# **Equus and Hipparion from Melka Kunturé**

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The equids of Garba IV and Gomboré I at Melka Kunturé, Ethiopia, were previously described in [143.The Large Mammal Fauna of the Oldowayan sites of Melka-Kunturé, Ethiopia.](https://vera-eisenmann.com/143-the-large-mammal-fauna-of-the-oldowayan-sites-of-melka-kunture-ethiopia). A few missing words were inserted in the copy attached here.

The new stratigraphic interpretations (Morgan et al. 2012 ; Tamrat et al. 2013) suggest that the oldest site is Gomboré Î™Î’, followed by Garba IV (between 1.7 and 1.4 Ma and Gomboré IÎ³ (around 1.4 Ma).

### ***EQUUS***

– GOMBORE IB (about 1.7 Ma)  
Three lower cheek teeth are larger than three other lower and one upper (Fig.1).  
One metatarsal may be referred to *E*. cf. *oldowayensis* from Bed II. A metatarsal from the Middle Pleistocene of Arabia may belong to this form (Fig.2 and 2bis).

– GARBA IV (between 1.7 and 1.4 Ma)  
The upper cheek teeth have the very plicated enamel and the particular plis caballin characteristic of the subgenus *Sussemionus* (Fig.3).

The lower cheek teeth may also be very plicated ; the vestibular groove is deep on the molars ; the stem of the double knot seems higher than usual (Fig.4).

There are four fragments of metacarpals and one entire, all from Garba IVD (Fig.5). The best preserved is the smallest and the slenderest (Fig.6). Among the recent equids it resembles most by its proportions a donkey MC from Ikrit, Israel, Bronze Age (Fig.7). Among older but similar fossils (Fig.8), there are : the lower Mosbach, Germany, MC (which can be referred to *E. sussemionus altidens*), a specimen from Ubeidiyeh, Israel, one from Elandsfontein, South Africa, one fragment from Be’eri, Israel, and one from Allobroges, Algeria. Although the sizes differ, all share a deep proximal end (6) and a distal articular breadth (11) wider than the supra-articular (10). Only the MC from Ubeidiyeh is about the same age as Garba IVD. All others are younger. A variant of the same pattern â€“ with a deep diaphysis (4) â€“ may be found in the Cornelian Elandsfontein, at Florisbad (*E. lylei*), and at Konso 7 (although the distal supra-articular breadth is wider (Fig.9).

Nothing much can be said about the fragment of MT, apart that it is robust and flat (Fig.2).

– GOMBORE IA (about the same age as Garba IV ?)  
The few teeth from Gomboré IA (Fig.10) look like those of Garba IV. Indeed the upper molar MK 72-4174 could have belonged with MK 73-9319 (Fig.3). On the lower premolar MK 72-67, the stem of the double knot is as high as in MK 73-2542 of Garba IV (Fig.4).

– GOMBORE IÎ³ (about 1.3 Ma)  
The few upper cheek teeth (Fig.11) are alike the precedent. The upper M3 MK 78-1912 could have belonged with MK 73-9319 (Fig.3) and MK 72-4174 (Fig.10).

The lower P2 MK 74-245 is very plicated and bears a pli protostylid â€“ both characters frequent in Sussemiones.

The third phalanx MK 78-1751 (Fig.12) is larger but resembles extant anterior Ph3 of *E. africanus* (Fig.13).

– GARBA XII, SIMBIRRO III (1.07-0.84 Ma), and SIMBIRRO IV  
These few teeth are also similar to the precedent (Fig.14).

– GOMBORE II (about 0.8 Ma)  
Again, the cheek teeth look like Sussemiones (Fig.15).

The arcade of the symphysis is rounded ; all incisors have cups (Fig.16).

The fragmentary distal MCs (Fig.17) have wide articular surfaces, like two specimens of Olduvai Bed II (Fig.18).

There are also several tali (Fig.19, Tab.6).

– MISCELLANEOUS  
There are a few teeth and/or bones from Kella, Garba I, and Garba III. Corresponding photos and measurements are in Fig. 14, and Tables.

– CONCLUSION  
Cheek teeth of Suessemiones pattern appear all through the Melka Kunturé sequence beginning at least with Garba IV.  
Limb bones are perplexing, some of them robust, some more Ass-like.  
Altogether the material does not give any reliable insight on the environmental conditions.

### ***HIPPARION***

1. At Addis Ababa I have seen two strange specimens (Fig.20). They are supposed to come from Melka Kunturé but have no number or indication of locality.

The lower premolar has no ectostylid but a well-developed pli caballinid with a rounded tip ; there is an islet at the posterior end of the postflexid : the double knot is symmetrical with a pointed entoflexid between metaconid and metastylid ; the enamel is very plicated.

The fragment of upper premolar is also very plicated.

I do not know what to make of these teeth.

2. The other few cheek teeth of *Hipparion* are typical of *Stylohipparion* (Fig. 21). The sub adult symphysis (Fig. 22) is that of a grazer, with the not yet erupted I3 behind the nearly aligned I1 and I2, but not as specialized as those from Olduvai Bed II (Fig. 23).

There are few limb bones (Fig. 24). The distal MC of Gomboré II has some similarities with a specimen from Olduvai FLK NI (Fig. 25). A distal MT from Gomboré IÎ³ â€“ with a specimen from Olduvai SHK II (Fig. 26).

Numerical data are in Tables 7-10.

CONCLUSION  
Apart from the strange specimens without locality, the Melka Kunturé is a Stylohipparion but clearly does not belong to the species found in Olduvai.

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