

# **BOATS IN THE INDUS DELTA AND ON THE COASTLINE OF SINDH**

DEVELOPMENT IN HISTORICAL PERSPECTIVE

N.A. Baloch



**All rights reserved**

**The paper Presented at the UNESCO Seminar on Silk Road**

**Karachi, Pakistan.**

**27 November – 1 December 1990.**

**Published by,**

**Department of Culture & Tourism,**

**Government of Sindh, Karachi,**

**Pakistan.**

**1990.**

Printed by ELMI printers Karachi.

Composed by Print Link Computers (PVT) Ltd Karachi.PH.547576

The author N.A. Baloch (M.A. L.L.B. Alig., M.A.Ed.D Columbia, N.Y) has served as University Professor and also held administrative posts as Vice Chancellor, and Director/Advisor in national research institutions. He is a member of the International Editorial Committee for UNESCO'S History of Central Asian Civilization.

## **Preface**

Man's conquest of oceans had a humble beginning in his primitive attempts at building wood-grass floats, and crude rafts and boats. The story of man's boat building is of importance in the context of cultural anthropology. It is also one of the most significant features of the River Civilizations.

This brief monograph attempts to tract the development of boat in the Indus delta and on lakes and the coastline of Sindh.

Information has been drawn from oral tradition, field study, and historical and literary sources to throw some light on the subject, which needs further investigation and elaboration.

N. A. Baloch

Hyderabad  
6.5.1990

## **BOATS IN THE INDUS DELTA AND ON LAKES AND THE COASTLINE OF SINDH**

Boats and boatsmen have played an important role in the cultural and commercial life of Sindh (Pakistan) from times immemorial. The pre-historic antiquity of the Sindhian boat is attested by its representations in the Moenjodaro seals.

The rich variety of boat culture in Sindh has been due to its three natural water fronts the river the lakes and the sea. Lengthwise, the mighty Indus has traversed the country in its main course for about six hundred miles, throwing off its deltaic branches periodically. In its large and small channels the Indus has combed the entire middle belt of Sindh, forcing the ancient as well as the modern dweller to learn to live with its waters and vagaries. Boats became the only means to cross the channel, transport grain, food stuff, and survive if at all in periodic floods. The riverian belt abounded in thick forecasts with wood logs, reeds and grass being easily available to make all sorts of floating devices. Changes in the course of the river left plenty of abandoned channels and depressions which developed into lakes. Also rain waters, though scanty, converging from vast catchment areas in the Khirthar mountain range helped to create lakes in the western belt. Of these, the Manchhar (lit. "a pleasing vast expanse of water") became the largest fresh water lake in the subcontinent (once in full inundation having exceeded 200 sq. miles). To the south, there was the sea with a coastline of 175 miles, hundreds of square miles of saline back waters of creeks and abandoned deltaic channels of the Indus.

# I

## THE FIRST BOAT

The urge storing for food once prompted the communities living along the banks of the Indus, on lake sides, and on the seashore, to dare ahead into deeper waters for fishing. But the sea was rough and the currents of the Indus too strong to be negotiated; the lakes were comparatively placid and less deep to venture an entry. Availability of timber and reeds made it easier to improvise floating devices. Of these, the more simple one was the *tan-* (lit. bottom, base, frame, float). It had the bottom base of wooden bars placed side by side, stuffed in between and spread over with heavy layers of thick reeds (mainly *dir*, *kaanh* and *sar*) and framed together with ropes made out of the stems of the *kip* plant, or with *waan* beaten out of the *sar* reed, or with *akkaro* fibre peeled off the stalks of the *akk* plant. The *tarr*, which is often used in some of the isolated ponds and lakes to this day, is reminiscent of that woodreed raft which was made by the Indus communities in ancient times.

The next improved form of *Tarr* was *Turaho*, a son of bigger and better *Tarr*, by which a chance could be taken to cross the river channels. The earliest reference in literature, to *Turaho* occurs in a verse of the sufi poet Qazi Qadan in the 16 century.

He says:

*Prepare your Turaho while the kaanh read is still  
available on bank sides  
A sudden erosion is likely occur any time*

This indicates that *Turaho* was then being made out of the stems of the *kaanb* reed. As such, it was not all safe. *'But by resigning to God', said the sufi poet, 'it is difficult to cross through strong currents with Turaho'. And yet, be urged: 'Better get ready your Turabo in waters shallow, because none will help you in waters deep.*

Both the *tarr* and the *turaho* were roughly square/rectangular in shape, depending upon the length of the wooden bars used in the bottom frame. A boat-shaped float would appear to have been structured by modelling the *turaho* lengthwise and also adding the *pāsā* (raised sides) to it. Later on, when planks were used *to berr* (to floor and close in from opposite sides) the enclosure in between the two *pāsā* (sides) leaving only a *berr* or *lukk* or *pākho* in the centre, the boat in its recognizable shape was created. The *berr* or the *pakho* being its typical feature, the new float was called a *berry* or a *pākharrī*. This then became the generic name for the 'boat', with *tarr* and *pasa* as its basic parts.<sup>2)</sup>

The boats built for lakes, river channels or the sea, differed in shape and structure. Those for lakes were absolutely flat bottomed and shorter in length. Those for the Indus and its main channels were also flat-bottomed but equipped with sails and rudder. Considerably large and strong boats were built for seafaring, each being equipped with more oars and more sails. The coastal craft, however, remained smaller in size. These conclusions are drawn from traditional references as well as from the types of boats which are still in use on the three water fronts.

## II

### Boats Through History

The earliest reference on record to the Sindhian sea boats is of the first decade of the 8<sup>th</sup> century A.D. 13y about 91192 A. II. (709/710 A.D.), the Muslim Arab boats sailing from Ceylon to Iraq were attacked on the Sindh coastline<sup>3</sup> by the Meds of the Nagamarra community. As the then Brahman ruler of Sindh did not respond favourably to Hajjaj's communication to secure and return the captives, an army was sent against him under the command of Muhammad b. Qasim who marched overland while a naval fleet sailing from Basra (?) arrived in time to join him at the port of Daibul. After victory at Daibul, Muhammad b. Qasim sent his fleet inland by the Sakra mouth of the Indus.<sup>(5)</sup> Thus for the first time the Arab boats were introduced into the Indus in 712 A.D. Later on, when Muhammad b. Qasim decided to cross the Indus, his engineers needed large number of boats to construct a boat bridge. These were procured locally by Mokha b. 13asaya an ally of Muhammad b. Qasim. To prevent crossing, Dahar's son jaisiah took position on the opposite bank, having brought his men and material *by* boats through the deltaic channel Goong.<sup>(6)</sup> These accounts show that there were plenty of boats on the Indus and its deltaic channels to become readily available for constructing the bridge. Obviously, there flourished a boat industry in the deltaic region.

A significant advance in boat building was presumably achieved early in the 15<sup>th</sup>/11<sup>th</sup> century, when in view of the increased sea trade, the need was felt for a multipurpose boat that could sail in the costal belt as well as on the Indus, so that merchandise from the ocean going vessels calling at the port could be transported directly into the interior and vice versa. By that time, due to hydrological changes, it was becoming more and more difficult for larger vessels to reach and anchor at the port of Daibul. Therefore, a new type of boat called LAHIRI was constructed. Its typical structure can only be guessed from the shades of literal meaning of "Lahiri", viz. "the wavelike, easy with waves, sailing by the wave, or sailing along the wave<sup>3</sup>. It must have been a light weight vessel with sufficient loading capacity. This lahiri craft sailing on the Indus entered the sea from any of the more safe mouths of the river (depending on periodic changes), and after following the deltaic channel anchored about 12 miles south of Daibul. The Lahiri Anchorage soon became a more convenient port and came to be called "Lahiri Bandar" (the port of the Lahiri boats). Eventually it replaced the declining Daibul and served as the main Sind port for the next six centuries (12<sup>th</sup> through 17 A.D.). Early in the 11<sup>th</sup> century its name had been reported to Beruni as "Loharani"<sup>(7)</sup>, though

actually it was “Lahiri” as it came to be consistently called and referred to in historical record.(8)

The lahiri boat remained in active service up to decline of Lahiri Bandar in the 18<sup>th</sup> century. Its long survival for about eight centuries was due to its utility, both for passenger travel and for transport of goods.

The travel boat must have been modified to provide proper seating arrangement. The references on record indicate that comfort and decoration were its two main features. In the 7<sup>th</sup>/13<sup>th</sup> century, Amir Khusrau Dihlawi made a poetic allusion to the lahira with profuse decoration.(9)

In the 16th century, particularly during the rule of the Tarkhans in Sindh (1555-1591), the lahiri/lahira boats came to be used for transport on the Indus in the interior. There is a specific reference to one official lahira boat having been loaded from Uikhawat (in central Sindh) to sail on the Indus and unload at Thatta.(10) A Lahira being commodious and comfortable boat, one lahira was specially prepared as 'royal boat' for Mirza Muhammad Baqi,(11) the Tarkhan ruler of Thatta (973-993 / 1565-1585).

Thus by the time, the boat building industry particularly in the lower deltaic region of Thatta was highly developed. Contemporary historian Mir Muhammad Tahir has recorded that Mirza Muhammad Baqi had appointed one Muradiya Mallah as his Mir-i-Bahr (Naval Chief) of the Thatta Province, commanding 'thousands' of governmental boats including ghurab, lahira, dunej and doonda as well as the numerous boatsmen who were in regular employ drawing their monthly salaries.(12)

### III

#### Boat Parts and Accessories

The following information on parts and accessories of boats, particularly with reference to those vessels which once sailed inland on the Indus and its deltaic channels as well as outside in the open sea, is drawn from historical and literary sources as well as from on-the-spot-study of the present day boats. The main literary sources used are the poetical works of the three great Sufi poets of 16<sup>th</sup> to 18<sup>th</sup> century: i.e. Verses of Qazi Qadan (13), Miyen Shah Inat (14) and shah-jo-Risalo (The Poetic Compendium of Shah Abdul Latif).(15)

Some of the important parts and accessories are listed below in their long known nomenclature so that the developmental history of boats in Sindh could be gleaned partly through philological perspective.

TARR/TARO (the bottom frame) and PASA (the sides) have already come under reference. PASSUN, the parallaly framed wooden bars (60 or more) in the *tarr* (inside bottom) of the boat. TAKHT (Per.), a boat's planked front platform.

AGEL, the frontage, bow, stem. In two sections in larger boats: the *manjan* or raised platform for keeping beddings etc., and the lower *falka* for seating passengers.

FALKO, (Ar.) the planked floor of the tarr (bottom base).

VANJH, the long pole for rowing/steering the boat on lakes and along the river bank where water is not deep. The name would appear to have been derived from *bans* or *baans* (bamboo) via the arabicised *vanah*. وناه (16)

CHHAJAHARI, the open sided shaderoom in the centre.

MUHRO/MUNNO/MUNARRO, the post affixed in the bow for tying up the pagah.

PAGAH/RASS/CHHERI, the strong rope which is tightened round the muhro and then fastened to a post on the bank for mooring the boat.

OLO, (plu. Ola) the oar/paddle to row the doondi boats, *gunn* being for the large river boat (two gunns, one on each side of the bow, caJled *dubri* and *kanelo*).

OLI, (plu. oliyun), the smaller oar for a smaller boat.

HALISO, (plu. Hālisā) the small paddle to row the small horri boat.

CHAPPO, the smaller oar.

SUKHANN, (Ar. *sukan*), rudder or helm .

VEENNO, rudder, helm (of the river boat).

KHUHO, mast of the sea boat.

SHIKHLO, mast of the river boat.

PARMANN, (in sea vessels) and AAD (in river boats), the long timber bar across the mast which holds sails.

SIRRH, (Ar. *shira*), the sail. The large sea boats having four sails: The *REEP/QALMI* (in the front), The *SIRRH* (the largest sail in the middle), The *GABIYO*, (high on top of the sirrh), and The *JEEB* (behind the sirrh).

LAJU, ropes/strings of sails.

BADWAN, (Per.), sail of a large vessel/ship.

NATARI, a smaller anchor, grapnel (for smaller boats).

NANGAR/LANGAR, the heavy anchor (for sea vessels; compare Ar. *anjar*, plu. *anājar*).

BAIRAQ, (plur. bairaqun), ship's flag, banner, streamer. In the river boat, a bunch of banners tied at the end of the *aad*.

WAN'UTI, (plur. wan'utiyun), smaller flags on mast tops.

BANBUTO, (plur. banbuta), two main flags, the one (national flag) on top of the mast, and the other to determine the direction of wind.

GHAND, the bell.

MARWAL, the long coloured ribbon tied up on the mast top.

DHAGO, the special ribbon indicating the identity of owner of the sea vessel.

RASSA, A number of ropes for different functions such as: tali, jalibi, lakara, bhandara, matela, choat (all these pertain to mast); marak, dāmann, potthi, chhabāeen, dandarr, mundho, waddh or ghayr, chhikyun (for tying up sails to the aad), sallo (for raising the aad), tarani, hanjhun, verrha etc.)

## IV

### Types of Boats

The brief account given below centres mainly on the generic name of the Sindhian boat, boats for lakes and river channels, the boats linking the river and the sea, and the sea vessels.

#### The Generic Name

As already observed, *berri* and *pakhirri* became the generic names for boats and, as such, were applied to all sorts of boats on lakes, river and the sea. Shah Inayat and Shah Latif have both called the sea boat as *berri*, while the other name *pākharri* is used (in plu.) by Shah Latif:

*'The sea is hitting bard the sides (pasa)  
of the pakharri'.*

The smaller size *berri/pākharri* came to be assigned a feminine gender, with plural as *berriyun/pākhariyun*. The large size boat was referred to in the masculine gender as *berro*, with plural as *berra*. The latter also signified a fleet or an armada. At an early period, this Sindhian word *berra* became current not only in some of the Indian languages (wherein, being a borrowed word, neither its original root *berr* nor its singular *berra* exist), but was also arabicised as *bairaja/bāraja*.<sup>(17)</sup> As the Sindhian *berra* were large size vessels (the smaller being the *berri*), so were the *bairaja/bāraja* in the Arab navigation and the *barge/burque/bark* in the European navel craft. The one basic feature of the original model continued to be retained: the smaller Sindhian *berri* as well as the large size *berra* were both flat-bottomed, and so also the European *barge* (a flat-bottomed freight boat for canals and rivers with or without sail – The Oxford Dictionary).

#### Types of Boats

**TARAZ.** Referred to seven times by Shah Ināyat and Shah Latif in 17/18 century, the *taraz* (plu. *tarāzun*) would appear to have been a light freight vessel though it was used in long commercial sea voyages. It, however, needed constant vigil, and hence the captain (*nakhua*) was urged both by Shah Inayat and Shah Latif 'to navigate it safely with all care and caution.'

The *tan-ad* (plu. *tarārid*) vessels which Ibn Majid had met off the coastline of Orissa (India) during the latter half of the 15<sup>th</sup> century A.D.(18) could have been the Sindhian *Tarāz* boats negotiating the Indian coastline in their eastern commercial voyages.

**ZAURAQ.** The present day 'zauraq' is typical in its structure with a high semi-circular curvature both on the side of the prow and the bow. It is one of the large type of boats on the Indus, and also the main freight vessel plying northward from Sukkur to Multan. It is longer in size but less in breadth than other large boats on the Indus. In earlier times, the zauraq boats sailed all along the Indus including its deltaic channels in the south. For instance, in the 16<sup>th</sup> century, a small zauraq boat became readily available to the ruler of Thatta, Mirza Muhammad Baqi (973-991 A.D), after his royal boat *Lahira* was attacked and set on fire.(19) Later, Mirza Ghazibeg, the ruler of Thatta, had also taken a small zauraq as his royal transport.(20) Originally, zauraq was an Arab boat as it is mentioned by this very name by Muqaddisi (21) in the 10<sup>th</sup> century A.D. It was most probably introduced into the Indus waterways during the Arab rule in Sindh (8<sup>th</sup> – 10<sup>th</sup> century A.D.) and, eventually, it became popular with local boatmen in northern Sindh and Multan, where it has continued to survive as a freight boat to this day.

**DOONDI.** It was essentially a river boat. Presently the 'small Kauntal' on the Indus is called 'Doondi' (for 'kauntal', see below). In the 16<sup>th</sup> century, the small zauraq was also being called doondi in the Thatta region.(22) The name 'doondi' has survived, but now it is indifferently/figuratively applied to any boat. It is no more applied to a zauraq in the Thatta region.

**DONGI/DUNGI.** It is mentioned thrice by Shah Latif (18<sup>th</sup> century), and his allusions to it indicate that it was a sea going cargo vessel and it was of indigenous make (the wooden beams in the bottom having been set and struck together with *soonhann*, bamboo pegs). As a sea trade boat, it became known outside on the Indian/ Arabian coastlines and its name 'Dongi/Dungi' was reflected in the early Arab 'Duneg' boat (see below), the Indian 'Dinghy', and the Omānian 'Dingiya'.(23) (Nowadays, the Sindhian *Wānn/Rāchhann* sea vessels are referred to as Dongi/Dungi by the boatmen of the river).

**DUNEG.** Both *bairaja* and *duneg* are mentioned by Muqaddisi in 985 A.D (24), while *duneg* is also mentioned by Buzurg b.Shaharyar (circa 930 - 947 A.D). Like the *bairaja*, *duneg* was also an arabicized name, and most probably 'dongi' was arabicized as 'duneg'.(25) This happened at an early date so that later on 'duneg' also came to be used in Sindh. The author of

Tarikh-i-Tahiri completed in 1030/1621 names *duneg* (instead of *dongi*) among the main types of boats which were then being used in the deltaic Thatta region (see below).

**MAKURI.** The one smaller in size was known (in fern. gender) as *makuri* (pl. *makuriyun*) while the bigger one was called *makuro* (in mas. gender, plu. *makura*). Up to the 17<sup>th</sup>/18<sup>th</sup> century, the *makuri/makuro* boats were in large number, and are more frequently mentioned by Shah Inayat and Shah Latif. The correct name of the boat was probably *Makhri* which was later Sindhised as *makri/makuri*. Drived from Arabic *makhar/makhr*, the Sindhian *makuri* meant a type of boat that would cut through the water or cleave the waves. With this meaning implicit in the name, it would appear that it was a new type of sea vessel with curved keeled bottom, and an angular stem and frontage. The possibility of its prototype being an Arab boat cannot be ruled out.

**JAHAZ.** This was a large size sea vessel, a ship of Arab origin. These ships frequented the Sindh ports from early times. The author of *Tarikh-i-Tahiri* confirms these vessels of ocean (*Jehaz-i-darya-i-kalan*) calling at the Sindh port of Lahiri Bandar, but anchoring off the port in deeper waters.(26) *Jahaz*, as an ocean going vessel, later finds reference in the poetry of Shah Inayat and Shah Latif. Both of them have also mentioned *Jung Jahaz* which, literally translated, would mean a very large ship. Shah Latif further elaborates its description as *Jāddā Jung Jahāz* wherein *jadda* being the adjective (huge and strong), *Jung jahaz* could be the name of a specific type of ship, meaning either the large Arab ships (*Marakib Kabira*) or possibly the Chinese 'Junk Ships'. The Sufi poet Qazi Qadan has alluded to *Jungyun*, the fern, plural of *Jungi*, meaning a large and strong boat.

**GHURAB.** As the name would indicate, it was originally an Arab vessel which was later used on the Sindh coastline as well as in the inland Indus water ways. As recorded by the author of *Tarikh-i-Tahiri* thousands of boats including the *Ghurab*, *Lahira*, *Dunej* and the *Doondi* were then officially employed on the Indus and its deltaic channels.(27) The *ghurabs* were also used for transport from the sea port into the interior. There was a standing arrangement so that the bigger Sindhian vessels were piloted to the port area but the foreign ships were not brought inside. The latter stood anchored away from the port in deeper waters from where merchandise was unloaded into *ghurabs* which then came to the port and also sailed into the interior through the mouth of the Indus.(28) This practice of the *ghurab* piloting and escorting the bigger *jahaz* vessels is also alluded to later on by Shah Latif in his verse:

***"Oh (the big) Jahaz! Move ahead  
and get going with the (smaller ghurabs)"***

In those later times, ghurab was a modest boat of smaller size because Shah Latif refers to it as "ghurab of the poor" (*gbaribo gburab*).

**ROOBAN.** A smaller boat which in later times was used as a pilot boat. The ship would anchor in sea at the head of a nar/naar/khadi (a natural deeper channel in the sea bed leading to the coast) from where Rooban would pilot it (through the channel) to the port. This same function was performed by the ghurab in the 16<sup>th</sup>/17<sup>th</sup> century. In the 14<sup>th</sup> century (1350 A.D.), Ibn Battuta mentions the local captains and pilots of the Red Sea called Rubban. 29 On the Sindh coast also, rooban (rubban) originally meant a coastal pilot, but later on the pilot boat and the customs boat came to be called roobān.

## **BOATS IN LATER TIMES**

### **(19<sup>th</sup> CENTURY)**

After a period of decline, the boat industry as well as transport and trade by river and sea received a fresh impetus during the Talpur rule by the turn of the 18<sup>th</sup> century. Some details are to be found in the intelligence reports by two officers of the British Indian Navy, Lt. T.G. Carless (1837) and Lt. Wood (1838).<sup>(30)</sup>

#### **1. The Boat Building Industry**

The boats upon the Indus are of simple construction, and their figure is, perhaps, the best that could be given, considering the kind of navigation in which they are employed. They are easily constructed, not very expensive, and for stowage of cargo no form could be better devised. Their proportions, though not elegant, are pleasing; and tracking or under sail, their appearance is pretty. The employment of the Indus craft is confined to harvesting the crops, serving the ferries, and keeping large towns in fuel; for these purposes the supply is ample. (J.Wood).

**Boat Building Materials.** Boats are constructed according to established usage, which has fixed a certain proportion between the beam and length of each boat. The tonnage is calculated on the boat's bottom from the point where the stem and stern rise, the angle at which it takes place is matter of state: a high projecting stern improves the steerage, and a low bow gives speed. The banks of the Indus are deficient in almost every article used in constructing the boats on the river. Lower Sindh is supplied with plank and spars from the Malabar Coast, and with coir and cordage from the same quarter. The ameer of Hyderabad is, however, the chief, almost the sole purchaser. The Sindhi Mohana, unable to give the high price asked by Kutch boatmen for teak plank, exhibits both skill and ingenuity in building boats with timber of their own country's growth. For this the orchard is robbed, and the country for miles round laid under contribution. In the bottom of a single boat, teak, baire, fir, babool, and the kureel tree are sometimes seen together, and in the same extent of workmanship six hundred and seventy three patches have been counted.

**Form and Method of Construction.** The hull, or body of the boat, is formed by the junction of three detached pieces, namely two sides and a bottom, at variance with our ideas of naval architecture: the three parts are first separately completed, and then brought together, as a

cabinet-maker does the sides of a box. The junction is thus effected: when each of the three parts that are to form the whole is complete in itself, the sides are carried to the bottom of the boat, and at once secured, by crooked pieces of timber, to the flat future bottom of the doondee. To bring the bow and stern up to the corresponding parts of the sides is more difficult, and to affect this many days are necessary. Where the bow and the stern are to rise, the planks are lubricated with a certain composition, which gives them a tendency to curve upwards, and this is further increased by the application of force. The extremes thus risen, a tackle is stretched between them and by a constant application of the heating mixture, and a daily pull on the purchase, they rise to the required angle, and are secured to the side, while an advantageous curve is imparted by this process to the planks in the boat's bottom. The bow of the doondee is a broad inclined plane, making an angle of about 20° with the surface of the water. The stern is of the same figure, but subtends double the angle.

**Rig of the Boats.** The masts are poised upon strong beams resting athwart the gunwates: moving on this fulcrum, their management is easy, and the masts can be lowered down or placed upright at pleasure. The sail is hoisted behind, in preference to before the mast, for several reasons; the principle of which is, that as the boat sails only with a favourable wind, it is never necessary to brace or haul upon the yard, and fewer hands suffice to manage the boat.

## **2. Variety of Boats**

The main type of boats on the Indus during the thirties of the 19<sup>th</sup> century such as Doondi Zohruk Doonda, the Cowtell, and Jumtee Jhamti have come under observation in the accounts of Lt. Carless and Lt. Wood, but not much has been said by them about the coastline craft. Wood did, find the large sea-going vessels at Vikkur port (Vikkur Bandar, near Ghorra Bari) and referred to them as 'dinghees' without specifying whether these were the 'Indian dinghies'. As Sindhian vessels, these could be the Wadātaniyun which find reference a century earlier in the 18<sup>th</sup> century in Shah Latif's verse (the large strong boats which 'also get sunk while negotiating strong ocean currents'). Of the boats on the Indus, the 'queen' of them was jhamti, the royal boat of the Talpur Amirs, which had taken the place of the earlier royal boat Lahira. Given below is the description of the different types of boats on the Indus from the accounts of Carless and Wood.

**DOONDI.** The doondi is the cargo boat of Sindh, her principal and almost her sole employment being the transport of grain. Doondee as flat bottomed boat, is well adapted to the navigation of the river, and there is no kind of vessel better calculated for the transport of

goods. Many of the largest are eighty feet long, and sixty tons burthen: they have no keel, and both the bow and stern, which are perfectly flat, rise from the water at an angle of about thirty degrees. They are very high abaft, where there is a small deck, and are generally steered with a long curved oar. The boatmen are very expert in handling it, and frequently propel the doondee with it alone. These vessels have also a broad, triangular shaped rudder, which, as there is no stern-post, is hung over the slanting stern, and moved by ropes on each side. The masts are stepped on a plank, secured at each end to the gunwale, and are supported entirely by topes. The after sail is square, and very large, the foresail of a lateen shape; and, in order to give them greater power, they are usually hoisted abaft the mast. When laden, these vessels do not draw more than four feet. The Chief defect in their construction is the small power possessed by the rudder, which arises from the great breadth of the stern above the water-line. This might easily be remedied, but any great deviation from the general principle on which they are constructed would not be an improvement. From the scarcity of large trees, and the high price of teak plank, the workmen are obliged to use the small wood of the country in building their boats, and most of them are formed of innumerable pieces, fastened by bamboo pegs, nails being only employed to secure the knees and ribs.

**COWTELL.** This again, is the ferry boat of Sindh: her construction adapts her for this service, and for conveying horses up and down the river. From her great beam and high draught of water she is a faster boat than the doondee. In all their excursions on the river, the Ameers are accompanied by many boats of this description. The class is not numerous, and most of the boats are the property of Government.

**DOONDA.** It is common from the sea to Mittun\*, and the boat most generally used in the fisheries both upon the river and its dunds (small lakes). It is the smallest description of vessel upon the Indus and at the same time one of the most useful.

\*Mitthan Kot beyond Upper Sindh

Two men are ample to its management, but a man and wife are the usual crew.

**ZOHRAK.** What the Doondee is in Sindh the Zohruk (Zauraq) is upon the Upper Indus, namely the common cargo-boat of the country. The planks of this vessel are held together by clamps instead of nails, and the junction is often neatly enough executed. This class of boats is not so strong as the doondee, but they sail faster, and draw less water. They are more roomy

than the doondee, and, though less adapted for the conveyance of goods, are much superior for transporting troops. (J. Wood).

**JHAMTEE.** The jamtees, or state barges of the Ameers, are of the same form as the other flat-bottomed boats, Mitthan Kot beyond Upper Sindh and some of them are large and commodious. I saw one with four masts that measured ninety feet in length, and the natives told me there was another at- Hyderabad twenty feet longer. These vessels are constructed entirely of teak brought from the Malabar Coast, and are much better built than any other description of boat on the Indus. They have generally two large open cabins, or rather pavilions, on deck, elaborately craved all over, and furnished on all sides with silk curtains: the foremost one, being considered the post of honour, is always occupied by the Ameers; and that aft which is the largest, is devoted to the use of the chiefs and followers in attendance. In going down the river against the wind, they are impelled by four or six oars, each of them so large as to require five men to pull it; and on those occasions they are always gaily decorated with flags and streamers innumerable. (Lt. Carless).

The Jumptee is the state barge of the Sindh Ameers, and is used by them and their principal officers on all occasions, whether of business or pleasure. Perhaps the appearance of this boat, as she approaches the capital, is more characteristic of the Indus and of Sindh than aught else to be seen in the country. On this day her meerbar puts on clean clothes, and the national cap, received from the Ameers in a recent river excursion:

the bright hues of the cap, formed of the gaudiest coloured chintz, vie with those of a Kilmarnock bonnet, or a Paisley tartan. The crew are dressed becoming the occasion, and as they bend to the track-raps, the breeze distends their ample robes, and further character of stateliness is imparted to the jumptee. Large red flags wave over her stern, and from the raking masts streams along party-coloured pennant, that anon skims the water as the breeze lulls and freshens. In the bow of the boat is a small crimson pavilion, in which royalty reclines, and in the other extreme of the vessel a roomy cabin of elaborately carved work for its numerous attendants. The steersman, on an elevated platform, stands out in bold relief, and, while he guides the boat, encourages the trackers. The jumptee's crew are a noisy set, but, for aged men, wonderfully good-humoured: they are divided into two gangs, or watches, and are as partial to a cup of good bang\* as sailors are to grog. These boats are decked, and of considerable tonnage. One which I saw at Hyderabad, measured 120 feet over all with a beam of eighteen and a half feet; her draft of water was two feet six inches; she pulled six oars, and had a crew of thirty men. They are built of Malabar teak, chiefly at the ports of Mughribee\*\*

and Kurachee. Jumpteas are seldom lost; the only danger to which they are liable is that of having their bottom pierced by sunken reefs. Their more substantial build keeps the frame of the boat together in situations where the poor placed-shell of a doondee would fall asunder. (Lt. Wood).

\*Bhang, Indian hemp.

\*\* Mughulbhin, the present Jati.

## VI

### BOATS TODAY

#### **The River Boats.**

The following types of boats continue to sail and serve on the Indus today.

KAUNTAL. The present day large type boat on the Indus, usually referred to as 'Sindhi berri' (the sindhian boat).

BAGHOCHAA'N, PINDOCHANN, DAGO. The three main varieties of the zauraq which now ply mainly north of Sukkur.

QALMI. The large type transport boat on the Indus. Possibly it came to be called 'Qalmi' when one more small sail (known as qalmi) was added to it.

PATARI BERRI. A 'Sindhi berri', with its sides raised by adding a double patari plus chawnk.

LASSI BERRI. A 'Sindhi berri' without its sides raised like the patari.

KAUNTI. The boat with angular bow and stern.

KATAR. A small Kaunti used mainly for hunting. The semblance of this Sindhian name with 'Cutter' would seem to be accidental.

KAUNTIO AND HURRIO. To seat one person, mainly for carrying message, or for hunting.

#### **The Sea vessels.**

WAANN. The large size freight vessel with masts and sails were once used to sail from Karachi to the Indian ports on the south and to the Iranian/Arabian ports to the north. These commercial voyages, particularly to the Indian coastline as far as Bombay, were cut off after 1947.

JATI. A large size sea boat used by the Jatt (Baloch) seamen of the south eastern Thatta region.

RACHHANN. The large size fishing boat, convenient enough for laying the nets (rachh).

BATIELO. A small boat of which the main body is the same as that of the zauraq, but its front and back are straight (not curved as of the Zauraq). Possibly, it was originally a small boat of Arab origin which was so named because of its prow's semblance to duck (*batt*).

HORRI/HORRO. The smaller horri (in fern. gender) and the bigger horro (in mas. gender), were used to transport men and material from shallow coastline to the large Machhuo vessel anchored at a distance. Presently, horro (in small and large size) is a multi - purpose sea vessel used for fishing and transport.

MACHHUO. A larger transport boat with masts and sails, plying closer to the coastline.

### **Boat Bulding Industry**

All the boats which are still in use, either on the Indus or in the coastal belt, are built by traditional methods and techniques by craftsmen and carpenters from amongst the local boatmen themselves. The large river boats are constructed in Sukkur, while the smaller ones are made at Radhan, Talti and Bhanote in middle Sindh. Sea boats of all type are built on the Karachi coastline, mainly at Ibrahim Hyderi. The horro, of a large size with a deep keeled bottom, costs Rs. 400,000 or more. Up to the first quarter of the 20th century, sagwan or saag (teak) timber was used to build all marine craft as well as larger river boats. Presently, dayal or pine timber is used in constructing the main bottom-frame and the side walls, while the local babool (*Arabia acacia*) and "talhi/tari" timber is used in constructing the upper sections. The khuho (mast) and the aad (the sail holder beam of the river boat) are taken from the 'lohirro' tree. Everywhere, the carpenters and workmen engaged in boat building are from the local communities of boatmen themselves.

## VII IN RETROSPECT

Presence of the three natural water fronts – the Indus channels the Jakes and the sea – prompted the development of floats and boats in Sindh from early times. The antiquity of the Sindhian generic name berri/berra for boat as well as evidence of the presence of a large number of boats in the Indus channels in the 8<sup>th</sup> century A.D., confirm the existence of boat building tradition in the Indus Delta prior to the 8<sup>th</sup> century A.D.

The Arab boats were introduced into the Indus channels for the first time in 712 A.D. From 8<sup>th</sup> to 10<sup>th</sup> century A.D., Sindh remained a part of the Umayyid and the Abbasid caliphates, and during this period boat craft and navigational knowledge in Sindh were much influenced by the Arab/Persian system. This is confirmed by oral tradition and written record as well as by the varied terminology, which indicate the existence of an early 'Sindhian boat building base' assimilating Arab/Persian influence in later times.

With the advent of Islam, the Arab and the Persian mariners and merchants, having been integrated into Islamic community, had sailed from the Arabian/Persian ports and opened up the ocean highways and byway along the East African coastline, the Arabian and the Sindhian/Indian coastlines, and further on the South – Eastern and the Far Eastern shores as far as China and Korea. In effect, an Islamic Maritime Civilization was created in the eastern seas which continued to flourish until the belligerent intervention of the Portuguese in the 16th century. Sindh, like all other eastern littoral lands, was fully involved in the inter-Asian maritime trade during this period. Earlier the Arab/Persian mu'allims and nākhudās had been the pioneer navigators and guides, but eventually, beginning possibly from the 10<sup>th</sup>/11<sup>th</sup> century A.D., sea men and sailors from Sindh and Balochistan coast as well as from the Gujarat and the Konkan coastline in South India became partners in the great enterprise. Mainly, the Chulian Muslim navigators in the South and the Sindhian *malums* (sic.) and *nakhu'as* (sic.) in the north, initiated independent commercial ventures extending to the coastlines of Malaysia, Indonesia and the Far East.

Not much written record is available, but the long commercial tradition of Sindhian sailors and merchants stands epitomised in Sindhi vocabulary and literature. In particular, the classical Sufi poetry of Qazi Qadan (d. 959/1551), Shah Inayatullah (d.1133/1721) and Shah

Abdul Latif (d. 1165/1752) contains numerous allusions which reveal that the Sindhian merchants and mariners used to frequent the ports of Hormuz, Basra and Aden on one side, and those of India, Sumatra, Jawa and Far Eastern shores on the other.

Despite all odds during the long period of colonial domination (19/20 century), the indigenous boat-building industry both on the Indus and on the coastline has survived. Its further decline can be arrested by increasing its economic utility in the context of modern development.

## FOOTNOTES

1. Literally, *berr* is a hollow enclosed by the two adjoining boughs of a tree, while *pakho* is a wellcut hollow/hole in a solid frame, such as the 'needle's eye'.
2. Referring to the unproductive life-span of an individual as 'a worn out boat', Shah Latif says:

*Water is leaking in through the numerous boles  
in its (bottom) and also from its (sides).*

3. Baladhuri in Futuh al-Buldan (chapter on 'Conquest of Sindh') mentions them as Meds (De Goeje's ed., p.40) while in Fathnama-i-Sind (ed. N.A. Baloch, Islamabad, 1983, p.64) they are further identified as "Nakāmara" (i.e. Nangāmarrā). The community is still known by this name).
4. Fathnama-i-Sind, ibid, text p.85 and annotations p. 74.
5. Ibid, text, pp.117-118.
6. Ibid, text, p.110.
7. Al-Bayruni: Kitab rna li at-Hind, Arabic text, ed. by E. Sachau, p.102; the English version Alberuni's India, pp.205-206.
8. Cf.(i) Tarikh-i-Sind of Mir Ma'sum (composed in 1600 A.D.), Persian text, ed. U. M. Daudpota, Poona, 1938, pp.6, 132 & 256. (ii) Tarikh-i-Tahiri (1621 A.D.), ed. N. A. Baloch, Hyderabad Sindh, 1964, pp. 73 112, 133, 155, 202 (Lahiri/Lahori). (iii) Tuhfat al-Kiram (1767-8 A.D.), ed. H. Rashidi, Hyderabad Sindh, 1971, pp. 136 162, 164, 178, etc. etc. (see Index).
9. His following two verses with allusion to the Lahira are in his Nuh Spihr (ed. by Mohammad Wahid Mirza, Oxford University Press, 1950, pp. 59-60):

لاهره آراسته تختي چو روم      مجلس بارو محل خلق و حرم  
محترمان لاهرها کرده روان      ميوهء خوش در نظر و مايه خوان

Though Amir Khusrau made this allusion in his poetic description of the royal forces crossing the Nerbada river, at the back of his mind was the Lahira of the Indus. He had stayed in Multan for five years (678-683 A. H.), and there is evidence to show that he had known enough of Sindh. In one of his ghazal poems, he also mentioned the city of Thatta as under:

سرو چو تو در آچه و در تنه نباشد  
کل مثل رخ خوب تو البته ت نباشد

He composed his Nuh Spihr in 718 A. H., much later after his stay in Multan, and could recall his own experience of Lahira on the Indus though he was producing a poetic description of the royal crossing on the Nerbada.

10. Cf. Idraki Beglari, Beglarnama, Persian text, ed. N. A. Baloch, Hyderabad Sindh, 1980, p. 187.

11. Ibid, pp. 106, 110 113, 115, 119. Also, Tarikh-i-Tahiri, op. cit., pp. 128, 130.

12. Tarikh-i-Tahiri, op. cit., p. 130.

13. 'The Verses of Qazi Qaden in the Light of New Research' being a review by N. A. Baloch, Quarterly MEHRAN (1978/iv & 1979/i), Sindhi Adabi Board, Hyderabad, Sindh.

14. Miyen Shah Inat jo Kalam (a Poetry of Shah Inayat) The text, ed. N. A. Baloch, Sindhi Adabi Board, Hyderabad Sindh, 1963.

15. Shah-jo-Risalo (Poetic compendium of Shah Abdul Latif). The text, Vol. II (under prmt), ed. N. A. Baloch, Sindhi Adabi Board, Hyderabad Sindh.

16. The words of Indic origin ending in a *ha* (ہ) were usually arabicised by changing the *ha* into a *jim*.

Examples:

اهلیج —————> هلیله  
آملج —————> آمله  
فودنج —————> پودنه  
انبج —————> انبه

Accordingly, ونه was further arabicized as ونج (vanaj), of which the Sindhian reminiscent vanjh has survived.

17. With the ending *ha* changed as *ja* (ft. note 16 above), بیرہ was arabicised as بیرجه (bairaja) which later on became current as بارجه (baraja). Muqaddisi, an early authority to have

carefully recorded the names of the different types of boats, has mentioned the arabicized form *بیرجه* (cf. Ahsan al-Taqasim fi Ma'rifat al-Aqalim, De Goege's ed. 1906, pp, 31-32).

18. Unless these "tarrāds" were Arabian boats, there is a strong possibility of their being the Sindhian "tarāz" boats sailing along the Indian coastline on their commercial voyages to South-East Asia. Tibbetts has observed that "they may be local boats, but if they are Arabs, they must certainly be long distance ocean going ships although obviously of a smaller size" (Tibbetts, G.R: Arab Navigation in the Indian Ocean Before the Comming of the Portugues, London, 1971, p. 47).

19. Tarikh-i-Tahiri, op.cit., pp. 128-129.

20. Ibid., p. 236.

21. Ahsan al-Taqasim, op. cit,pp.31-32.

22. Tarikh-i-Tahiri, op. cit., pp. 1 29-237.

23. Tibbett's view that the Omani dingiya was taken from the Anglo-Indian dinghy (Arab Navigation, op.cit., p. 48) needs further corroboration. One may see a semblance in the Maldevian dhoni as well.

24. Ahsan al-Taqasim, op. cit., pp. 31-32, and Kitab Ajaib al-Hind, Lyden, 1883-86.

25. Tarikh-i-Tahiri, op. cit., p.130.

26. Ibid., p. 112.

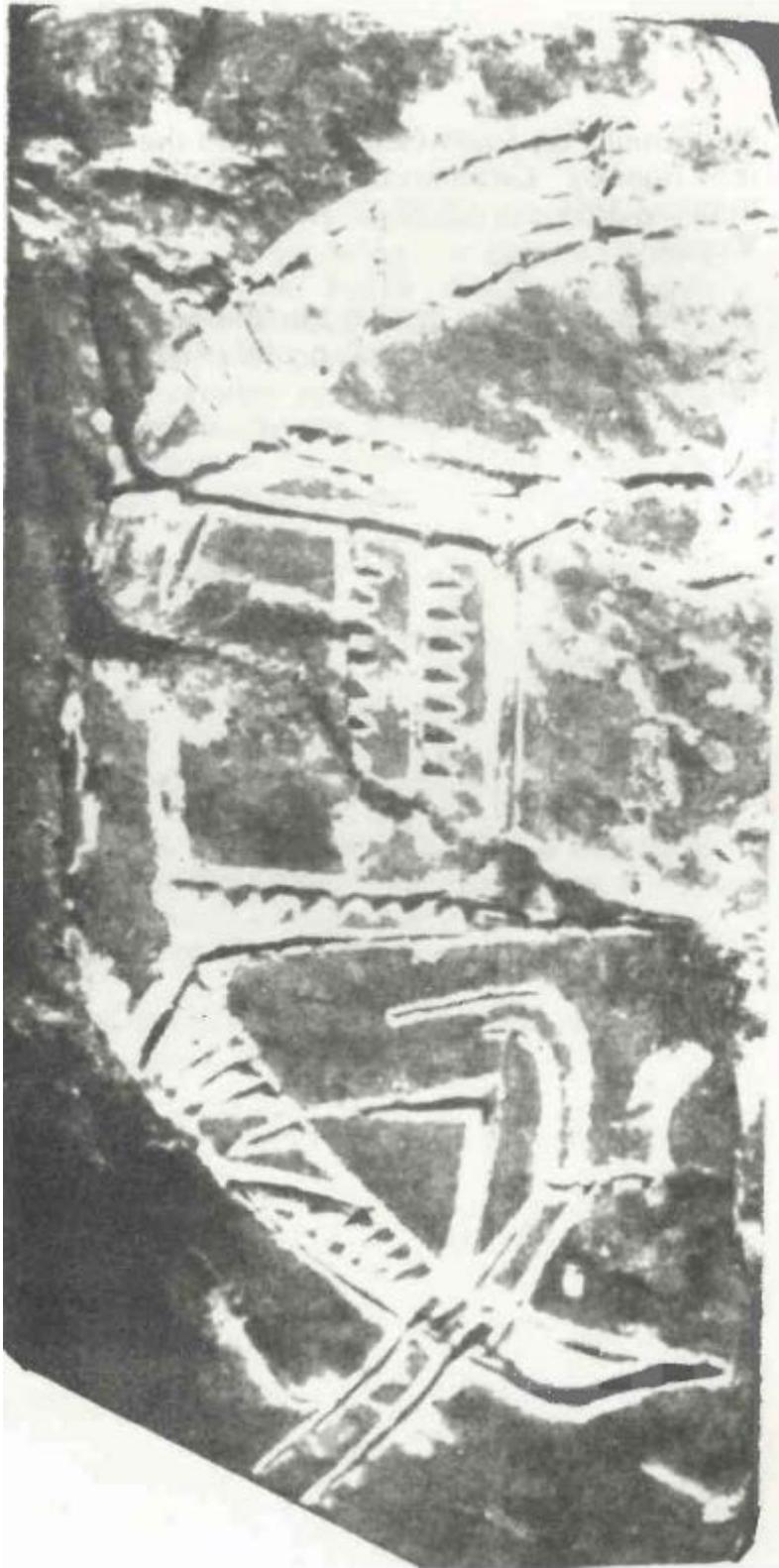
27. Ibid., p. 130.

28. Ibid., p. 112-113.

29. Cf. Tibbetts, Ibid, pp.3, 7, 60, 259 & 274.

30. Memoirs on Sindh (Selections from the Records of the Bombay Government, No. XVII-New Series), Bombay, 1855. pp. 488-89 (Lt. Carless) & pp. 557-59 (Lt. Wood).

31. Tibbetts mentions Battil as a double ended boat now used in pearl diving in Persian Gulf (Arab Navigation, op. cit. p. 48).



The Ancient SINDHIAN BOAT in the Indus Seal



**THE ZAURAQ ON THE INDUS**  
Transporting Fuel from the riverian forests.



**THE HORRA UNDER CONSTRUCTION (Ibrahim Hyderi, Karachi)**  
The Keel is being Set.



THE HORRA UNDER CONSTRUCTION (Ibrahim Hyderi, Karachi)  
Setting the inside bottom beams.



THE FISHING HORRAS (Karachi)  
Fishermen with their daily catch.