

# ANGLING IN ANCIENT INDIA<sup>1</sup>

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*The Director of the Zoological Survey of India has of late been investigating the problems relating to fish in ancient India. One of the aspects that are engaging his attention is the identification of the fish-designs painted on the pottery of the Indus valley and Baluchistan, and the results of his study, still to be published, promise to be interesting and significant. In the present article he deals with the history of angling in India as available from archaeological and literary sources.*

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THE practice of catching fish by means of a baited hook or 'angle' is perhaps among the most ancient of human activities. It not only requires skill on the part of an operator but also implies a great deal of scientific knowledge about the bionomics and behaviour of the game-fish. Prehistoric man in several parts of the world seems to have gathered sufficient knowledge about fish through observation and made use of it in catching fish for food by the use of hook and line. Later on, when large-scale fishing operations through the use of nets became possible and metallic hooks could be used, angling became a pastime for the rich and the poor alike. It is not my intention to trace the evolution of the art of angling on a comprehensive world-wide basis but just to indicate its probable development in India since its earliest records available from the excavations at Mohenjo-daro, Harappā and other sites in the Indus valley of the third and second millennia B.C.

### 1. FISH-HOOKS FROM THE INDUS VALLEY

Sarkar (1953, pp. 133-39) has recently dealt with the fish-hooks excavated in the Indus valley sites and has shown the great similarity of some of them to modern hooks. He has also discussed in a comparative way the use of fish-hooks among the primitive tribes of India and contemporary fish-hooks excavated from other countries of the Middle East and Egypt. He has classified fish-hooks of the Indus valley as follows:—

'The fish-hooks of the Indus valley can be classified into two main types: (1) Barbed and (2) Unbarbed. Specimens of 16 fish-hooks from Mohenjo-daro have been mentioned by Marshall (1931) and Mackay (1938), while the Harappā report includes only 1 specimen. Chanhudaro has yielded 7 specimens including Majumdar's (1934) collection. Of the Mohenjo-daro specimens, all the 16 are barbed, while of the Chanhudaro finds 3 are barbed and 4 are unbarbed. The solitary specimen from Harappā is unbarbed.'

<sup>1</sup>Especially written at the request of Mr. Paolo Bonetti, Chief Editor, 'Scientia' (Revue Internationale de Synthèse Scientifique), Asso (Como, Italie).



On the basis of this analysis, Sarkar is of the opinion that 'The paucity of fish-hooks at Harappā may show that angling was not popular at this place. This may be due to the nature of the two rivers as well, the Ravi and the Indus. The latter was probably a richer source of fishing than the former.'

I have personally worked on the fish and fisheries of the Rāvi at Lahore and can say the fisheries of this river are fairly rich. The paucity of fishing hooks at Harappā cannot, therefore, be ascribed to the scarcity of fish-population in the river.

My studies (not yet published) on the archaeological finds from the Harappā site in relation to fish and fisheries have given the following interesting results:—

- i. The fish painted on the pottery are of the marine type.
- ii. Baskets or traps for catching fish were in use, as a fisherman carrying two such baskets is painted on a potsherd.
- iii. Fishing nets were also in use.

These evidences indicate that marine fishing was the occupation of the Harappā fishermen and that fresh-water fish received little attention. For this reason, while implements for catching fish from the sea seem to have been fairly well-developed at Harappā, angling for fresh-water fish did not find much favour, though an attempt seems to have been made in preparing a primitive type of the unbarbed hook.

In the case of Mohenjo-daro, on the other hand, we have not seen any pottery with fish-drawings; nor are there paintings of any fishing implement. Net-sinkers are known from Mohenjo-daro and Chanhudaro, and a fishing boat on a Mohenjo-daro seal has also been identified. From the fish-bones excavated from kitchen-middens, catfishes of the type of *Wallago*, *Rita* and *Arius* have been recorded and possibly some carp also. These records indicate that the people of Mohenjo-daro had mostly fresh-water fish of the river and of the flood-plains. The fishing boat would indicate that sometimes *Arius* from the neighbouring estuarine or marine waters were also imported. Here we find the perfect development of barbed hooks, some of which are figured here (pl. LXXV).<sup>1</sup> It may also be noted that the hooks were meant for different sizes and varieties of fish.

Chanhudaro is closer to the sea than Mohenjo-daro, and it seems probable that some four to five thousand years ago the Arabian Sea might have extended as far as Hyderabad in Sind. At Chanhudaro, therefore, we find the intermediate stages between the development of a barbed fish-hook from an unbarbed hook.

From the above discussion it would seem probable that the origin and evolution of the art of angling were more closely associated with inland, more particularly impounded, waters and that tidal waters were fished in with nets, traps, baskets, etc. With regard to the fish-hooks from the Indus valley, Sarkar has concluded as follows:—

'It appears from the above facts that the best type of metallic fish-hooks was probably developed at the Indus valley. In fact it attained the best perfection of all the fish-hooks at similar sites in Egypt and Mesopotamia. Their agreement with modern fish-hooks may be the continuity of a culture-trait similar to that found in pottery designs by Mackay (1930).'

## 2. ANGLING IN THE HISTORICAL PERIOD

The Vedic literature shows that fishing by nets was fairly common, but I have not so far come across any reference therein to angling. In the *Rāmāyana* there is a reference to the shooting of fish with bow and arrow (Hora, 1952, p. 64 note), and the use of bow and arrow is also commonly described in the *Mahābhārata*. In the Buddhist works, however,

<sup>1</sup>The photographs of the hooks were kindly supplied by the Director General of Archaeology. For measurements of the hooks see Sarkar (1953, p. 135).



there are references to fishing by nets, there being no reference to angling. Though my enquiry into the extensive Indian literature is not yet complete, I have so far found no evidence of the practice of angling from the period of the Harappā civilization till the beginning of the twelfth century A.D.<sup>1</sup>

After a lapse of nearly three thousand years after the Harappā culture, we come across in the early part of the twelfth century the earliest text known on angling, by the Chālukya king Someśvara, included in his encyclopaedic work *Mānasollāsa* written in A.D. 1127 (Hora, 1951a and b). Someśvara's kingdom comprised the Godāvarī and Krishṇā watersheds and extended to both the western and eastern coasts of India.

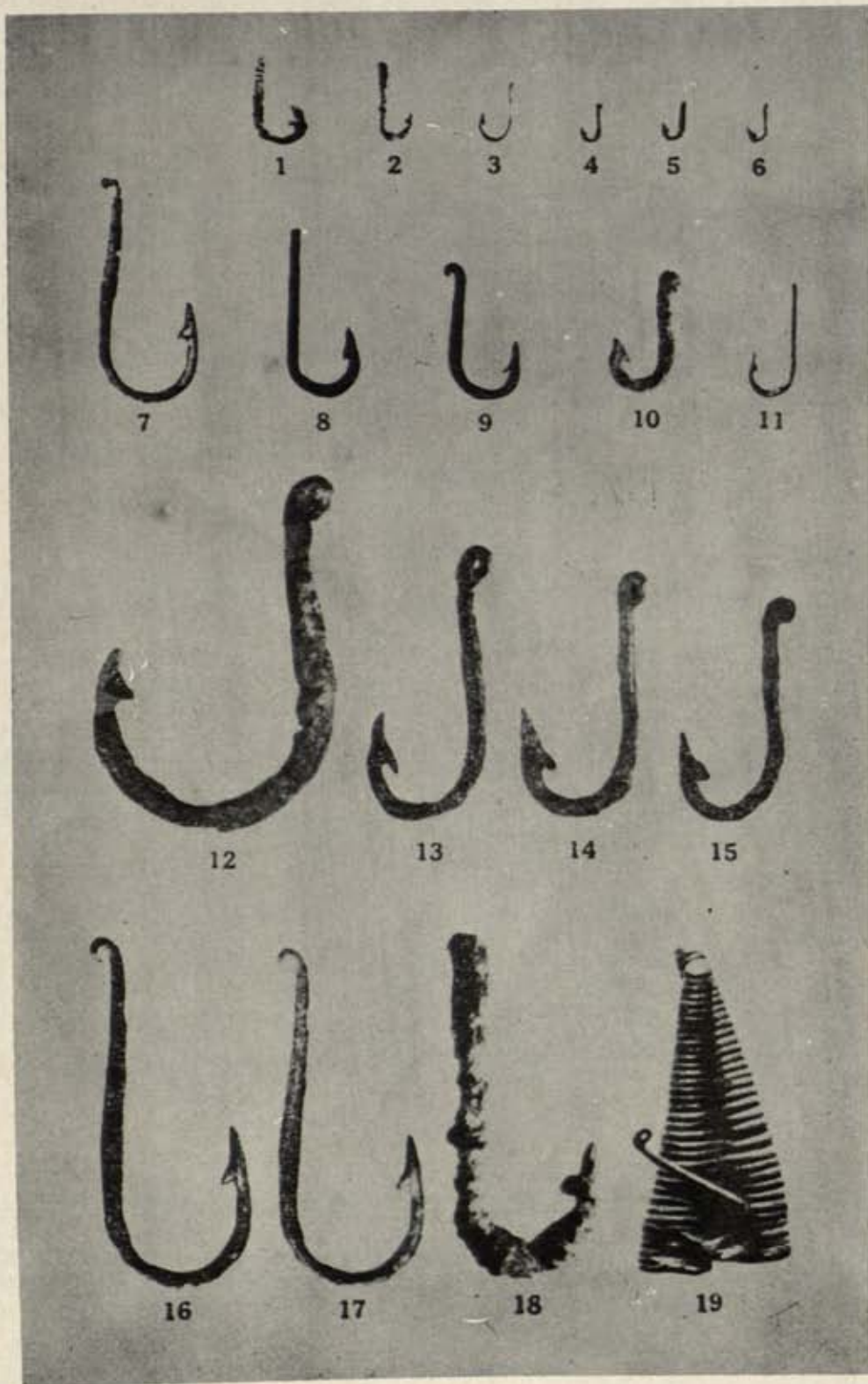
The *Mānasollāsa* is divided into five sections called *prakaraṇas*. The first deals with religious ethics, the second with polity, the third with architecture, painting, iconography, etc., and the fourth and the fifth with various kinds of amusements and recreations along with incidental references to arithmetic, astrology, preparation of calendars, training of horses and elephants, mining, alchemy, etc. In the section on amusements there is a chapter entitled *Matsyavinoda* ('Pastime of Fishing'), which shows how a king can derive pleasure out of angling. As many as thirtyseven species of Indian sporting fish are mentioned, and they are divided into marine, fresh-water and anadromous kinds. They are then further grouped into scaly and scaleless varieties, and each group is still further divided into large, medium and small, according to size. From the etymological meanings of the fish-names and other particulars given in the work about each kind, it has been possible to determine with a fair degree of certainty thirtythree out of thirtyseven species. The fishing tackle is dealt with under three main components, viz. line, rod and hook. Various types of fibres for making a line are suggested and their relative merits discussed. A solid bamboo-shoot or a branch of a mangroove tree is suggested as a suitable material for making a rod; and types of suitable iron hooks are described. For different groups of fish different prescriptions are given for preparing ground-baits, and methods of feeding various species are separately described. Someśvara also gives hints on the actual fishing technique and refers to details of ground-bait, tackle, float, bait, casting the line, fish-bite, striking a fish and playing a fish.

It will thus be seen that in the twelfth century the art of angling was developed in peninsular India to a very high standard, for the methods described by Someśvara are quite in line with those used by anglers in India to-day. It seems rather astonishing that suddenly in the twelfth century we find a work in which the art and practice of angling are so fully and elaborately described. This perplexing riddle can be easily solved if one studies the inscriptions of the old irrigation-tanks in peninsular India (Hora, 1951). The evolutionary sequence of angling in southern India would seem to be as follows.

There are inscriptions of the fifth and sixth centuries A.D., showing that irrigation-tanks were maintained from the revenue derived from paddy-cultivation. In an inscription of the middle of the tenth century there is a mention, for the first time, of a fisherman, but he is assigned the work of supplying wood for the repairs of boats used for the desilting of tanks and is paid for his labour in paddy. A Tamil inscription of A.D. 1112 mentions the revenue derived from fishing for the maintenance of a tank, thus showing that the art of pond-culture and angling had already progressed fairly far when Someśvara composed his *Mānasollāsa*. In the inscriptions from the thirteenth to the sixteenth centuries one finds that fishery-revenue from irrigation-tanks was sufficient for their maintenance. From this historical narrative the revival of the art of sport-fishing can be assigned to the middle of the tenth century so far as southern India is concerned.

<sup>1</sup> It may be noted, however, that the word *baḍiṣa*, 'fish-hook', is common in Sanskrit literature, including the *Mahābhārata*.





*Fish-hooks from Mohenjo-daro: 1-6, 8, 9, 11, 18 and 19, after Mackay; 7, 16 and 17, after Marshall; and 10 and 12-15, after Sarkar (see page 153)*





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It may be worth while to recall here that constructing ponds on farms in the U.S.A. and stocking them with suitable varieties of game-fish have very greatly stimulated angling in recent years. A parallel development in ancient India is thus easy to comprehend. This shows once again that the art of angling probably originated and flourished in the neighbourhood of impounded waters, natural or artificial.

### 3. ANGLING AMONG THE GIPSIES OF EUROPE

The gipsies of Europe, who, as is well-known, use Mongolian, Hindi and other fragments of Asiatic languages, mount the line on the rod as shown by Mr. F. R. Goldschmidt in the accompanying sketch<sup>1</sup> (fig. 1). The practice described in the *Matsyavinoda*, when properly interpreted, would seem to be entirely identical with what has been attributed to them. The question where the gipsies of Europe originally came from is still an unsolved problem. Their language and method of angling seem to lend some support to the hypothesis of their earlier wanderings over India, resulting in the continuity of certain culture-traits.

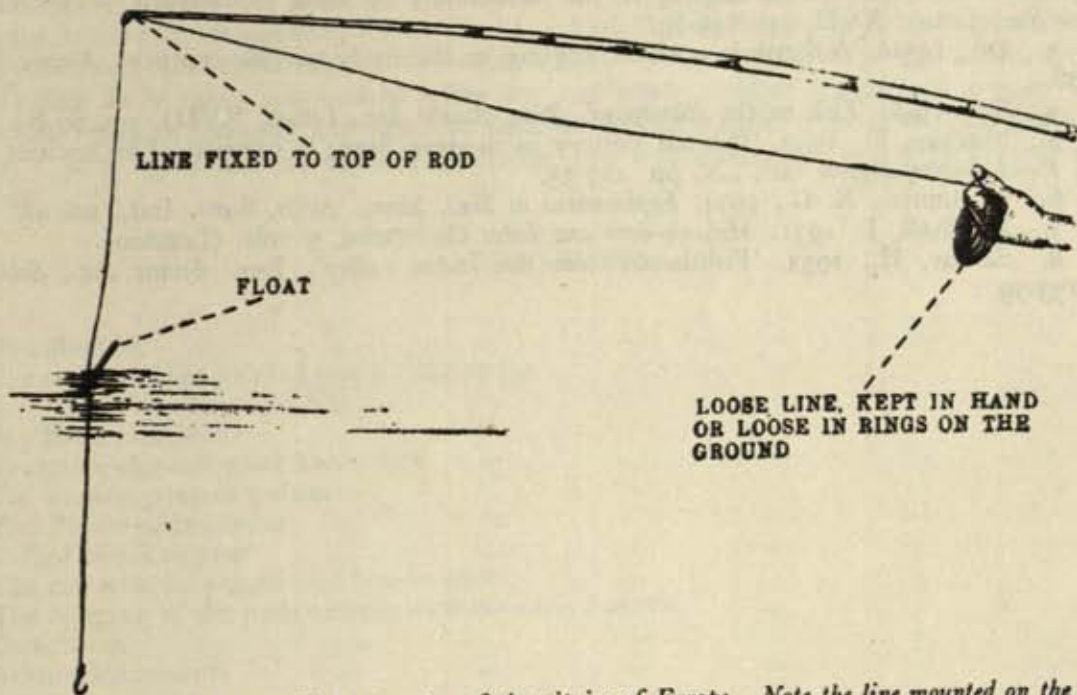


FIG. 1. A sketch of the angling apparatus of the gipsies of Europe. Note the line mounted on the rod

### 4. CONCLUSIONS

The main conclusions that can be drawn from the above account of angling in ancient India are:—

1. The art and practice of angling seems to have attained a high degree of perfection during the Harappā period, though the use of a rod is not indicated by the excavated material.

<sup>1</sup>Supplied by Mr. Goldschmidt, to whom my thanks are due.

2. The origin and development of the art of angling can be more closely associated with fishing from inland, particularly impounded, waters.
3. In the historical period the art and practice of angling declined in India.
4. With the construction of a large number of irrigation-reservoirs in peninsular India during the fifth to the sixteenth centuries, the art of angling was revived, and the earliest work known on the subject was written in A.D. 1127, making a mention of almost all the modern practices.
5. The gipsies of Europe practise angling in the way it is described in Someśvara's *Mānasollāsa*, and this lends additional support to the theory that they may have migrated to Europe from India.

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