A Harappan 'Snarling Iron' from Chanhu daro

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The re-discovery and recognition of a snarling iron, a delightfully named metal-workers' tool, adds another aspect to knowledge of Harappan technical skills.

"A snarler...is a worker in teapots, and may...be compared with the leaf bumper who bumps up the leaves commonly seen in metalwork." (Daily Mail 31 October 1900).

During the course of excavations which E.J.H. Mackay directed in the 1930's at the site of Chanhu daro in presentday Sind, a metal-workers' quarter came to light in the squares 8/B, 8/C, and 9/C of mound II dated to the second occupation of the settlement. With his usual exactness Mackay described each of the architectural features and the associated find deposits individually. Scattered across a floor as found in the northeast corner of courtyard 297, a hoard comprized mostly of metal objects, the largest from Chanhu daro, contained 37 artefacts, including many metallic scale pans and chisels, an unfinished carved shell ball, a seal, as well as a long, curious "ingot" (2529,H) which measures 34.95 x 4.0 x 4.05 cm, and weighs 2450 gm. Nearly all the metal objects excavated appear in the final report reproduced as Fotographs as well as drawings. An exception is the 'ingot', which only occurs as a 9 cm long, unrecognizeable, half-tone figure. On the basis of the colour, Mackay hazarded a not unlikely guess that the piece was made of bronze, a clue to its identification (Mackay 1943: 43, 175, 187, 305, pl. 74.2). While a chemical analysis of the piece is not available, arsenical and tin bronze was available in the Harappan Period. This metal would be more suited to the task than copper. In any case, our 'iron' is non-ferrous. In fact, the main shape for Harappan ingots of this period is the well-known bun shape (Cf. Yule 1985: nos. 357-360; Mackay 1938: 487, pl. 121.34; 493, pl. 132.37; 493, pl. 132.38, 39; Yule 1982: 37 fig. 18.25). This explanation thus can be discounted. In 1981, during a recording campaign preparatory to a planned exhaustive catalogue of South Asian prehistoric metallic

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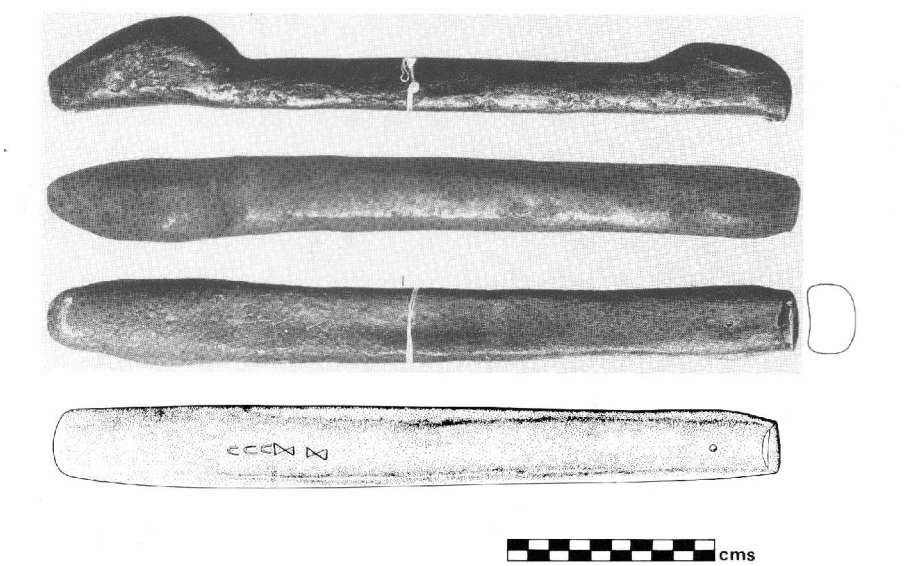

Figure 1. The Harappan snarling iron from Chanhu daro, 2529, H. Archaeological Survey of India, Central Antiquities Collection. 74.1/48.

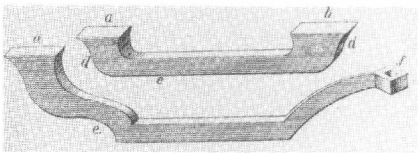

Figure 2. Snarling irons from the first quarter of the 20th century, after Otto 1922: 45 fig. 41-2.

finds, an unusual metal artefact was recorded in the Central Antiquities Collection of the Archaeological Survey of India at the Purana Qila Fortress in Delhi, which proved to be the Chanhu daro "ingot". Although the published photo gives no clear idea of the size or shape of the object in question, its provenance in Chanhu daro is recorded in the inventory book of the collection (Inv. no. 74.1/48), and there is no doubt that this implement is the same one reproduced in Mackay's final report. The bottom surface of the piece bears a short fivecharacter inscription. Kimo Koskienniemi and Asko Parpola (1982: 20-21) already had catalogued it as their no. 5083 but subsequently in a letter to me Parpola corrected the reading to the sign nos. 133 and 224. The first three signs of the inscription (on the left) represent the number "30", and the other two (sign no. 224) have unknown values. The second sign no. 133 can be recognized only tentatively. The reason for the Harappan numeral is by no means clear, and remains a matter for conjecture. Nor do the accompanying (uninscribed) objects of the hoard shed light on this question. A deeply hammered dot of unknown function marks the same surface as the inscription, near the small end. Dr Gerd Weisgerber drew my attention to several parallels which reveal our object to be a socalled snarling iron, a special anvil

for the raising of vessels. The German term for this implement is Legeamboß. These anvils generally were mounted in a heavy piece of wood and the metal vessels were smithed on one or both of the protruding ends. The snarling iron in its various modern forms is not simply a hammering surface, but also derives its effectiveness from the secondary vibrations arising from the hammering. The Chanhu daro iron differs from this kind of implement, however, and the simplest explanation for the original use was that the business end was fixed, or better slung, into a no longer extant A-shaped wooden bipod with the other end resting on the ground (see below). The distal convex hammering surfaces face upward; upon them sheet metal can be worked. And fittingly, on the convex surfaces of both ends, as well as on the small butt end, the casting surface texture is polished from hammering. The Chanhu daro iron probably served to raise some of the metallic bowls in the hoard which Mackay registered as '2529' (Yule 1985: 34-39, 45?, 74). The second occupation of the mound coincides with the mature Harappan age, the chronology of which is still a matter of lively debate. A dating from the mid third to early second millennium BC would be acceptable to many Harappan experts. While for some purposes this dating is vague, it is firm enough to make the piece from Chanhu daro perhaps the earliest snarling iron known the world over (cf. Hundt 1986). Owing to the recent proliferation of cheap, spun, aluminum metal ware and that of plastic, the snarling iron is a rarity nowadays in South Asia. Few craftsmen still produce copper vessels, and I have yet to come across any workshops in the cities and larger towns during several visits. Yet, in the 1960's Meera Mukherjee recorded numerous examples in nearly all regions of rural South Asia (1978: 169-189, 225-227, 286, and 452; for Iran: Wulff 1966: 25-29) which resemble in principle the one from Chanhu daro except that they are ferrous. While our snarling iron is incomplete, she records several examples still in use, occasionally with quite large metallic striking surfaces, as well as with a usually wooden Ashaped frame to support the working end. The names of this instrument vary from place to place: Near Raipur the "Kharam" may be up to 2 m in length, and the "Kharmat" fashioned from a tree crotch of corresponding dimensions. In Jagdalpur (Madhya Pradesh) the metallic part is a "Jeypuri Gund"; in Pembarthi (Andra Pradesh) the "Irsu" rests on a "Donga Karoa". The Nepalese "Sanglachi"irons also may reach considerable dimensions. Most of the examples mentioned here are much larger than the one from Chanhu daro. In any case, descendants of the snarling iron are still in use after some 4000 years.

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