

# A new fossiliferous intertrappean locality at Amajiri, Chhindwara District, Madhya Pradesh

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THE Deccan trap in India in the opinion of Courtillot *et al.* (1986, 1988), Baksi (1987), Duncan and Pyle (1988), Sahni *et al.* (1996) is one of the most extensive, thoroughly studied and voluminous flood basalt provinces in the world. Thin fossiliferous sedimentary beds occur at several places in Madhya Pradesh, Andhra Pradesh, Rajasthan, Maharashtra, Gujarat and Uttar Pradesh. Sahni (1990), Sahni and Bajpai (1991), Mathur and Sharma (1990) and others think that these beds were deposited during the quieter phase of the volcanism when the drainage was dammed, lakes were formed and flora and fauna exhibited luxuriant growth. These beds were formed in shallow basins at the fringes of the trap outcrops.

The biota of the Deccan volcano-sedimentary sequences, in the opinion of Sahni *et al.* (1996), roused interest for the last 150 years as they provide information at a critical juncture of the earth's history. The fossil from the infratrappean/intertrappean beds of Lameta Ghat, Chui Hill, Padwar, Ranipur, Mohgaon-Kalan and Mandla in Madhya Pradesh are well known. Sahni and Rode (1937) mapped the intertrappean sediments around Umaria Isra and Mohgaon-Kalan. They, however, did not mention about Amajiri and the neighbouring area which also exhibits fossiliferous intertrappean bed. Amajiri is situated at 79° 12' Long. and 21° 9' Lat. (Figure 1) and is about 10 km south-east of Mohgaon-Kalan and 4 km, east of the village Rajalwara. From Khut Piparia a country road goes upto Amajiri covering a distance of 12 km.

The intertrappean bed at Amajiri is found on the western side of the village and is spread over

approximately 1 km on the north-south direction. It is mostly outcropped in the reserved forest and also on Khut Piparia-Amajiri road. The bed is roughly 1/2 m thick and is overlain and underlain by trap. The thickness of the lower trap could not definitely be ascertained, however, in a nearby nala cutting more than 3 meters are exposed. The upper trap is more than 7 meters thick (Figure 2) and provides the hilly outlook in the region .

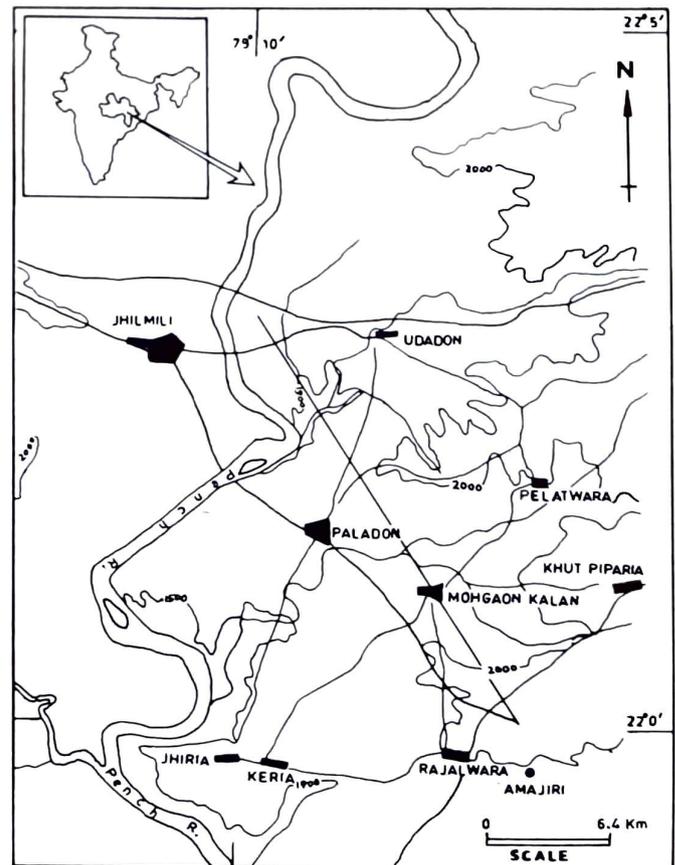


Fig 1. Map showing Amajiri - the new fossiliferous intertrappean locality in Madhya Pradesh.

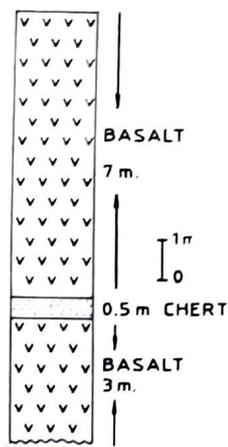


Fig 2. Litholog showing the stratigraphic succession at Amajiri.

The volcano-sedimentary unit is made up of chert and contains fossil woods and invertebrate fossils. Fossil woods, both monocots and dicots are found and some of them could be identified as *Palmoxylon* Schenk (Fig. 3e) and *Aeschynomenoxyton* Muller-Stoll & Madel (Fig. 3 a-d). The animal fossils consist of *Physa* (Fig. 3f) and some other gastropods. The plants and animal fossils recovered from Amajiri are more or less similar to those of Mohgaon-Kalan and

Mandla. In the latter localities, the intertrappean sediments are more thick and the fossils are diversified. The discovery of fossiliferous intertrappean bed at Amajiri perhaps points out the presence of more intertrappean beds in Madhya Pradesh.

### ACKNOWLEDGMENTS

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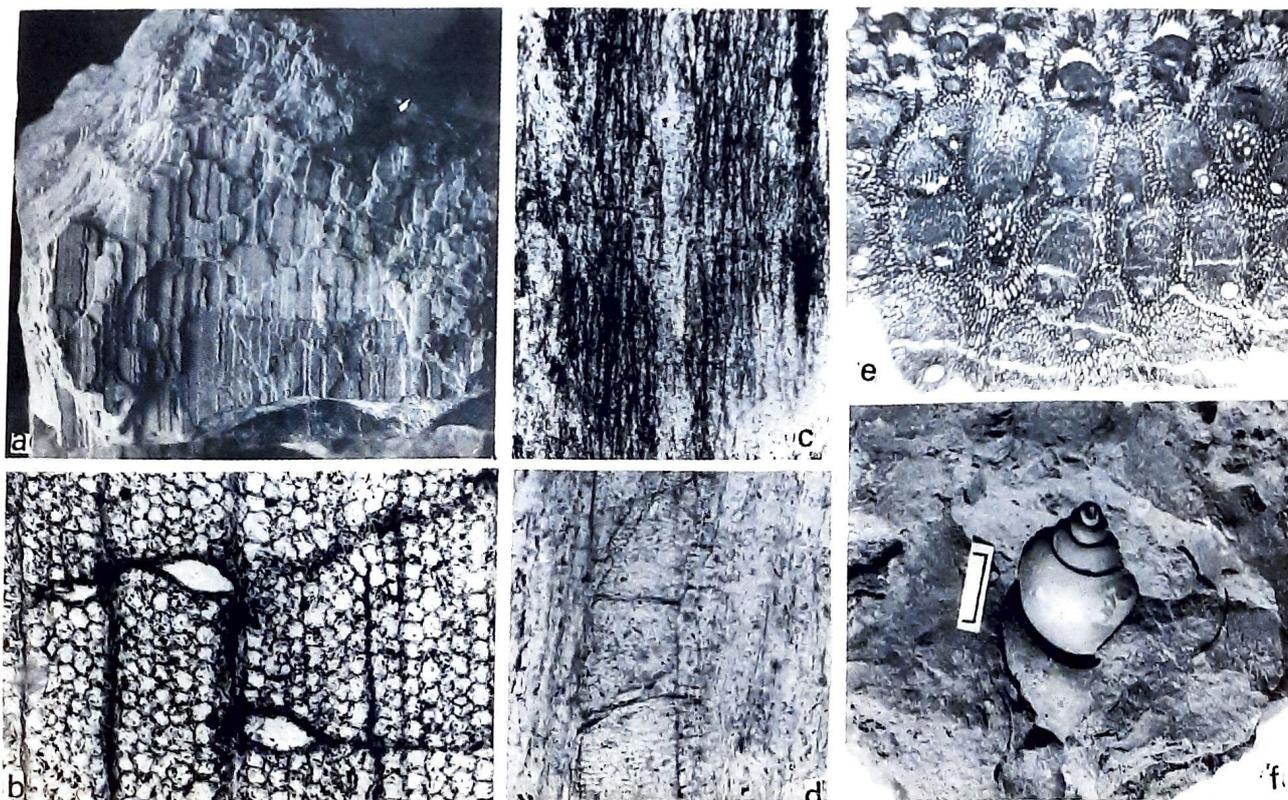


Fig 3. a-f. a-d. *Aeschynomenoxyton*, e. *Palmoxylon*, f. *Physa*

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