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M. Vidale

## The Short-Horned Bull on the Indus Seals: A Symbol of the Families in the Western Trade?

### ABSTRACT

Reconsidering the series of Indus seals found in Mesopotamia and originally published in C. J. Gadd's 1932 paper, some similar seals published at later times, the Indus seals found at Failaka and Bahrain, some anomalous round stearite seals from the cities of the Indus valley, and other seals more recently found on the Iranian plateau and in Bactria, we see a clear regularity: they share the short-horned bull with lowered head (or bison) as an animal symbol. While this animal is not uncommon in the standard square seals series of the Indus Civilization, this bovid is almost the only animal symbol carved into the round "western" Indus seals, i. e., into seals purposefully produced for residents in what, many believe, were enclaves of naturalized Indus traders. The traditional domestication technologies of bison-like bovids, i. e., the gaur, the mithan (in eastern India) and the banteng (in South East Asia), perhaps offer some clues for explaining the selection of this particular bovid by such external communities. This paper discusses some implications of this hypothesis, in the light of some variations and associations of the gaur-icon, for the understanding of Indus society during the Integration Era. The paper ends with remarks on a group of the Indus signs, including the so-called "man" and "twins" signs, the frequencies of which are anomalous in the corpus of the western inscriptions with Indus signs so far recorded by Asko Parpola (1994). It is argued that such an anomalous frequency might be due to the use of the Indus sign for expressing patronymic names in one or more non-Indus languages, a hypothesis to be tested mainly on the basis of future finds.

### IS THE SHORT-HORNED BULL IN THE INDUS SEALS THE GAUR?

The short-horned bull, or bison, as it is called in the two volumes of the *Corpus of Indus Seals and Inscriptions* (Joshi/Parpola 1987; Shah/Parpola

1991) portrayed in the Indus seals might be the gaur (fig. 1), a wild, South Asian bovid (*Bos gaurus*). In the seals, the animal always appears with a lowered head, sometimes above a flat container with concave sides; the neck, from the mandible's point to the shoulder at the height of the anterior legs, is frequently covered by one or two series of incised lines. Commenting on the images of the short-horned bull on the seals, and their apparent aggressive posture, E. J. H. Mackay noted that "There can be little doubt that the animal in question is the Indian bison or Gaur (*Bos gaurus*), of which the attitude portrayed on the seals is a most striking characteristic." (Marshall 1931, 385 footnote 1). Having seen several old and contemporary pictures of gaurs and mithans (see below), I have the impression that such a suggestion is fundamentally correct. Mackay interpreted the lowered-head posture as the expression of an "angry mood" and wondered if the animal had any symbolic connection to ideas of violence or destruction; he also commented on the feeding vessel or "manger" associated to the animal and observed that in some cases such container looked like wicker work. Later Mackay (1938, 326-327) somehow changed his mind, and decided that in the seals' images the short-horned bull did not show the dorsal ridge or mass typical of gaurs, nor the curved profile of its horns; he instead suggested that the bull might have been a cross between the gaur and an ox similar to the present-day mithan<sup>1</sup>.

I am not properly informed about the problems of distinguishing, in terms of prehistoric archaeological bones collections, the gaur from other forms of wild short-horned bovids. According to Sahu (1988), for example, the gaur would have been sporadically identified in Upper Pleistocene

<sup>1</sup> Actually, the argument of the curved dorsal mass in the seals' representation is questionable: in most seals the bull's hump does appear prominent and curved, but the final rendering might be biased by the lowered head position constantly assumed by the creature.

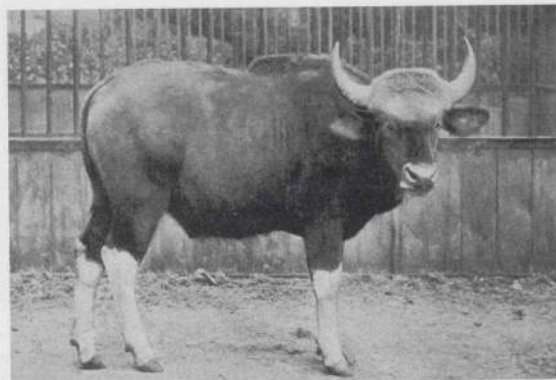


Fig. 1. A young Indian gaur, probably photographed in the 1920s (from Cornish s.d., 210).

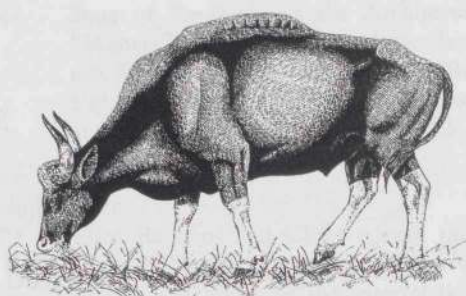


Fig. 2. A mithan (gayal) (from Simoons 1968).

deposits of the Belan and Son valleys, in the Mesolithic sites of Mahadaha and Sarai-Nahar-Rai, and at Prabhas (Gujarat) in the late 3<sup>rd</sup> millennium BC, but otherwise one is struck by its absence in the bone assemblages of the Regionalization and Integration Eras. At any rate, the short-horned bull of the Indus seals might be identified almost by exclusion with the Indian gaur (*Bos gaurus gaurus*) or its partially domesticated forms, the other possible alternative being an unidentified breed of short-horned humpless ox.

The South Asian gaur is described as a powerful animal, sometimes attaining a height of over 6 feet (187 cm) at the shoulder, and a length of almost 10 feet (312 cm) from the nose to the tail. The colour of the adult animals is dark brown to shiny black; the sturdy legs from above the knees to the hoofs are whitish-buff, the hair short and fine. The upturned horns are tipped black, with cream hair covering the junction. The animal is distinguished by a powerful muscular mass on the upper back, resembling a massive hump; some pictures also show a row of deep skin wrinkles on the upper neck and a short dewlap, also marked by parallel folds that are perhaps represented by the lines deeply incised on the neck of the animal of the Indus seals. The gaur in the wild used to live in savannah woodlands, tropical monsoonic forests, dry forests and lowland tropical rainforests. It presently survives in large residual undisturbed forest tracts and in hilly regions below 1800–1500 m of altitude.

The gaur is often described as very similar to the mithan (*Bos frontalis domesticus*) of Nagaland (Assam, northeastern India; fig. 2), and the two animals interbreed in captivity. The mithan, also known also under the name of gayal (for example, in Cornish s.d., 210–212), is generally considered as a semi-domesticated form of gaur. The classification of the gaur-mithan, in the general frame of wild and domesticated bovines, is far from being clear. Some authors have classified the gaur, the mithan and the banteng of Southeastern Asia in

the genus *Bos*, while others have classified them as *Bibos*, as a separate genus or as a sub-genus of *Bos* (Simoons 1968, 14). The gaur-mithan, besides India, is reported in Bangladesh, Bhutan, Cambodia, China, Lao People's Democratic Republic, peninsular Malaysia, Myanmar, Thailand and Vietnam. Three subspecies of gaur were recently recognized as *Bos gaurus gaurus* (the Indian gaur), *Bos gaurus laosiensis* (Myanmar to China) and *Bos gaurus hubbacki* (Thailand, Malaysia)<sup>2</sup>. At the beginning of the twentieth century, the gaur was reported in the northeastern Himalaya, in the central regions of India, and in the forests of Madras and Mysore (Cornish s.d., 210). Recently, its distribution in India seems to be limited to the eastern slopes of the Western Ghats, to some heavily forested regions of central-western Deccan, and the northeastern Himalayan piedmont. Presently, it is classified as a seriously endangered species. Given its strict association with undisturbed forests, it is well in the realm of the possibility that the habitat of the gaur, like that of other wild creatures scarcely represented in archaeological bone collections, such as elephants, rhinos and tigers, originally extended to the hilly, wooded areas at the periphery of the Indus basin. In this paper, I accept – as a preliminary hypothesis and for sake of brevity – the identification of the short-horned bull of the Indus seals as the gaur.

#### IN THE INDUS VALLEY

Usually portrayed in front of a low feeding-through or "manger", the gaur appears on the standard square steatite seals of the Indus Valley major settlements. Its distinctive features, as designed, are a short, large muzzle and the shoulder area covered by patterns of parallel lines. Accord-

<sup>2</sup> CAMP-Asia Wild Cattle Conservation Assessment and Management, 1995 (see site <http://www.csew.com/cattle-tag/Default.asp>).

ing to Possehl (1996, Table 4, after previous counts by Mahadevan) this is the second animal image, in absolute order of frequency, in the known standard seal repertory. Apparently, this animal was more common at Mohenjo-Daro than at Harappa; in the inventory of seals from the former city, its icon accounts for 4.7% of the total, preceded by the unicorn (58%) and followed by the humped bull (*Bos indicus*, 3.1% of the total, percentages from Franke-Vogt 1991a; see also 1991b and 1992, 104).

The gaur icon appears in the seals from Mohenjo-Daro reproduced in Shah/Parpola (1991, 109–114, from M-1079 to M-1100); only one ascertained case (M-1079), is portrayed without “manger”; the specimens from Harappa are all with “manger” (Shah/Parpola 1991, 294, H-576 to H-584). Two unfinished standard gaur seals are visible in the same volume (p. 152). Other specimens from Mohenjo-Daro are re-published in Joshi/Parpola (1987, 58–62: M-234 to M-255), while examples from Harappa may be found on pp. 186–187, 364, H-76 to H-82, all with “manger”. Both at Harappa and Mohenjo-Daro, the gaur figure also appears sometimes in relief tablets<sup>3</sup>. Other short-horned bull seals were found at Lothal (Joshi/Parpola 1987, 248, with manger), and two specimens from Kalibangan (K-30, with manger, and K-42). The animal also appears as one of the heads in the depictions of multiple-headed animal designs: see the three-headed animals in Shah/Parpola (1991, 135–136), at Mohenjo-Daro: M-1169, together with a unicorn and a goat-antelope, and M-1170, with a caprid and a goat-antelope<sup>4</sup>, M-1171 (unicorn and goat-antelope [?]), and M-417, a whorl of six animals, revolving around a kidney design (tiger, bull, gaur, unicorn and other two broken designs), carved on a round seal of the western type (see below)<sup>5</sup>. Other three-headed animal seals were found at Kalibangan (Joshi/Parpola 1981, 306: K-43, with gaur, unicorn and goat-antelope heads); Amri (see Shah/Parpola 1991, 390, Ai-6A: gaur, unicorn and goat-antelope), and Dwarka (Crawford 1988, fig. 5.7), probably with the same animals.

A gaur seal from Mohenjo-Daro (Shah/Parpola 1991, 147: M-1026) underwent a peculiar complex modification: the inscription was preserved, but the animal was possibly carved after having removed a former design, and another, longer inscription was carved on the edge of the face exposed by recutting below the original inscription (see also Franke-Vogt 1991b, Pl. 160). Another gaur stamp seal from Mohenjo-Daro had on the reverse a svastika-like pattern (Shah/Parpola 1991, 151 M-1225). It is important to note that given the frequency of the gaur on the standard seals of the Indus valley settlements, the association of the gaur icon with Indus settlements or enclaves in foreign lands might imply a connection of western enclaves with a larger “gaur community”.

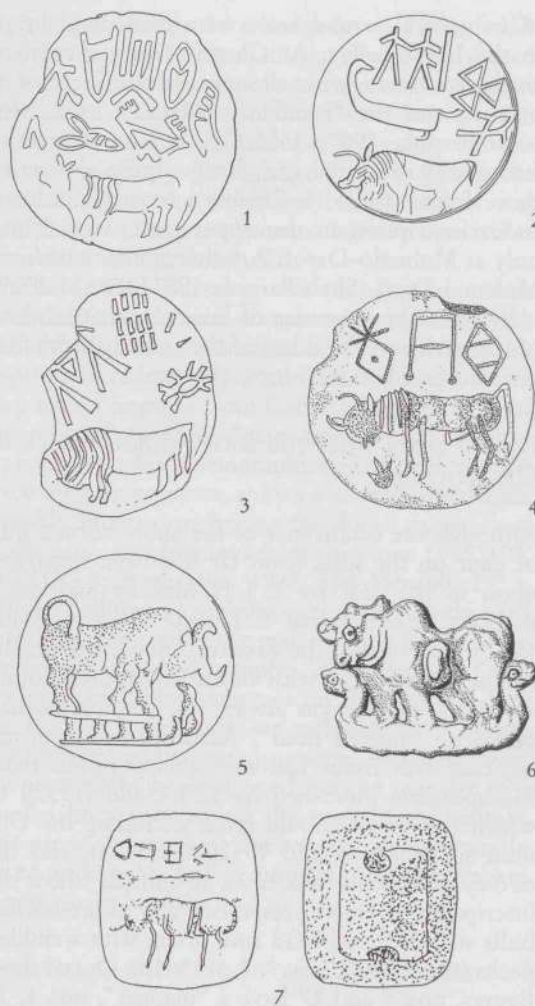


Fig. 3. Some selected seals with gaurs or short horned bulls from Failaka (1), Bahrain (2–3), an unidentified location in the western Iranian plateau (4), Bactria (5, 6) and from the surface of Diqdiqqah (Ur) (7). Sources: Tosi 1991; Crawford 1998; Winkelmann 1999; Ligabue/Salvatori n.d.; Baghestani 1997; Gadd 1932.

<sup>3</sup> Below, seals are quoted after Joshi/Parpola 1987 and Shah/Parpola 1991, if not stated otherwise. Shah/Parpola 1991, 178: M-1367, with two fighting gaurs; 189: M-1405A; 194: M-1430; 302: M-1424; 316: H-698; 333: H-858B, H-858 bis, where the animal fights with a human figure; 426: M-1430; Joshi/Parpola 1987, 118: M-846; 120: M-489; 121: M-492, with two fighting gaurs; 208: H-176; 217: H-251. See also published tablets from Harappa in various issues of the South Asian Archaeology Conference Proceedings from the recent excavations at Harappa. There is also the image that can be seen at <http://www.harappa.com/indus3/205.html>. See also the image <http://www.harappa.com/indus2/index.html>.

<sup>4</sup> In this latter seal, the treatment of the eye of the animal is stylistically close to the rendering of the eye of the animals in the Dilmun seals.

<sup>5</sup> See also Joshi/Parpola 1987, 73: M-298, two-headed animal, gaur and unicorn.

In general, round seals were exceedingly rare in the Indus valley. At Chanh-Daro, there is a single specimen with the anomalous icon of a unicorn and the "standard" (Mackay 1943, 146; Joshi/Parpola 1987, 335, C-32). Round steatite stamp seals with the gaur image, quite similar to those found at Ur (see below), bearing a curved Indus inscription in the upper part, were found only at Mohenjo-Daro<sup>6</sup>. Another similar seal from Mohenjo-Daro (Shah/Parpola 1987, 179: M-1369) is broken, but the series of lines on what remains of the neck and shoulders of the animal shows that it represented, once more, the gaur.

#### ROUND SEALS WITH THE SHORT-HORNED BULL IN MESOPOTAMIA

Although the occurrence of the short-horned bull or gaur on the seals from Ur had been remarked upon in the past by E. J. H. Mackay and other scholars, it seems that E. D. During Caspers (1982, 181) was probably the first to observe that in the round steatite seals with Indus inscriptions found at Ur the animal was always "... a short-horned bull with lowered head". Actually, in the group of seals with Indus features or inscriptions from Mesopotamia published by C. J. Gadd (1932), to which the reader should refer, excluding the Dilmun specimens (Gadd 1932, nos. 8-14), and the two cylinder seals (nos. 6, 7), all animals below the inscriptions, when preserved, are short-horned bulls with lowered head and, often, with wrinkled necks (Gadd 1932, nos. 1, 2, 5, 15-18). Out of these figures, nos. 5 and 17 have a "manger", nos. 1, 15 and 16 are without a "manger", one is uncertain. In the last seal (no. 18), there are two coarsely carved copulating bulls, perhaps a very effective suggestion of the generative power in the family of the bearer. Seal Gadd no. 1 shows above the short-horned bull a four-sign cuneiform pre-Akkadian inscription (Gadd 1932, 194; see below). The fact that in these round western seals the only animal icon is the short-horned bull cannot be considered a pure coincidence, given the fact that in the Indus Valley settlements the frequency of this same icon is much lower than that of the unicorn. To the Gadd list we should add another round seal in dark grey steatite, with the bovid without manger below an inscription of six signs (Parpola 1994, fig. 1718.39), acquired in Mesopotamia before 1910 and coming from an unknown location; a round steatite seal with the bovid, the manger, and six difficult to read signs, bought in London and presently in a private collection (Parpola 1994, fig. 1719.36), and another similar seal from Lagash (bovid, manger and five-six signs, probably an Indus sequence). These round steatite seals with the gaur icon may be opposed to the standard Indus square steatite seals with the unicorn found at Kish and another unknown locality, another standard seal with a tiger from Lagash, and

a similar seal with a humped bull from Nippur (see for details Parpola 1994; Peyronel 2000; Chakrabarti 1990). Interestingly, while the inscriptions in the seals from Lagash are interpreted by Parpola (1994) as Indus or probably Indus sequences, most of the inscriptions from Ur are positively non-Indus or "highly uncertain".

#### SIMILAR SHORT-HORNED BULL SEALS IN THE GULF

The same round steatite seals found at Ur and Mohenjo-Daro, plus some variants, were used (rarely, or by minorities) in the Dilmun settlements. The list of seals with Indus signs in the Gulf, to my knowledge, includes three stamp seals from Failaka and five from Bahrain.

The most famous specimen found at Failaka (fig. 3, 1) was carved in brownish-greyish steatite; it bears six to eight signs above a short-horned bull or gaur<sup>7</sup>. Some of these signs have no comparisons in the repertoire of the Indus valley, and the sequence, in general, seems non-Indus. While this seal is comparable to the specimens found at Ur, the other two stamp seals bear no animal image<sup>8</sup>.

At Bahrain, the list of Indus-related seals includes three round seals with Indus signs; the first two definitely show the gaur. A round steatite seal from the graveyard of Madinat Hamad at Bahrain (Srivastava 1991, 25-27, 239, fig. 55A; Crawford 1998, 5.5; Parpola 1994, fig. 1717.7), badly defaced by erosion and unfortunately badly sketched, is dated between 2200 and 2000 BC and shows an inscription of four signs above a gaur without manger (fig. 3, 2). The signs are Indus but the sequence is not. Between the inscription and the bull we see a bird-like design, with a particularly thick body, with backward folded head and small appendices possibly suggesting a tail and two miniaturist "legs". The design is very schematic and interpreted as a peacock; my first impression was that it was a silhouette of a boat with an upturned bird-like stem; a third possibility is that the same sign represents a typical Mesopotamian weight in the form of a duck with a reclined head. On the other hand, birds with the neck folded backwards also figure in bronze compartmented seals from Shahdad and Bactria (Baghestani 1997, fig. 88).

<sup>6</sup> See Joshi/Parpola 1987, 100: M-415, and 101: M-416, this latter icon without "manger".

<sup>7</sup> Kjaerum 1993, 130-131, no. 279, FC 9702; Tosi 1991, Pls. 101-102; Parpola 1994, fig. 1718.12.

<sup>8</sup> Kjaerum 1993, 130-131, no. 319, FC 9701; Parpola 1994, fig. 1719.11; Kjaerum 1993, FC 9706; Parpola 1994, fig. 1717.13.

Another round seal in greenish glazed steatite, with the gaur surmounted by an inscription of five signs was found together with a tablet with Amorite names, palaeographically dated to around 2000 BC. The Indus signs are arranged in a non-Indus sequence (Kjaerum 1983, 322, 1; Parpola 1994, fig. 1718.5; here: fig. 3, 3). In another seal (not illustrated), the animal is only partially preserved, and only two signs, perhaps the "twins", or the double "man" sign, survive (Kjaerum 1993, 322, 2; Parpola 1994, fig. 1719.6). The list includes also a round steatite seal bearing only an inscription, without animal, and a prism-like seal with a triangular section bearing respectively a gaur, two caprids and three Indus signs (Parpola 1994, 310).

#### THE GAUR ICON IN THE IRANIAN PLATEAU AND IN BACTRIA

Very famous is a steatite cylinder seal found at Susa, Khuzistan, and presently at the Louvre, that shows two short-horned bulls or gaurs in a row (the first lowering the head on a basin-like manger, the second damaged) below a relatively long Indus inscription of seven to nine signs (well illustrated in Kenoyer 1998, fig. 1.15; Parpola 1994, fig. 1717.29). This seal was perhaps carved by an Indus craftperson who was used to working on the flat surfaces of standard stamp seals, because the bodies of the animals, on the imprint, appear quite unnaturally elongated<sup>9</sup>. Also from Susa comes a round stamp seal, in a stone defined as "green serpentine", with the gaur image and seven Indus signs, probably composed in an Indus sequence. Another seal at the Louvre, reportedly coming from Luristan, has a gaur without manger with four Indus signs above. Parpola (1994, 30, 31) classifies the inscription as an Indus sequence).

Recently, S. Winkelmann (1999) published an important round seal in fired steatite from the Ligabue collection (Venice) without ascertained provenance (fig. 3, 4). The seal shows a short-horned bull or Indian gaur with the head lowered onto an unidentified object, sketched as a sphere crowned by three upper tracts (?). Above the icon are three Proto-Elamitic signs perhaps reading *tash-shi-te* or *tash.shi-hu*, as reported in the same article. The carving technique is quite different from that commonly employed by Indus steatite cutters.

Finally, we may recall two seals probably found in northern Afghanistan (Bactria). The first is a bifacial round chlorite seal covered with a gold sheet that came from a grave, probably looted in Bactria, presently in a private collection (Ligabue/Salvatori s.d., fig. 60–61). The seal bears on one face a composite monster (a lion with a scorpion-like tail and a penis ending in a double snake), and on the opposite face an Indus gaur (fig. 3, 5) with a marked dorsal mass, in attacking position, standing

on what appears to be a sledge (even if the details are not completely clear). Sledges were likely used on sandy tracks, as important means of transport on Central Asian routes. There is no "manger" in front of the animal. The chlorite and gold seal from Bactria is openly "bi-cultural" and suggests the possibility that the individual buried with it was an affluent Indian merchant-manager recognized as a member of the local elite.

The second Bactrian seal (fig. 3, 6) is more doubtful: it is a bronze compartmented stamp seal, and although few specimens of this type or their imprints have been reported from Mohenjo-Daro, they reflect imports from Central Asia or the local presence of Central Asian traders and do not reproduce Indus iconographies. The seal we are discussing, in contrast, shows a short-horned bull, possibly humped or having the dorsal upper mass of the gaur, standing on a boat (Biscione 1985, 101, Pl. XIX, 3; Baghestani 1997, 184–185, 69, Pl. 3, 69). According to a stylistic option frequently used in Bactria, the rear of the seal, i. e., the face bearing the handle, shows a complex, well executed "naturalistic" rendering, whereas on the opposite face the bull and the boat are reduced to a highly schematic compartmented pattern. The identity of the gaur might be confirmed, on the rear, by two parallel lines running on the neck of the animal. The prow and stern of the boat are symmetrically raised and are shaped as animals (probably snakes raising their heads).

#### GAUR SEALS WITH CUNEIFORM INSCRIPTIONS

There are two seals of this type, and as they are readable, they are of the utmost relevance for understanding the whole gaur series. They should be studied together, with modern techniques, as soon as possible. The first is Gadd's nr. 1 (1932; see fig. 3, 7). It has a quadrangular contour, but the corners are distinctively rounded. The functional face is heavily worn; still, one sees clearly the gaur image (without manger) and what remain of four or five cuneiform signs. Gadd dated the seal to pre-Akkadian times, between 2500 and 2300 BC, a suggestion that would qualify this seal as one of the oldest of this type. The inscription was read by Gadd as SAG (or KA) – LU (or KU) – or SHI – ?, a word or name that is not Akkadian, nor Sumerian, and thus an expression in an unknown language, perhaps even an Indian language. More recently, Reade and Finkel (quoted in Peyronel 2000, 183) proposed a new alternative reading and interpretation: the inscription might be an

<sup>9</sup> But see the Indus seal <http://www.harappa.com/indus4/326.html>, where the unicorn body is elongated to fit the seal.

Akkadian name meaning "May the deal be good" or perhaps the Sumerian expression "May Kaku (a divinity) be propitious". Another suggestion is that the first two signs might express a rendering of the name of a foreign deity, followed by the sign for "propitious". Evidently, there are still many doubts on the correct reading; perhaps new readings should be based upon a good set of SEM pictures of the surviving carvings. Gadd's nr. 1 reportedly comes from Diqqiqqah, a suburban site of Ur, perhaps built at the confluence of some important artificial canals, identified on the basis of surface collections and uncontrolled excavations as a craft quarter (manufacturing of terracotta plaques, cylinder seals, faience objects) dating to the late 3<sup>rd</sup> millennium BC, as demonstrated by some inscriptions by Ur-nammu, Shulgi and by the last kings of the Ur III dynasty found on the surface. From Diqqiqqah comes also a terracotta plaque with the image of a mounted Indian elephant (see Collon 1977); on the whole, it might have been a reasonable location for a local Meluhhan enclave.

The second seal is presently at the Cabinet des Médailles, Paris; it was briefly presented many years ago by J.-F. Jarrige at one of the South Asian Archaeology conferences. Presently the seal is still unpublished and no picture or drawing is available. In this seal, the bovid stands below a Sumerian cuneiform inscription. This seal was reportedly bought in the antiquarian market in Beirut, and there is the possibility that it had been found or excavated in a site near the Lebanese coast or in the Syrian hinterland. Given its quite unusual features and its relationships with a rare, anomalous class of seals, I strongly doubt that it is a fake. Thus, although the idea presently cannot be proved, this gaur seal might be the westernmost Indus-related artefact so far found, possibly together with etched carnelian beads reportedly found at Ugarit and Tell Brak (see Reade 1979). In a recent paper, J.-J. Glassner (2002, 361, footnote 215) provided the preliminary reading of the inscription as "*Ur.<sup>d</sup> Nin.Ildum dumu Ur.gi<sub>7</sub>*". According to Glassner, the inscription contains a personal name (or attribute) followed by a patronymic component, and may generically be ascribed to a Semitic (Amorite?) cultural environment. It might preliminarily be translated as "dog (or Servant) of Nin.Ildum, son of Mastiff (or servant of Mastiff)" (F. D'Agostino, personal communication).

The names are composite and expressed by logograms. The seal's inscription thus places the gaur-person at the service of Nin.Ildum, a goddess belonging to a series of secondary Mesopotamian deities strictly connected with specific craft activities. I presently know of three texts where Nin.Ildum is mentioned. The eldest is the "Curse of Akkad", a Sumerian poem describing in terms

of a moralistic tale (and a metaphoric narrative of the creation and dissolution of the universe) the rise and the fall of the Akkadian capital. The poem seems to have been written in the last centuries of the 3<sup>rd</sup> millennium BC, perhaps at Nippur; some experts date it to the time of Naramsin, others suggest the time of the III<sup>rd</sup> dynasty of Ur. At any rate, Nin.Ildum is invoked (even if in a negative context) as protectress of timber. Then, there is a Neo-Babylonian text describing a complex ritual dealing with the "washing and mouth-opening" of the statue of a divinity, performed by the same craftpersons that created it. The craftpersons come out of the "artisans' house" and move to the river with the statue. Nin.Ildum, in this ritual procession, has her own propitiatory spell and is invoked as "Great heavenly carpenter". The third text is another Neo-Babylonian text dealing with parts of the myth called "Erra and Ishum": the goddess is here called "the great carpenter of Marduk, the bearer of the shiny hatchet, she who knows her tool"<sup>10</sup>. The gaur-person is therefore associated with a goddess-carpenter, a deity of timber and of the shiny (i. e., intensively used, a highly propitious condition for a craftperson) bronze hatchet used on wood. Obviously enough, if the Paris seal did come from the Lebanon coast, it might suggest a direct involvement of the Indus trade communities in the procurement and marketing of the famous cedars, i. e., at a strategic node of the international trade, accessed both from the Mediterranean and the Mesopotamian trade routes; but probably this is stretching the interpretation too far. On the other hand, it is well known that generally wood and timber trade, and timber construction are notoriously identified in the cuneiform texts as one of the main spheres of activities of the traders and craftpeople from Meluhha.

The second points of interest are the terms "dog, mastiff". The Sumerian logogram *Ur.<sup>d</sup>* indicates the dog, but it might also indicate an inferior person, a servant, or somebody assigned to the service of somebody else (F. D'Agostino, personal communication). The same "dog of Nin.Ildum", furthermore, qualifies himself as the son of *Ur.gi<sub>7</sub>*, i. e. of a "mastiff" or a particularly powerful dog<sup>11</sup>. The seal might point to an inherited profession. Now we enter a particularly complex subject: at the times of the late III<sup>rd</sup> dynasty of Ur, in fact, in economic texts dealing with the management of

<sup>10</sup> The texts may be found respectively at the sites <http://www.angelfire.com/tx/tintirbabylon/bm4579.html> – washing and mouth-opening ritual; <http://www.cwru.edu/affil/GAIR/papers/2000papers/Daria.html> (Curse of Akkad, with bibliography); and <http://www.gatewaystobabylon.com> (Erra and Ishum).

<sup>11</sup> But the expression, as stated above, might also mean "assigned to the service of the mastiffs".

the royal dockyards (*mar-sa*) of Lagash (where a Meluhha village was supposedly established), dogs and their keepers are sometimes mentioned as consumers of substantial rations of bread and beer (Zarins 2002). Some of the paramount managers and royal functionaries in these texts bear "Amorite" names. Assyriologists are usually very consistent in their interpretation – a dog is a dog; Franco D'Agostino, for example, is very sceptical about diverging interpretations. For me, it is hard to resist the hypothesis that "dog" was an officially recognized function and title, and that "dogs" might have been a military or paramilitary specialized group employed by the Sumerian lords as guards and trade agents for the their state dockyards. As remarked by Richard Meadow, this is another over-interpretation; but I wonder how might we else explain at the same time the proudness of "dog of Nin.ildum", his open association with the timber trade, and the quite peculiar food habits of the dogs of the *mar-sa* of Lagash revealed by the Ur III administrative archives.

#### ANIMAL ICONS AS SOCIAL MARKERS

As we have seen, if the gaur seals represent a minority of the cases in the Indus centres, almost all the seals found in Mesopotamia and perhaps in the Lebanese-Syrian area, but also in Khuzistan, in the Gulf and in Bactria, at the western, south-western and northern market frontiers of the Indus Civilization, repeat the same animal symbol (often with upper inscriptions in Indus characters). We ought to conclude that for some reason the image of this bovid on standardized round seals had been elected as an easily identifiable symbol by the trading families who moved in the second half of the 3<sup>rd</sup> millennium BC from the Indus region to some of the main cities in Sumer and on the Iranian plateau. One of the major series of ten "animals" on the standard seals (unicorn, gaur, humped bull, elephant, rhinoceros, buffalo, goat, goat-antelope, crocodile and hare; see Kenoyer 1998, 83), in this case, definitely expresses a precise social identity – Indus immigrants and probably Indus enclaves in the West.

This might suggest, stretching the hypothesis to the motherland, that also the other animals on the seals (both realistic and imaginary) might be connected to social identities and/or professional specializations, besides (or together with) the identities provided by kinship. All this would support the view, already advanced by some scholars (e. g. Fairservis 1986 and Ratnagar 1991) that the animal symbols in the standard steatite seal series of the Indus valley might well have depended, perhaps originally, upon kinship affiliation, but soon came to express primarily socio-economic identities. If the gaur was the symbol of the western trading communities, what about the unicorn, by far the

most common sign at Harappa, Mohenjo-Daro and other centres? My personal guess – and I fully admit the arbitrariness of the suggestion – is that the unicorn was the symbol of scribes, specialists in accountancy and related small-scale urban bureaucracy that I presume widespread in the urban contexts of the second half of the 3<sup>rd</sup> millennium BC. Such functions are the only ones that might explain the absolute prevalence of the unicorn in the standard steatite stamp seal series at the major centres. The frequency of unicorn seals, in other words, might be an indicator of the relative degree of economic centralization and political integration in the Indus world.

#### TRANSFORMATIONS OF A SYMBOL

If the short-horned bull is actually the gaur, one may wonder about the reasons behind its choice by the families settled in the West. The gaur is a strong, massive animal whose original habitat was in the hilly, forested regions at the periphery of the Indus Valley; it lives in small groups and frequently, after the mating season, male and female individuals isolate themselves from the group and move alone (Whitfield 1990, 142). Gaurs are described as powerful animals, always on guard and ready to attack, a reasonable association for a community of Indus origin living in faraway foreign countries. According to F. J. Simoons (1968, *passim*) the gaur and the mithan, this latter in the northeastern frontier region of the Indian subcontinent, are freely-ranging animals that graze and browse in the wooden highland areas surrounding the agricultural settlements, with limited control by their owners, and are brought back to the villages only on rare occasions. Natural enemies of tigers and big cats, prone to attack the calves, but very respectful of adults, they are controlled more with provisions of salt and fresh green leaves than with coercion and fencing, and I wonder if such habits – particularly their freedom to range in faraway areas – might explain the selection of this animal as a symbol of the Indus communities living in the foreign world. Against this argument, on the other hand, we may note that the image is found also on tablets and seals in the Indus world itself.

Another concept related to enmity and aggression might have been conveyed by the absence of the manger in many of the western seals. Actually, in the western round seals the percentage of gaurs without manger is slightly higher than that of the gaurs with manger, but definitely higher than in the similar bovids of the standard seal series in the Indus region. The lowered head of the bull might have had different meanings: in front of the manger it might be a peaceful posture, while without a manger it might have been immediately perceived as an aggressive motion of attack, fully understand-



1	Ra's al-Junayz		Ra's al-Junayz		Bahrain		Bahrain
2	Ra's al-Junayz		Ra's al-Hadd		Bahrain		Bahrain
9	Bahrain		Bahrain		Bahrain		Bahrain
21	Ur		Bahrain		Failaka		Failaka
23	Telloh		Failaka		Ur		Ur
24	Telloh		Failaka		Ur		Ur
25	Djokha		Telloh		Ur		Ur
26	Nippur		Telloh		Failaka		Ur
27	Kish		Susa		Ur		?
28	Kish		Susa		?		?
37	?		Luristan (?)		?		
38	?		Tepe Yahya				
40	?						

Fig. 4. Corpus of the western inscriptions with Indus signs, from Parpola 1994 figs. 1716-1719. First column: texts with ascertained Indus sequences; second column: texts with highly probable Indus sequences; third column: texts that most probably report non-Indus sequences; fourth column: highly uncertain sequences.

able in the context of a foreign, potentially hostile cultural environment<sup>12</sup>.

In some of the western cities, in the latter centuries of the 3<sup>rd</sup> millennium BC, some Indus families might have established their enclaves, possibly similar to the "Meluhha village" known from the cuneiform texts at Lagash. So far, in the Indus region such round seals with the gaur are reported at Mohenjo-Daro, but not at Harappa. This bovid, on the round seals from Mohenjo-daro, Ur and the other western locations, also appears as an important icon in square standard seals. This type is second in abundance after the unicorn and always more common at Mohenjo-Daro and other southern cities than at Harappa. It is possible that the groups living in the West had or maintained some particular relationship with the other groups or social segments that, in the motherland, used the same animal icon, and particularly with the communities which had consistent trading ties and interests with the coastal areas.

The distribution of the gaur seals appears to be extremely wide, westward from Sindh to the Gulf, Mesopotamia and perhaps to the coasts of Lebanon and northward to the gates of Central Asia, reflecting the enormous size of the Indus trading sphere in the last two or three centuries of the 3<sup>rd</sup> millennium BC. The seal with the sledge from Bactria, the other Bactrian seal with the short-horned bull on a boat, and the Bahrain seal with the peacock, boat or weight might point to the use of these seals in transport for trade. As a matter of fact, as far as the Bahrain seal is concerned, if the image on the seal is a peacock, it might recall the import of these birds from Meluhha mentioned in the cuneiform texts; if it shows a boat, the meaning would be obvious, paralleling the sledge and the boat on the two seals from Bactria; and if the same design is a depiction of a Mesopotamian weight, it might stress the capability of the owner of trading and accounting following the western standards. In other words, whatever the interpretation, we would be dealing with trade.

These western gaur seals might show various transformations depending upon different forms of cultural interaction with the hosting cultures. Perhaps the earliest seals (let us say in pre-Akkadian times) used in the Mesopotamian market towns were quadrangular, as were the standard types used in the Indus region; they were direct translations of Indus seals, attempting to translate in different languages and with cuneiform inscriptions the messages usually conveyed by standard Indus seals. Later, Indian residents in the West (both in Mesopotamia and the Gulf) maintained the icon of the gaur, but adopted round steatite stamp seals instead of the normal quadrangular types, in which they probably used Indus characters or ideograms for rendering one or more foreign languages then currently spoken at the

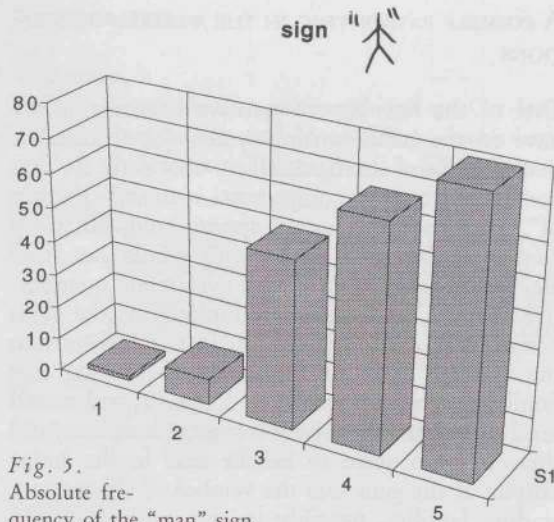


Fig. 5. Absolute frequency of the "man" sign and its variants at Mohenjo-Daro and in the corpus of the western inscriptions, subdivided in sub-groups as described in fig. 4. This group of signs is correlated to the inscriptions probably expressing one or more non-Indus languages, and might represent a patronymic component (see text).

Meluhha villages. The few steatite cylinder seals with Indus icons and inscriptions found in Mesopotamia and Iran were probably direct efforts at adapting or "translating" the administrative standards and recording technologies of the Indus immigrants in the forms most familiar to the hosting communities. In Bactria, the two seals we discussed maintained the gaur symbol but not the Indus inscriptions, possibly reflecting the substantially non-literate culture of the local elites; the seal in chlorite and gold equates a Bactrian composite monster with the short-horned bull on a sledge, while the other possible seal might reproduce an Indus icon (the bull on a boat) by the means of a medium basically foreign to the Indus technologies of information processing, but deeply rooted in the Turanian world. I also wonder if the depiction of a bull on a boat in the heart of Bactria, instead of pointing to sea trade, might imply transportation by river boats. As precious beads were one of the most relevant trade items, both along the northern land tracks and the southern sea routes, it is quite likely that Indus bead traders, or naturalized families maintaining contacts with the Indus valley, identified themselves on the base of seals showing short-horned bulls.

<sup>12</sup> Being born in Veneto, Italy, the comparison is with S. Mark's lion as an emblem of the *Serenissima* Republic of Venice: within the Republic's boundaries the book held by the lion calls for peace – *Pax Tibi Marce, Evangelista Meus* –, but at the external frontiers the book is closed and the lion's paw holds a raised sword. This is pure speculation, ultimately improvable: but I believe that we might start thinking of symbols and icons as dynamic entities subject to logical transformations rather than static, unchangeable entities.

## A POSSIBLE PATRONYMIC IN THE WESTERN INSCRIPTIONS

One of the few bits of positive information we have on the Indus writing system (or systems) is that the short inscriptions on the seals do not contain patronymic components such as “– the son of”. This statement might appear bold, but I am confident that such a regularity would not have escaped decades at efforts of systematic quantitative analysis, in Russia and Finland, of the signs occurrences and positions. In fact, I believe that the syllabic signs or logograms expressing this family relationship would be frequent, and would tend to repeat themselves in similar locations; and this does not seem to be the case in the Indus corpus. If the gaur was the symbol of the western trading families, possibly in the motherland the main labels of social identification (through corporate or professional affiliation?) were the other animals of the standard seals series, and not the father’s name, the latter being common practice among some Semitic societies of the Near East (F. D’Agostino, personal communication). This might explain why, when transplanted to foreign lands, and sharing the same social label on the seals, Indus-related acculturated families would have come to adopt patronymics as important markers of personal identity. This, at least, might be suggested by the comparison with the inscription of the Paris seal, as preliminarily read by Glassner (see above).

In this light, do the inscriptions on the round steatite gaur seals show any possible evidence of patronymic components? While reviewing the important catalogue of Indus-signs inscriptions found in the West, I was struck by the very high frequency of the “man” sign and some related secondary transformations, in the first place the so-called “twins” (two joined “men”). Even at a very preliminary glance, this group of signs is definitely more frequent in the western corpus than at Mohenjo-Daro (A. Parpola, personal communication), a strong anomaly that requires a proper explanation.

Parpola (1994, 1716–1719), on the basis of his intimate knowledge of the sign sequences in the inscriptions of the Indus valley, divided the same inscriptions into four sub-groups: native Indus, probably native Indus, non-Indus and extremely uncertain sequences (fig. 4). If we plot the relative frequency of these signs at Mohenjo-daro and in each of Parpola’s sub-groups (fig. 5), we see that at Mohenjo-Daro they are very rare; in the sequences confidently ascribed by Parpola to language spoken in the Indus Valley, they do not reach 10% of the cases; in his second sub-group, probably Indus sequences, they reach almost 50%; in the last two sub-groups (non-Indus and highly uncertain), they respectively occur in more than 60% and 70% of the cases.

In other words, the farther we go from normal Indus sequences, the more frequent the “man” signs become. We think that this evidence gives some ground to the possibility that this group of signs in the western inscriptions expressed family relationships such as “– the son of”, “– the descendant of”. Furthermore, F. D’Agostino pointed out to me that the “twins” sign has a basic graphic resemblance with the Sumerian logogram DUMU (two vertical parallel wedges). If in the future more inscriptions from Bahrain will be found (where the most substantial group was found), we might be able to test this idea by looking for ordered family sequences such as “A, the son of B”; “B, the son of C”, and so on, but presently the five extant inscriptions from the island are too few and too damaged for such an ambitious test.

The perspective of interpreting a sign or a group of signs has nothing to do with the issue of “deciphering” the Indus writing. Parpola is very clear in stressing that a good part of the western inscriptions with Indus signs probably express a foreign language. But which language? The Indus writing system might have been retained and handed down for centuries, although with substantial adaptations and growing uncertainty, by the acculturated families living in the Gulf and in Mesopotamia. Probably, in a short time the Indus writing system was used and adapted for writing local foreign languages. According to Glassner (2002), the personal names identifiable in the cuneiform texts and referable to the cultural areas of Dilmun and Magan (Failaka, Bahrain and coastal Oman) would be Amorite<sup>13</sup>. The presence of Amorites trading in the Gulf would add another problematic issue to the already substantial and controversial literature on this ethnic label, anyhow frequently associated to non-farming economic adaptations<sup>14</sup>. On the other hand, ancient Semitic names would be hardly surprising in the context of the earliest civilizations of the Arabian Peninsula and their flourishing coastal and oceanic trade routes. In this light, a correlate of my hypothesis is that the “man” and “twins” Indus signs, in the inscriptions from Failaka and Bahrain (and Ur?), might be interpreted as patronymic logograms, to be phonetically read in one or more (still unidentified) ancient Semitic languages.

<sup>13</sup> Together with the much better known Eblaite, Amorite is the oldest western Semitic language on record.

<sup>14</sup> We already encountered Amorite names while mentioning the personnel of the *mar-sa* at Lagash and the find context of one of the seals from Bahrain, see above.

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