

Acheulean in Middle Egypt

P.M. VERMEERSCH, E. PAULISSEN,* M. OTTE,†
G. GIJSELINGS‡ & D. DRAPPIER‡

Prospection of the lower desert in Middle Egypt led to the discovery of an Acheulean site (Vermeersch *et al.* 1977). During the 1977 campaign of the Belgian Middle Egypt Prehistoric Project excavations were carried out at this site, which is situated near the village of Nag'Ahmed el Khalifa some kilometres south of Abydos (Middle Egypt).

In this area the alluvial plain is separated by low cliffs, 5–10 m high, from a rather continuous plain, gently sloping towards the western valley border (El Ghineimya plain). This plain, composed of different fan accumulations coming from the western mountains, is dissected in later periods by wadis.

At Nag'Ahmed el Khalifa, in the south flank of one of the wadis dissecting the El Ghineimya plain, local people opened a small quarry from which the Acheulean artefacts were first recovered. They occur in a rubified gravel deposit (7.5 YR 6/6–5 YR 5/8) mainly composed of rounded flint cobbles (mean diameter: 10 cm), reworked from a higher terrace about 80 m above the alluvial plain. This deposit is tentatively correlated with the Abassia Formation, overlying the Qena sands and the Dandara silts (Said 1975). It is covered by a thin gravel layer, including artefacts of Levallois technique, tentatively correlated with the Makhadma Formation (Said 1975).

The artefacts were collected at different levels in the rubified gravels, proving that they are not archaeologically *in situ*. They had been displaced by the erosional activity of the wadi which had aggraded the gravels. Nevertheless it is clear that the artefacts were not transported over a long distance: most of them are in fresh to very fresh condition.

Surface collection and excavation of some trenches provided a collection of tools, mostly bifaces. A rough quantitative distribution of biface categories (Schild & Wendorf 1975) has been made. The amygdaloid group is the largest: mostly amygdaloids with thick butts (Fig. 1C; 2A,B and D) but also some with thinned butts (Fig. 1D,E). Much less important is the group of cordiforms and ovals (Fig. 2C,E and F). Then follows a group which is mainly constituted by cleaver-faces (Fig. 1A and B; 3, A, B and C). The group of thick elongates is poorly represented, while sub-triangular bifaces, backed bifaces and double-backed bifaces are absent. Unfinished items are very frequent. Choppers and chopping tools are nearly absent. We recorded only one bifacial scraper. Cores consist mostly of flint pebbles from which a few flakes were obtained. Flakes are rather large and thick. Levallois

debitage is totally absent. Cortical flakes are very frequent. Biface trimming flakes and blades are very scanty.

In the present state of research we can only give some general ideas about the correlation of this industry with that of other Egyptian sites. The differences from the Acheulean (E-72-1) of the Dakhla Oasis (Schild & Wendorf 1975) are obvious, taking into account the absence of the backed biface group, even when the other biface groups are characterized by thick unworked butts, as is frequently so in Nag'Ahmed el Khalifa. The Final Acheulean of Bir Sahara-14 (Schild & Wendorf 1975) with a pronounced stress on the triangular and cordiform biface groups is clearly of a more evolved type. The Acheulean of the Wadi Halfa and Arkin regions in the Sudan is also rather different, as it is characterized either by a high proportion of ovals, choppers and chopping tools (Chmielewski 1968) or by a large number of primitive forms, which, even in the Middle Acheulean account for 30% of all bifaces (Guichard & Guichard 1968). The Late Acheulean of Dandara (Wendorf & Schild 1976) has not yet been published. The stratigraphic position seems similar to that of Nag'Ahmed el Khalifa. Indeed the industry is included in rubified gravels which rest unconformably on silts of the Dandara Formation.

At El Ghineimya, only 1 km south of Nag'Ahmed el Khalifa, the fan deposits of the El Ghineimya plain, dissected by the important wadi Himeil, are exposed over 10 m. They are fresh and composed of an alternation of gravelly and sandy beds. These deposits are finer, more heterogeneous and less weathered than the rubified coarse deposits at Nag'Ahmed el Khalifa. All over the section they contain many reworked flakes and cores, some of which are of Levallois technique. Only one biface preparation was recorded.

From the geological facts it can be deduced that the fan deposits of the El Ghineimya plain are not synchronous but are composed of at least two aggradation periods separated by a degradation period resulting in local wadi erosion of at least 10 m.

Finally it is important to note that a few flakes with thick bulbs and flat butts were collected *in situ* in wadi gravels under the Dandara silts a few kilometres south of Nag'Ahmed el Khalifa at Nag'el Amra. This indicates the presence of human activity in that region much earlier than the Acheulean of Nag'Ahmed el Khalifa. The local stratigraphy within the El Ghineimya plain is tentatively summarized in Fig. 4.

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REFERENCES

- Chmielewski, W. (1968). Early and Middle Paleolithic sites near Arkin, Sudan. In: Wendorf, F. (ed.). *The prehistory of Nubia*, 110–147. Dallas: Southern Methodist University Press.
Guichard, J. & Guichard, G. (1968). Contributions to the study of the Early and Middle Paleolithic of Nubia. In: Wendorf, F. (ed.). *The Prehistory of Nubia*, 148–193. Dallas: Southern Methodist University Press.
Said, R. (1975). The geological evolution of the river Nile. In: Wendorf, F. & Marks, A.E. (eds). *Problems in prehistory: North Africa and the Levant*, 7–44. Dallas: Southern Methodist University Press.

- Schild, R. & Wendorf, F. (1975). New exploration in the Egyptian Sahara. In: Wendorf, F. & Marks, A.E. (eds). *Problems in prehistory: North Africa and the Levant*, 65–112. Dallas: Southern Methodist University Press.
Vermeersch, P.M., Paulissen, E. & Gijssels, G. (1977). Prospection préhistorique entre Asyut et Nag'Hammadi (Egypte). *Bulletin de la Société royale belge d'anthropologie et de pré-histoire*, 88, 117–124.
Wendorf, F. & Schild, R. (1976). *Prehistory of the Nile Valley*, 404. New York: Academic Press.

*Belgian Centre for Geomorphological Research.
†FNRS, Université de Liege, Belgium.

‡Laboratorium voor Prehistorie, Katholieke Universiteit te Leuven, Redingenstraat 16bis, B-3000 Leuven, Belgium.

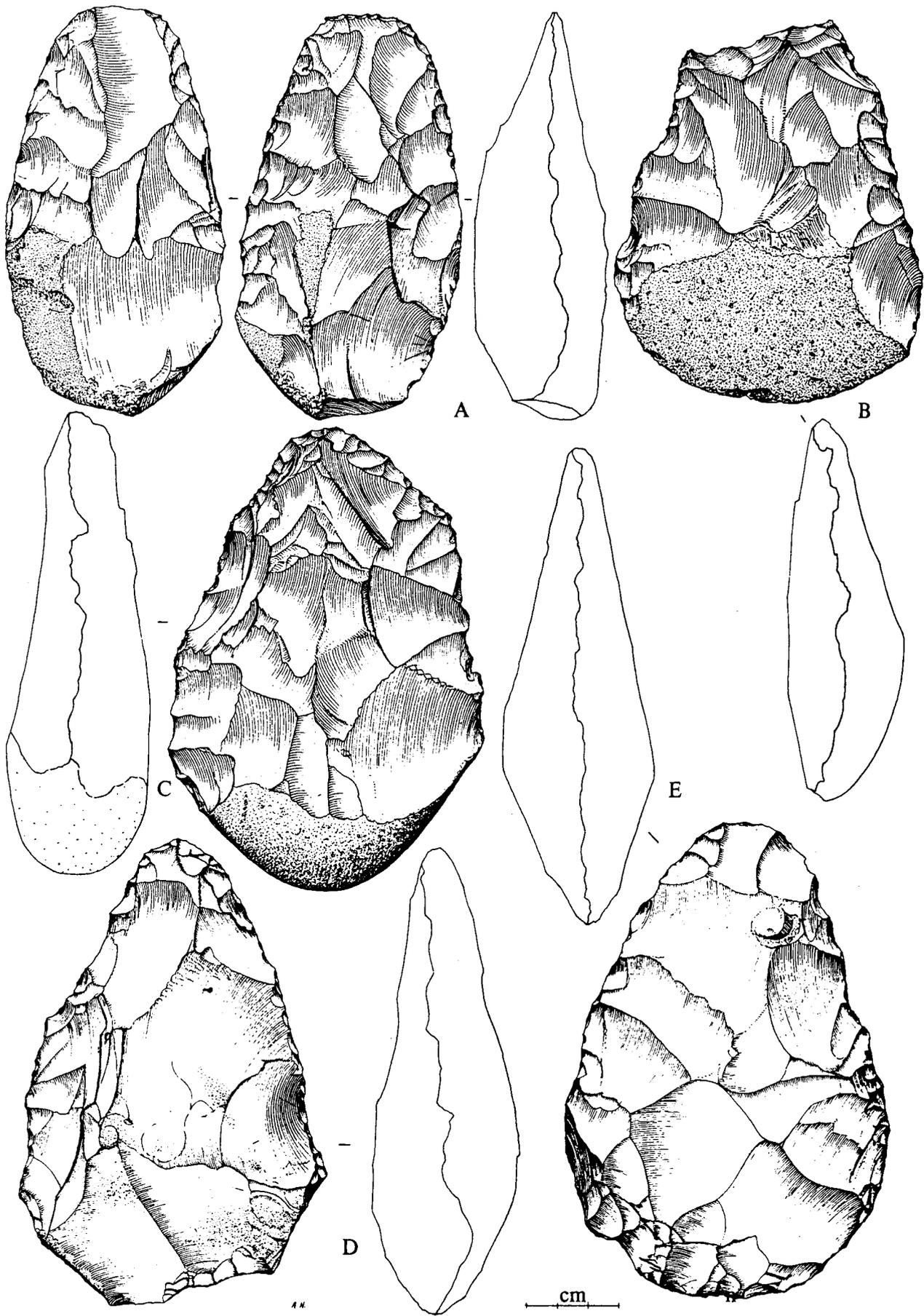


Fig. 1. Acheulean bifaces from Nag'Ahmed el Khalifa: A and B, cleavers; C, amygdaloids with thick butt; D and E, amygdaloids with thinned butts.

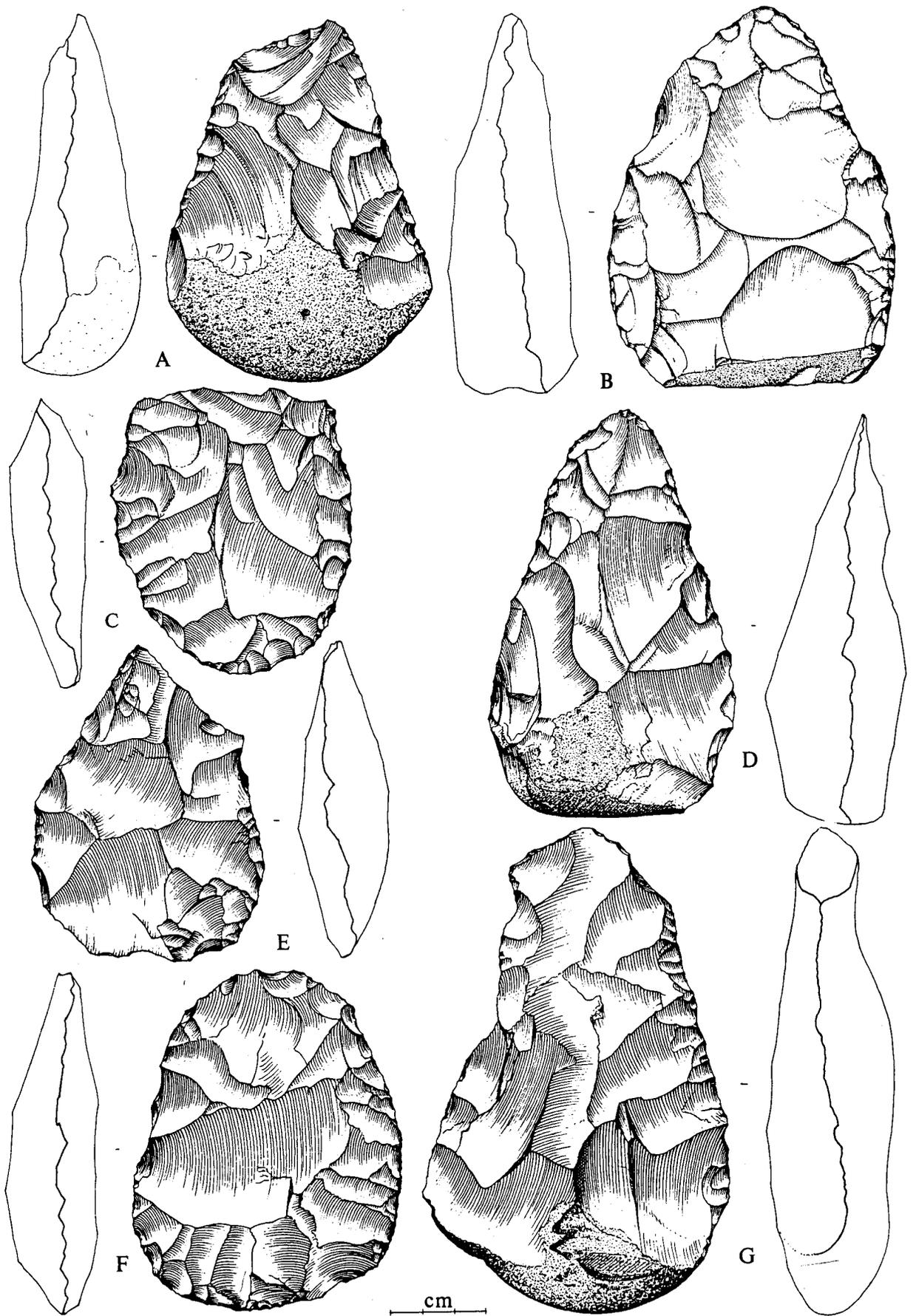


Fig. 2. Acheulean bifaces from Nag'Ahmed el Khalifa: *A, B* and *D*, amygdaloids with thick butts; *C, E* and *F*, cordiforms and ovals; *G*, cleaver.

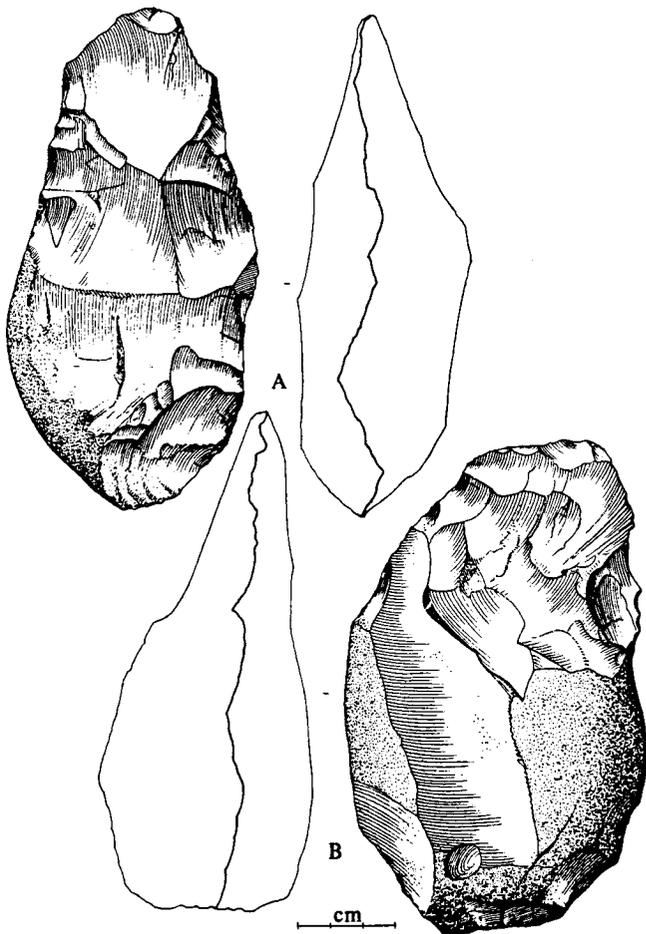


Fig. 3. Acheulean bifaces from Nag'Ahmed el Khalifa: A, B and C cleavers.

NILE DEPOSITS	WADI ACTIVITY	MORPHOLOGY	ARCHAEOLOGY
	erosion	present wadi bed	
Nile evolution	wadi deposits I	terrace 3-4m above the present wadi bed	Levallois flakes in rolled condition
	important wadi erosion	present wadi valley (w. Himeil and w. El Amra)	
to be specified	wadi deposits II 10 YR 6/4 (Makhadma Form?)	wadi deposits II and III form	reworked Levallois flakes in fresh condition
	important wadi erosion	the El Ghineimya plain	
	wadi deposits III 7.5 YR 6/6 - 5YR 5/8 (Abassia Form?)		reworked Acheulean in fresh condition
sands with shells 7.5 YR 6/4 (Qena sands?)			
	wadi deposits IV 7.5 YR 6/4		
Dandara silts 5 YR 4/3			
	wadi deposits V 7.5 YR 4/6		El Amra flakes (reworked)

Fig. 4. Stratigraphy of the El Ghineimya plain.