North Africa, and the Maghreb are critical areas for the study of the initial spread of extinct hominins from the sub-Saharan region into Eurasia during the Lower and Middle Pleistocene. In recent years the archaeological community has come to accept the presence of:

- Very early *Homo ergaster*-like creatures at Dmanisi with a claimed date possibly earlier than 1.6 mya, and associated with a non-biface assemblage.
- ‘Ubeidiya: a rich site dating between 1.0 and 1.4 mya with biface and non-biface assemblages.
- Ceprano in Italy: a cranium with affinities to a number of later hominin species, probably dated to about 0.8 to 0.9 mya.
- Orce: a non-biface assemblage in southern Spain now considered to be over 1.0 mya in age.

These sites effectively ring the Maghreb to the north, east, and west with a collection of early fossils and stone tool assemblages and forcibly argue for the movement of extinct hominins out of the sub-Saharan region some time before 1.0 mya. Primary research questions for this period and area centre on the timing and character of hominin settlement, assemblage variability, and which particular species of extinct hominin was responsible.

So I came to this volume hoping it would give me insights into how the North African database could contribute to these research agendas; in other words hoping the book would do exactly what it claimed on the cover — discuss the Lower Palaeolithic of the Maghreb. Unfortunately I was disappointed. The volume as a whole is little more than an interim site report for as yet incomplete excavations at Ain Hanech, Algeria, and as such does not really ‘do what it says on the label’. Not that this is not an important site, or one long overdue for re-evaluation. It plainly is on both counts. Even as an interim report the text is disappointing. In places the work gives the impression of a hastily cut-and-pasted series of papers or a quickly edited PhD submission (section 1.6 in the contents list is described as ‘organisation of the dissertation’; in the text it is ‘organisation of the book’). There are mistakes (probably typos) in many of the tables, with percentages and totals not adding up. Other areas also gave me cause for concern — totals for bones and stone tools are frighteningly small and one wonders just how much can be realistically done with such small samples (but then I suppose you do have to go with what you have got).

This hasty impression, and the interim feel of the work, detract significantly from the claim of the volume to discuss the Lower Palaeolithic of the Maghreb, or even to present more than an initial understanding of Ain Hanech. There is important new work being done in North Africa, for example in dating and relating many of the classic sequences from North Africa, at both coastal localities and at key inland sites, to the global Marine Isotope Sequence, but a lot of this, published before this volume, is not properly integrated or addressed. To some extent Sahnouni should not shoulder all the responsibility here. As a volume in the edited Cambridge Monographs in African Archaeology series, the editors should have identified these problems and supported the author in restructuring the volume in a more thoughtful way.

The layout of the volume is as follows. Introductory sections set the scene describing very briefly the African ESA and then the place of the North African sites within this (Chapter 1).
More detailed sections follow on the previous interpretations of Ain Hanech and focus on the quality of the data from which understandings of the site and area have been generated. The author makes a chilling case for how little of this previous work is trustworthy, and I found his reasoning all too convincing. Chapter 2 continues with geological, stratigraphic, faunal, and chronological sections. On the basis of faunal comparisons, palaeo-magnetic determinations, and depressingly, stone tool typological similarities, Sahnouni associates the archaeological levels with the Olduvai event between c. 1.9 and 1.75 mya, noting that the ‘Oldowan’-like material from Unit T is similar to Olduvai Bed I. There is a possible earlier Oldowan-like assemblage from Unit P that may date to around 2.0 mya. Importantly, no bifaces or thinning flakes were associated with these units in his test trenches, and the author associates the bifacial material previously recovered from the site with distinct higher and later deposits not sampled in his excavations. I found from these sections of the text that piecing the sequence together was not as easy as it could have been. He then goes on to describe in more detail the geological sections, site formation issues (particularly using the bones recovered — again troubled by small samples), and copious detail on the lithic component. The volume concludes with two and a half pages on the interpretation and broader implications of the site. I was unhappy with some aspects of this format. The layout of the volume is a little odd in places; for example sections which I thought merited separate billing, and more detailed discussion, were included as sub-sections within heterogeneous chapters.

My main criticism of the lithics section is that the author seems to have taken virtually every analytical device known to stone tool researchers and thrown them willy nilly at the assemblage, but with little to no thought as to what any results might mean. I would have dearly loved more thoughtful discussion on why such-and-such a technique was used, and why it was appropriate to this particular aspect of the analysis. The impression is of an over interpreted assemblage. Again, Sahnouni is not entirely at fault here. We all count the flake scars on cores, and summarise the percentage of cortex, and our graphs and Microsoft Excel charts look beguilingly scientific. But come on, do they really reflect what we all assume they do? A good example of this is the use of experimental replication. The author’s replicated sample evidently differs in character to the archaeological one, but to imply that this may mean transport of lithics to and from the site is, based on the data he presents, pushing the boat out too far in my opinion. No other options are really considered in detail.

To sum up this is not a good volume, and it is a shame since much of the work behind it is good and some important contributions are made. Sahnouni’s assessment of the value of the older excavations and how they impact on other older North African research sites, is an important and worrying conclusion. His fieldwork is clearly designed to address this, and the volume’s emphasis on field results is convincing. In this matter the geological fieldwork definitely hits the right note and provides some important windows on to the problems of provenance and association. The ability to relate the new work to the old Ain Hanech type sections is critical in this, as is the application of modern chronological techniques (which need to be firmed up a lot). His observations on the absence of any evidence for a biface component in the lower units, and his dating of the site to the Olduvai Event are important observations, but they do need to be tested by further fieldwork (and the dating by comparative lithic typology needs to be abandoned post haste).

In short this is good work, competently done, but badly presented. A shame.

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