

PRIMITIVE MINING TOOLS FROM TEMBELINI, NEAR SYAMA, MALI, WEST AFRICA

On behalf of Nick Laffoley by T.D. Ford

Amongst the effects of the late Nick Laffoley was a box containing what appeared to be primitive mining pebble tools labelled Tembelini, Syama, Mali. Whilst there were no notes with these, memories of conversations during 1996, plus a phone conversation with Nick's former colleague David Carmichael (then with BHP Minerals International Inc. in Mali and now with their Australian division), make it possible to deduce something of their history and significance. As few pre-European mining tools survive it seems worth while to put something on record as Nick intended to do. Syama is in the southeast corner of Mali close to the border with Ghana and both tools and methods may be said to be representative of pre-European mining in West Africa.

The "pebbles" were found during operations to remove accumulated waste and soil at Tembelini. The pebbles were distinctive as not being composed of local material and were evidently imported. Tembelini is a village some five miles south of the modern Syama gold mine with its large open pit working in Precambrian volcanic rocks and greywackes with gold dispersed in shear zones (Olson 1992). In contrast with the open pit, at Tembelini gold has been worked by the local people for centuries using primitive methods. The gold-bearing ore is crushed by hand using the disc-shaped pebbles held in the hand as mauls. The crushed material is then winnowed by wind or washed in the nearby stream to yield a gold concentrate which is smelted by the same methods as at Ashanti (Laffoley and Laidler 1997). A second set of pebbles were smaller and had flat surfaces suggesting that they had been used for honing or grinding.

A Carbon-14 date obtained on wood in the Tembelini deposit suggested that these tools had been used about 600 years ago, though similar manual methods of ore processing are still used by local people there today. Up to 20,000 people are thought to make a living of some sort by this primitive style of gold mining.

Two rusty iron knife blades found close by are probably of more recent date.

The pebble tools are of varied lithologies, mainly coarse and fine volcanic ashes, none of which outcrop in the vicinity. Thus they must have been selected elsewhere and transported specifically for their convenient size and shape and their hardness in ore-crushing or even grain in honing.

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Fig. 1 (bottom left). Pebble tools from Tembelini, near Syama, Mali. Probably used as mauls since they were about fist sized. Probably late 14th Century.

Fig. 2 (above). Flat pebble tools from Tembelini. Probably used as hones or grinders. Probably 14th Century.

Fig. 3 (bottom right). Two rusty knives from the waste heaps of Tembelini. Date unknown.

REFERENCES

- Laffoley, Nick and Laidler, Colin 1997 Pre-European Gold mining at Ashanti. *Mining History*, 13: 4, pp.12-16.
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