ORNAMENT STYLES OF THE INDUS VALLEY TRADITION : EVIDENCE FROM RECENT EXCAVATIONS AT HARAPPA, PAKISTAN

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ABSTRACT. – Recent excavations at Harappa and Mehrgarh, as well as other sites in Pakistan and India have provided new opportunities to study the ornaments of the Indus Civilization. A brief discussion of the methodologies needed for the study of Indus ornaments is presented along with examples of how Indus artisans combined precious metals, stone beads, shell and faience to form elaborate ornaments. Many of these ornament styles were also copied in more easily obtained materials such as steatite or terra-cotta. The social and ritual implications of specific ornaments are examined through their archaeological context and comparisons with the function of specific ornaments are recorded in the ancient texts and folk traditions of South Asia.

RÉSUMÉ. – Les fouilles récentes effectuées à Harappa, à Mehrgarh, et sur d'autres sites au Pakistan et en Inde offrent des possibilités nouvelles pour l'étude des parures de la Civilisation de l'Indus. Les méthodes utilisées pour l'étude des parures de la tradition Indus sont présentées et commentées rapidement, ainsi que le sont quelques exemples de parures spécifiques, produit élaboré du travail des artisans de l'Indus qui allient les matériaux précieux, la pierre, les coquillages et la faïence. On copiait aussi ces parures dans des matériaux d'obtention plus facile tels que la stéatite ou la terre cuite. Grâce au contexte archéologique, mais aussi à des comparaisons avec la fonction de parures spécifiques décrites dans les textes anciens et les traditions populaires de l'Asie du sud, sont étudiées aussi les implications sociales et rituelles de parures spécifiques.

INTRODUCTION

The role of ornaments in prehistoric society has not been given the attention it deserves and very little work has been done on the ornament styles worn by the peoples of the Indus Valley Tradition. Although numerous ornaments have been collected from excavations at major Indus sites (fig. 1), the publications do little more than list them along with miscellaneous small finds. This situation is surprising when one considers that ornaments are traditionally used as an outward symbol of a person's age, social status, ethnic identity and even religious affiliation. While the earlier excavators were definitely interested in understanding these aspects of ancient Indus society, their immediate goals and methodologies overlooked the types of information that a contextual study of ornament could provide.

Two major exceptions to this attitude are seen in the systematic study of beads by H. Beck (1) and the careful collection and recording of ornaments and manufacturing waste done by Ernest Mackay at Mohenjo-daro and Chanhu-daro (2). However, Beck's nomenclature and terminologies were not intended to remain unchanged and need drastic revisions, while most of Mackay's notes and collections are no longer accessible due to the vagaries of time. Fortunately, new opportunities to study Indus ornaments are being provided through recent excavations at sites in Pakistan (3) and India (4).

These new opportunities allow for the careful assessment of the technology and raw materials, as well as the archaeological contexts in which ornaments are found. Through careful recording of excavations in the cemeteries at Harappa and Mehrgarh, it is now possible to determine specific ways in which certain ornaments were constructed and worn. This information can now be correlated with the ornament styles seen on figurines and seal carvings.

Even more important is the study of the different techniques by which raw materials were processed to produce specific types of ornaments. The ancient artisans used both natural and highly processed materials often combining different materials to form elaborate ornaments.

Although there are no written texts of the Indus period to tell us the value or meaning of specific ornaments we can make some general inferences on the basis of problem oriented ethnoarchaeological studies. For example, detailed research on traditional stone bead manufacture can provide valuable models

(1) BECK, 1973.
(2) MACKAY, 1938, 1943; MARSHALL, 1931.
(3) DALES and KENOYER, 1990; JARRIGE, 1986.
(4) BISHT, 1987, 1989; HEDGE *et al.*, 1988.

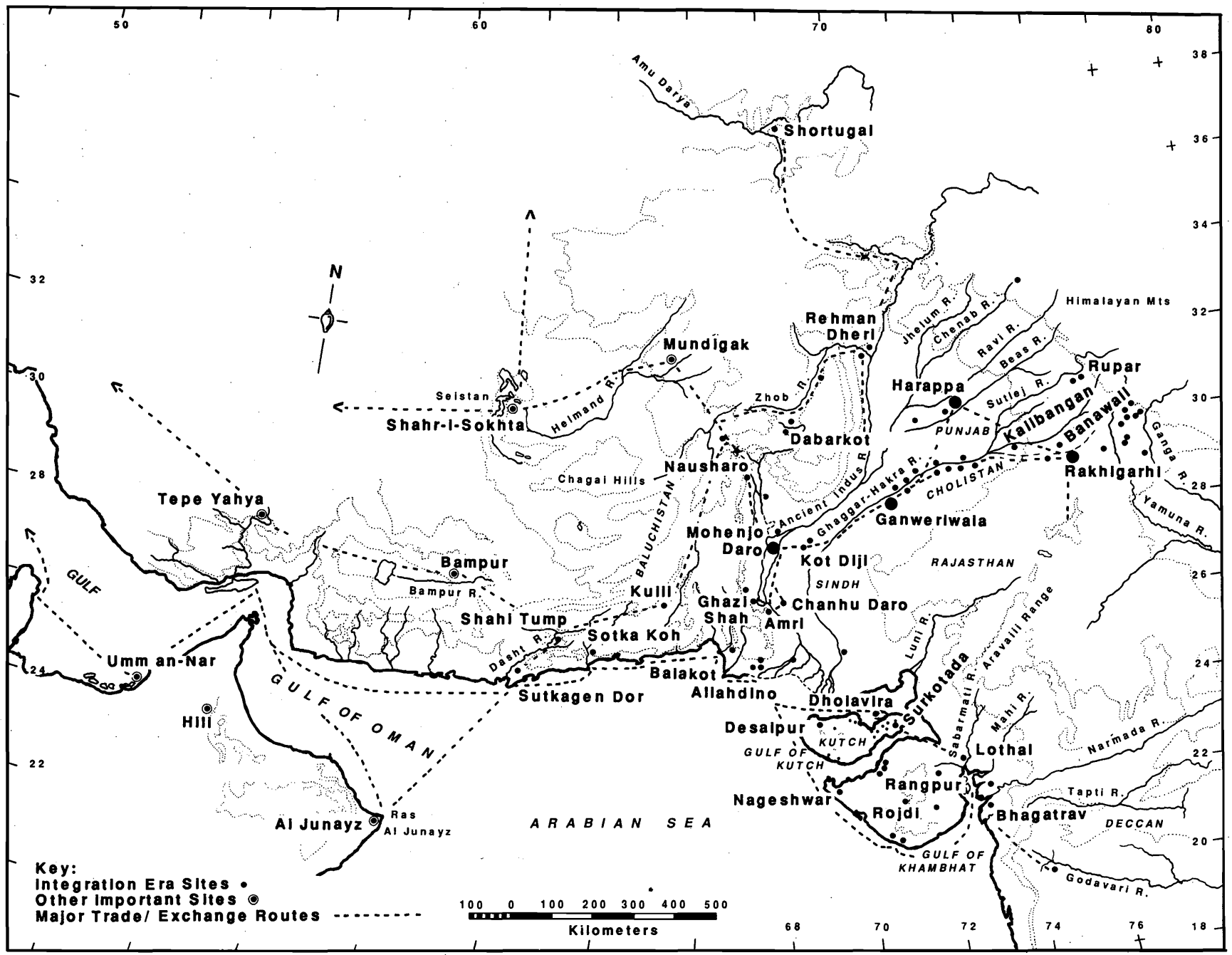

FIG. 1. — Major Sites of the Indus Tradition.

for interpreting economic and social organization (5). Another approach to building interpretative models regarding the role of specific ornaments in the prehistoric period is through the critical analysis of ancient texts and folk traditions of South Asia.

In this paper I will first present a general methodology for the study of Indus ornaments and then focus on specific examples of bangles and beads to illustrate how these neglected artifacts can provide a meaningful insight into the society of the ancient Indus Valley Tradition.

CHRONOLOGICAL BACKGROUND

The term Indus Valley Tradition refers to the long series of cultural developments taking place from around 6500 B.C. to approximately 1500 B.C., in the areas of modern Pakistan, northwestern India and parts of Afghanistan (6). The roots of this tradition can be traced to the beginning in the Neolithic period (6500 B.C.) in sites such as Mehrgarh. Specific ornament styles recovered from the Neolithic and early Chalcolithic levels at Mehrgarh appear to have provided the basis for the Early Harappan and Harappan ornament styles found at sites such as Nausharo, Harappa, Mohenjo-daro, Chanhu-daro, etc..

Early Harappan is the term usually associated with the formative phase of the Harappan or Indus Civilization which is dated from 3500-2600 B.C. (7). The Harappan Phase is now dated from approximately 2600 to 1900 B.C. and is characterized by a fully developed urban civilization that extended over an area that was twice the size of contemporaneous civilizations in Mesopotamia or Egypt (8). The Indus Valley Tradition continues through the Late Harappan period (as late as 1500 to 1000 B.C.) and overlaps with the cultural developments that coincide with the Vedic period in the northern subcontinent (9).

Whereas in the past scholars assumed that there was a major "Dark Age" between the Indus Civilization and the Early Historic period in the northern subcontinent, current research is showing that there are in fact numerous continuities (10). When properly demonstrated, these continuities can serve to strengthen the reliability of inferences about the Indus Civilization (11).

(5) KENOYER, BHAN and VIDALE, 1991.
(6) KENOYER, 1991; SHAFFER, 1991.
(7) MUGHAL, 1990.
(8) KENOYER, 1991.
(9) DIKSHIT, 1984; KENOYER, 1991; SHAFFER, 1988.
(10) SHAFFER, 1988.
(11) KENOYER, 1983.

ORNAMENTS IN MODERN AND TRADITIONAL SOCIETIES

Before attempting to understand the role of ornaments in ancient societies it is important to establish a framework of study and identify biases that can distort our research methods and interpretations. In modern, Euro-American and industrialized societies, with the exception of wedding rings, most body ornaments are regarded as non-utilitarian and essentially optional forms of adornment. Although ornaments are worn in most communities, heavily adorned individuals, either male or female are usually associated with ostentatious displays of status, wealth, sexuality or fantasy. Such displays are quite acceptable in coronation ceremonies or at festivals such as Mardi Gras or Halloween, but are not encouraged as an everyday phenomenon.

Furthermore, in modern industrial societies, finished ornaments usually are purchased from a store that is far removed from the actual manufacture. While different qualities and styles of objects may be used to represent general social status and ethnic affiliation, most ornaments no longer have any specific social or ritual significance. Even when ornaments do have ritual significance, usually it is derived from the use of specific symbols and not from the manufacture or raw material. In our modern society, most people cannot differentiate amber, ivory or gem stones from imitations made in glass or plastic. One reason for this is that it really doesn't matter, since few people wear these materials for their magical or ritual properties.

In contrast, many of the ornaments worn in pre-industrial or traditional communities throughout the world are worn for specific social and ritual purposes. Traditional Native American ornaments, the ornaments of the Pacific Islanders, and in many communities of South Asia, continue to retain specific social and ritual significance. Consequently, the manufacture, trade and use of ornaments are explicitly or implicitly prescribed. Ornaments are made from specific types of raw materials and they have standardized shapes and colors. Furthermore, the technology and season of manufacture are often regulated and in some cases, only specific individuals are allowed to manufacture, trade and wear certain ornaments.

The recognition of these culturally defined processes by most members of the society provides a greater sense of meaning and significance to the use of specific raw materials, the technology of production, and eventually the use of specific ornaments.

On the basis of observations among both settled and mobile communities of the northwestern subcontinent, it is evident that ornaments function in several different ways. Generally speaking, valuable metals and stones are fashioned into ornaments that

depict important ritual or symbolic motifs. These ornaments serve to protect the wearer, to identify the social and economic status of the wearer and as a means of storing wealth. In displaying these ornaments the wearer is usually aesthetically pleasing to other members of the community. Ornaments made from less valuable materials generally function in the same ways except that they do not necessarily represent actual wealth.

Because of the important social and ritual meanings attached to ornaments, standardized designs and styles have extremely long life cycles. Nevertheless, there is scope for creative variation and this is revealed in design and technology as well as in the combinations of ornaments worn by different individuals.

In contrast to these types of multipurpose ornaments, some ornaments are worn primarily for their amuletic or magical properties. These may be made from rare or common materials and often they are not displayed openly, but are worn beneath the clothes or sewn into amulet bags. Because of their amuletic properties these ornaments are worn for life or until they have served their purpose. Such ornaments may be passed on to other individuals or ritually disposed of, either by burial or by placing them on a specific shrine.

In such traditional communities, ornaments are not only utilitarian, but are essential to the proper functioning of the social group. They protect, identify and preserve an individual's place in society and the natural environment (12). Similar attitudes towards ornaments are documented from excavations and texts of the early civilizations in Mesopotamia (13) and Egypt (14) and we can assume that ornaments produced by artisans of the Indus Tradition were used in much the same manner. There are however important regional differences in terms of how ornaments were used and eventually discarded, and a systematic research methodology needs to be established to properly document and compare these regional patterns.

ORNAMENT RESARCH METHODOLOGY AND DEFINITIONS

When outlining specific research methods, it is always best to begin with definitions, in order to avoid confusion and to allow other scholars to compare data and develop more effective analytical methods. In this discussion I will focus only on ornaments that appear to have been worn by humans, either as discrete objects or possibly sewn onto clothing. Categories of ornamentation that are preserved archaeologically include objects such as beads and pendants, rings, bangles, belts, fillets, pins and various head ornaments (fig. 2). These terms are used in various ways by different cultures, but in order to avoid confusion I propose the following definitions for the general sets of ornaments that will be discussed in this paper. The general definition for beads and pendants are similar to those used by Beck in 1928 (15), but the specific terminology used for bead types (fig. 4 and 5) are quite different.

Bead – any object that is perforated along its major axis, generally worn on a cord or wire, sewn onto clothing or used as an ornament.

Pendant – any object that is perforated or scored at one end and is hung or attached to a cord or wire, sewn onto clothing or used as an ornament.

Bangle – any circlet (closed or open) made of a continuous homogeneous material that can be worn on the arm or ankle.

Bracelet – any circlet made of components such as beads, chain or cord, etc. that can be worn on the arm or ankle.

Due to the regional climate and various disturbance factors, only ornaments that are made from permanent and durable materials are available for study in the Indus sites. However, the Indus peoples may have used other forms of ornamentation that have not been preserved, i.e. body paint or tattoos, horn, feathers, decorative fabrics, flowers, etc. Some of these more ephemeral forms of ornamentation, such as flowers or fabrics are in fact depicted on figurines and seal carvings. In most cases these less permanent types of ornaments were used in combination with other more durable ornaments (fig. 2).

Most cultures at this time in history had a similar range of ornament categories, but each region seems to have developed a specific emphasis on certain ornament styles. The shapes and colors of Indus ornaments, and the way they were worn definitely represent a regional cultural aesthetic. These distinctive ornament styles can be defined through a careful study of the five major variables, which include the raw materials the technology of manufacture, the physical shape, the style of ornaments (combinations of color, design and shape) and the ways in which specific ornaments were combined and used.

RAW MATERIALS AND TECHNOLOGY

In the past, scholars have underestimated the importance of specific raw materials and the technology used to manufacture ornaments. It is quite clear, however that during the Neolithic and Chalcolithic periods, certain raw materials were selected as being

(12) For more discussion, see RUBIN, 1989.
(13) e.g. MOOREY, 1985.
(14) e.g. LUCAS, 1962.

(15) BECK, 1973 : 11.

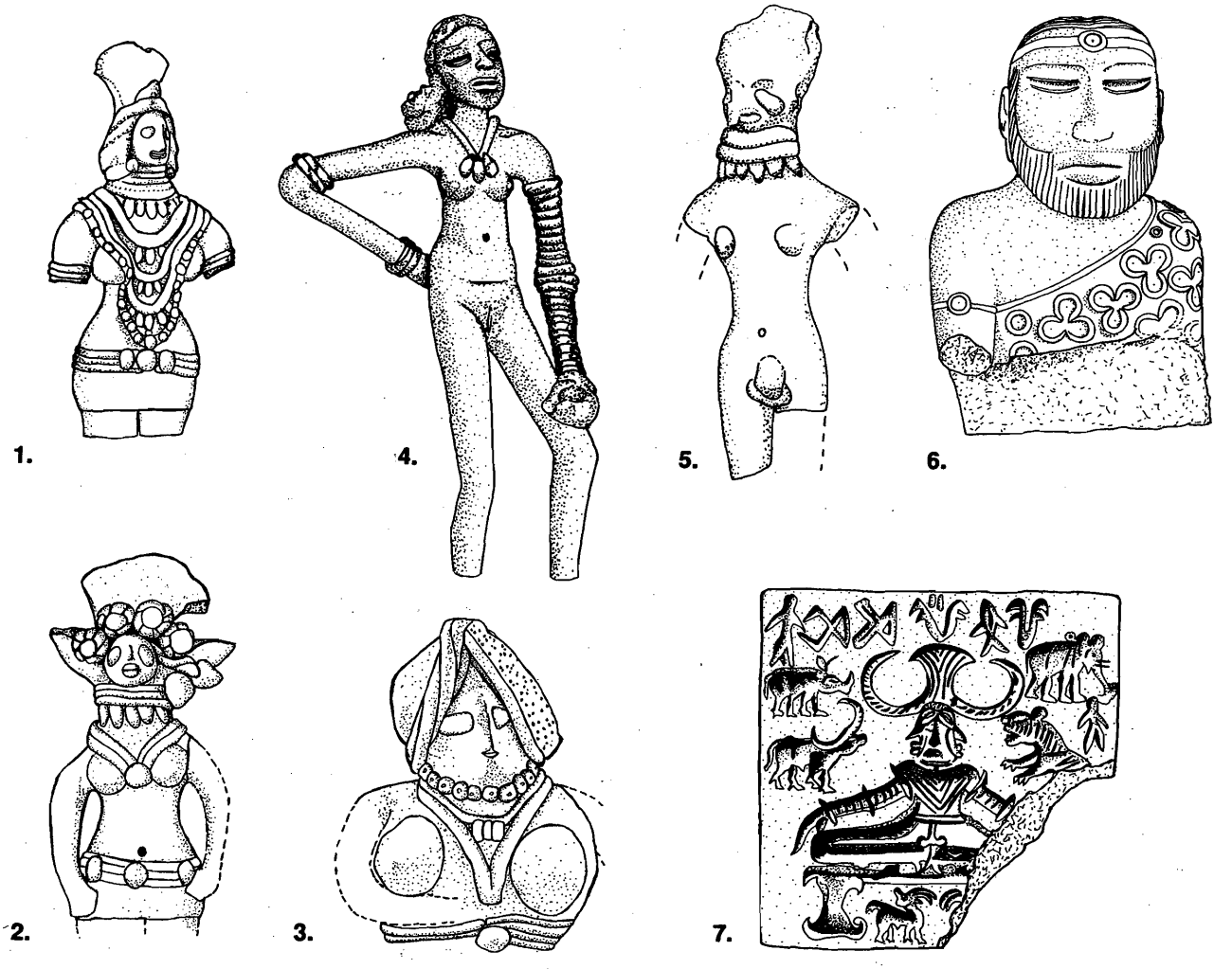

FIG. 2. — Ornaments of the Indus Tradition.

1. Terra-cotta Female Figurine (Marshall, 1931 : XCIV, 14).
2. Terra-cotta Female Figurine (Vats, 1940 : HP 160.3).
3. Terra-cotta Female Figurine (Vats, 1940 : Pl. LXXVII, 31).
4. Copper/Bronze Female Figurine (Marshall, 1931 : XCVI, 6).
5. Terra-cotta Male Figurine (Harappa, 1989).
6. White Steatite Male Figurine (Marshall, 1931 : 356-7, Pl. XCVIII).
7. Fired Steatite Intaglio Seal (Mackay, 1938, Pl. C).

culturally meaningful and were made into specific types of ornaments. While some of these raw materials initially may have been selected because they were easily obtained and easily fashioned into specific types of objects, other raw materials were difficult to obtain or were completely transformed through manufacture. By the beginning of the urban phase of the Indus Tradition, around 2600 B.C. some of the processes used to manufacture ornaments were extremely specialized.

In the context of this paper it is not possible to go into detail on all of the different raw materials, but a few examples will serve to illustrate this point. For example, easily collected natural sea shells or water worn pebbles were often perforated and worn as necklaces or bracelets without further modification (16). Such ornaments have an exceedingly long history and continue to be used in present day South Asia.

In contrast, during the Neolithic period at the site of Mehrgarh, Pakistan (c. 6500 B.C. 4500 B.C.), soft black and grey-white steatite was used to make small disc beads and pendants (17). During the subsequent Chalcolithic periods we see evidence for the firing of these same types of beads resulting in hard white beads (18). Later on, by 2600 B.C. we find

(16) KENOYER, 1985.

(17) JARRIGE, 1981; JARRIGE and MEADOW, 1980; BARTHELEMY de SAIZIEU, 1990.

(18) MACKAY, 1938; MARSHALL, 1931; VIDALE, 1984.

the same variety of soft steatite being shaped into beads or pendants that often were painted or glazed. By firing these ornaments in high temperature kilns the Indus artisans were able to produce various colors, such as red, brown, blue, green, black or white.

Another complex technique that became common around 2600 B.C. is the manufacture of compact glazed silica or faience (19). White quartz pebbles were ground to extremely fine powder and melted with various colorants to make a glassy frit. This frit was then reground and glazed to produce various colors of faience ornaments, the most common color being azure or blue-green.

The selection of steatite and faience for producing specific types of ornaments such as steatite disc beads, square steatite seals and glazed faience bangles serves to distinguish the Indus ornaments from those produced in other regions at the same time. Both of these techniques became highly specialized in the Indus cities, and although they do occur in Mesopotamia and Egypt, the specific quality of the finished objects and the techniques of manufacture appear to be significantly different (20).

TABLE 1

Harappa 1986-1990 : Bangles sorted by raw material type.

ARTIFACT CATEGORY	TOTAL	%
BANGLES		
terra-cotta	34127	97.72%
faience	390	1.12%
shell	340	0.97%
stoneware	48	0.14%
copper	17	0.05%
Total	**34922**	**100.00%**

TABLE 2

Ranking of bangles by raw material and technology.

Lowest Rank	terra-cotta bangles	Common, locally available raw material Relatively simple technology
	shell bangles	Non local raw material (except on the coast) Relatively simple technology
Highest Rank	faience bangles copper bangles stoneware bangles gold / silver bangles	Non local and locally available raw materials Relatively complex technology and high temperature kilns

RELATIVE VALUE OR RANKING OF ORNAMENTS

Keeping these examples in mind, it is possible to assume that the value and importance of an ornament was not simply a function of the final shape or design, but also derived to some extent from the type of raw material, combined with the time, effort and techniques used to produce a specific object. Even though it is not possible to assign specific values to ornaments, it is possible to differentiate and rank specific ornaments or ornament styles on the basis of raw materials and technology.

(19) MACKAY, 1938; MARSHALL, 1931.
(20) McCARTHY and VANDIVER, 1990.

TABLE 3

Harappa 1986-1990 : Beads sorted by raw material type.

ARTIFACT CATEGORY	TOTAL	%
BEAD/PENDANT		
steatite/paste*	3842	77.30%
terra-cotta	693	13.94%
other stone	225	4.53%
faience	95	1.91%
shell	54	1.09%
copper	39	0.78%
gold / silver	21	0.42%
bone(amulet)	1	0.02%
Total	**4970**	**100.00%**

* fired and unfired, does not include the microbead ornament.

Bangles

For examples, at most sites of the Indus tradition, terra-cotta bangles in various shapes and sizes occur in extremely large quantities. While some of the objects classified as terra-cotta "bangles" may actually have been used as kiln setters (21) and not actually worn, the extremely high number of terra-cotta bangle-like fragments is still significant. During the course of 5 seasons at Harappa, 34,127 terra-cotta "bangles" and fragments were recovered, constitut-

(21) HALIM and VIDALE, 1984.

TABLE 4

Ranking of beads by raw material and technology.

Lowest Rank	terra-cotta bone (amulet)	Common, locally available raw material Relatively simple technology
	shell unfired steatite other stone	Non local raw material Relatively simple technology
Highest Rank	fired steatite/ paste faience other stone copper gold	Non local and locally available raw materials Relatively complex technology and high temperature kilns

ing 97.72 % of the total number of prehistoric bangles recovered. From these same excavations only 390 (1.12 %) faience, 340 (0.97 %) shell, 48 (0.14 %) stoneware, and 17 (0.05 %) copper * bangles/fragments were recovered. Due to the fact that all of these types of bangles, except for copper, tend to break into an equally wide range of fragment sizes, the total numbers do in fact provide meaningful comparisons. (* Copper appears to have been recycled and the low number for the copper bangles is not representative).

The ranking of bangles on the basis of raw material and the level of technology seems to be correlated with the overall abundance of bangle fragments from the excavations. Gold, silver, stoneware, copper and faience would be the highest ranked and terra-cotta the lowest, with shell falling somewhere in between. The higher numbers of faience bangle fragments could be a function of their tendency to break into smaller fragments than shell bangles. While most of these bangles are relatively comparable in terms of shape, there are specific elements of design and decoration as well as the contexts in which they have been found, that will be further evaluated below.

Beads

The ranking of beads is not quite as simple because of the numerous raw materials and technologies involved (Table 3). On the model of bangles, one might expect that there would be thousands of terra-cotta or bone beads and relatively fewer beads made from materials that were more difficult to acquire and manufacture. However, this pattern is not evident, and steatite beads appear to be the most common, comprising 77.30 % of all recovered beads and pendants. Most of these beads are made from white fired steatite and have a very short cylinder or disc shape. This shape and color of bead was first made from shell during the Neolithic and then made from steatite and fired steatite in the Chalcolithic and Early Harappan periods. Except for a few examples in faience or paste, disc beads came to be made exclusively from fired steatite during the Harappan phase. It is quite clear that these beads were produced in extremely large quantities, and worn in long necklaces or anklets. Two such ornaments recovered in the cemetery at Harappa contained 340 and 297 beads respectively (22).

By ranking the beads on the basis of raw material and technology (Table 4) terra-cotta and bone fall below the other raw materials though they were not the most abundant. Shell and some varieties of stone that can be worked with relatively simple technologies fall in the middle, but most of the beads are made from raw materials that require relatively complex technologies and high temperature kilns.

The objective of these examples is to demonstrate the relationships that can be found between general categories of ornaments, raw materials and technology. The sample of material collected from recent excavations at Harappa is unique in that it represents the total number of artifacts recovered by a uniform recovery and recording method. Future research at sites in South Asia, Mesopotamia and Egypt may some day provide comparable samples, but at this time there is no such published data. In the absence of such comparative samples, the meaning of these patterns can be further understood by examining the ornaments on the basis of shape, color and the ways in which ornaments were combined and worn.

ORNAMENT SHAPES AND STYLES

There are several levels at which ornament shapes and styles can be studied. In most cases archaeologists discover single ornaments, such as beads or broken bangles that were discarded or lost and became buried along with domestic garbage. Each of these individual ornaments preserves a total shape and color that can be analyzed and classified according to specific ornament types. Such studies are currently under way for the site of Harappa and the Indus Tradition in general.

(22) DALES and KENOYER, 1990.

TABLE 5

Major Harappan phase bangle types and raw materials.

Raw Materials	Color	Bangle Shape	Decoration
terra-cotta fine terra-cotta faience copper / bronze gold / silver ?	reddish-yellow reddish-yellow deep blue, blue-green, white, or yellow reddish to golden golden to silver	closed circlet round section	plain color undecorated
terra-cotta	reddish-yellow or buff	closed circlet round, oval or square section	pinched, incised motifs or painted designs
terra-cotta	reddish-yellow or buff	closed circlet single, double, or triple ridge around circumference	plain color undecorated
terra-cotta fine terra-cotta	red or grey-black	closed circlet tear drop section	slipped and burnished surface (imitation stoneware ?)
stoneware	red or grey-black	closed circlet tear drop section	slipped and burnished surface
compact glazed silica or faience	deep blue, blue-green, white, yellow	closed circlet round or oval section	glazed surface incised motifs "/", "v", "z", "w" repeated around circumference
compact glazed silica or faience	deep blue, blue-green	closed circlet double, triple ridge around circumference	plain or with incised lines and hatching
compact glazed silica or faience	white	closed circlet single ridge around circumference, wide	rarely incised chevron "v" motif (imitation shell ?)
marine shell: Gastropoda (T. pyrum) (C. ramosus) Pelecypoda (Tivela damaoides)	white	closed circlet single ridge around circumference wide and narrow	single incised chevron "v" motif
copper/bronze gold / silver silver	reddish to golden silver	open circlet plano-convex section or rounded with concave/hollow interior section	burnished?

At a different level we can study the ways in which these separate components were combined by different individuals to form complete necklaces or body ornaments. Ornaments found in burials and depicted on figurines and carvings demonstrate that the Indus people had developed distinctive ornament styles. Ornament style refers to the combination of different components to produce specific patterns derived from shapes and colors. Preliminary results from the study of Indus bangles and beads indicate that both the raw materials and the varieties of ornament types changed significantly over time. In this article, most of the discussion will focus on specific examples from recent excavations at Harappa, with some correlations made to other sites.

Bangle and Bracelet Types

The earliest bangles from the aceramic Neolithic period at Mehrgarh (Period IA) appear to have been wide shell bangles and bracelets from shell and stone beads (23). After ceramic production became well established in the later Neolithic and Chalcolithic periods, terra-cotta bangles were introduced, but shell bangles and bead bracelets continued to be used. During the Early Harappan phase there is a gradual diversification in raw materials and bangle styles, but the real burst of design and variation is seen in the urban Harappan phase, circa 2600 B.C.

(23) JARRIGE, 1982.

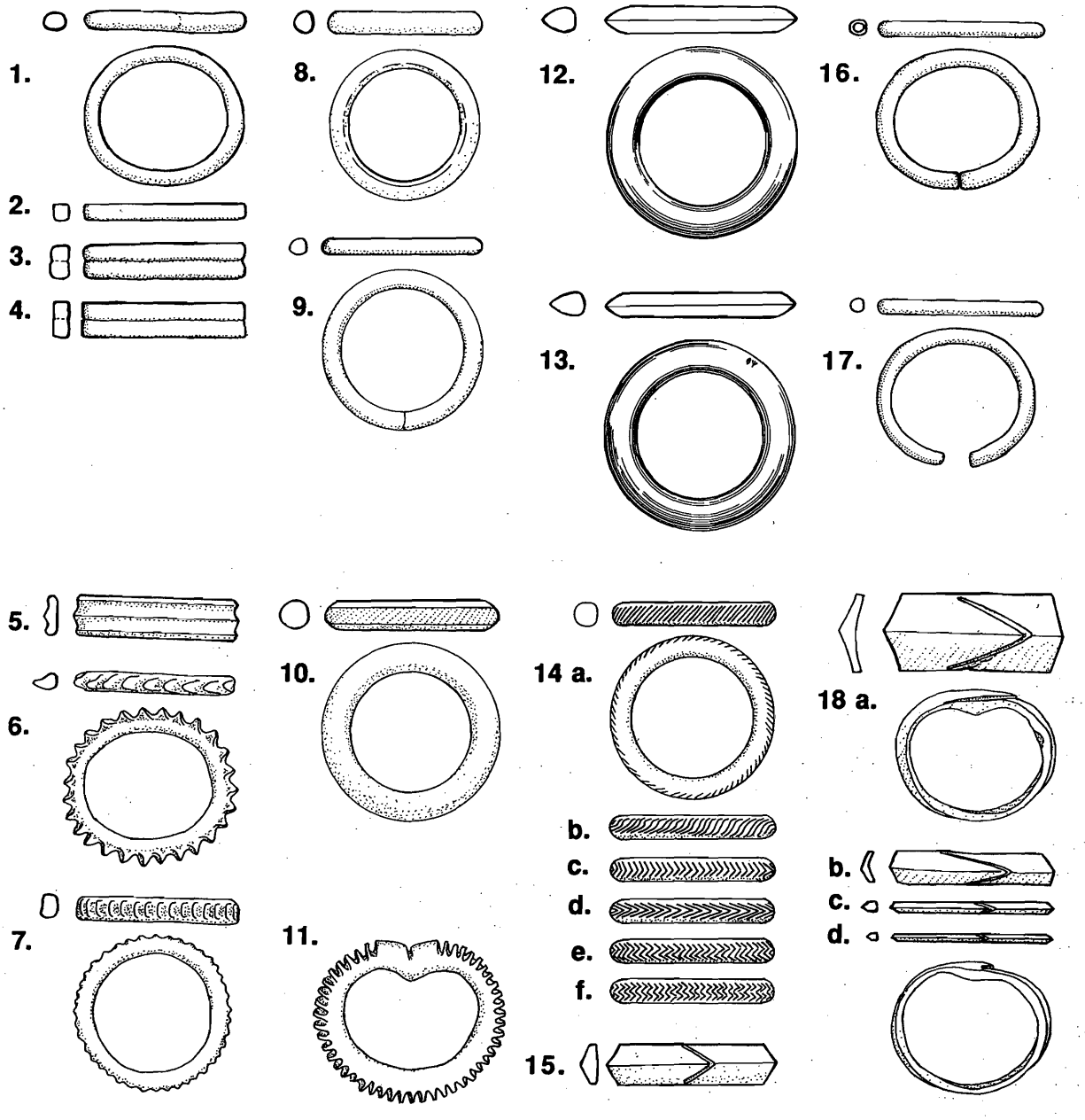

FIG. 3. — Major Harappan Bangle Types.

1. Terra-cotta, reddish yellow, round section, irregular circle.
2. Terra-cotta, reddish yellow, squarish section, irregular circle.
3. Terra-cotta, reddish yellow, double round section, irregular circle.
4. Terra-cotta, reddish yellow, double squarish section, irregular circle.
5. Terra-cotta, reddish yellow, triple ridge, irregular circle.
6. Terra-cotta, reddish yellow, pinched spike motif, irregular circle.
7. Terra-cotta, reddish yellow, pinched concave lunate motif, irregular circle.
8. Faience, blue-green, azure, white, or yellow glazed, round section, circular.
9. Copper/Bronze, round section, circular or elliptical.
10. Fine Terra-cotta, red-brown paint, red slip, circular.
11. Faience, blue-green or azure glazed, deeply carved spiked motif, kidney shape.
12. Fine Terra-cotta, reddish yellow or grey, single ridge, highly burnished, circular.
13. Stoneware, reddish yellow or grey black, single ridge, highly burnished, incised with script, circular.

14a. Faience, blue-green or azure glazed, round section, incised diagonal lines, circular.
14b. Faience, blue-green, or azure glazed, round section, incised wavy diagonal lines, circular.
14c. Faience, blue-green or azure glazed, round section, incised wide chevron motif, circular.
14d. Faience, blue-green or azure glazed, round section, incised narrow chevron motif, circular.
14e. Faience, blue-green or azure glazed, round section, incised zig-zag motif, circular.
14f. Faience, blue-green or azure glazed, round section, incised double "v" or double chevron motif, circular.
15. Faience, white glazed, round section, incised single chevron motif, circular.
16. Gold/Silver, hollow section, open circular or elliptical.
17. Gold/Silver, solid, round or plano-convex section, open circular or elliptical.
18a, b, c, d. Marine Shell, white, single ridge, incised single chevron motif, irregular circle, elliptical or kidney shape.

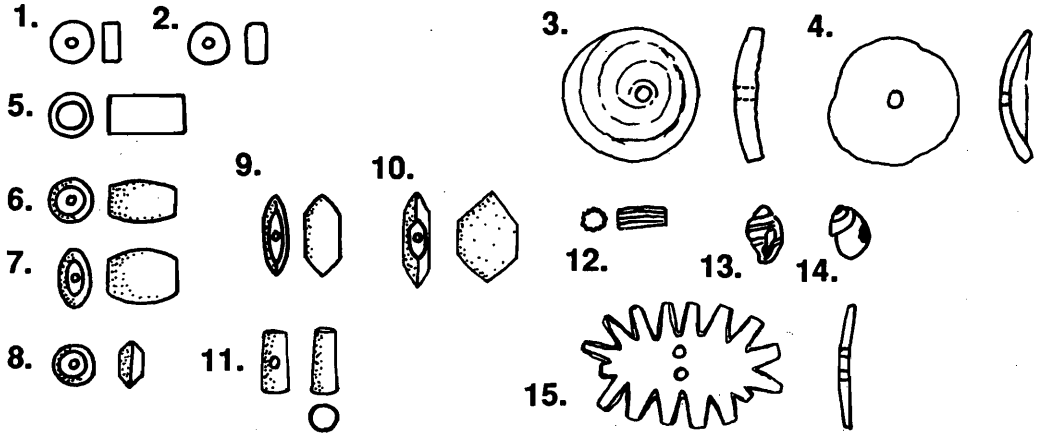

FIG. 4. — Bead types of the Neolithic and Chalcolithic at Mehrgarh.

New Bead Code

VS = very short Length < 1/3 width/diameter
S = short Length < 1/3 width/diameter < = width/diameter
L = Long Length > width/diameter, but < = 3 times width/diameter
VL = Very Long Length > 3 times width/diameter

Length, Transverse and Longitudinal Section

1. Short, circular, rectangular (commonly - disc bead).
2. Short, circular, rectangular, irregular circle (*Spondylus* sp.)
3. Short, circular, concave rectangle, (*Conus* sp.).
4. Short, circular, concave rectangle, irregular (*Spondylus* sp.).
5. Long, circular, rectangular, (commonly - tubular bead).
6. Long, circular, truncated elliptical.
7. Long, elliptical, truncated elliptical.
8. Short, circular, hexagonal (commonly - short truncated bicone).
9. Short, lenticular, hexagonal.
10. Short, lenticular, hexagonal.
11. Short, circular, rectangle, pendant.
12. Natural shell, *Dentalium* sp.
13. Natural shell, *Engina mendicaria.*
14. Natural shell, *Nerita* sp.
15. Carved Pendant, bone.

(Table 5). Harappan bangles were made from a wide range of raw materials; terra-cotta, fine terra-cotta, faience, stoneware, shell, copper/bronze, gold and silver. The designs for the different bangles are quite varied and range from simple circlets with round section, to decorated bangles with incised, glazed, pinched and molded motifs (fig. 3).

Bead Types

During the Neolithic and Early Chalcolithic at Mehrgarh beads were made from both locally available and exotic raw materials and in a relatively limited range of shapes and sizes (24). The vast majority of the beads were made in short or long cylindrical shapes, though there are some other varieties (fig. 4). Most of the beads were made from relatively soft raw materials; shell, limestone, steatite, serpentine, lapis lazuli and even turquoise. There are some examples of hard carnelian beads in the Neolithic, but they all appear to have been short biconical shapes that can be perforated by chipping rather than drilling. Later, during the Chalcolithic period (4200 B.C. Period III) there is evidence for the use of hard stone drills and the production of longer bead shapes in agate and carnelian. A very important development during this same period is the firing of steatite to produce white steatite beads (25) and also probably the intentional heating of agate to produce

(24) *Ibid.*, 1988.
(25) *Ibid.*

FIG. 5. Selected Harappan Bead and Pendant Types.

1 to 6. Very short to very long, with circular transverse section and various types of longitudinal sections.
7 and 8. Very short to long, with elliptical transverse section and various types of longitudinal sections.
9. Very short to long, with lenticular transverse section and truncated lenticular longitudinal section.
10. Very short to long, with plano convex transverse section and truncated lenticular longitudinal section.
11. Spacer beads.
12. Natural stone beads, with perpendicular banding.
13. Imitation stone beads made from steatite with red slip and white paint.
14. Faience with perpendicular banding, red brown to black with white bands.
15. Eye design, red-brown background with white circles made from natural onyx, steatite with red slip and white paint, or incised steatite with red inlay and white relief.
16. Eye design, red-brown background with white circles made from bleached carnelian, or steatite with red slip and white paint, or faience.
17. Steatite with incised circle motifs.
18. Double and triple eye motifs, made from bleached carnelian, or steatite with red slip and white paint.
19. Overfired carnelian resulting in black lines on white calcified carnelian.
20. Bleached carnelian with eye designs, also made from steatite with red slip and white paint.
21. Bleached carnelian with banded designs, also made from steatite with red slip and white paint, or incised steatite with red inlay and white relief.
22. Natural banded agate, also made from steatite with red slip and white paint.
23. Gold beads caps.
24. Pendants (amulets), made from stone or faience.

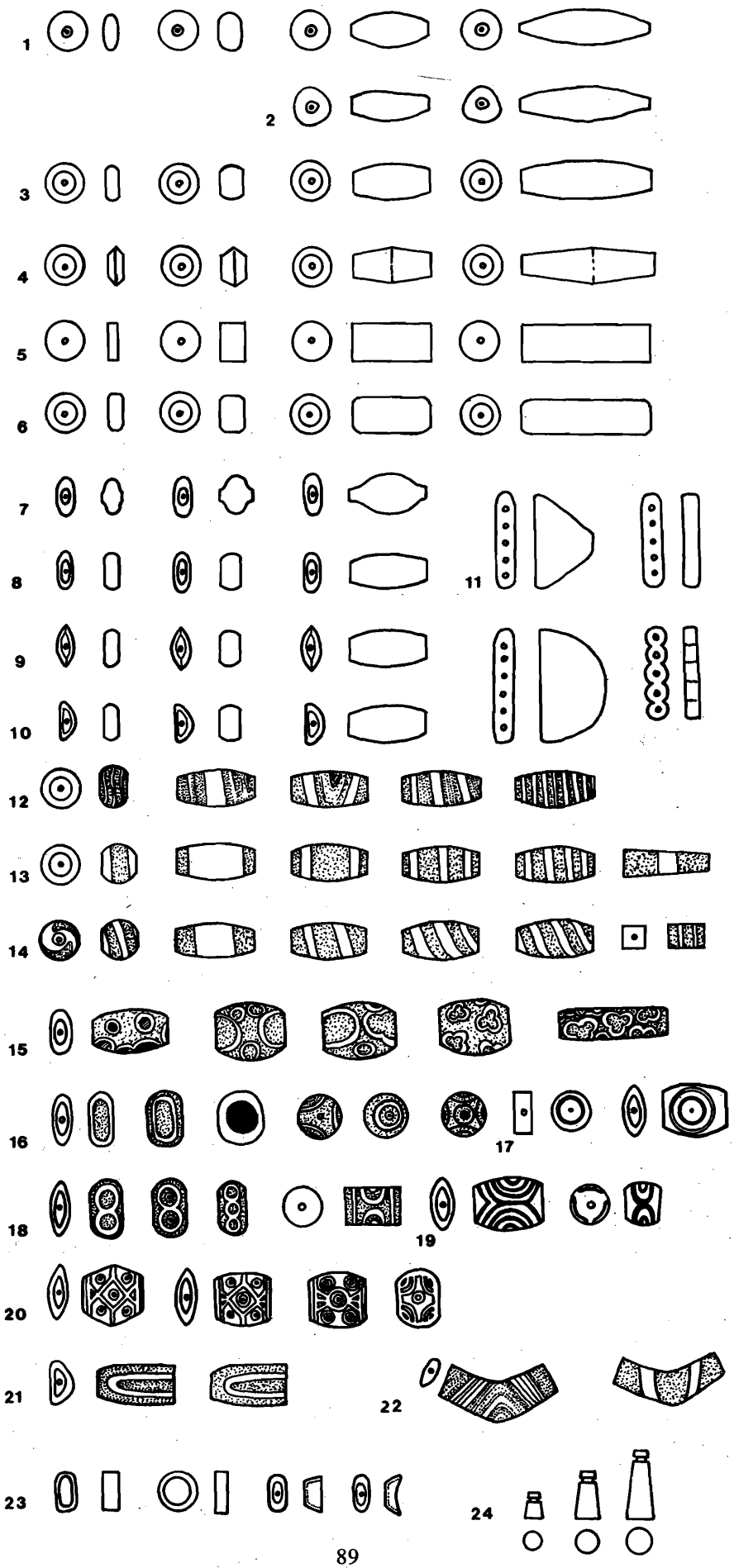
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TABLE 6

Selected Harappan Phase bead types and raw materials.

Raw Material	Bead Shape	Color	Decoration
unfired steatite	very short cylinder (Fig. 5.5)	grey-black, greenish-yellow	plain color no design
fired steatite	very short cylinder (Fig. 5.5)	white	plain color no design
fired steatite	short cylinder short to long barrel short to long bicone etc. (Fig. 5.1,2,3,4,5,6)	white	plain color no design
terra-cotta fired steatite banded agate banded sandstone banded quartzite	short to long barrel short to long bicone etc. (Fig. 5.12,13,14, 21, 22)	red and white brown and white black and white	perpendicular bands
terra-cotta fired steatite banded agate onyx	oval section, long barrel (Fig. 5.15, 16, 17, 18, 19, 20)	red and white brown and white	mottling, circles or "eye" motifs
terra-cotta fired steatite carnelian	lenticular section, elliptical, etc. (Fig. 5.18, 19, 20)	red with white lines	geometric designs, circle and "eye" motifs
terra-cotta carnelian	truncated long bicone and very long bicone (Fig. 5.1, 2, 3, 4)	red (carnelian) or red slipped	plain color no decoration
faience turquoise	short cylinder (Fig. 5.5)	blue-green	plain color no decoration
faience lapis lazuli	short cylinder (Fig. 5.5)	deep blue, azure	plain color no decoration
faience amazonite fuchsite/quartzite	short cylinder long cylinder short to long barrel short to long bicone etc. (Fig. 5.1, 2, 3, 4, 5, 6)	blue-green	plain color no decoration

a deeper red-orange carnelian. The raw materials, techniques of manufacture and even the bead styles of these earlier periods, undoubtedly formed the basis for later developments in the Early Harappan and Harappan phases (26).

Current research indicates that the production of beads in the Early Harappan and particularly the Harappan phase sees a dramatic increase in the variety of raw materials and also an increase in the shapes and varieties of beads being produced (fig. 5). One of the important features of the beads made during the Harappan phase is that many bead types, defined by shape, size and decoration, were made in different qualities of raw material (Table 6). Continuing in the trends established during the Neolithic and Chalcolithic periods, the Harappan bead makers chose to use steatite, fired steatite, banded agates, carnelian and other multicolored rocks. By careful chipping and grinding they were able to accentuate certain patterns of banding, dots, circles or mottling that were present in the natural stones. However, the Harappan artisans did not limit themselves to the natural rocks alone, and by using other raw materials and new techniques they made copies or imitations of the natural stone beads in terra-cotta, fired steatite, or faience (Table 6).

Styles of Adornment : Bangles

In order to better understand the role of these ornaments in the Indus Tradition and especially the urban Harappan society, we need to determine how these ornaments were worn and who wore them ? Bangles, by definition, refer to circlets worn on the arms, but there are ethnographic examples of circlets worn in the hair, on belts, on the ankles, or sewn onto clothing. The evidence from burials and figurines from the Neolithic through the urban Harappan phase suggest that circlets were worn primarily as bangles on the lower and upper arms. In Neolithic Mehrgarh, a single wide shell bangle was worn on the wrist and bead bracelets often were worn on both wrists. Later, with the introduction of narrow bangles of shell or terra-cotta, several bangles appear to have been worn at the same time, often on both wrists (27). This pattern is well documented from figurines and seal carvings of the Harappan phase (fig. 2, 6 and 7).

(26) *Ibid.*, 35.

(27) JARRIGE, 1984, 1988.

TABLE 7

Harappa 1986-88. Primary context burials.

HARAPPA	MALE		FEMALE		UNCERTAIN		INFANT TOTALS	
BURIALS	Full	Partial	Full	Partial	Full	Partial	Full	
WITH ORNAMENTS	2	1	7	2	0	2	0	14
WITHOUT ORNAMENTS	3	4	4	0	0	5	1	17
TOTALS	5	5	11	2	0	7	1	31

During the Harappan phase, some female figurines depict three of four bangles at the wrist and two or more bangles above the elbow, often with equal numbers of bangles worn on both arms (28). A similar style is seen on a male figurine from the Early Harappan phase at Nausharo (Period ID) (29). A slightly modified pattern is depicted on the famous copper figurines from Mohenjo Daro, where several bangles were worn on the right arm at the wrist and elbow, but the left arm was filled with bangles from wrist to shoulder (30).

The famous seals depicting a seated male with horned head dress show both arms filled with what have been interpreted as bangles. In one seal the bangles appear to be of different types. A bangle with projecting section was worn at the wrist, followed by four flat bangles on the forearm. Another projecting bangle is seen above the elbow followed again by four flat bangles. A final projecting bangle is worn on the upper arm (31). A second seal shows a similar individual with bangles from wrist to shoulder, seven on the right arm and eight on the left arm (32).

Figurines and seals show that bangles were worn on both arms from wrist to shoulder, or as one or two bangles at the wrist of one or both arms. However, they do not allow the identification of what types of bangles were being worn or the combinations of design and color being used. The only concrete evidence for the types of bangles being worn comes from burial ornaments (Table 8). In reviewing the reported grave goods from all of the cemeteries of the Harappan phase, only white shell bangles appear to have been buried with the dead. In recent excavations at the cemetery of Harappa itself, white shell bangles were found on the left arm of middle aged adult women (age 35-55). Sometimes they were worn on the lower arm or wrist, but in two cases bangles were worn both above and below the elbow. The bangles in the earliest burials are slightly wider than those found in later burials, and the thinnest bangles are found in the latest burial. However, even though the width of the bangles changed, all of them were incised with the same style of chevron motif and all of the bangles were worn with the chevron motif oriented in the same direction.

There is only one example of a middle aged adult male (Burial 147A) with a broken shell bangle that appears to have been worn on the left wrist. This individual was buried in a wooden coffin and covered with some form of shroud. Another elaborate ornament was found at the right side of the skull towards the back of the head. This apparent head ornament was made from thousands of steatite microbeads and a jasper bead combined with two or three shell circlets (33).

Another instance of shell circlets is reported from Wheeler's earlier excavations in this same cemetery. The burial, "probably that of a female" was interred in a coffin with what appears to have been a reed shroud. "On the right middle finger was a plain copper ring; one shell ring (probably ear-ring) lay to the left of the skull and two to the left of the shoulder" (34). The similarities between these two burials are striking and since the sex identification proposed by Wheeler is somewhat uncertain, it is difficult to determine if the shell circlets worn in a hair ornament were used by both men and women or not.

On the basis of burials from the Neolithic period at Mehrgarh and later figurines from the Chalcolithic period, we can determine that bangles or bracelets were worn by both men and women, adults and children. During the Harappan period, bangles are seen primarily on female figurines and in female burials, although some males do appear to have worn bangles. Occasionally, shell circlets were worn as hair ornaments on men. Disc bead ankle bracelets were found on a female burial at Harappa in 1966 (35) and one possible example of a similar ornament was found in the recent excavations (Table 8) (36). It is important to note that none of the individuals buried at Harappa or any other reported site have been found wearing terra-cotta, faience, copper or stoneware bangles.

(28) MACKAY, 1938; Pl. LXXXV, 5, 10.
(29) JARRIGE, 1988.
(30) MACKAY, 1938; Pl. LXXII, 10 and Pl. C.
(31) MACKAY, 1938; C, f.
(32) *Ibid.*, 335, LXXXVII, 222.
(33) DALES and KENOYER, 1990.
(34) WHEELER, 1947 : 87-88.
(35) MUGHAL, 1968.
(36) DALES and KENOYER, 1990.

TABLE 8

Harappa 1986-1988. Burial Ornament Styles.

BURIAL NUMBER	SEX AGE *	ORNAMENT DESCRIPTION
127A	Female Adult (age 36-55)	7 shell bangles on left arm (4 on forearm , 3 above elbow) 2 lapis lazuli and 1 carnelian, short cylinder beads at waist; 297 white steatite disc beads between feet (ankle bracelet ?)
200A	Female Adult (age 36-55)	2 shell bangles on left arm, above elbow 5 carnelian, short bicone beads at right edge of waist
152A	Female Adult (age 16-55)	2 shell bangles next to left fore arm
49B	Female Adult (age 36-55)	7 scattered beads associated with skull and disturbed bones 1 faience, 3 white steatite disc, 1 agate, 1 copper , 1 black stone amulet
134A	Female Young Adult (age 16-35)	1 black stone amulet at throat
156A	Female Young Adult (age 16-35)	Badly disturbed burial 1 ring on left middle finger 1 copper mirror
194A	Female Young Adult (age 16-35)	1 lead/orpiment pin found next to burial pottery left arm broken and disarticulated
49A	Female Adult (age 16-55)	13 shell bangles on left arm, forearm and above elbow
49C	Female Adult (age 36-55)	5 shell bangles on left forearm
147A	Male Adult (age 36-55)	microbead hair ornament with 3 shell circlets, 1 jasper bead; 3 white steatite disc beads at throat 1 carnelian bead on fingers of right hand 2 broken shell bangle fragments,worn on left wrist ?
196A	Male Adult (age 36-55)	340 white steatite disc beads in long necklace on the chest were- 1 banded agate bead, long barrel; 1 turquoise, long cylinder and 1 gold, short cylinder; 1 onyx eye bead, oval barrel and 2 gold, short cylinder. 1 copper bead at the waist
34B	Male Young Adult (age 16-35)	1 sandstone bead at the throat, 1 sandstone bead in pit fill

(* Sex and Age determinations have been made by Dr. K. A. R. Kennedy, Dr. J. R. Lukacs, Dr. Nancy Lovell, and Brian Hemphill - personal communication).

Styles of Adornment : Beads

While bangles are generally limited to the arms, beads or pendants can be worn in numerous ways and allow for considerable individual variation. In assessing the ways in which beads were commonly worn in the Indus Tradition, we can look at the general styles reflected by figurines (fig. 6 and 7) and compare these with what is seen in ornaments found in burials.

During the Neolithic and Chalcolithic period at Mehrgarh, beads were used in a wide variety of ornaments. They were worn by infants, children and adults, both male and female. The earliest use of ornaments is in fact recorded only in the Neolithic burials, where we see the use of shell and limestone beads in head bands, necklaces, belts, bracelets and anklets (37). The wide range of styles represented in the burials indicate that there was considerable individual choice as to how beads were strung and worn. A full analysis of the burial ornaments will hopefully provide a better understanding of these early ornament styles.

On the basis of terra-cotta figurines of the later Chalcolithic and Early Harappan periods (38), it is clear that individuals often wore numerous necklaces and pendants. However, large quantities of ornaments as depicted on the figurines have not been found in any burials. This suggests that certain ornaments, presumably the ones which represented valuable wealth or socio-ritual status, may have been passed on to living relatives rather than being buried.

Most of the females from Period V and VI are depicted with wide torques of five to seven massive strands of matched or graduated beads. In period VII

(37) SAMZUN, 1988; SELLIER, 1988.

(38) JARRIGE, 1988.

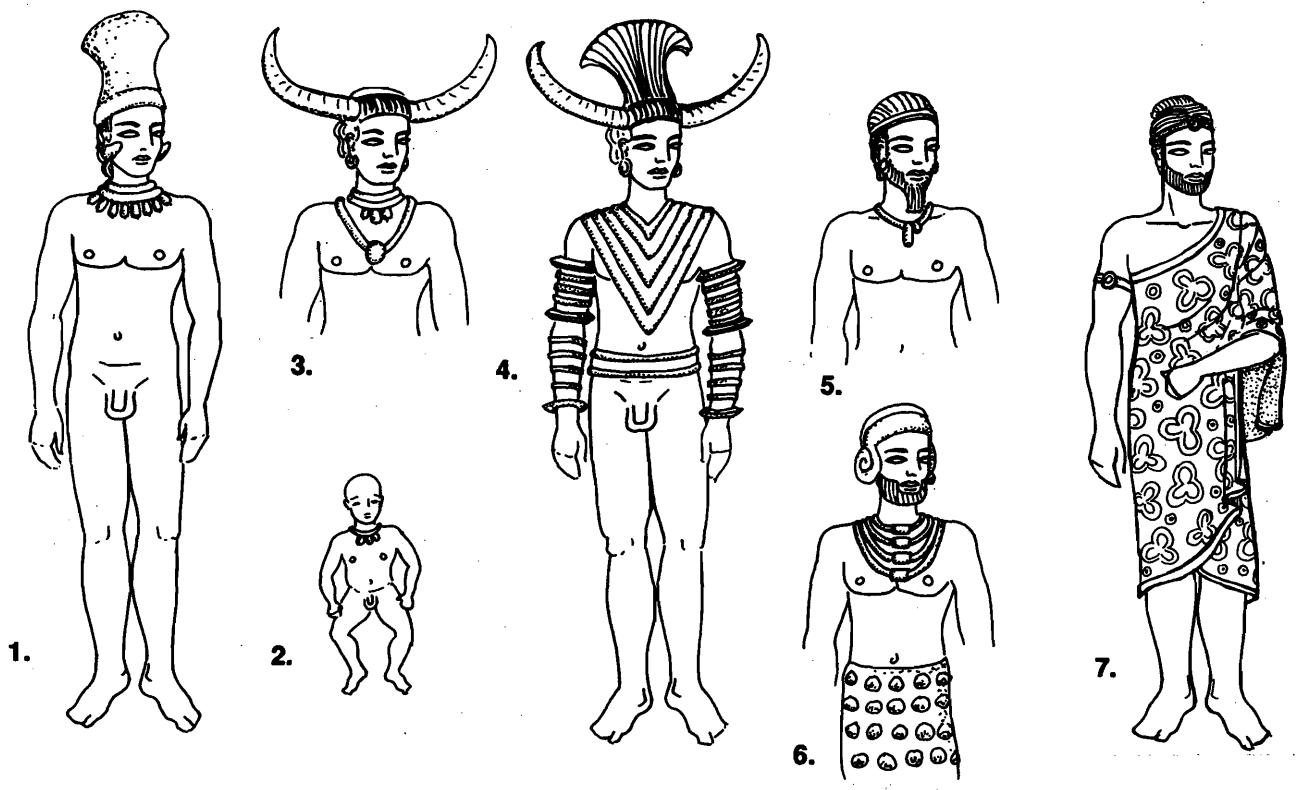

Figure 6. — Harappan Male Ornament Styles.

1. (Dales and Kenoyer, 1990, Harappa, 1989).
2. (Mackay, 1938 : Pl. LXXII, 7).
3. (Mackay, 1938 : Pl. LXXIII, 1).
4. (Mackay, 1938 : Pl. C).
5. (Mackay, 1938 : Pl. LXXIV, 23).
6. (Vats, 1940 : Pl. LXXVI, 13).
7. (Marshall, 1931 : Pl. CXVIII).

these same torques are depicted with additional pendants or discs (39). Some figurines have longer necklaces made with double or triple strands of beads that support a pendant. These longer necklaces reach to the middle of the breasts or even to the stomach. During Period VII, male figurines are depicted with three to five discs and a single pendant bead reaching to the middle of the chest.

This style of wearing several necklaces with discs or long beads as pendant is continued in the Harappan phase, where both male and female figurines are depicted with chokers or short necklaces bearing three or more long pendant beads. Some of the more elaborately adorned female figurines have layers of necklaces extending to the waist, each with several long pendant beads.

In addition to being worn around the neck, beads may have been used to make girdles or belts that are often depicted on females figurines. These belts consist of three or more strands with a central disc or buckle. Beads also appear to have been worn as hair ornaments, either as single beads or pendants, or as long strands of beads that encircle the elaborate head dress.

(39) JARRIGE, 1984, 1988.

The elaborate ornaments depicted on figurines were not simply the fantasy of some sculptor, but are substantiated by the occasional hoards of jewelry found hidden in jars or buried under the floors of ancient Harappan houses (40). These hoards are usually comprised of gold, silver and copper/bronze ornaments as well as exquisite stone beads made from agate, carnelian, jasper and turquoise. Although these are some examples of necklaces or bracelets made exclusively of gold components, most of the ornaments are made from several varieties of raw material.

Some of these ornaments have been carefully reconstructed and demonstrate that the necklaces depicted on the figurines probably were constructed of many different varieties of high quality raw materials, including copper, gold, silver, faience, fired steatite, agate and other colorful rocks (fig. 6 and 7). The manner in which these various raw materials were combined is distinctive. Single strand necklaces were usually composed of gold beads alternating with natural stone beads, faience or fired steatite

(40) MARSHALL, 1931 : 519-524, CXLVIII, A, CXLIX, CLI, A; MACKAY, 1938 : CXXXV, 19, 22 and CXLI, 61; VATS, 1940 : 64.

beads. Many of these stone or faience beads were capped at both ends with gold (fig. 5.23). The gold capped beads, particularly the cylindrical blue green faience beads are relatively common and are found in all of the different hoards. In one hoard they are even used as pendants (41), while in another example from Harappa they were added to the end of pendant agate beads (42). Pendant beads are easily identified because they were usually attached to the necklace by a gold or copper wire that was run through the bead and coiled at one end to form an eye.

Multiple strand necklaces were also quite common and were generally made up of matched or graduated beads, usually of the same shape and raw material. They were attached to terminal beads that had multiple holes and the different strands were kept separate by spacer beads with multiple holes (fig. 5.11). This pattern was used for making long necklaces as well as bracelets or armlets.

One of the most exquisite ornaments is a massive necklace or belt made from 42 very long bicones of carnelian arranged in six strands (43). These relatively heavy carnelian beads were combined with small spherical beads, multiple hole spacers and terminals, all made from copper/bronze. Traces of gold leaf indicate that these copper/bronze components were originally covered with gold (44). A similar necklace or girdle, also with copper/bronze components, was found in excavations at the small site of Allahdino, Pakistan (45).

One important feature of these types of long carnelian beads is that generally they show considerable wear, and broken beads were often reground to make into shorter beads. The original shape of the beads was a long truncated bicone, but over time the central ridge was worn down so that they were often referred to as long barrel-bicones (46). Almost identical carnelian beads have been found in Mesopotamia, but they are relatively unworn and the central ridge is well defined, like the unfinished and broken beads from the ancient workshop in Chanhudaro (personal observations). This difference can be explained by the fact that in Mesopotamia, the beads were taken out of circulation and buried with elites, while in the Harappan context, they were worn for many generations and only went out of circulation when they were lost or hidden in hoards.

Beads and Pendants found in Burials

The important contrast between the types of ornaments depicted on figurines and those found in the burials reveals an important facet of Harappan belief and value systems. Excavations at Harappan cemeteries (Harappa, Lothal, Kalibangan and Rupar) demonstrate that large quantites of status goods and elaborate ornaments were not included with the dead. However there are occasional beads and necklaces that were made from relatively valuable materials, such as fired steatite, natural stones and even gold (Table 8).

Steatite disc beads were included with many of the male and female burials. In most cases the steatite beads were worn as necklaces or ankle bracelets, and these ornaments were invariably comprised of several hundreds of beads. Although these disc bead ornaments were probably less valuable than long carnelian beads or gold ornaments they do represent considerable technological effort and their inclusion in the burials is quite intriguing.

There are relatively few other types of beads with the burials, but they may provide a clue to the meaning of burial ornaments. Some individuals, both male and female were buried with one to five small beads tied at the waist (see Table 8). These beads were made from copper or natural stones such as carnelian, agate, and lapis lazuli. Since these beads were generally found on the pelvis or at the lower back, it is possible that they were worn beneath the clothing and next to the skin. As such, they would represent amulets that were worn, not for display or communication, but rather for protection or good luck.

In some male burials two or three beads made from natural stones were worn around the neck or on the chest. One adult male (196a) was buried with three natural stone beads and three tiny gold beads. This same individual was wearing a single copper bead at the waist. None of these beads appear to be part of a complex ornament as is depicted on the figurines and may have been worn as amulets rather than as displays of wealth and status. The fact that the stone beads were well rounded and the perforations were worn and polished by the cord suggests that they may have been passed on for many generations before being buried with this individual.

An important type of pendant is the small truncated cone with a single line incised around the top (fig. 5.24). This pendant is usually made of black basalt, black steatite or dark green serpentine and five out of six examples from the cemetery have been found in association with female burials. One of these pendants was found under the chin of burial 134A and suggests that they were worn at the throat. Since only one example has been found in burial fill associated with a possible male burial, it is probably safe to assume that these pendants represent a form of ornament or amulet associated with women.

Although there are similarities between the ornament styles found in the burials and those represented on figurines and seals, it is evident that the

(41) MARSHALL, vol. III, Pl. CXLIX, 4.
(42) VATS, 1940 : 64, Pl. CXXXVII, 8-13.
(43) MARSHALL 1931 : vol. III, Pl. CLI, A.
(44) *Ibid.*, vol. 1, p. 34.
(45) FAIRSERVIS, pers. comm.
(46) MARSHALL, 1931; MACKAY, 1938, 1943.

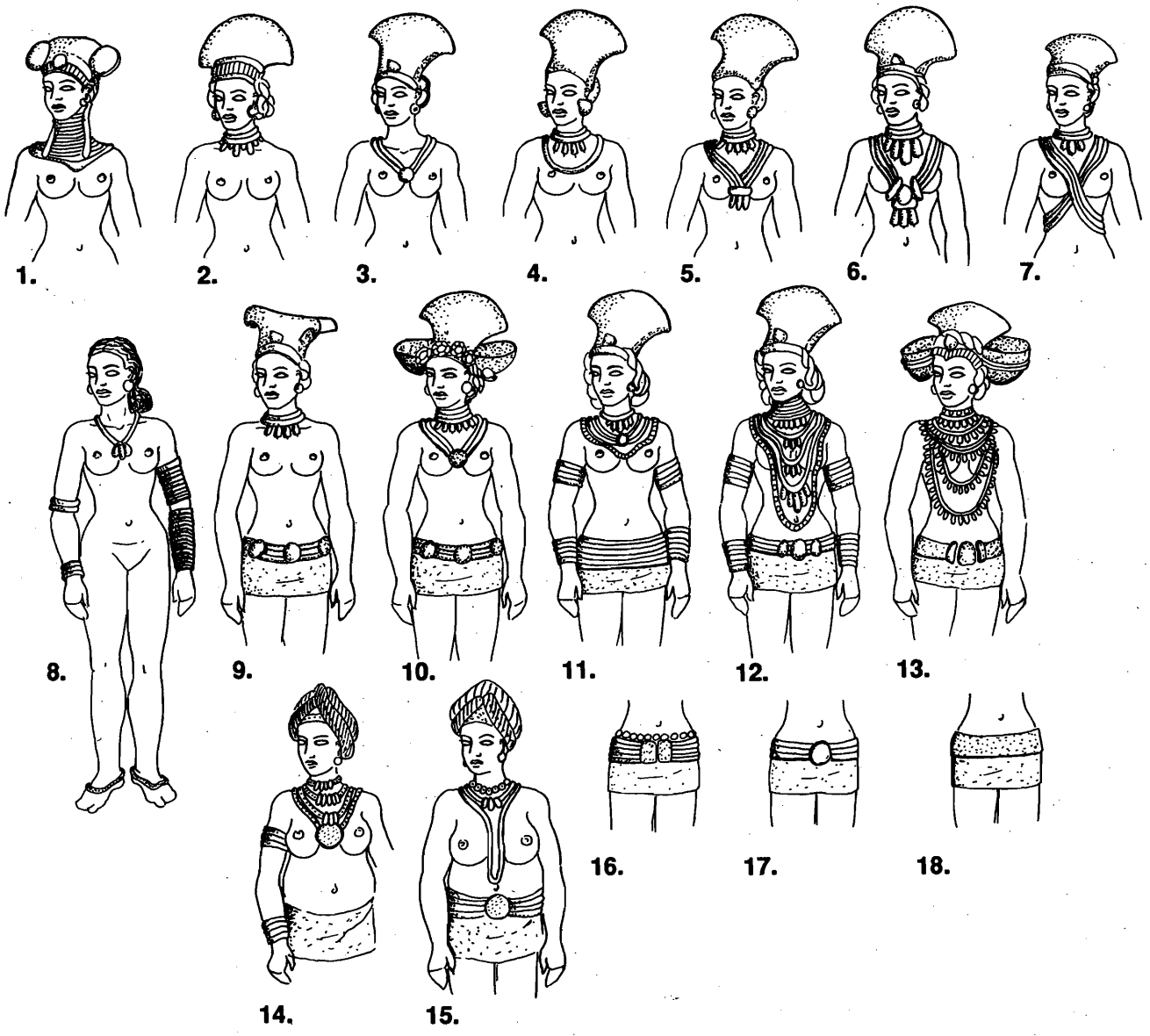

FIG. 7. Harappan Female Ornament Styles.

1. (Mackay, 1938 : Pl. LXXV, 3).
2. (Mackay, 1938 : Pl. LXXXVII, 41).
3. (Mackay, 1938 : Pl. LXXII, 4).
4. (Mackay, 1938 : Pl. LXXV, 1).
5. (Mackay, 1938 : Pl. LXXVII, 58).
6. (Vats, 1940 : LXVII, 35).
7. (Vats, 1940 : unpublished).
8. Necklace and bracelets (Marshall, 1931 : Pl. CXIV, 6), anklets (Mackay, 1938 : Pl. LXIII, 5).
9. (Mackay, 1938 : Pl. LXXVII, 51, 53).
10. (Vats, 1940 : HP 160.3).
11. (Mackay, 1938 : Pl. LXXV, 5).
12. (Marshall, 1931 : Pl. XCIV, 14).
13. Head dress and necklaces (Marshall, 1931 : Pl. XCIV, 1), necklaces and belt (Mackay, 1938 : Pl. LXXV, 17).
14. (Mackay, 1938 : Pl. LXXV, 5).
15. (Mackay, 1938 : Pl. LXXV, 19).
16. (Mackay, 1938 : Pl. LXXII, 5).
17. (Mackay, 1938 : Pl. LXXV, 21).
18. (Mackay, 1938 : Pl. LXXV, 1).

general function of burial ornaments was quite different. Some of these ornaments may have been worn beneath clothing or a shroud and most of the corpses with ornaments were enclosed in coffins as well. This pattern suggests that instead of functioning as displays of social status and wealth, the ornaments were included in the burials for specific ritual purposes, or were highly personalized and could not be transferred to living relatives.

THE ROLE OF HARAPPAN ORNAMENTS

The systematic analysis of raw materials, technology, ornament shape and style of use, provide the necessary background for discussing the role of ornaments in the newly emerging Harappan urban context. During the Early Harappan and Harappan phases we see for the first time in South Asian his-

tory, large populations aggregated in regional urban settlements. It was during this time that the rules defining civic order and interaction were in the process of being refined and codified. In this urban context we see the development of relatively standardized shapes and styles of ornaments that continued to be worn for hundreds of years. As decorative objects that would have been openly displayed, these ornament styles represent a highly efficient form of visual communication and public identification (fig. 6 and 7).

The increased diversity of bangle and bead styles and raw materials during the Harappan phase can be attributed to a need for more outward symbols of identity to differentiate an increasingly diverse urban population. This sort of identification would have been extremely important in order to avoid conflict and confrontation between socially stratified and ethnically diverse populations.

On the other hand the reproduction of identical shapes and styles using different raw materials can be interpreted as the need to reinforce general cultural beliefs or aesthetics. The relative value of the raw materials themselves could serve to reinforce ranking or stratification within the society as a whole.

The examples of bangles and beads presented above show how several varieties of raw materials were used to produce ornaments that had the same basic shape and often the same color. From a distance these ornaments would have been indistinguishable and would communicate similar messages about the wearer. Such ornaments may have served as symbols to express overarching cultural beliefs or aesthetics. Because of the fact that they were made in many different raw materials, these symbols would have been accessible to all members of the society, thereby reinforcing important belief systems and the social order.

Upon close examination however, the discerning eye would be able to distinguish the precise nature of the ornament, its relative value and presumably the economic and socio-ritual of the wearer. The manufacture of similar beads or bangles from different raw materials is not unique to the Indus Civilization, but is seen in all societies where valuable raw materials are not equally accessible to all members of a community. In such contexts, different raw materials can be used to differentiate individuals on the basis of economic, social and ritual affiliations.

Based on the discovery of hoards containing exquisite ornaments of carnelian, turquoise, copper, silver and gold, we can assume that these raw materials were relatively more valuable than the common forms made from steatite and terra-cotta. Furthermore, we can assume that individuals who owned and/or wore these exquisite ornaments would have been ranked relatively high in terms of economic or socio-ritual power. The distinct ranking in ornament styles on the basis of raw material and technology most likely reflects social ranking or even stratification within Harappan society. This ranking or stratification may have applied both to individuals who wore the ornaments, and in a different context, to the artisans who manufactured them.

In other words, an individual wearing numerous carnelian and gold ornaments was undoubtedly of a higher status than an individual wearing similar ornaments made from steatite or terra-cotta. Similarly, the artisans who worked on carnelian and gold may have been ranked higher than the artisans who made red painted terra-cotta imitations. These examples may seem a trifle obvious given the ranking of gold in modern societies, but it is important to point out that the interpretations presented above rely primarily on archaeological patterning and not simple analogies to modern value systems.

There is little doubt that ornaments played a significant role in the reinforcement of the Harappan socio-ritual order, but there must have been some fluctuation over the course of 700 years. Detailed chronological studies of ornament styles are under way and will be extremely important for identifying the role of specific ornaments, both as unifying symbols and ethnic identifiers. A brief discussion of the role of shell bangles and bangles in general will illustrate this point.

The shell bangle appears to have been used as a symbol that expressed an overarching unity as well as sexual and possibly ethnic distinctiveness. Shell bangles with the incised chevron design are found at most settlements of the Harappan phase, and although the symbolic meaning of shell bangles could have differed from region to region or over time, they do represent a shared aesthetic.

On the other hand, the limited quantity of such bangles indicate that they were not available to all members of the community. The recent cemetery excavations at Harappa indicate that this shell bangle style was worn primarily by middle aged adult women and that this use remained quite uniform for several generations, if not longer. Although the width of the shell bangles decreased over time, the continued use of the chevron motif and the uniform manner or wearing them on the left arm, suggests that the women buried with these ornaments came from a stable and well established community. It is not clear when this design of shell bangle became common, but it is reported from Early Harappan sites and continues throughout the Harappan phase (47).

The extensive manufacture and use of other types of bangles in contexts outside of burials is also quite significant and can be interpreted in several ways. It is possible that women who wore shell bangles did not wear other types of bangles, and that the cemeteries represent only a limited segment of the

(47) KENOYER, 1983.

population. Alternatively, if they did wear other types of bangles, these were systematically removed or broken before the women were buried.

The distinctive patterns of shell bangle use and discard suggest that they were more than simply decorative ornaments. In view of the extensive use of other types of bangles it is possible to propose that bangles, as an ornament style, came to be used as important symbols for defining and reinforcing the socio-ritual order during the Harappan phase.

When compared with contemporaneous sites in Mesopotamia and the Gulf, the use of bangle in the Indus region appears to be quite distinctive. It has not been possible to make a detailed comparative study of archaeological materials from Mesopotamia, but the available published materials and personal communications with archaeologists working in Mesopotamia indicate that while bangles were made in a range of materials, the variety and quantity of these ornaments were significantly less than what is seen in the Indus sites.

Furthermore, in direct contrast to the Indus, valuable ornaments, including carnelian, lapis lazuli, copper and gold were often buried with the dead.

The distinct patterns of ornament use established during the first urban development in the Harappan phase undoubtedly had an important effect on later developments in South Asia. Excavations at Early Historic sites throughout South Asia combined with the evidence from early Vedic and Epic literature indicate that bangles continued to play an important role in rituals, sensuality and general social and economic identification.

From infancy, children wear specific types of bangles as amulets for health and to enhance beauty. A young woman wears bangles during courtship, and at marriage these bangles are replaced by different types of bangles to symbolize her changed status. Throughout a woman's life, bangles are worn as ornaments and also to protect and preserve her family's well being. These bangles are removed or broken at the death of her husband, and all valuable ornaments are passed on to subsequent generations. Men often wear bangles for physical protection in battle, for amuletic purposes, for defining status and ethnic affiliation and simply as ornaments.

While the use of bangles can differ from region to region, and definitely fluctuated over time, it is apparent that bangles as an ornament style have an extremely long and meaningful history in South Asia. Furthermore, throughout history, the degree to which bangles have been used as socio-ritual and economic symbols in South Asia appears to be significantly higher than in other adjacent regions.

CONCLUSION

Through these various examples I have tried to demonstrate how a systematic analysis of ornaments can provide important new insights into the character of the earliest urban society in South Asia. The methods used to analyze these ornaments need to be refined and adapted to other objects, and the initial interpretations need to be tested through comparative studies at other Indus sites. Through such studies of the different components of the ancient Indus Tradition it is possible to break through the barriers of understanding that have resulted from the absence of literary documents. As we gradually understand more about the nature of this early urban civilization we can begin to define its relationships to contemporaneous civilizations in West Asia and its contributions to later cultural developments in this region of the world.

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