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***“Growing in a Foreign World. For a History of the “Meluhha Villages”
in Mesopotamia in the 3rd Millennium BC”***

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Growing in a Foreign World: For a History of the “Meluhha Villages” in Mesopotamia in the 3rd Millennium BC

1. Separating facts from conjectures

The presence of individuals or groups immigrated from the Indo-Pakistani Subcontinent in Mesopotamia in the 3rd millennium BC was recognized since the discovery of the Indus Civilization at Harappa and Mohenjo-Daro in the early '20ies, because in a few cases Indus-like seals were found in stratified contexts in some of the most important Sumerian cities. In 1932, C.J. Gadd opened a new line of archaeological research, collecting and publishing in a fortunate paper a series of seals from Mesopotamia (found during digs or acquired on the antiquarian market) sharing what he regarded as an “Indian style.” Gadd’s interpretation was fundamentally correct, although the series of seals he published included also specimens of what we presently identify as Dilmunite seals coming from the Gulf islands of Faylaka and Bahrein. The great seasons of extensive excavations at Mohenjo-Daro (Sindh, presently in Pakistan) were over, and the final report by J. Marshall (1931) had been published. Both the inscriptions and the animal icones on the major group of western seals had obvious similarities with the steatite seals unearthed by thousands in the major cities of the Indus civilization. It was on the basis of these finds, at least in a first stage, that the Indus valley civilization

was dated to the middle Bronze age. Since then, two generations of archaeologists and philologists have attempted to investigate the problem of the Indian communities that settled in Mesopotamia in the second half of the 3rd millennium BC. As the identification of the land of Meluhha with the coastal areas controlled by the Indus Civilization is almost universally accepted, the textual evidence dealing with individuals qualified as “men” or “sons” of Meluhha or called with the ethnonym Meluhha, living in Mesopotamia and of a “Meluhha village” established at Lagash (and presumably at other major cities as well) unexcavably points to the existence of enclaves settled by Indian immigrants (see Parpola *et al.* 1977; Possehl 1984: 185; for the original debate Lamberg-Karlovsky 1972).

On the other hand, it soon became clear that no Mesopotamian article – for example, not a single Sumerian cylinder seal – had been recovered at Mohenjo-Daro (nor would have been found in later excavations at other Indus sites). As the elevated compound of Mohenjo-Daro has been excavated for about 350 houses and buildings, accounting for about 10% of the total built mounded surface, it is hardly possible that such absence is casual. On the basis of the present evidence, it is more likely that, although we

have ascertained that Indian groups travelled, traded and settled in the west, Sumerians did not travel directly to the coasts and plains of the Indus, nor they settled – at least in substantial groups – in the Indus cities. Another possible interpretation is that an ideological attitude prevented Indus traders and travellers from importing objects produced abroad and using them at home. The temptation, at this point, is to refer to the historical and contemporary brahmanical attitude according to which the outer world is considered impure and potentially polluting at a socio-ritual level. Perhaps similar ideas were at play 5000 years ago as well. But although this might appear a reasonable assumption, as you see we have shifted (almost inadvertently) from facts to a conjecture.

As this attitude is a major, recurrent fault of archaeological research in the archaeology of the Indus valley, in this paper – aimed at summarizing part of the information piled since Gadd's paper, and presently available on the question of the Meluhhan communities in Mesopotamia – I try to list under two separate headings (paragraphs 3. and 4.) what we

may accept as facts and what, for the moment being, are no more than interpretations, hypotheses and conjectures. Separating facts from interpretations is not easy, because each scholar – the present writer included – is tempted to include what he or she deems as "very likely interpretations" to some fundamental facts. Even in the title I arbitrarily assume that the Indus enclaves in Mesopotamia were identified as "Meluhha villages," whereas the only positive evidence of this entity comes from Lagash (I did it because thus the title sounds much better).

But interpretations (including what might appear to many as "wild" conjectures) might turn out important, presently or in the future, both because they may stimulate curiosity and further research, and because, if they are expressed in the proper way, they might become work hypotheses (i.e., historical interpretations capable to be scientifically tested). Actually, whenever possible, I made the effort of suggesting how these hypotheses might be tested on the field or in the archaeological materials.

2. Textual and archaeological evidence

After Gadd's paper, the second important contribution on the Indus communities in Mesopotamia was a paper by Parpola *et al.* (1977). This review of the texts then available containing references to Meluhha and Meluhhans was focused on 9 texts dating to Ur III times, but also included references to Sargonic texts. The general picture in this paper is the following. The maximum archaeological evidence of Indian imports and Indus-related artefacts in Mesopotamia may be dated to latest phases of ED III (at the

Royal Cemetery of Ur) and immediately later to the Akkadian period, when, as widely reported, Sargon claimed with pride that under his power Meluhhan ships docked at his capital, and at least one tablet mentions a person with an Akkadian name qualified as a "the holder of a Meluhha ship." The reconstruction of the nature of the Indo-Mesopotamian trade is a very complex and demanding issue. Presently I have not the space, nor probably the full competence to review and update the general evidence, but it is

widely known that, according to the literary sources, between the end of the 3rd and the beginning of the 2nd millennium BC Meluhhan ships exported to Mesopotamia precious goods among which exotic animals, such as dogs, perhaps peacocks, cocks, bovids, elephants (? Collon 1977) precious woods and royal furniture, precious stones such as carnelian, agate and lapislazuli, and metals like gold, silver and tin (among others Pettinato 1972; During Caspers 1971; Chakrabarti 1982, 1990; Tosi 1991; see also Lahiri 1992 and Potts 1994). In his famous inscriptions, Gudea, in the second half of the 22nd century BC, states that Meluhhans came with wood and other raw materials for the construction of the main temple in Lagash (see Parpola *et al.* 1977: 131 for references). Archaeologically, the most evident raw materials imported from India are marine shell, used for costly containers and lamps, inlay works and cylinder seals; agate, carnelian and quite possibly ivory. Hard green stones, including garnets and abrasives might also have been imported from the Subcontinent and eastern Iran (Vidale & Bianchetti 1997, 1998-1999; Heimpel *et al.* 1988; Vidale 2002; see also Collon 1990, Tallon 1995 and Sax 1991). Carnelian could have been imported in form of raw nodules of large size (as implied by some texts) to be transformed into long beads, or as finished products. As we shall see, recent studies would better suggest that the Indus families in Mesopotamia imported raw materials rather than finished beads (Kenoyer 1997; Kenoyer & Vidale 1992; Inizan 2000), and expediently adapted their production to the changing needs of

the Mesopotamian demand and markets.

To the same period is ascribed a famous cylinder seal owned by a certain Su-ilisu, "Meluhha interpreter" (Sollberger 1970; Tosi 1991). Another Akkadian text records that Lu-sunzida "a man of Meluhha" paid to the servant Urur, son of Amar-^{1u}KU 10 shekels of silver as a payment for a tooth broken in a clash. The name Lu-sunzida literally means "Man of the just buffalo cow," a name that, although rendered in Sumerian, according to the authors does not make sense in the Mesopotamian cultural sphere, and must be a translation of an Indian name; I will return later to this important point. By Ur III times, this intense trade had definitely promoted the formation of local enclaves of Indus origin. Although no written evidence suggests a direct involvement of the Lagash settlement with trade and craft production, Parpola *et al.* (1977: 145) think that the ethnic name points to a settlement originally founded as a trade enclave by foreign merchants. The texts indicate that Meluhhans were perceived as distinct ethnic group, living in a separate settlement but largely integrated in the contemporary Sumerian society, owning or renting land and accumulating and variously distributing their agricultural products (see below). The authors explain the absence of reference to craft production in the Ur III times hypothesizing that the Indus communities in Mesopotamia had been largely integrated in Sumerian society and had fully adopted a subsistence based upon agriculture, while a state of crisis in the motherland had disconnected the traditional long-distance trade routes and craft organizations.

3. Other relevant facts

I will try now to report a series of archaeological observations, that, depending (in part) on subsequent finds, may help us to discuss and complete this historical picture. The possible interpretations and conjectures I deem as interesting for discussion and perhaps future testing are reported in a parallel series of points in the following section.

3.1 Round seals with inscriptions in Indus signs and animal figures in Indus style are reported from Mesopotamia, Failaka and Bahrein (for a recent and complete review see Peyronel 2000) (Fig. 1, 1-3). These seals are dated, on the whole and on the basis of stratigraphical considerations, within the 2 latter centuries of the 3rd millennium BC and to immediately later times. So far, we know 2 seals with Indus bulls having cuneiform inscriptions. For Mesopotamia, the earliest known seal has a pre-Akkadian or early Akkadian inscription (hard to read and controversial: see in order Gadd 1932, Parpola *et al.* 1977, Peyronel 2000 with further references) (Fig. 1, 6). In contrast with the later round seals, it has a square contour with rounded corners. Reportedly, it was found on the surface of Diqdiqqah, a suburban portual settlement of Ur. Another important seal with an Indus bull and cuneiform inscription, presently at the Cabinet des Medailles of Paris, is still unpublished (and is commented below).

Note also that some of the seals from Bahrein come from graves, and seals are distinctively absent from the few contemporary Indus graves excavated in the Subcontinent. A round seal in a private

collection, reportedly from Iran, shows an Indus bull surmounted by a proto-elamite inscription (Winkelmann 1999: Fig. 1, 5). From a looted grave in Bactria comes a round chlorite seal coated with a gold foil, with a Indus bull on one side and a mythological Bactrian creature on the opposite face, without inscription (Ligabue & Salvatori *nd*; Fig. 1, 4). Finally, from Bactria comes also another (and anomalous) cylinder seal in lapislazuli, presently in the Schoyen collection and still unpublished, where a boar-hunting scene is accompanied by a well-carved Indus inscription.¹

All of the round seals found in the west (Mesopotamia, the Gulf, Bactria, Iran: Fig. 2) show exclusively one animal icon, a powerful bull with lowered head and short horns, with a raised muscular mass on the shoulder often marked by series of parallel grooves. This strict selection contrasts with the standard series of square steatite seals from the Indus valley sites, which employs a series of not less than 10 different animal icones. The unicorn, accounting to about 60-70% of the total in Pakistan and India, never appears in the western round seals. In the Indus valley, the bull with lowered head and short horns comes second in frequency after the unicorn, with a percentage of about 6% of the total (Possehl 2002: 128 ff.; Franke Vogt 1991, 1992; Shah & Parpola 1991; Joshi & Parpola 1987).

3.2 The other seal with a cuneiform inscription (at the Cabinet des Medailles of Paris) bears an Indus bull with a lowered head, and has been preliminarily read by

¹ This seal is visible at the site <<http://www.nb.no/baser/schoyen/4/4.4/441.html#2645>>.

J.-J. Glassner (2002) as Ur.^dNinildum dumu Ur.gi₇, an expression that might be preliminarily interpreted something like “Dog” – or “slave” – of Ninildum, son of “Big Dog” or “Mastiff” – or, perhaps alternatively “in charge of the mastiffs” – F. D’Agostino, personal communication). Ninildum is a secondary Mesopotamian divinity that appears in the famous “Curse of Akkad” (perhaps composed at Nippur, and dated by some authors at the times of Naram-Sin, while others in contrast suggest a Ur III dating) and in few other later texts² (Vidale, in print). What is clear is that Ninildum a goddess of carpentry and timber, called in later Babylonian texts “great heavenly carpenter” and “bearer of the shiny hatchet.” The identity and some possible implications of the term “Dogs” are briefly commented below (see 4.2).

3.3 A part of the signs visible on the round Indus seals found in the west are anomalous (Gadd 1932; Parpola 1994). They have no match in the lists of signs commonly recorded in Pakistan and India. It is also well known that part of the sequences of Indus signs in the round steatite seals with Indus inscriptions from Mesopotamia and the Gulf are unparalleled in Punjab and Sindh. Some of the signs (particularly the so-called “man” sign) appear in the western inscriptions with evidently anomalous frequencies. Most likely, such inscriptions report names and attributions in foreign languages.

3.4 In some Sumerian cities, such as Ur, so far excavation brought to light only such round seals with Indus inscriptions, while at Kish and Umma circulated standard square Indus seals and their sealings (see Gadd 1932, Chakrabarti

1990 and Parpola 1984 for reviews).

3.5 The last decades of research suggest that it is impossible to discuss the role of the Indus communities in the west without considering in detail some aspects of the international trade in semiprecious materials and beads. In contemporary Gujarat, carnelian, a form of agate that in nature has a distinctive dull olive-brown colour, is turned red artificially in special ceramic containers and kilns. The most important mines are still exploited in Gujarat, and the production of high quality carnelian remained for 5000 years a craft specialization of the Subcontinent, particularly in the north-western regions of Gujarat and Sindh (Kenoyer et al. 1991, 1994). There is little wonder that carnelian is quoted by the ancient texts as an important article of Indo-Mesopotamian trade of the 3rd and early 2nd millennium BC. Many of the carnelian beads found in the graves of the main Sumerian cities or at Susa in the second half of the 3rd millennium BC are presently interpreted as made locally by Indus craftpersons or artisans trained in an Indus technical tradition but producing shapes and decorations after the specific local demand.

The local production of etched carnelian beads in Mesopotamia with Indus techniques had already been proposed in the past by J. Reade (1979: 25) who noted, among other non-Indian patterns, the presence an etched bead bearing the Mesopotamian symbol of Shamash, the sun-god (*ibidem*: Fig. 1, Fly. In this paper, Fig. 3, Fly). A recent study of the collections of beads from Lagash and Susa confirms that long barrel-cylinder carnelian beads and other types of carnelian beads of a quality much superior

² For “The Curse of Akkad” see Pezzoli-Olgiati 2000 (at the site <<http://www.cwru.edu/affil/GAIR/papers/2000papers/Daria.html>>, with bibliography. For a

Babylonian text mentioning the goddess, see the myth of Erra and Ishum in Foster 1995, and the site <<http://www.gatewaystobabylon.com>>.

to that distinguishing local products might well have been manufactured in the Indus valley (Inizan 2000; Roux & Matarasso 2000); on the other hand, the collection from Susa includes a highly sophisticated double long barrel-cylinder carnelian bead, a type unknown in the Indus valley, for which we would better hypothesize a manufacture in Susa by resident Indian beadmakers (Inizan 2000: Fig. 6). As excavations at Susa brought to light examples of cylinder-like steatite seals with Indus features (Gadd 1932; Kenoyer 1998: Fig. 1.15), long barrel-cylinder seals and etched carnelian beads, these indicators strongly point to the presence of a Meluhhan "craft village" in one of the capitals of ancient Elam. J.M. Kenoyer, who has an intimate knowledge of the Indus bead technologies, after having examined samples of various types of carnelian beads from the Royal Cemetery of Ur, reports that even some bead types unknown in the Indus valley might have been manufactured by Indian craftpersons, most probably living and working at Ur: "...These clues suggest that merchants and entrepreneurs from the Indus Valley may have set up shops in cities such as Ur to market their goods and also produce objects in local designs.... It would be the earliest evidence for a pattern that came to be a norm in later historical times, when craftsmen and merchants from the Subcontinent extended their trade networks throughout West Asia as well as Southeast Asia" (Kenoyer 1998: 97; see also 1997: 272). On the whole this paleotechnological evidence is a strong argument for supporting the hypothesis that the Meluhhan communities in the west continued their original close involvement with trade, processing and selling of semiprecious stones at least from late ED III to the Akkadian period.

But it is impossible to tackle with the issue of the carnelian trade if we do not distinguish clearly between two quite different types of beads, namely the long barrel-cylinder carnelian beads with a light central swelling found by the hundreds in the "royal" graves excavated at Ur and the so-called etched carnelian beads. The first type is probably the most exclusive and refined type of bead ever produced in the Near East and South Asia. In the Indus Valley, the best specimens of these beads (Fig. 5, above) are distinguished by a deep and perfect red hue, by a perfect translucency, by the absence of transparent or white bands and by a perfectly axial perforation. The longest specimen reached a length of about 13 cm. At the major centers of Harappa and Mohenjo-daro, but also in minor settlements such as Allahdino, the beautiful long barrel-cylinder beads were found hoarded in buried copper vessels, arranged in gorgeous necklaces of perhaps belts with copper fittings (J.M. Kenoyer, personal communication).

The idea that the beautiful long barrel-cylinder carnelian beads with a distinctive central swelling found in Mesopotamia were Indian products had been originally proposed by E.J.H. Mackay (in Marshall 1931: 511 ff.). In Mesopotamia, these beads come mainly from Kish, from the Royal Cemetery of Ur, and Lagash (Inizan 2000). The spectacular finds of Ur suggest that such exclusive, costly products were monopolized and obtained by the great houses of the Sumerian cities from Indian traders and beadmakers since relatively early times, displayed and destroyed by burial in great amounts as an element of ostentation in public funerals aimed at assessing the claim of the Sumerian lords to a royal status.

The bulk of long barrel-cylinder carnelian beads found in Mesopotamia may

be confidently dated to pre-Akkadic times (i.e., to Early Dinastic III), although some beads of this type circulated and were apparently found – as one would normally expect – even in much later contexts. Other beads of the same type are reported from Iran, at Susa and Jalalabad. In the Iranian sites, long barrel-cylinder carnelian beads and etched carnelian beads may be found together (see for a general discussion Chakrabarti 1982; 1990: 31-33). Long barrel-cylinder carnelian beads had been also buried in the looted graves of Bactria; the value of their base material is also indicated by the fact that fragments of these beads were also recycled for making preciously inlaid jewels (Ligabue & Salvatori n.d.: Figs. 62, 71, 45). On the whole, long barrel-cylinder carnelian beads around the late Early Dinastic III Period (in terms of the traditional Mesopotamian “high” chronology, around 2400-2350 BC) depended upon an intensive production of carnelian originating in the Indus valley. Further research is needed to ascertain when, how and to which extent the traditional Indus technology of carnelian beads was transplanted from Gujarat and Sindh to the hypothesized workshops of the Meluhhan communities in Mesopotamia and Iran.

The second type of carnelian bead is commonly defined “etched carnelian beads” (Beck 1933; Dikshit 1949; During

Caspers 1971, 1982; Reade 1979; Lombardo 1988) (Figs. 3, 4; Fig. 5, below). They are much smaller beads, manufactured with quite simpler techniques, but embellished by white designs (more rarely black or purple) traced on their surface. Such designs were chemically carved on the beads’ surfaces by a pyrotechnological process involving the use of alkaline juices and further cycles of high temperature heating (Mackay 1933, 1937; Bhan *et al.* 1994; Vidale 2000). Their cost for unit of product should have been incomparably much less than the former type. Out of the etched carnelian beads found at Ur with a reliable context, more than 40% are dated from Early Dinastic III to Early Akkadic times, the same percentage to Middle to Late Akkadic times, while only 2 finds are confidently datable to Ur III times. Thus, in terms of the traditional absolute chronology, these latter Indian imports would fall between 2450 and 2200 BC. For what the beads from Kish (the second group for its size) are concerned, they come from Early Akkadic graves, dated (always following the same traditional scheme) from 2400-2350 to 2300 BC. In other words, they are slightly later than the long barrel-cylinder carnelian beads and they evidently became popular in the Akkadian period, a circumstance that requires a proper historical explanation.

4. More interpretations and conjectures

4.1 Adopting an obvious evolutionary scheme, one is tempted to assume that the first seals to circulate in Mesopotamia (let us say between 2500-2300 BC) were the standard squarish steatite seals with Indus inscriptions and iconography; later might have been adopted seals like

the one at the British Museum, where the corners were rounded, and the titles or names possibly translated in cuneiform inscriptions and in other languages; finally, between 2200-2000, the Indus communities adopted a standard round seal where Indus signs were used to

express similar titles, names or formulas in foreign languages. The presence at Bahrein of a round seal bearing only the inscription and no bull is probably paralleled by the disappearance in the motherland of the animal icones, and by the adoption (in the Harappa sequence, in period 3C) of rectangular steatite bearing analogous simple inscriptions. The fact that the British Museum seal with the bull and cuneiform inscription comes from Diqdiqqah might be quite significant, because the settlement, although badly ransacked at the times of the excavations at Ur, was rich in residues of craft activities. As a fluvial port and a craft centre, it might well have been a Meluhhan enclave. (I believe that if the site is still accessible and somehow preserved, in spite of the old disturbances, an archaeologist with practical experience of Indus materials and artifacts might find on surface important evidence).

The recurrent and exclusive presence of the short-horned bull with lowered head in the round seals from Mesopotamia, the Gulf, Bactria and possibly the western Iranian plateau (Fig. 1), in front of the different and variable animale icones used in the normal Indus valley seals in my opinion leads to the unexcusable conclusion that this bovid had a precise meaning for the Indus communities migrating, settling and trading in the west. The unpublished cylinder lapis lazuli seal from Bactria with a hunting scene might have been a royal or anyhow aristocratic possession, rather than a standard trading tool, and this might well explain its completely different symbolic and iconographic message.

There is an almost general consensus that this big bull visible in the round western seals is the Indian gaur (*Bos gaurus gaurus*), a powerful, wild or half-temed bovid, nearly extinguished in wide

regions of the Subcontinent, but the reasons why these western group identified themselves with this particular animal are quite unclear (for details on the gaur in South Asia and some highly conjectural interpretation see Vidale, in print). Presently, the north-eastern Indian semi-domesticated gaur or mithan in the Assam region and in the local Naga cultures is at the centre of complex ideological projections and ritual cycles, and it is possible that similar values were at play also in the Indus valley culture as well (Simoons 1968). Because the gaur icones in the motherland are constantly lowering their head on some kind of container or manger, and those in the western round seals often are not, I have also suggested that this absence might symbolically transform the animal's lowered head from peaceful (eating) to aggressive (charging), and that this latter transformation would fit with the Indians' perception of living in a foreign, potentially enemy and disruptive world.

This regular association (round seals with Indus signs to the gaur icone) obviously recalls the Sumerian name Lu-sunzida and its meaning "Man of the just buffalo cow." It may hardly be a case that the Indus seals in the west always show a bovid, and that the only Indian proper "name" we may confidently reconstruct for an Indus trader in Mesopotamia ascribes in positive terms this individual to a bovid. Parpola *et al.* interpret the expression as a proper name incorporating a reference to a traditional Indian bovine female deity unknown in Mesopotamia. While this is entirely possible, I rather wonder if Lu-sunzida does not simply refer to the symbolic icone "institutionally" adopted by the western Indus communities. True, the bovid on the seals is always male, while the name Lu-sunzida clearly contemplates a female-

centered descent. But there is at least one seal (Gadd’s nr. 18) where the gaur is substituted by two copulating bulls, thus involving sexuality and the female sex in the same semantic sphere. At any rate, after considering the name Lu-sunzida I would venture to guess that the Indus settled communities – such as those living in the Meluhha village of Lagash – might have referred to themselves as to “The people of the just gaur,” or something similar.

Naturally, the association round western seals-gaur would also imply that also in the motherland the different animals visible in the standard seals referred, at least originally, to different roles and status positions within the urban social contexts. This problem is completely out of my present scope, but the implications of such evidence might be obviously important and manifold for the understanding of the Indus society *per se*.

4.2 The inscription in the Paris seal would confirm that Indus settlers in Mesopotamia intelligently established critical connections with local cults and temples. Besides temple overseers in charge of scribes and craftpersons, keepers and financiers of sacred gardens, traders transporting cereals for the temples, we might have in the Paris seal a “slave” or a “dog” of Ninildum, the goddess of timber and carpentry. Wood, timber for construction, ships and wooden furniture are consistently mentioned as coming from Meluhha, and both the trade in timber and the overall industry had a strategic economic role in 3rd and early 2nd millennium economies. The find of seals in the Bahrein graves might reflect the adoption of local rituals by families of naturalized immigrants (possibly, people speaking and writing both Indian and local languages): as already stated, this practice is unknown in the few contem-

porary Indus graveyards so far excavated in Pakistan and India.

The reference to Ninildum might have another important implication: as this seal was bought in the antiquarian market in Beirut (J.-F. Jarrige, personal communication), if it actually came from the Lebanese region – a circumstance that presently cannot be demonstrated – one might suppose that the bearer had his or her interests in the trade of the timber of the famous cedars, so actively searched for in Mesopotamia, i.e. in one of the strategic knots that tied the Mesopotamian markets with the Mediterranean coasts. If the hypothesis that seals with cuneiform inscriptions are earlier than those bearing Indus signs, this might place the Paris seal in the chronological frame of the Akkadian period, when the political and military pressure towards the “upper sea” was at its strongest peak. This is a pure conjecture, but it is fascinating, as it would widen the range and goals of the economic activities of the Indus traders to the Mediterranean coast. Incidentally, one may observe that both Ninildum and Ninmar, the two divinities worshipped or served by individuals with probable Meluhhan connections, are female goddesses.

The mention of the name or title “Dog” in the Paris seal is quite unclear, but at present it might be referred to the presence of “dogs” receiveing rations of bread and beer in exchange for their services at the statal dockyards of Lagash, in late Ur III times (Zarins 2002, 2003). If the “Dogs” drinking beer and eating bread at ther royal yards are not animals, as literal translations would imply, I would seriously consider the possibility that the title identified a corp of professional guards (perhaps mercenaries, and perhaps – on the basis of the Paris seal – of Meluhhan affiliation) appointed by the

state to the dockyards; but the question needs to wait for a proper publication of the Paris seal, and to be addressed to an interested assiriologist.

4.3 While in Mesopotamia writing was cared for and taught in professional schools maintained in palaces and temples, and the relative record has been reconstructed in great detail, nothing similar was observed in the Indus valley (one might say, this is because temples and palaces have not been identified for the Indus; but, at least for the palaces, I would disagree: my ongoing research). Here – at least in the larger cities – writing seems to have been a relatively widespread function, possibly performed by consistent groups of urban scribes employed by several large, partially independent corporate groups, families or great houses. This is suggested by the find in the most important excavations of several small-scale dumps and/or activity areas with unfinished and partially inscribed steatite seals. The production of this key administrative tool, in fact, does not appear to have been centralized by a state or urban authority, but performed at different places and houses at the same time. At home, such dispersed pattern might account for the high number of rare or isolated signs recorded for the whole writing system, as well as by the absolute lack of standardization in the seal-making technical sequences (Vidale, ongoing research). Moreover, the fact that part of the signs in the western round seals have no match in the *corpora*

recorded in Pakistan and India might suggest local elaboration, invention, and probably contexts of growing uncertainty in the use and transmission of this specialized information technology by the western immigrated communities. The invention of new signs or the modification of traditional ones might have been a result of a growing effort at adapting the original writing system to the expression of foreign and quite different languages. This elaboration might well have been a part of the advanced process of acculturation described in detail in Parpola *et al.* 1977. But which languages, precisely, did express the “non-Indus” sequences in the western round seals in Mesopotamia or in the Gulf? Among the possibilities in Mesopotamia range semitic languages such as Akkadian or Amorrite, or Sumerian (as one would expect in the case of partially naturalized immigrants: Parpola 1986: 411). For the Gulf, Glassner (2002) found that the majority of the proper names in the inscriptions ascribed to the Dilmun and Magan have Amorrite affinities. While such Amorrite names in the Gulf in the late 3rd millennium BC would constitute an interesting historical question, I think that another possible candidate language for the Gulf inscriptions in Indus characters would be some form of protohistoric south-eastern semitic language (why not, in simpler words, a form of proto-Arabic?).³ After all, the Dilmun civilization of the late 3rd millennium BC, with its emphasis on long-distance trade and navigation, the

³ It may also be observed that the more the western inscriptions diverge from the sign sequences normally observed in Punjab and Sindh, the more frequently they contain a sign representing a schematic human figure (Vidale, in print). Actually, according to my preliminary evaluations, the “man” sign with its variants appears in the western inscriptions corpus with frequencies absolutely anomalous when compared with the rarity of the same signs group at

Mohenjo-Daro. A possible explanation is that the “man” signs and its variants were used as logograms for expressing a patronimic identity. Direct descent might have been adopted as a social convention of identity in the western acculturated contexts, whereas we have nothing similar in the motherland (where, on the contrary, the most important element of affiliation might have been the social identity directly signalled by the animal icone).

managing of intercultural cults, and its overall non-farming subsistence, represents an early successful adaptation to the ecological and geopolitical setting of the Arabian peninsula. The social and economical evolution of the historic Arab tribes and nations would have followed for millennia similar strategies.

4.4 The fact that at Ur, so far at least, we have only round seals with Indus inscriptions, while at Kish and Umma circulated standard square Indus seals and their sealings, might imply that Sumerian cities might have had different economical attitudes and policies (in different times) towards the Indus immigrating communities. Most probably, in the complex political history of Mesopotamian states during the second half of the 3rd millennium BC, each group, community or "Meluhha village" had its own history. Trade by the means of settled enclaves at the source of the potential flow of revenue and commodities would conform to a traditional commercial patterns of later Indian trading communities; at the same time, being based upon traditional alliances and personal acquaintances between families of traders and *élites* of consumers of precious, exotic items, this trade would have been closely dependent upon the vagaries of local politics, and might have easily fallen as soon as such a specialized demand was dismissed, or the political fortune of an urban *élite* suddenly failed.

4.5 There might have been an economic and ideological opposition between long barrel-cylinder carnelian beads, requiring a careful monitoring of the production cycle, based upon the procurement of the largest carnelian nodules, the access to the peculiar stone used for Indus drill-heads (see below) and the skilled work of the best chippers and drillers, and etched carnelian beads, more

common ornaments that could be made sophisticated by the means of the application of common alkaline substances and pyrotechnology (Fig. 5). Just to give an impression of the possible cost of an Indus necklace or belt made of long barrel-cylinder carnelian beads, on the basis of experimental replications we calculated that the production of one of these ornaments roughly amounts to 480 days of work by an highly skilled artisan (Kenoyer 1998: 138, 161; see also Kenoyer *et al.* 1991, 1994; Kenoyer & Vidale 1992). No wonder that such precious beads were actively sought for and monopolized by the Sumerian *élites* competing for kingship at the times of the dynastic lords buried in the Royal Cemetery of Ur (late 25th-24th century BC?). In contrast, the cheaper but quite showy etched carnelian beads became popular after the conquest of Sargon. Actually, these beads are reliable indicators of the activities of the Meluhhan traders in Mesopotamia in the last centuries of the 3rd millennium BC (Figs. 2, 4). If, following the partial lists provided by D.K. Chakrabarti (1990: 20 ff.), we plot the number of western steatite seals with Indus features found in the various Mesopotamian centers with the frequency of etched carnelian beads found in the same urban contexts (Tab. 1) we easily see a clear pattern.

This Table is obviously partial, and does not claim to provide any representative sample, but nonetheless it suggests a positive correlation between the circulation in Mesopotamia of seals with Indus inscriptions and symbols the spreading adoption of etched beads. It seems that long barrel-cylinder carnelian beads were symbolically connected with the pre-Akkadian Sumerian houses competing for kingship. In contrast, the cheaper and quite showy etched carnelian beads, after

the political unification of the country, became available to a wide, less exclusive demand, as one would expect in the

case of the expanding urban bureaucracies promoted by the expansion of the Akkadian centralized state.

| City | Seals with Indus inscriptions or Indus iconographies | Etched carnelian beads* |
|----------|--|-------------------------|
| Ur | 11 | 55 |
| Kish | 3 | 13 |
| Lagash | 2 | ? |
| Eshnunna | 2 | 7 |
| Nippur | 1 | 2 |

Table 1. Correlation between the number of seals with Indus icons and Indus signs in Mesopotamia and reported finds of etched carnelian beads. After Chakrabarti 1990.

* The number refers to both isolated beads and groups. Most of these beads come from graves.

5. Towards a new historical picture

In summary, I believe that it will be only by integrating the textual evidence on the Meluhhan communities in Mesopotamia with a fast-growing body of new archaeological evidence that we may move to a more detailed historical reconstruction. Long-distance trade by navigation between the two poles of the Gulf was already established by late-Neolithic and early Chalcolithic times (Carter 2002a, 2002b). It was the beads and shell trade that, in Mesopotamia, in the Gulf, most probably at Susa and possibly even in Bactria, gradually promoted the local settlement of families of specialized merchants and craftpersons from the Indus valley, who channeled along their tracks the supply of raw materials and, in general, the complex know-how of the Indus crafts. Archaeological evidence pushes back the beginning of this process at east to the end of the 4th millennium BC, when Late Uruk Sumerian engravers frequently employed the colummella of the Indian *shank* shell (*Turbinella pyrum*) for their cylinder seals (Kenoyer, in print).

While these early imports might have been due to indirect or occasional trade, by Early Dynastic II-III times, Indian traders and craftpersons were asked to provide more and more substantial amounts of highly prestigious and costly products such as shell ornaments and lamps, inlay pieces, and high quality carnelian strictly reserved to the courts of the lords of the Sumerian city-states. If we have to believe to the cuneiform texts that insistently ascribe to Meluhha the lapis lazuli trade, Meluhhan traders would also have been promoted the flowing, in a relatively short time, of incredible amounts of the blue stone at the courts of Ur (in the estimates of Casanova 1997, about 95% of the entire inventory of the lapis lazuli ever found in the Near East and South Asia comes from the graves excavated by Leonard Woolley in the Royal Cemetery). The precise role of the Indus valley civilization in the lapis lazuli long-distance trade is still a major open question in the protohistory of South Asia and the ancient Near East. If the Indus traders were actually directly

involved in such a large-scale business, it is hard to believe that they did not organize their agencies, store-rooms and credit institutions at the Sumerian courts and temples; but as we have seen the textual references so far recorded do not directly support this archaeological hypotheses (on the other hand, it is well known that texts are mute on the whole question of the aristocratic families buried in the Royal cemetery of Ur and their impressive and costly funerary rituals).

The sargonic conquest put a sudden end to the competition for kingship among the Sumerian lords. The precise dating of the conquest is an old-debated, difficult question in Near Eastern archaeology, and the traditional "high" dating of 2350 BC has been questioned by various authors. In 1977, for example, Parpola *et al.* (1977: 130) accepted a date around 2300 BC. Recently, a re-visitation of Mesopotamian chronology by J. Reade (2001) placed the conquest of Sargon at the beginning of the 22nd century BC. For the history of Mesopotamia, obviously enough, the consequences of this date would be far-reaching. Considering this important problem from the eastern margins, here it will be enough to say that such a dating is probably slightly too low, but there is the actual possibility that a dating between 2300 and 2250 BC might better fit with the 14C datings from sites such as Shahr-i Sokhta as well as the available general framework of typological and stylistic comparisons established from central Asia to India (S. Salvatori, personal communication).

The conquest might have badly damaged the Indus traders, who might have based part of their fortune and projects upon alliances and close personal relationships with the defeated and deposed *élites*, and, indirectly, the Indus craft groups. If the great Sumerian houses

used to obtain their sumptuary goods on credit, the loss for the Indian traders would have been a true disaster. In another paper (Vidale 2002) I suggested that the sudden, unexpected fall of the Sumerian demand might have caused in the specialized manufacturing settlements of the Indus valley a ruinous collapse of beads' production, followed by a general crisis of the local craft organization. The collapse might be evident in the crisis of the carnelian bead "workshops" of Chanhu-Daro (Sindh, Pakistan), where in a single stratigraphic horizon hundreds of semi-finished long-barrel carnelian beads were suddenly abandoned and dumped for a mysterious reason (Mackay 1937, 1943; Vidale 2002). Whatever the cause, this evidence should have depended, besides the fall of the demand, upon a major, sudden disruption of the contextual relationships of production.

These levels at Chanhu-Daro are preliminarily datable, on the basis of ceramic evidence alone, within the period labelled at Harappa 3B (about 2400-2200 BC), a range including all the various dates so far proposed for Sargon's conquest. This is also the moment of the maximum diffusion of Indus ceramics along the coasts of the Gulf, matching with the times of the occupation phase of the settlement of Ras al-Jinz in Oman, showing the most intensive interaction of the local communities with the Indus traders (Cleuziou & Tosi 2000). Were the Chanhu-Daro "workshops" abandoned because of Sargon's advent? It is a concrete possibility that could be investigated re-opening the trenches excavated by E.J.H. Mackay in this site and obtaining new absolute datings; and such a synchronicity, if consistently ascertained, would be an important correlation for the whole chronology of protohistoric South Asia.

Parpola and his colleagues (1977: 150) remarked that "Textual references to Meluhha and Meluhhans prior to the Ur III dynasty (relegated) that country and its inhabitants to a non-Mesopotamian, foreign status. Goods and materials were exotic to Mesopotamia and came from a distant Meluhha..." The authors convincingly argue that in the Akkadian period Meluhha was referred to as foreign, remote land, providing exotic goods under the control of ship-owners and long-distance commercial enterprises, and requiring the help of professional translators. In the light of the probable involvement of Meluhhan traders and craftpersons with the ED III Sumerian courts, I would rather suggest that such a distance was mainly a political one. The Akkadian rulers after the conquest had no direct political ties with the Indian traders, and Sargon's famous statement resounds of the pride of having re-established a fruitful economic and political relationship with the eastern prestigious partner.

The Meluhhan trading communities could not have asked for a more favourable solution. The prompt mass production of etched carnelian beads after the conquest is a perfect example of the intelligent, creative and highly opportunistic behaviour exhibited by Indian craft communities across the world's history. If it is true that we do not have for the period textual evidence with detailed economical information, the production of beads etched with the symbol of Shamash archaeologically shows the same attitude revealed by the later Ur III texts: Indian beadmakers and traders immediately adapted to the changing ideological environment and soon came terms with new cults, tastes and ritual habits, inventing new, *ad hoc* types of ornaments. According to a fascinating hypothesis, as we have seen, they might

even have followed the northward expansion of the Akkadian kingdom and attempted to take advantage in the timber trade with the Lebanese region (obviously, if on the contrary the Paris seal was brought to Beirut by a dealer, this would not be true). The presence of etched carnelian beads at Ugarit and Tell Brak, at any rate, might indirectly support this possibility.

At the beginning of the Akkadian period (and possibly before), the Indus families living in the western commercial enclaves already recognized the gaur, one of the standard animal figures of the standard seals in the motherland, as their symbol. While the choice of a standard round form would somehow connect these seals with those of the Gulf cultures, the image of this wild or semi-domesticated creature, represented also in round or square seals in contemporary the Indus valley as well, might be the expression of a real or ideal claimed link with the motherland. These seals were used, although with some transformation, from 2300-2200 to about 2000-1900 BC. At the end of the 3rd millennium BC, the Ur III record from Lagash shows a community maintaining its original ethnic affiliation but successfully integrated with the Sumerian society, particularly in contexts suggesting economic and ideological interaction with temples and local cults. Meluhhans bear Sumerian names or are identified by their ethnical or professional identity. They live in a separate rural settlement identified as a "Meluhha village" somewhere in the province of Lagash; the community owns or rents its cultivated land and manages a central granary, that delivers rations or payments in barley to craft specialists. They appear variously involved with the management of temples and other religious institutions: one is perhaps an "inspector" of a

temple, another a skipper transporting grain for a temple's mill, another one receives a substantial payment in barley for the temple of Ninmar. To the same goddess is sacred a "Meluhha garden," possibly a precinct where fruits and flowers imported from India are cultivated. As we have seen, there is the possibility that "Dogs" of Meluhhan affiliation were employed by the Lagash lords as organized guards for controlling the state dockyards.

What is doubtless surprising in the Ur III references from Lagash is the total lack of written information on the expected involvement of the Indus or Meluhha village in craft production and trade of precious commodities. The hypothesis that this apparent crisis of the traditional long-distance trade activities could have been due to the incipient crisis of the urban organizations in the Indus valley around 2000 BC, advanced by the authors, is presently denied by the evidence that Harappa flourished till about 1800 BC, and that Harappa period 3C (about 2200-1900 BC) was not at all a time of decline (Meadow et al. 1999, 2001; Meadow & Kenoyer 2000). Another possibility is that the bead and semiprecious trade probably controlled by the Indus communities was not recorded in the same contexts and with the same administrative media used for recording payments, rations and deliveries of the agricultural product. We may also

think, as suggested by Parpola *et al.* (1977), that by the 21st century BC the descendants of the original immigrated Meluhhans had little direct connections with the motherland (i.e., that long-distance trade had been monopolized by the Dilmun sailors and traders). The competition with the Dilmun traders at Faylaka, Tarut and Bahrein must have been hard. The presence of Dilmun seals both from the cities of Sumer up to the Diyala Valley, as well as in the Iranian Plateau (Susa and Tepe Yahya) and in Indus centers such as Lothal (Rao 1973, 1979, 1985) points to a very active role of these merchants. In time, they probably attempted to establish their own trade outposts at both poles of the Gulf trade, perhaps trying to intercept the flow of exchanged commodities before their ultimate loading. If this was their strategy, on the long run they should have been very successful, given the disappearance of Meluhha as a trading partner from the cuneiform records in the first 2 centuries of the 2nd millennium BC and the correspondent rise in its place of Magan for copper, and later of Dilmun alone (Mery 2000: 276 ss., Fig. 176; Tosi 1991: 121; During Caspers 1982). The search for ancient seaports on the northern coasts of the Gulf, and the very limited excavations so far carried out in a few sites, has not significantly contributed, so far, to the solution of these particular questions.

6. Conclusions

As well remarked by M. Tosi "...the lack of Mesopotamian imports in the Indus Valley reveals the lesser significance of these connections for the eastern pole. Very much like the Roman trade with India and Arabia, as described in the

Periplus of the Erythrean Sea in the 1st century AD, the flow of goods towards the head of the Gulf in the later 3rd millennium BC was determined more by the Mesopotamian demand than by economic integration with the distant lands that

supplied these goods from the shores of the Indian Ocean.” (1991: 119). Sumerians and Akkadian interacted more with Dilmun sailors and traders, Indian immigrants and largely acculturated social groups than with the remote “Black Country” of Meluhha. In Mesopotamia and in the Gulf, the immigrant Indus families maintained and transmitted their language, the writing system and system of weights of the motherland (known in Mesopotamia as the “Dilmunite” standard) as strategic tools of trade. Their official symbol of the gaur might have stressed, together with the condition of living in a foreign world, an ideal connection with the motherland. Nonetheless, they gradually adopted the use of foreign languages and introduced minor changes in the writing system for tackling with new, rapidly evolving linguistic needs. The Indus communities in Mesopotamia developed thanks to an intimate understanding of Mesopotamian culture and markets, and to a very opportunistic behaviour. They promptly adapted their

products and trade to the fast-changing political and ideological environments of the local social and cultural evolution. Their success in Mesopotamia is easily measured by their efficient adaptation, in order of time, to the frantic politics and fights of the ED III city-states, to the Akkadian centralized bureaucracy and to the even more centralized empire established by Ur-nammu. By 2000 BC, their integration with Mesopotamian social and economic reality seems to be total. The acculturation process involved collaboration with local religious institutions, worship of foreign divinities, production of ornaments with foreign religious symbols, adoption of “impure” foreign rituals in life and death and (it would be easy to imagine) at the eyes of their compatriots at home “eating impure food.” The price of the success might have been their apparent “contamination” with Mesopotamian habits, creeds and ritual practices, a circumstance that – we may be sure – did not escape the attention of the traditional *élites* in the Indus valley.

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FIGURES

1. Steatite seals with the image of the short-horned bulls with lowered head from Failaka (1), Bahrein (2-3), Bactria (4), the Iranian Plateau (5). Nr. 6 comes from the surface of the site of Diqdiqqah, near Ur. Not in scale.
2. Distribution of inscribed finds with Indus signs in Mesopotamia, in the Iranian Plateau and in the Gulf (from Parpola 1994).
3. Etched Carnelian Beads found in Mesopotamia and the Iranian Plateau. Fly, second row from below, right, bears the symbol of the Akkadian sun-god Shamash: it was evidently manufactured by a Meluhhan beadmaker for a local Mesopotamian market or demand (from Reade 1979).
4. Distribution of etched carnelian beads from the Indus valley to the Mediterranean coast (from Reade 1979).
5. Long barrel-shaped carnelian beads from Chanhu-Daro and Mohenjo-Daro (Sindh, Pakistan) (upper row, left) and reconstruction of the drilling technique, with lithic drill-heads (upper row, right: from Mackay 1938, 1943 and Kenoyer 1997). Similar beads were manufactured and traded in late ED III Mesopotamia. The longest examples of these highly refined beads reach 13 cm. Lower row: examples of etched carnelian beads found in the Indus valley, to be compared with those found in Mesopotamia, common in early and middle Akkadian times.