

GROUP F. MISCELLANEOUS

CLASS XX. (Nos. 119-28)

119. Profile head of ram in low relief, of fossilised ivory. Length 1 in. The relief is admirably carved. It is flat at the back and may have been affixed to a knife-handle or pin-head. Among the Romans a ram's head was an auspicious symbol of hospitality (cf. Dar. et Sag. s.v. 'Hospitum'). For another ram's head carved on a scaraboid seal, see 'Seals and Sealings', ch. 34, no. 11. Both objects come from the Bhir Mound and are referable to the same period. For the ram motif in other objects, see 'Copper and Bronze', ch. 28, nos. 298, 299; 'Seals', ch. 34, no. 10; 'Beads', ch. 37, pp. 737 and 749. The fossilised ivory of which this and no. 122 are made probably came from Siberia, whence the Mughals also obtained their supply of it. Bm. '20-596; sq. 34.27'; stratum II. (Pl. 208, no. 52.)

120. Ivory handle or pendant adorned on either side with a bearded Greek head of the philosopher type, seemingly of Socrates. The carving is good Hellenistic work. Through the middle of the pendant is a vertical hole and, at the back of the heads, two diagonal channels, presumably for metal bands. The two heads are much worn, and this, coupled with the large size of the hole, suggests that the object served as a handle rather than as a pendant. Width 2.12 in. Illustrated in *A.S.R.* (1912), Pl. xx, d. Sk. '12; Trench A 459; from Early Śaka or Greek level beneath forecourt of stūpa-chapel in Block D. Cf. p. 151 *supra*. (Pl. 203, p.)

121. Crude standing figure of a man, in the round—probably a doll. The man wears a long tunic with a band above the waist and a necklace. Through the body from shoulder to shoulder there is a hole for the attachment of movable arms; and another tiny hole from the back to the front of the shoulder, for the same purpose. Height 2.75 in. Bm. '16-324; stratum II. (Pl. 203, o.)

122. Side-piece of dagger-hilt of fossilised ivory (cf. no. 119 *supra*). Two holes for rivets. Length 4.25 in. Bm. '24-515; sq. 26.57'; stratum IV. Cf. p. 122 *supra*. (Pl. 200, a.)

123. Leaf-shaped lid of small box with a depression underneath, contrived to slide over the top of the box. It is 2 in. long and made of ivory. Cf. Flinders Petrie, *op. cit.* Pl. xxvi, 11, a. Sk. '26-2,705; Block F; sq. 91.48'; stratum IV; Śaka period. Cf. pp. 135, 166, n. 1 *supra*. (Pl. 204, x.)

124. Leg of ivory belonging to a piece of furniture. At the bottom is a well-turned base moulding; at the top, a tenon. Length 7.12 in. Sk. '16-10; Main Street; sq. 69.73'; stratum III. (Pl. 204, s.)

125. Bone handle or terminal, with bead-and-reel moulding and square tenon at base. Length 2.62 in. Bm. '21-1,546; sq. 43.127'; stratum II. (Pl. 204, t.)

126. Similar, but broken at top. Length 2.06 in. Sk. '29-600; Block D'; sq. 59.103'; stratum III. Cf. p. 191 *supra*. (Pl. 204, u.)

127. Similar, with pear-shaped head; broken at other end. Length 1.56 in. Sk. '22-491; spoil earth. (Pl. 204, w.)

128. Stopper or terminal of bone. Length 1.25 in. Sk. '13; Trench A 456; stratum II. (Pl. 204, v.)

Chapter 33. SHELL OBJECTS

THE USE of shell for the manufacture of such objects as bangles, dippers and beads, as well as for inlay-work, goes back to a remote antiquity in India. That the industry had reached a high degree of proficiency among the people of the Indus civilisation as early as the beginning of the third millennium B.C., as it did also among the Sumerians and Babylonians, is evident from the many fine specimens of shell-work found among the ruins of Mohenjodaro¹ and Harappā; and that it was widely diffused at that time in other parts of the peninsula is proved by the discovery of shell-cutting centres in the Southern Dekhan, Kāthiāwār and Gujarāt, where fragments of the cut shells have been found in association with flint and stone implements, just as they have been in the Chalcolithic sites on the banks of the Indus.² It seems safe, therefore, to assume that this indigenous industry came down in an unbroken tradition from prehistoric to historic times, and that the methods of manufacture two thousand years ago were much the same as they had been two or three thousand years earlier, and as they still are among the shell-workers who carry on the industry at Dacca and many other places. These methods have been described in detail by James Hornell in *Memoirs of the Asiatic Society of Bengal*, vol. III (1910-14), and summarised in chapter XXVIII of *Mohenjo-daro and the Indus Civilisation*. They need not, therefore, be repeated here. It is to be noted, however, that the industry is nowadays mainly concerned with the manufacture of bangles, as it evidently was at Taxila, and that the shell from which the bangles were then as now usually made was the *śank* or *Xancus pyrum*, formerly known as *Turbinella pyrum*.

Below is given a list (nos. 1-18) of the various kinds of shells which have been found in their natural uncut state at Taxila. With the exception of the two freshwater molluscs (nos. 6, 7) and of the rare scallop shell from the Pacific (no. 1), all are more or less common round the coasts of India. The first in the list is especially interesting as indicating a trade connexion (presumably through Central Asia) between the North-West and the shores of the Pacific as early as the first century of our era. The second, *Xancus pyrum*, is the shell still used in the manufacture of bangles and other objects, and is common on the coasts of Kāthiāwār, South India and Ceylon. Like *X. pyrum*, *Murex (Chicoreus) anguliferus* (no. 3) might also have been used as a trumpet, but did not lend itself to the manufacture of bangles. Of the remaining shells, no. 5 (*Pinctada margaritifera*) is the familiar pearl oyster of the Ceylon and South Indian fisheries. Three others yield mother-of-pearl, viz.: *Arca granosa* (no. 4), *Lamellidens marginalis* (no. 6), and *Parreysia favidens* (no. 7); while four are cowries, used in ancient as in modern times for money,

Shell industry
in prehistoric
times

Methods of
manufacture

Varieties of
natural shells
at Taxila

¹ M.I.C. pp. 32, 171, 173, 195, 478-9, 563-5, 669-71.

² *Ibid.* pp. 670-1.

viz.: *Erosaria turdus* (no. 9), *E. helvola* (no. 10), *E. annulus* (no. 11) and *E. moneta* (no. 12).¹

Character of
objects made
from them

Shell beads

The articles fashioned from shell consisted almost entirely of beads and bangles. Apart from these two categories, the only articles made of shell number no more than half a dozen in all, viz. a portrait head of a man in relief (no. 42), three roundels (nos. 43-5), a rectangular tablet (no. 47) and a dipper (no. 48). Of the beads an exhaustive account is given in Beck's special *Memoir* on the subject,² and it would be superfluous to repeat what he has said there. It may be noted, however, that of the 117 typical specimens examined by Beck, 24 came from the Bhir Mound, 42 from Sirkap, 23 from the Dharmarājikā, 15 from Jaṇḍiāl, and the remaining 13 from the early medieval sites of Sirsukh, Lalchak, the Bhallaṛ Stūpa and Mohṛā Morādu; and taking into consideration the extent of the respective excavations on these sites, we may infer that beads made of shell were specially fashionable during the Maurya period, rather less so during Śaka-Parthian times, and that their popularity had very definitely waned by the early medieval age. In the Maurya period the principal shapes were the square or interlocked bicone, collared barrel, drop- or bud-pendant, cross and *triratna*; in the first century B.C., the button, bell-pendant, double-axe and stepped merlon; in the first century A.D., the tabular bicone, dumb-bell, star, single and double drop-pendant, leaf-shaped pendant and Corinthian capital; and in the fourth to fifth centuries A.D., the wedge-shaped and toggle. The dates of others, notably of the short barrel type and leech type, lie between the first and fifth centuries A.D., but cannot be more accurately determined.

Shell bangles

Shell bangles, like shell beads, seem to have been more popular in Maurya times than later. Out of 130 specimens recovered from the excavations, 39 are from the Bhir Mound, 13 from Sirkap, 28 from the Dharmarājikā, 26 from Jaṇḍiāl, 21 from Mohṛā Morādu, and 3 from Sirsukh. On the other hand, it is noteworthy that out of the 39 from the Bhir Mound only three are carved,³ and that almost all the more ornate examples are of relatively late date (third to fifth centuries A.D.). Not counting the simple incised cross on no. 21, *a-d*, the only carved designs found in the Maurya period are the cable patterns of nos. 27 and 28 and the hooked triangles of no. 22; and the only one from the Śaka-Parthian city in Sirkap (first century A.D.) is the overlapping scale pattern of no. 30. The remaining bangles come from Sirsukh, the Dharmarājikā, Jaṇḍiāl, and Mohṛā Morādu, and are mainly referable to the fourth and fifth centuries A.D. The motifs used in the decoration of these later examples include the file-edge (nos. 23, 24), cable (no. 29), wave (no. 32), beading (no. 33), bead and reel (no. 34), heart and chevron (no. 39), conventionalised bird and bird's head (nos. 36-8, 40), snake head (no. 35), and conch shell (no. 31). In all these examples the design is carved in low relief on the outer face. In another class, of which only one specimen (no. 41) has survived, the design is sunk in the surface, with the intention, no doubt, of filling the depressions with coloured inlay.

¹ The species of *Erosaria* were formerly included in the genus *Cypraea*.

² *Memoirs of the Arch. Survey of India*, no. 65, pp. 19-20 and Pl. VIII.

³ The four specimens ornamented with a simple incised cross are not included.

The best bit of shell-work yet unearthed at Taxila is the small portrait head in low relief (no. 42) which was found in a jar along with a number of coins and other articles referable to the middle of the first century A.D. Among the few other miscellaneous articles included in Class III are four small disks or roundels, which may have served as buttons, and a dipper or ladle, which is unique at Taxila but of a kind that had been common enough among the Indus people two or three thousand years earlier.

Portrait head
and other
miscellaneous
articles

CLASS I. *Uncut shells* (nos. 1-15)

1. Scallop shell of striking size and shape, identified by the Zoological Survey of India as a Japanese species, either *Pecten nobilis* Reeve or *Pecten crassicostatus* Sowerby, most probably the former. The route by which this interesting specimen found its way in the first century A.D. from the shores of the Pacific Ocean to Taxila was no doubt through Central Asia. First century A.D. Sk. '26-2,215/a; sq. 110.52'; stratum II. Cf. p. 168 (11) *supra*. (Pl. 202, g.)

2. *Xancus pyrum* (Linn.).¹ Length 5.62 in. A conch shell used especially in the manufacture of bangles. Bm. '20-1,515; sq. 31.34'; stratum III. (Pl. 202, b.)

3. *Murex (Chicoreus) anguliferus* (Lamk.). Length 7.12 in. Like the preceding example, this fine-looking shell may have served as a trumpet, but did not lend itself to the manufacture of bangles. Second century B.C. Sk. '29-2,711; sq. 46.88'; stratum V. (Pl. 202, d.)

4. *Arca (Anadara) granosa* (Linn.). Length 2.62 in. A mother-of-pearl bivalve. First century B.C. Sk. '19-452; sq. 62.112'; stratum IV. (Pls. 201, no. 29; 202, e.) This species occurs throughout the coastal waters of Arabia, India, Malay Archipelago, Japan, China and Australia.² It probably found its way to Taxila from the coast of Sind.

5. *Pinctada margaritifera* (Linn.).

(a) Sk. '27-560; stratum II. One valve. Diam. 8.31 in. (Pl. 202, c.)

(b) Sk. '933-51; stratum II. Similar; broken; length 5.4 in. (Pl. 202, f.)

(c) Sk. '24-270; sq. 34.48'; stratum II. Similar; length 2.75 in.

This is the pearl-oyster of the Ceylon and Tuticorin Pearl Fisheries, but Col. Sewell tells me that the shells fished at the present time average about 3.0 in. in diameter.

6. *Lamellidens marginalis* (Lamk.). One valve. Diam. 3.87 in. Sk. '22-231; sq. 12.88'; stratum II. Cf. p. 196 *supra*. (Pl. 202, i.)

A fresh-water mollusc widely distributed in the rivers of India, Burma and Ceylon, and valued for its mother-of-pearl. Several specimens of it were found among the prehistoric remains at Mohenjo-daro. (*M.I.C.* II, p. 664.)

7. *Parreysia favidens* (Benson).

(a) Sk. '29-423; sq. 46.87'; stratum III. Length 1.87 in. Cf. p. 193 *supra*. (Pl. 202, j.)

(b) Bm. '30-28; stratum II. Length 1.4 in. (Pl. 202, k.)

Another freshwater mollusc widely distributed throughout Northern India, including the Indus river and Gangetic system. Also said to have been found in East Cachar, Sylhet and the Madras Presidency. Several specimens have been found at Mohenjo-daro. (*M.I.C. ibid.*)

8. *Cypraea arabica* (Linn.). Sk. '29-487; stratum II. Length 2.5 in. (Pl. 202, i.)

A common marine species widely distributed in the Persian Gulf, coasts of India, Ceylon, Burma, New Caledonia and Australia. One specimen was found at Mohenjo-daro. (*M.I.C.* II, p. 665.)

9. *Erosaria turdus* (Lamk.). Bm. '30-43; stratum II. Length 1.45 in. (Pl. 202, n.)

A large cowrie of light purple colour.

¹ Previously known as *Turbinella pyrum* (Linn.).

² *M.I.C.* p. 665.

STRATIGRAPHICAL CHART OF SHELL OBJECTS

Class	Bhir Mound strata				Sirkap strata				Other sites ¹	Class
	IV 5th to 6th century B.C.	III 4th century B.C.	II Maurya	I Surface	VI-V Greek	IV Early Saka	III-II Late Saka- Parthian	I Surface		
I. Uncut shells (nos. 1-15)	—	2	7, b, 9-11, 13	—	3	4	1, 5, a-c, 6, 7, a, 8, 12, 14 30	—	15 from Dh.	I
II. Bangles (nos. 16-41)	—	—	16, 17, 21, a-d, 22, 27, 28	—	—	18	—	—	19, 23, 24, 26, 29, 31-3, 36, 37 from Dh. 20, 38 from Mm. 25, 34, 40 from Ss. 35, 39, 41 from Jl. 43 from Mm. 45 from Dh.	II
III. Miscellaneous objects (nos. 42-50)	—	—	—	50	—	—	42, 44, 46- 9	—	—	III

¹ Dh. = Dharmarājika; Jl. = Jarāial; Mm. = Mohrā Morādu; Ss. = Sirsukh.

TABLE SHOWING DISTRIBUTION OF SHELL OBJECTS IN SIRKAP

Block	Strata VI-V Greek	Stratum IV Early Saka	Strata III-II Saka-Parthian	Stratum I Surface
EAST SIDE OF MAIN STREET				
I	—	—	—	—
A	—	—	—	—
B	—	—	—	—
C	—	—	47	—
D	—	—	5, c, 12	—
E	—	—	—	—
F	—	18	—	—
G	—	—	14	—
H	—	—	1	—
I	—	—	—	—
J	—	—	—	—
K	—	—	—	—
L	—	—	30, 44	—
WEST SIDE OF MAIN STREET				
I'	—	—	6	—
A'	—	—	—	—
B'	—	—	—	—
C'	—	—	—	—
D'	3	—	7, a	—
E'	—	4	42, 49	—
F'	—	—	—	—
G'	—	—	—	—
H'	—	—	—	—
K'	—	—	—	—

Note. Objects found in spoil earth or trial trenches are not included in the above Table.

10. *Erosaria helvola* (Linn.). Bm. '30-882; stratum II. Length, 1.1 in. (Pl. 202, o.)
Smaller than the preceding and of pale colour.
11. *Erosaria* (*Monetaria*) *annulus* (Linn.).
(a) Bm. '30-773; stratum II. Length 0.85 in. (Pl. 202, s.)
(b) Bm. '30-720; stratum II. Length 0.8 in. (Pl. 202, r.)
12. *Erosaria* (*Monetaria*) *moneta* (Linn.).
(a) Sk. '24-1,155; sq. 41.45'; stratum II. Length 0.7 in. (Pl. 202, p.)
(b) Sk. '24-82; sq. 41.51'; stratum II. Length 0.65 in. (Pl. 202, q.)
13. *Oliva irisans* (Lamk.). Bm. '24-267; stratum II. Length 1.2 in. (Pl. 202, m.)
14. *Engina mendicaria* (Linn.). Formerly known as *Pusiosstoma mendicaria* (Linn.). Sk. '13-389; sq. 93.57'; stratum II. Cf. p. 166 *supra*.
15. *Pyrene flava* (Brug.). Dh. '17-51; 2 ft. below surface. Cf. p. 294 *supra*.

CLASS II. *Bangles* (nos. 16-41)Type a. *Plain*.

16. Fragment of shell bangle, with outer face bevelled to sides. Length 2.5 in. Bm. '19-270; sq. 15.11'; stratum II. Cf. p. 109 *supra*. (Pl. 201, no. 4.)
17. Similar. Length 2.62 in. Bm. '21-437; sq. 23.60'; stratum II. Cf. p. 109. (Pl. 201, no. 5.)
18. Similar with plain outer face and ribbed sides. Length 2.5 in. Repaired with two copper rivets at ends. Sk. '14-1,077; sq. 72.65'; stratum IV. Cf. p. 135 *supra*. (Pl. 201, no. 6.)

19. Similar to preceding, with projecting flange on either edge of outer face. Length 2.12 in. For this type of flanged bangle in metal, cf. nos. 7-9 in 'Copper and Bronze', ch. 28. The depression between the flanges may have been intended for enamel. Dh. '16-361; G8; 1 ft. below surface. Cf. p. 294 *supra*. (Pl. 201, no. 8.)

20. Similar to preceding. Two fragments. Length 2 and 2.12 in. respectively. Mm. '15-2; mon.; 4 ft. below surface. Cf. p. 363 (20) *supra*. (Pl. 201, no. 25.)

Type b. Decorated with simple incised designs.

21, a-d. Four shell bangles bevelled on outer face and with a simple cross incised on each. Diam. 2.75 in. Bm. '21-467; sq. 33.12'; stratum II. Cf. p. 109 *supra*. (Pl. 201, no. 1.)

22. Fragment of shell bangle with repeat of hooked triangles incised. Length 1.75 in. Bm. '13-28; stratum II. Cf. p. 109 *supra*. (Pl. 201, no. 17.)

23. Similar, with file-edged outer rim and diamond pattern incised. Length 2.31 in. Dh. '16-726; mon. court A; 16 ft. below surface. Cf. p. 278 *supra*. (Pl. 201, no. 10.)

24. Similar. Length 1.87 in. Dh. '13-1,606; J (west); 2 ft. below surface. Cf. p. 294 *supra*. (Pl. 201, no. 11.)

25. Similar with two rows of alternating lines. Length 1.75 in. Ss. '15-50; Piṇḍorā; 3 ft. below surface. Cf. p. 220 *supra*. (Pl. 201, no. 23.)

26. Three fragments of shell bangle with chequered pattern incised. Length 1.5-2.37 in. Dh. '15-1,402; mon. court A; 10 ft. below surface. Cf. p. 278 *supra*. (Pl. 201, no. 13.)

Type c. Decorated with designs in relief.

27. Fragment of shell bangle with cable pattern in relief. Length 1.25 in. Bm. '21-467; sq. 38.12'; stratum II. Cf. p. 109 *supra*. (Pl. 201, no. 2.)

28. Similar, with cable pattern between borders. Length 2 in. Bm. '19-286; sq. 8.52'; stratum II. Cf. p. 109 *supra*. (Pl. 201, no. 3.)

29. Similar, but bolder modelling. Diam. 2.5 in. Dh. '16-72; T2; 3 ft. below surface. Cf. p. 247 *supra*. (Pl. 201, no. 12.)

30. Similar, with overlapping scale pattern in relief. Length 2.12 in. Fine hatching on both sides. Sk. '14-363; sq. 164.44'; stratum II. Cf. p. 177 *supra*. (Pl. 201, no. 7.)

31. Four fragments of shell bangle, one with conch shell in relief. Length 1.75-2.62 in. Dh. '15-1,557; mon. court A; 8 ft. below surface. Cf. p. 278 *supra*. (Pl. 201, no. 9.)

32. Fragment of shell bangle with crude wave pattern in relief. Length 2.12 in. Dh. '15-1,263; mon. court A; 4 ft. below surface. Cf. p. 278 *supra*. (Pl. 201, no. 14.)

33. Similar, with beading between borders. Length 2.5 in. Dh. '12-49; H; 7 ft. 10 in. below surface. Cf. p. 294 *supra*. (Pl. 201, no. 15.)

34. Similar, with rough bead-and-reel pattern in low relief. Length 2.5 in. Ss. '15-17; Piṇḍorā; 2 ft. below surface. Cf. p. 220 *supra*. (Pl. 201, no. 24.)

35. Similar with head of snake and three projecting bezels with countersunk depressions for inlay. Length 1.87 in. Jl. '12-2; Mound D. Cf. p. 229 *supra*. (Pl. 201, no. 16.)

36. Similar, with repeat of conventionalised bird carved in low relief. Diam. 2.5 in. Dh. '16-72; T2; 3 ft. below surface. Cf. p. 247 *supra*. (Pl. 201, no. 19.)

37. Similar. Length 1.87 in. Dh. '16-198; Q1; 2 ft. below surface. Cf. p. 294 *supra*. (Pl. 201, no. 20.)

38. Similar, with copper clamp joining broken pieces. Length 2.5 in. Mm. '15-2; mon.; 4 ft. below surface. Cf. p. 363 *supra*. (Pl. 201, no. 26.)

39. Similar, with repeat of heart pattern, chevrons and medallion. Traces of red paint. Length 1.62 in. Jl. '12-7; Mound D. Cf. p. 229 *supra*. (Pl. 201, no. 21.)

40. Similar, with repeat of conventionalised bird-head pattern in relief. Length 1.87 in. Ss. '15-38; Piṇḍorā; 6 ft. below surface. Cf. p. 220 *supra*. (Pl. 201, no. 22.)

Type *d*. *Inlaid with coloured stones or paste*. Cf. also no. 35 *supra*.

41. Fragment of shell bangle with 'dot and comma' pattern sunk in outer face for inlay. Length 1.62 in. Jl. '12-258; Mound C; 4 ft. below surface. Cf. p. 224 *supra*. (Pl. 201, no. 18.)

CLASS III. *Miscellaneous objects* (nos. 42-50)

42. Head of man in low relief. Height 1.42 in. He wears a moustache, whiskers and short beard. The eyes are large and wide open; the forehead wrinkled. The head, which is in profile, is a striking bit of work and no doubt a portrait. It was found inside a jar along with a number of other articles. Sk. '19-933/1; sq. 59.114'; stratum II. Cf. *A.S.R.* (1919), Pl. x, 27 and pp. 188-9 *supra*; Deposit E, no. 10. (Pl. 208, no. 51.)

43. Disk or roundel of shell with hole in centre. Diam. 1.25 in. Incised lines round edge on convex side. Mm. '15-207; cell 14; 8 ft. below surface. Cf. p. 363 (34) *supra*. (Pls. 201, no. 27; 202, *h*.)

44. Similar, with decoration of three sunk circles alternating with groups of smaller circles. Sunk beading round former and round edge of disk. Diam. 1.5 in. Sk. '14-321; sq. 163.45'; stratum II. Cf. p. 177 *supra*. (Pl. 203, *w*.)

45. Similar, with four small circles alternating with 'dot and comma' rosettes. Partly broken. Diam. 2.3 in. Dh. '31-17; mon. court A. Cf. p. 278 *supra*. (Pl. 203, *x*.)

46. Natural shell (fam. *pecten*) cut to a circle, with hole in centre. Diam. 4 in. Sk. '27; Trench D 39; stratum II. (Pl. 202, *a*.)

47. Rectangular piece of mother-of-pearl shell (? *Pinctada margaritifera*). Length 2.75 in. Sk. '24-270; sq. 34.48'; stratum II.

48. Dipper or ladle, made from a sank shell. Length 3.12 in. Sk. '29-981; stratum II. (Pl. 201, no. 28.)

49. Necklace consisting of thirty-three beads of mother-of-pearl, roughly fashioned. Each bead is pierced with two holes for threading. Sk. '29-1,241/12; sq. 62.113'; stratum III. Cf. p. 187 (24) *supra*. (Pl. 205, *f*.)

50. Numerous small seed and other pearls of irregular shapes and sizes. Bm. '12-20/11; stratum I. From same hoard as coins and jewellery described in ch. 3 (pp. 110-11). Cf. *A.S.R.* (1912), p. 41. (Pl. 205, *h*.)