The Tautavel workshop: an introduction

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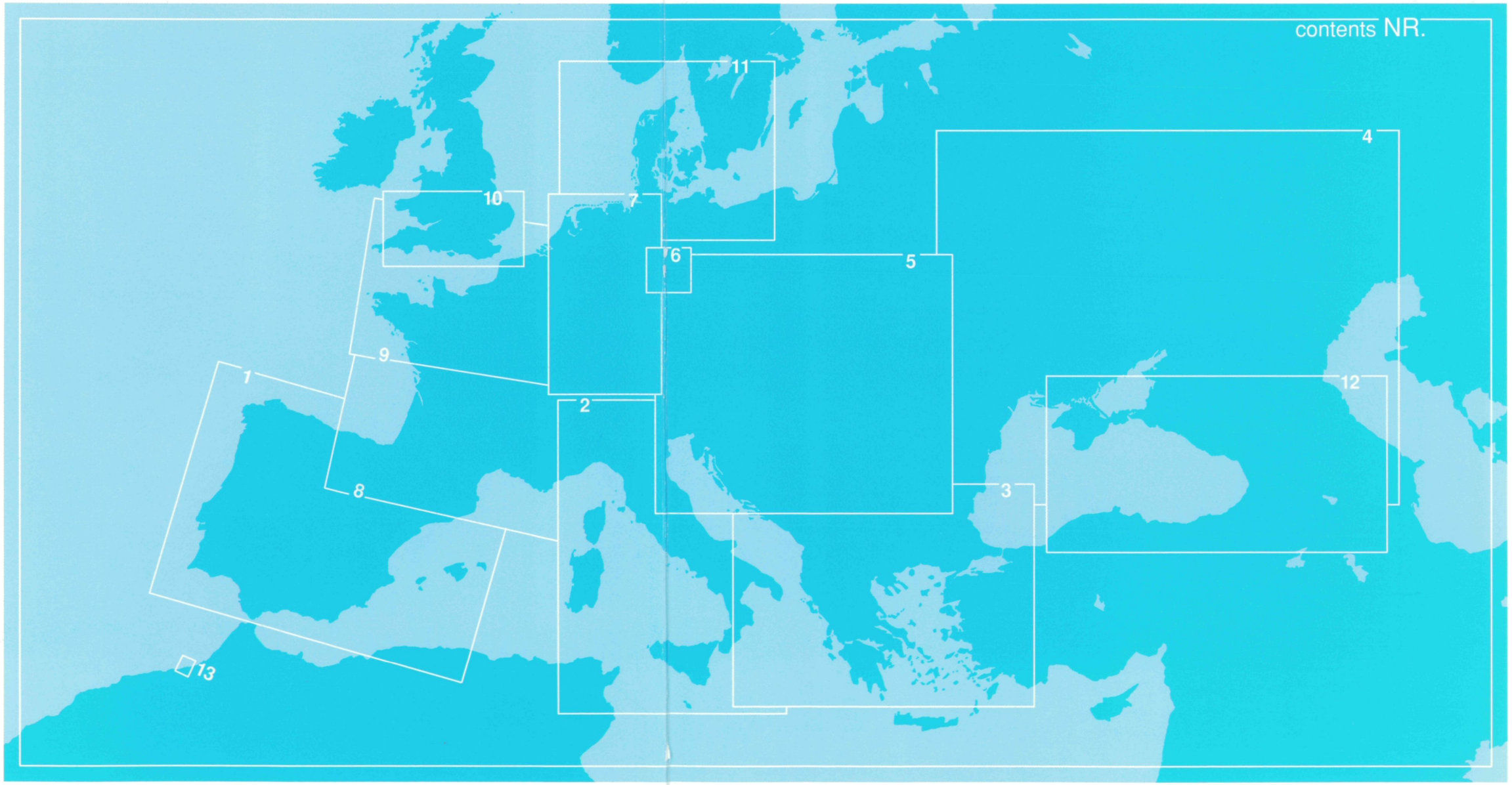
ANALECTA
PRAEHISTORICA
LEIDENSIA

27

1995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ANALECTA PRAEHISTORICA LEIDENSIA 27

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PUBLICATIONS OF THE INSTITUTE OF PREHISTORY

THE EARLIEST OCCUPATION OF EUROPE: PROCEEDINGS OF THE EUROPEAN SCIENCE FOUNDATION WORKSHOP AT TAUTAVEL (FRANCE), 1993

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UNIVERSITY OF LEIDEN 1995

Published in cooperation with the European Science Foundation

editorial committee: L.P. Louwe Kooijmans / C.C. Bakels

edition of this volume: W. Roebroeks / Th. van Kolfschoten

ISSN 0169-7447

ISBN 90-73368-07-3

Graphic design: H.A. de Lorm

Subscriptions to the series Analecta Praehistorica Leidensia and single volumes can be ordered exclusively at:

Institute of Prehistory
P.O. Box 9515
2300 RA Leiden
The Netherlands.

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acknowledgments

The production of this volume was possible through the gracious cooperation of the following people: Ms K. Fennema (Leiden), Ms C. Hardeman-Van Kolfschoten (Veenendaal), Mr H.A. de Lorm (Leiden), Ms I. Pereira (Leiden), Dr M. Street (Neuwied), Dr A. Turner (Liverpool) and especially Ms O. Yates-Wanders (Leiden). Financial support came from the European Science Foundation, The Netherlands Organization for Scientific Research (NWO-PIONIER) and the Faculty of Pre- and Protohistory of Leiden University.

Wil Roebroeks
Thijs van Kolfschoten

The Tautavel workshop: an introduction

Europe derives its name from its position relative to the rise and setting of the sun: on Assyrian monuments the contrast between *Asu*, "(the land of) the rising sun" and *ereb* or *irib*, ("the land of) darkness" or "the setting sun", is frequent, and these words are considered to have given rise to the names of Asia and Europe.[1] It was in this small and densely populated "dark" continent that the antiquity of humankind was first demonstrated, in the central decades of the nineteenth century. From the second half of that century onwards innumerable professional and amateur archaeologists screened exposures all over Europe in an extensive search for palaeolithic artefacts and fossils and so contributed to a high quality database, without parallels in other continents in terms of spatial and chronological density of sampling points. Yet despite almost one and a half century of research in Europe current evidence strongly points to Africa as the place where the human lineage originated, though the bulk of evidence there was collected in the last three decades only. Africa witnessed the "dawn" of humankind while Europe was still an 'Empty Continent' (Dennell 1983), a true land of (hominid) darkness.

The interpretation of the high quality record of the earliest occupation of this continent was at stake on November 19th and 20th, 1993, when a group of palaeolithic archaeologists and representatives of other disciplines (Fig. 1) met at the *Centre Européen de Recherches Préhistoriques* at Tautavel (France), for a workshop on the earliest occupation of Europe (Roebroeks 1994). Tautavel was chosen as the venue because of *l'homme de Tautavel*'s obvious association with the theme of the workshop, that was very kindly hosted by H. De Lumley and members of his staff.

The Tautavel meeting itself was organized by the then newly established Network on the Palaeolithic Occupation of Europe, funded by the European Science Foundation (Strasbourg)[2]. The workshop consisted of two full days of discussion on the basis of pre-circulated papers, whose updated versions constitute the bulk of this volume[3]. The aim of the Tautavel meeting was to discuss and review the evidence concerning the earliest occupation of the European regions, from Scandinavia to the Mediterranean and from the United Kingdom to the Russian Plains, and including neighbouring areas such as the Caucasus and northern Africa. The discussion focused on four themes: chronology (chaired by Alain Tuffreau), environment (chaired by Clive Gamble), industries (chaired by Gerhard Bosinski), and subsistence (chaired by Catherine Farizy). These items were discussed *in extenso*, and some of the discussion is reflected in four synthetical contributions to this volume: Aitken's paper and Roebroeks and Van Kolfschoten deal with various aspects of chronology, the environmental backgrounds of the earliest occupation of Europe are extensively reviewed by Gamble's contribution, while one of Bosinski's contributions is a short review of European Lower Palaeolithic stone industries. Subsistence aspects proved to be a topic for a special meeting, meanwhile held at Monrepos (Neuwied, Germany) in May 1995 (Gaudzinski and Turner 1995).

Very vivid were the Tautavel discussions on the age of Europe's first occupation. Despite the large numbers of meetings devoted to Europe's first traces of settlement the dates given to the first "Europeans" vary widely (cf. Gamble, this volume; Roebroeks and Van Kolfschoten, this volume), with some proponents of a long chronology suggesting that Europe was already occupied in the earlier parts of the Early Pleistocene, whereas others opt for (significantly) later occupation. A new and very short "pan-European" chronology was advocated by our contribution to the Tautavel meeting (Roebroeks and Van Kolfschoten, this volume). A detailed reappraisal of artefactual and chronological – especially biostratigraphical – evidence for the earliest occupation of Europe led us to stress the differences between the evidence from before and after about 500 Kyr BP (Roebroeks and Van Kolfschoten, this volume: Table 1); we interpreted these differences as indicating that there is no proof of human occupation of Europe prior to about 500 Kyr BP.

Discussing the merits of the various long and short chronologies for the earliest occupation of Europe – or for that matter of any continent – is not just about getting the dates right, but more importantly, about how to translate its rich Palaeolithic record into meaningful scenarios for human behavioural evolution: if workers like Bonifay (see Bonifay and Vandermeersch 1991) and Coppens

Fig. 1. The participants of the Tautavel Workshop:
1: J.P. Raynal, 2: L. Raposo, 3: L. Larsson, 4: C. Gamble, 5: M. Roberts, 6: A. Tuffreau, 7: M. Sparreboom, 8: P. Antoine, 9: K. Valoch, 10: E. Brinch-Petersen, 11: T. van Kolfschoten, 12: A. Darlas, 13: M. Santonja, 14: M. Aitken, 15: H. De Lumley, 16: V. Ljubin, 17: M.-A. De Lumley-Woodyear, 18: J. Leopold, 19: W. Roebroeks, 20: G. Bosinski, 21: M. Mussi, 22: C. Farizy, 23: J. Combier, 24: N. Praslov.
Behind the camera: L. Magoga (invited, but unable to attend: D. Mania, C. Peretto).

(*in* Ackerman 1989) are right and Europe was first occupied at about 2 Myr ago, such scenarios could adopt more gradualistic perspectives, with hominids having plenty of time to adapt to the new environments of this continent, where the climatic oscillations of the Pleistocene were to have very profound effects. If on the other hand occupation was significantly later, for instance from the Middle Pleistocene onwards, scenarios might tend to be more punctuated, with important implications for the resultant modelling of human behaviour (Dennell 1983; Gamble, this volume; Roebroeks and Van Kolfschoten 1994, this volume). Proponents of both longer and short chronologies for Europe's earliest occupation were present at the meeting: the workshop brought together researchers with highly variant backgrounds, so that the discussions took place not between more or less like-minded scientists but within a heterogeneous, actively disagreeing multivocal group. Nevertheless, Alain Tuffreau, spoke for most participants when he concluded at the end of the Tautavel meeting that the assemblages from before about 500 to 600 Kyr BP can no longer be accepted as unambiguous proof for human occupation; their very primitive artefacts, with hardly any discernible *gestes techniques*, call for arguments other than the examination of stone implements.

Any meaningful discussion of the earliest occupation of Europe must place the evidence from this *cul de sac* of the Eurasian continent in the larger perspective of the question of the earliest dispersals of hominids out of Africa, and since the Tautavel meeting various new findings have contributed to the debate on these sorties. Some support the case for a short chronology for Europe (cf. Roberts *et al.* 1994; Gamble 1994; White 1995) but others have emphasized the necessity for building a longer Eurasian chronology for the earliest hominid immigration.

For instance, the new dates for the earliest hominids of Java (Swisher *et al.* 1994) suggest that they were already present there around 1.8 Myr BP, almost one million years earlier than most other estimates (see below). Such an early dispersal of hominids out of Africa is also supported by the dating of the Dmanisi site into the Olduvai subchron, at around 1.8 Myr BP (Ljubin and Bosinski, this volume; Dzaparidze *et al.* 1989; Gabunia and Vekua 1995) and by the new finds from the Orce basin in Andalusia (Spain), where evidence is claimed for Early Pleistocene human occupation from around 1.8 Myr BP, both in the form of hominid remains (Orce, Cueva Victoria) and as artefactual evidence, for example from Fuentenueva 3 (see Gibert 1992; Gibert *et al.* 1994; Roe 1995; Raposo and Santonja, this volume). Finally, artefacts reported from Yiron in Israel (Ronen 1991) and Riwat and the Pabbi Hills in Pakistan also nicely fit in this pattern with their estimated age (for Riwat) of around 1.9 Myr BP (Dennell 1993).

There thus is evidence to build a consistent long chronology for the initial dispersal of hominids out of Africa and into Eurasia, at a date of around 1.8 Myr BP, but it is to be stressed that none of the building blocks of such a long chronology is uncontested. De Vos and Sondaar (1994) have criticised the Swisher *et al.* (1994) dates as being far too old, for various reasons. For instance, the new 40Ar/39Ar ages are based on hornblende samples of which the geological context is not clear. Furthermore the new ages are contradicted by a wide range of established data; the discrepancy between the 40Ar/39Ar ages (1.81 and 1.66 Myr BP) and the existing magnetostratigraphy is almost one million years, while fission track ages also indicate dates all less than 1 Myr BP. De Vos and Sondaar conclude "that the 40Ar/39Ar dates of Swisher *et al.* may themselves be "technically correct", but until their geological context is established, it is premature to attach such far reaching conclusions to these new age estimates for the hominid of Java" (1994:1726).

As for Dmanisi, the find-bearing sediments themselves have not been dated yet: the 1.8 Myr BP date was obtained on basalt *below* these deposits, whose normal polarity is interpreted as correlative with the Olduvai subchron. Before the discovery of the Dmanisi mandible, the fauna of the site was thought to date from the Middle Pleistocene (Vekua 1986:87), while correlation with Near Eastern and European successions also does not give strong support to the 1.8 Myr BP age; "Estimating the age of the site within the time range of 1.5-1.0 Ma would be reasonable" (Bar-Yosef 1994:228). A recent review of the Near Eastern evidence likewise does not support "claims for occurrences around 2.0 Ma or immediately after the Olduvai subchron" (Bar-Yosef 1994:256), and the earliest sites there are also to be placed within the 1.5-1.0 Myr BP time span.

While the sample of 'hominids' coming from the Orce region is extremely controversial (e.g. Agusti and Moyá-Solá 1987 vs. Gibert 1992), a visit to the Orce Basin in April 1995 convinced us that at least one site has unambiguous stone artefacts there, Fuente Nueva 3 (see also Roe 1995).[4] If subsequent geological fieldwork would indeed corroborate the claim that this site is to be placed in the Early Pleistocene sequences exposed in the gullies near Orce, one would have to conclude that hominids trickled into the southern part of Spain hundreds of thousands of years before they left undisputable traces of their presence elsewhere in Europe. However, as long as the sedimentological setting of the Fuentenueva 3 site is not clear we see no compelling reasons to come to such a conclusion yet. We therefore agree completely with Roe (1994:11), who after his visit to the area concluded that it "would be most unwise at the present stage of the research to go too deeply into the potential significance of the discoveries made at

Orce. There is still some way to go before the basic facts are established beyond doubt or challenge".[5]

The recent developments summarized above clearly indicate that the question of the earliest occupation of Eurasia is far from solved and highly controversial. In our view the short chronology for Europe has not been falsified by these developments *yet*, and thus there still is the point of the gap between the earliest occupation of the "gates of Europe" – the Caucasus, northern Africa – and the first unambiguous traces within (Raynal *et al.*, [this volume] show that the gap with the Maghreb evidence, where the earliest occupation dates from just before the Brunhes-Matuyama boundary, is smaller than at the eastern "gates" of Europe, where it is minimally 500 Kyr). The Tautavel meeting saw ample discussion of the possible explanations for this chronological *décalage*, a discussion that brought together the various aspects at stake at the Tautavel meeting, such as the environmental setting of the earliest occupants, their subsistence strategies and the behavioural implications of the short and long chronologies (Gamble, this volume).

This book presents the actual data in the form of the various regional and supra-regional, synthetical contributions that formed the basis of the Tautavel discussions. The contributions are highly variable and testify to the large variety in regional research traditions within Europe. The production of this volume took almost two years, as we decided to 'wait' for most of the papers. Individual papers thus had to await publication until most of the other papers were finished and in that sense there is a striking similarity between the history of this book and Clive Gamble's (this volume) elegant explanation for the aforementioned 500 Kyr gap between the occupation of the 'land of the rising sun' and the 'land of darkness': "*any one region of Europe could only be colonized if it was colonized at the same time as most of the others*". Palaeolithic archaeology in the spirit of a unified Europe!

notes

1 Encyclopaedia Britannica, entry on 'Europe'.

2 The European Science Foundation Network on the Palaeolithic Occupation of Europe consists of G. Bosinski (chairman - Neuwied, Germany), W. Roebroeks (scientific secretary - Leiden, The Netherlands), C. Farizy (Paris, France), C. Gamble (Southampton, United Kingdom), L. Larsson (Lund, Sweden), M. Mussi (Rome, Italy), N. Praslov (St. Peterburg, Russia), L. Raposo (Lisbon, Portugal), M. Santonja (Salamanca, Spain) and A. Tuffreau (Lille, France), with M. Sparreboom as coordinator on behalf of the European Science Foundation (Strasbourg).

3 As is often the case with such proceedings, not all attendants were able to submit their contributions on time, and we especially regret the absence of a paper dealing with the prolific archaeological record of the southern part of France, a key region in the discussion on long versus short chronologies.

4 We are very grateful to Dr J. Gibert and his collaborators Dr B. Martinez, L. Gibert, Dr A. Turq and Prof. Dr M. Walker for taking the time to show us the Orce region exposures and the material from the various sites.

5 New palaeomagnetic dates for the Atapuerca-TD sequence were reported in Science (vol. 269, no. 5225, 11 August 1995) while this volume was in press. Whereas earlier estimates assigned an age of about 500 Kyr BP to the TD 6 level (cf. Roebroeks and Van Kolfschoten, this volume), the new dates suggest a late Early Pleistocene age. If future dating work corroborates the palaeomagnetic data, one will have to conclude that the Iberian record does contain signals of earlier dispersals than the non-Iberian parts of Europe.

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