou's paper reveals similar facets. Focussing on the events and individuals surrounding the significant discovery and documentation of an Acheulian hand-axe found in stratified Pleistocene river terrace deposits of the Somme Valley in 1859 (see also Gamble & Kruszynski 2009), they show how, after the notorious biblical "time barrier" was famously shattered, discussions rapidly moved on to the length of the new chronology and the absolute age of the celebrated hand-axe finds, and to considerations of prehistoric cognition. Gamble and Moutsiou succeed in demonstrating how particular contemporaneous events (the Indian mutiny of 1857 and the American Civil War, 1861-1865) impacted on the scientific agenda of the day. This very same scientific agenda was intertwined with prevalent moral, political, and economic opinions. Ethnography and archaeology alike were used as "hard" evidence justifying a racist and imperialist agenda. The human mind, they argue, was seen as stratified with children, women, workers and "savages" being caught in lower layers or stages. This view provided the establishment with a useful scientific rationale for heavy-handed governance, at home as in the colonies.

The final two papers are again authored by historians of science rather than practicing archaeologists. Sommer presents an interesting discussion of the eolith debate in the Anglo-American context. These allegedly humanly made tools – what we today would refer to as geofacts – were subject of heated discussions and used as proxies for ancient hominid species yet to be discovered. More importantly (and in line with the sentiments of the previous papers) eoliths symbolised to many the nationalistic desire to

find local roots for a given population in very remote periods indeed. Such efforts are certainly still ongoing, often at the interface between amateur and professional archaeology (e.g. Baales et al. 2000). Kjærgaard's paper finally takes us away again from artefact-centred perspectives to a discussion of the perennial issue of the missing link. Derided by scientists but loved by journalists and the public, conceptions of this supposedly crucial piece of evidence have plagued evolutionary theory from Darwin until today. In a nuanced analysis of the narrative quality of both evolutionary scenarios and the recent and contemporaneous treatments of the history of these scenarios, Kjærgaard shows that although Darwin (and for that matter the other well-known protagonists of 19th-century evolutionary and Palaeolithic research) serve as useful way-markers in navigating historical analyses, they too were embedded in long intellectual and cultural lineages that often guided if not determined the trajectories of their ideas and their use of language.

So what do these half dozen papers have in common, and how do they differ? First or foremost, they demonstrate how reflective Palaeolithic archaeology has become. Disciplinary histories, especially when written by practitioners rather than historians, are easily exploited in the service of particular scientific agendas. Thorough awareness of the history of one's own discipline is the only remedy, and here also lies an interesting difference in the reviewed papers. Those written by archaeologists (Pettitt and White, Gamble and Moutsiou) differ markedly in style and focus from the remaining papers, which are written by historians of science. The latter papers seem less concerned with material culture such as artefacts, but also pictorial sources, and they include a cast of characters, and a bandwidth of ideas somewhat wider than the more "down-to-earth", more chronicle-like papers by the archaeologists. That said, to a readership of archaeologists, it is perhaps those more straightforward papers that appeal. The common lesson that can be extracted from them all certainly is that science is not conducted in a cultural vacuum, and that "data"

and "facts" are both produced, interpreted and reinterpreted in complex cultural contexts, each with its own historical baggage. It is this reviewer's opinion that students of any subject, including archaeology, should be taught a healthy dose of disciplinary history, and this special issue makes a useful contribution to the reading list for such a curriculum. However, it should also be noted that the papers reviewed here are given global relevance more or less only by the fact that British colonial activity and the modern scientific enterprise associated with it have had such a significant influence on Palaeolithic archaeology elsewhere. Nearly all the protagonists and networks discussed in this special issue are situated within the Anglo-American sphere with the result that its overall interest is somewhat diminished for readers in other parts of the world. This is perhaps not too surprising given that the conference was hosted by the British Society for the History of Science, and funded by the UK's Royal Society. Yet, the inclusion of more international perspectives would have improved the overall volume markedly, and would have broadened not only its dialogue but also its target readership. This final gripe should not distract too much, however, from an otherwise positive and interesting reading experience. The current trend that the proceedings of conferences are subsequently and often swiftly published as themed issues of peer-reviewed journals with active online platforms can only be encouraged. The papers are of high quality throughout, and reflect the fruitful, interdisciplinary dialogue of archaeologists with historians of science. The entire issue is freely available online since March 2012.

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