# Redefining the Harappan hinterland

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### The find and its context

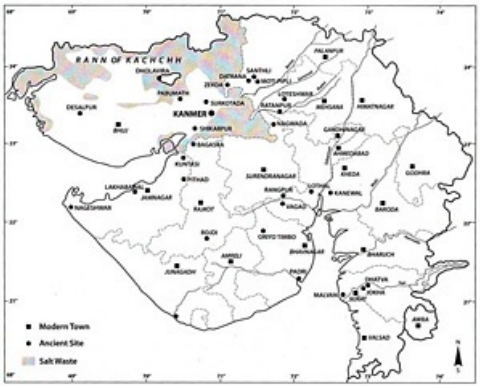



***Figure 1.*** *Map of the north-west Indian subcontinent showing the main Harappan sites mentioned in the text (courtesy of Dr A. Uesugi).*

The region associated with the Indus civilisation (now generally named Harappan after its central settlement) is estimated at between 1 and 1.5 million km² in extent, based on the widespread distribution of Harappan cultural material from Kashmir to Gujurat (Figure 1). For a third-millennium culture, this was a vast area to be administered from the floodplain sites of Mohenjodaro, Ganweriwala or Harappa. However, recent research has shown that the structure of the Harappan hinterland is misconceived as an urban or imperial network. In reality, the urban places sited on the alluvial plain, which are engaged in agriculture, were surrounded by numerous dispersed supply centres, which may themselves have been non-urban and Chalcolithic, Neolithic or hunter-gatherer in their culture.

### The urban centres

Most Harappan towns (e.g. Mohenjodaro, Harappa, Ganweriwala, Kalibangan, Dholavira, Rakhigarhi, Pathani Damb) are situated in the Indus-Saraswati river valleys. Here they controlled the major routes: Mohenjodaro, for example, sits astride the crossroads of inland routes, river-ways and the sea. In the region occupied by these towns there is abundant alluvium for agricultural production, and thus they can feed themselves. But by contrast, there are hardly any minerals (Kenoyer 1998; Possehl 2002; Agrawal 2007). Such minerals had to be procured from distant regions of the Harappan 'Empire', that is the surrounding mountainous areas.






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***Figure 2.*** *Map showing the main sites of Gujarat involved in resource procurement.*

**Procurement**

The Harappan elite needed ornaments made of gold, silver, agate, chalcedony, steatite, copper, shell, lapis lazuli and sodalite, all of which could be found in the northern sub-Himalayas, along with deodar wood (reported from several Harappan sites), talc, *shilajeet*, and herbs. Lahiri (1999) has done an exhaustive documentation of the raw materials used by the Harappans and their sources, though the actual trade routes may not have been as regular and formalised as those mapped by her. Morrison (2006: 288-92) shows how hunter-gatherers had control of many forest resources and managed their long term supply to the Harappans and their successors. In the words of a recent student, Randall Law (2008: 8) '*...it now appears that practically all of the raw material of the raw stone and metal that Harappans used came from highlands surrounding the Indus valley.*'

All the sites in the foothills marked on Figure 1 were involved in the procurement of these raw materials (Manda, Kotla Nihang, Ropar in the sub-Himalayan region; Ganeshwar, Jodhpura, and Rakhigarhi in Haryana and Rajasthan; Hisham Dheri, Gumla, Rehman Dheri, Ranaghundai, Lohumjodaro, Nindowari in north-west Pakistan; Shortugai (Possehl 1999) in Afghanistan; the coastal sites of Makran; and Surkotada, Bagasara, Dholavira, Kuntasi, Kanmer, Shikarpur in Gujarat).

Small sites like Saraikhola, Hisham Dheri, Gumla, Rehman Dheri, Surjangal, Rana Ghundai, Lohumjodaro, Nindowari and Mehi probably procured steatite, agate, and bitumen. Lapis lazuli and sodalite occurs in southern Rajasthan and eastern Gujarat. Agate occurs mostly in Saurashtra and Kachchh and to some extent in west Pakistan (Lohumjodaro, Rehman Dheri, Saraikhola etc.).

The sub-Himalayan sites like Manda (Jammu), Kotla Nihang and Ropar (Punjab), Kashipur (ancient Govisana in Kumaun) probably served as gateway procurement centres for copper ingots, deodar wood, *shilajit*, cinnabar, talc, etc. from the highlands, as the rivers become navigable at these points.

**Manufacture**

In addition, many of the outlying settlements were involved in processing and the production of manufactured goods. Dholavira (which yielded 1212 drill bits: Prabhakar & Bisht *pers. comm.* .) thrived on its industrial exports of agate and shell artefacts (Bhan & Gowda 2003: 51-80). From Kumaun, a large number of copper mines and copper-working implements have been reported from the Pithoragarh region (Agrawal 1999), where there were also huge deposits of sedimentary talc. The Jodhpura people lived close to copper mines and did the dirty work of smelting for the Harappans (Miller 2007). In Kashmir, the hoard of carnelian beads of Harappan vintage at Burzahom shows that they had trade contacts. In the far north-west Bactrian region, Shortguai served as a processing centre for lapis lazuli. In Gujurat, sites like Kanmer yielded a large amount of bead-making material (150 stone beads and rough outs; 160 drill bits; 433 faience beads; and 20 000 steatite beads) indicating their industrial importance (Kharakwal *et al.* 2008). The agate quarries are located just about 20km from Kanmer. The coastal sites of Sutkagen Dor, Khera Kot, Balakot, Allahdino, Dholavira, Kuntasi, etc. probably helped procure and process shell material for beads and bangles.

**Peoples**

Several small sites in Gujarat (e.g. Surkotada, Pabumath, Desalpur, Nagwada, Gola Dhoro, Kuntasi, Kotada, Padri, Rajpipla, Kanmer and Shikarpur; Figure 2) have disproportionately large fortifications compared to their settlement size. Such massive expenditure of energy and material on fortifications could be justified for economic protection. This might suggest an unequal relationship between the core and periphery, but the relations need not be seen as coercive (Morrison 2006: 292). The contact between these manufacturing communities and the central places is shown by the distribution of artefacts. Jodhpura has yielded thousands of artefacts of Harappan type. At Shikarpur a Harappan clay seal with multiple impressions was found and



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Kanmer has also yielded three clay sealings with a central hole (Figures 3a and b).




***Figure 3a.*** *Three clay seals from Kanmer with unicorn motif.*




***Figure 3b.*** *Top view of the three Kanmer seals (pictured in Figure 3a) with different motifs suggesting different uses/users.*

The communities in the supply centres were probably differently constituted to those in urban centres on the plain. Rajasthan, Gujarat and Madhya Pradesh, rich in copper minerals, were peopled by Chalcolithic cultures (e.g. the Ganeshwar, Banas and Kayatha cultures). Elsewhere, in the mountain districts, the Harappans had mainly to deal with hunter-gatherer communities. The central places — Harappa, Ganweriwala, Mohenjodaro, Kalibangan, Dholavira — were urban and hierarchical, and probably sought to procure and control regional resources. Harappa could control trade conducted through the north-western passes and the Himalayan hinterland; Kalibangan and Rakhigarhi, the copper minerals of Khetri and the agate and shell industry of Dholavira.

We thus have a plausible model for the vast expanse of the Harappa culture: a network linking the supply of outlying resources in the highlands to the central places sited on the Indus and its tributaries.

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## Postscript

We received two valuable comments from two well-known scholars studying the Indus script on our paper above, 'Redefining the Harappan hinterland'. They are very relevant and seem to vindicate our hypothesis that Kanmer was an important resource procurement centre and had an important relationship (industrial?) with the main metropolitan towns of Harappan and Mohenjodaro.

Asko Parpola, the well-known authority on the Indus script, referring to the Kanmer sealing sign (Figure 3a above), says:

> *'Besides the "grass skirt", this sign is distinguished from other human-looking Indus signs by feet that have a sharply upturned front, presumably representing shoes or boots of a special kind. This is the only anthropomorphic Indus sign that regularly has feet represented in this fashion... Besides Kanmer, the sign is attested only on ten objects from Mohenjo-daro'* (Parpola *pers. comm.*).

Nisha Yadav (*pers. comm.*), a mathematician working on the Indus script, comments:

> *'A sign on one of the red ware potsherd from Kanmer looks like the sign number 33 in Mahadevan's Concordance (M77, Mahadevan 1977). This sign appears only once at Harappa. Thus two rare signs in M77 (sign number 317 and 33) that appear only once at Harappa are seen at Kanmer. The occurrence of the sign number 38 on the three seal impressions from Kanmer is also very interesting as it appears six times at Mohenjodaro only in M77. In view of the large distance between Kanmer and the metropolitan towns of Harappa and Mohenjodaro, these signs seem to indicate a definite relationship between Kanmer and Mohenjodaro. As suggested in the article such small fortified sites like Kanmer indicate their role in resource procurement and supply of beads as normally seal impressions would indicate stamping of a cargo.'*

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