

2. Taras, M. J., In *Colorimetric determination of non-metals*, 1958, Interscience, New York, p. 75.
3. Willis, R. E., *Anal. Chem.*, 1980, **52**, 1376.
4. Venkateswerlu, G. and Sivarama Sastry, K., *Indian J. Biochem. Biophys.*, 1979, **16**, 84.
5. Bratton, A. C., Marshall, E. K., Babbitt, D. and Hendrickson, A. R., *J. Biol. Chem.*, 1939, **128**, 537.
6. Nason, A. and Evans, H. J., *Methods Enzymol.*, 1955, **2**, 411.

### ADDITIONAL FAUNAL MATERIAL FROM THE PLEISTOCENE FORMATION OF THE RIVER GHOD-A TRIBUTARY OF THE BHIMA, MAHARASHTRA, INDIA.

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THE Ghod is an easterly flowing tributary of the river Bhima originating in the Western Ghats, about 75 Km northwest of Pune, and flowing for a distance of about 160 km over the Deccan Traps before its confluence with the river Bhima. While the only notable occurrence of fossil vertebrates from the Bhima comes from Hagargundi<sup>1</sup>, a Middle Palaeolithic site, the Ghod river has in recent years yielded half a dozen palaeontological sites namely Inamgaon, Sirasgaon Kanta,

Chinchini, Chandoli, Khadki and Kalamb<sup>2</sup> (see figure 1). All the sites are located upstream of Inamgaon—the locality that has yielded one of the richest palaeontological treasures in the Deccan.

The Pleistocene formations in the Ghod Valley are fluvial in origin and rest unconformably on the Deccan Traps of Cretaceous-Eocene age. Two litho-units can generally be identified, the basal sandy pebbly gravel about 5 m thick capped by a 5 to 10 m thick unit of fine sands, silts and clays which in turn is overlain about a meter thick Black Cotton Soil of early Holocene age.

The species identified so far, out of a collection of about 200 fossil fragments, include osteological and dental remains belonging to *Elephas maximus*, *Elephas hysudricus*, *Bos namadicus*, *Bubalus* sp., *Cervus unicolor*, *Canis* sp., *Equus namadicus*, *Hippopotamus* sp. and *Chelonia* (possibly *Trionyx*)<sup>3</sup>. The presence of fossil hippo in the Ghod is of special significance as it increases the geographical range of this animal to the south of Godavari before becoming extinct and has a profound bearing on the palaeoecology of the Ghod at a time when the sediments were being deposited. Two lower molars (M<sub>2</sub> and M<sub>3</sub>) of this animal were found in a gravel bed associated with molluscan shells (*Unio*) which have been C-14 dated to 20,000 years B.P.<sup>4</sup>. Majority of the other fossils come from the base of the yellow silt which is strongly calcreted. Excavations carried out during the last three years in these formations, have yielded Middle Palaeolithic tools (chiefly scrapers) along with fossils

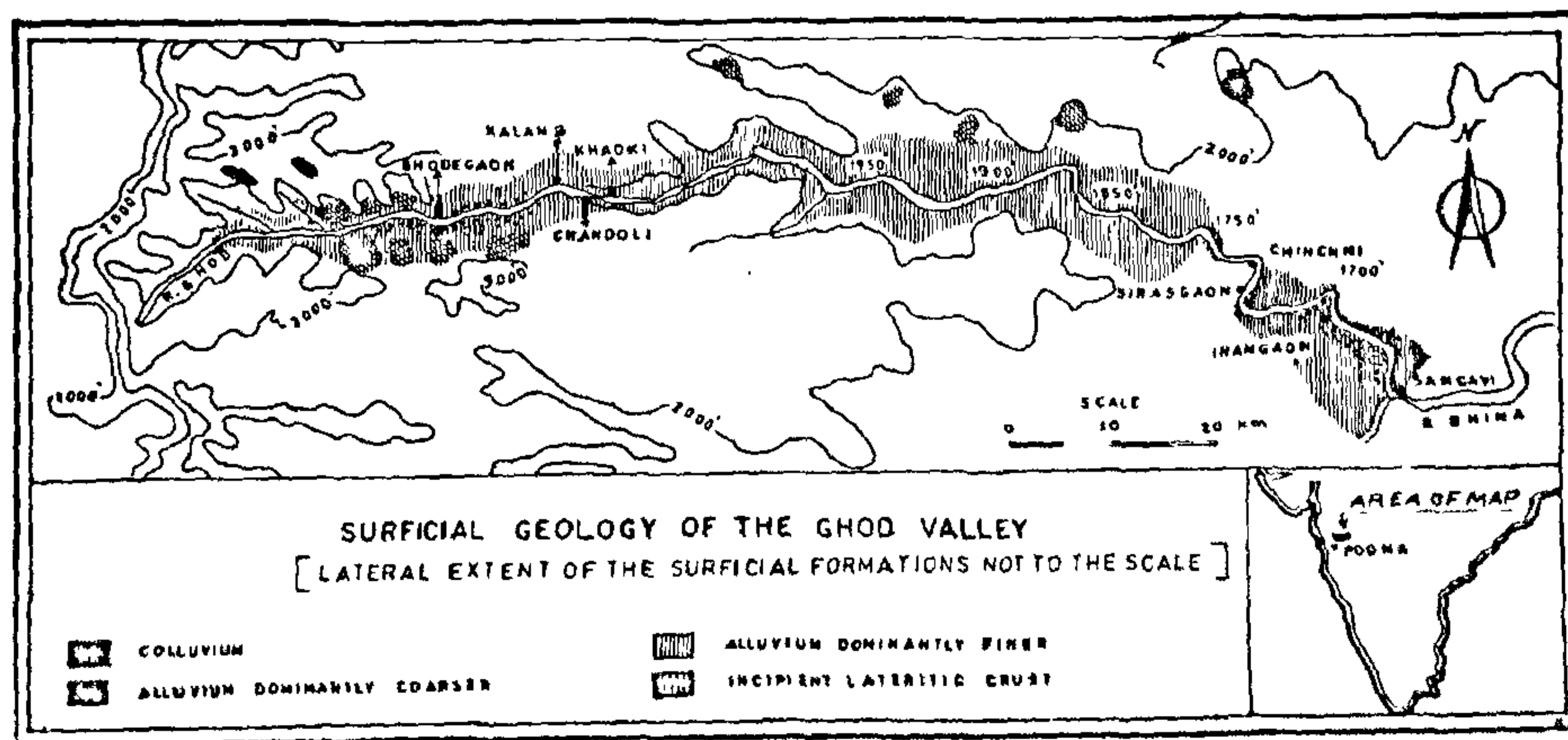


Figure 1. Fossil localities on the Ghod river.

in the gravel beds while in the brown silty sand, unrolled Upper Palaeolithic blades of chalcedony were found associated with the faunal material.

In addition to the fossils reported earlier, this season's excavations yielded fossil remains of *Leptobos* sp. and *Sus* sp. (figure 2) both being reported from the Ghod Valley for the first time. While the former, which is the biggest fossil find from the area so far, was excavated from within the yellow silt, the later came from the underlying gravelly beds. *Leptobos* is represented by a basicranial part of skull with two horns almost intact. The horns are 72.5 cm in length each while the distance between the two tips is 80 cm. The girth of the horns at the base, centre and the tip respectively is 37.5 cm, 30 cm and 15 cm. The horns are longitudinally striated along the whole length and the section profiles vary from ellipsoid near the base to round near the tip. The horns in general point out-

ward and upward. Our preliminary studies of this particular find point to its being *Leptobos* sp. (wild bull). However the identification of this fossil is subject to modifications. The only other report of *Leptobos* (*Leptobos frazeri*) from Peninsular India is from the Central Narmada Valley<sup>5</sup>. *Sus* sp. is represented by a complete horizontal ramus of the right side. The detailed study of the faunal material is under progress.

While the presence of hippo and *Trionyx* and the lenticular bands of silt and clay in the pebbly gravel indicate the presence of stagnant water pools in the area, the presence of equids, cervids, bovids and elephants point to the tropical, semi-arid savannah type of environment in the valley as a whole interspersed by the presence of rolling plateaux of basalts.

In recent years, the Ghod Valley has turned out to be one of the richest palaeontological sites in the Deccan. The biotic factors prevalent here during the Pleistocene must have attracted the Palaeolithic man to this area. However, unless primary Palaeolithic sites are discovered and excavated in the area, the exact role played by man in exploiting the contemporary fauna will largely remain enigmatic.

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1. Paddayya, K., *J. Asiatic Soc. Bengal*, 1969, 11, 12.
2. Kajale, M. D., *Bioarchaeology of the Ghod Valley, Maharashtra*, (unpublished Ph. D. Thesis, Poona university, 1979.)
3. Badam, G. L., *Society of Vertebrate Palaeontology, U. S. A., News Bulletin*, 123, 43, 1981.
4. Agarwal, D. P. and Kusumgar, S. *Curr. Sci.*, 1975, 44, 39.
5. Pilgrim, G. E., *Rec. Geol. Surv. India*, 1905, 32, 199.

## EFFECT OF DRYING CONDITIONS ON THE SOLASODINE CONTENT OF *SOLANUM VIARUM* BERRIES

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*SOLANUM viarum* Dunal, a potential source of steroid raw material, is cultivated in several parts of India<sup>1</sup>. The berries of this plant contain industrially accepta-

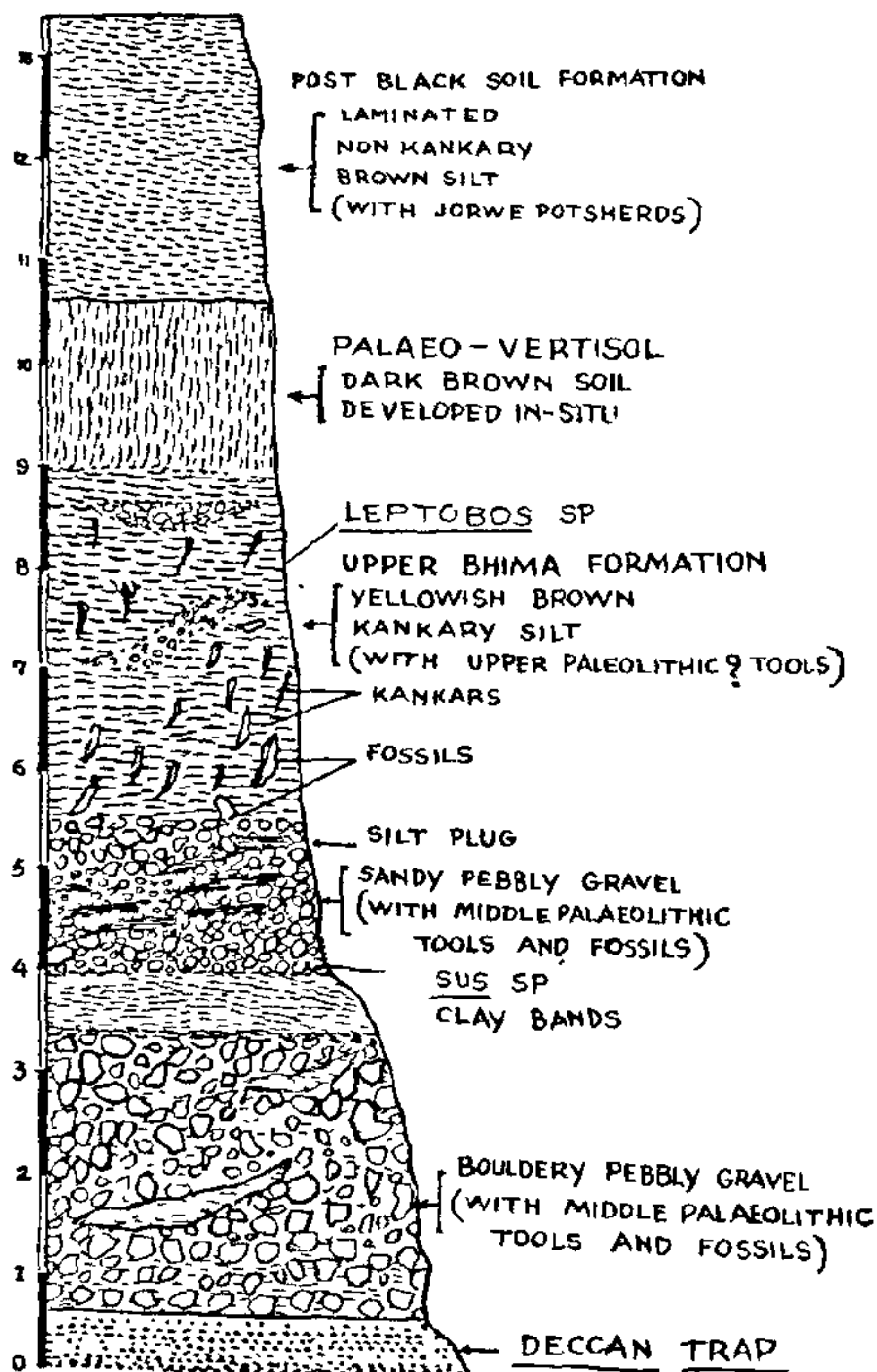


Figure 2. Columnar composite section of the late quaternary sediments around Inamgaon (Maharashtra).