

# **OCEANOGRAPHIC ARCHAEOLOGY IT'S POTENTIAL IN PAKISTAN.**

**BY  
M.H. PANHWAR**

THE National Institute of Oceanography, Pakistan has recently started a new wing called 'OCEANOGRAPHIC ARCHAEOLOGY'. The author of this paper suggests numerous measures for giving an impetus to the new body of archaeologists. M.H. Panhwar is basically a thinker who thinks for contributing any thing that he may to his country and his people and subsequently to humanity at large.

M.H. Panhwar's calculation that sea is holding a greater treasure of human heritage – intact – than the soil. Archaeological relics all over the earth have to survive the onslaughts of weather, human endeavor to build to build more and more new structures demolishing the old ones and bringing more and more land under cultivation. The factors named slowly encroaching upon the Cultural Heritage of Man. As against this what ever has sunken down into the sea remains there in fit condition for many reasons. Corals and other sea life deposit various secretions over the surfaces of the relics and to a number of materials sea water serves as a preservative rather than deteriorating element.

The theory of 'Continental Drifts' then also the one of 'Folding of the Earth Surface' and yet another theory of great upheaval that humanity has possibility that many an ancient civilizations' heritage is lying over the sea-beds. ATLANTIS, who knows, is a reality.

M.H. Panhwar has not suggested that we go in a big-way for under-water archaeological explorations. His suggestions are such as to take measures that will primarily serve as Oceanographic Archaeology and Surveys from this angle of the Pakistani sea-beds. Certainly, Indus Valley since time immemorial has invited invaders from far and wide through all routes viz. over-land and over seas. It is beyond reasonable doubt that the invaders or even traders vessels might have sunk for various reasons. Some of the vessels would have gone down to the bottom owing to poor craftsmanship; some have possibly sunk because they could not take the weather and some, of course, due to enemy actions.

At the THIRD SOUTH ASIAN, CONGRESS ON ARCHAEOLOGY the Maldivian Delegate, Mr. Hassan Ahmed Maniku, has spoken at length of various 'ocean

areas' that must be explored. The discourse by Mr. Maniku helps underscoring the suggestions that M.H. Panhwar has so painstakingly put forward.

'THE ARCHAEOLOGY' takes this liberty to suggest to the Department of Archaeology, Government of Pakistan, that a team be delegated to the National Institute of Oceanography's newly established wing viz. OCEANOGRAPHIC ARCHAEOLOGY.

**Editor.**

There existed continuous flow of traffic between sea-ports of the Gulf which has a rich deposit of relics washed down into it by Euphrates and Tigris, and the sea-ports on the north-western ports of the South-Asia. This seaborne traffic has been going on since time quite ancient.

The suggestion entails Under-water Photographic Recording of the Sea-beds as far as legal conditions allow us to operate. For this it is suggested that UNDERWATER VIDEO CAMERA be made available to Survey Team and Underwater Explorers. The Video-Camera will record any object, structure and etc., visible over the sea bed. This would be supplemented by a magneto meter. These will surpass all activities that may be made by divers or sonar's.

Submerged vessels may have been laden with so much of over-burden (technically speaking) that identification of the vessel and its cargo may be very difficult. The risk of breaking the deposit over the original surface cannot be taken because it may damage the object itself. So, need for sophisticated instruments are indispensable. Such instruments as have electronic-eyes to see thru the deposit of coral crusts, algae, marine micro botanical life etc., should be provided to the explorers.

Besides the underwater exploration work, it is also suggested that Oceanographic Archaeology should study the coastline and areas beyond coastline over the land in view of the fact that sea has been receding as well as covering again what we call land. What today looks as barren land was not long ago sea-bed and like-wise what we see as sea that might have been some valley.

Therefore it is suggested also that the under mentioned areas be explored with a definite bias for Oceanographic Archaeological Potential and in all probabilities the results will not be disappointing.

The sites for proposed explorations are enumerated below:-

1. **STONE SITE – MILE 101 – NATIONAL HIGHWAY:** There is a Stone Age Tools and Implements Industry on a hill top at mile 101 (164 kilometers) on National Highway. It has a good proportion of finishing tools among the piles. It is also thought that sea was quite close to this site around 6000 years ago. (Author's estimation needs confirmation by Dating Device which is now accessible to most archaeologists and museums. – Editor) This was a warm period in the Middle Holocene, which culminated between 6000 to 4000 years ago and there was abundance of marine fauna. This site needs examination for the types of fishing tool, as well as remains of marine animal bones, which even the workers may have been eating.
  
2. **STEREOSCOPIC PHOTOGRAPHY:** The archaeological sites and abandoned settlements are difficult to locate along sub-aqueous delta as well as parts of abandoned deltaic plains due to problems of approach to the sites. Both areas have been aerially photographed in 1953 and later. Stereo-photographs too are available with Survey of Pakistan. It would quite a task to purchase of powerful stereo-photography equipment. It will equip the explorers to examine the aerial photographs of the areas. Stereoscope can easily distinguish objects as small as brick pieces and debris. Comparison of 1953 and present photographs can also reveal other semi-archaeological materials.

At present photographs of the suggested type are available with the Pakistan navy. However, we shall need two types of photographs are of two types to carry out our studies. These are:

- a) From 20,000 feet high.
- b) From 5,000 feet high.

Both of these photographs (taken from specified heights) have to be stereoscopic photographs. The photographs taken now and those of 1953 can easily reveal:

- Abandonment of river channels cracks etc.
- Abandoned mangroves.
- Abandoned settlements.
- Abandoned land routes and pathways.
- Intrusion of sea over the coastal land.

3. **FOUNDATIONS OF BANBHORE:** The archaeological site of Banbhore has its foundations under the sea-water. As per news released by Oceanography in the DAWN dated 19<sup>th</sup> August, 1988, sea level is rising by

about 7.8 cm a century. If rising of sea level was uniform, it would be about 6 feet since Alexander's time (324 BC). The riddle is, therefore, partly solved, but sea level rise may not have been uniform and this is another study needing to be under-taken. It is, therefore, suggested that Oceanographic Archaeological Committee may be renamed as Oceanographic Anthropological Society to widen its scope of activities.

4. **SEA LEVEL CHANGES:** This should be a special. The Holocene Period (10,000 ago to present age) should be studied in details, to give idea of advancement of sea inland and vice versa. It would reflect on establishment of settlements on new land or abandonment of settlements on such land as is affected by advancing of the sea. Since slopes within 50 miles of sea are only 3 inches to a mile closer to sea one inch to a mile, it should mean large area would be affected by minor changes.
5. **COASTAL, SEDIMENT STRATIFICATION:** This is possible by taking out soil cores, examining pollen within strata and dating them. An interesting history of man's activities can be developed thereby.
6. **OLD CHANNELS AND CREEKS:** Aerial and stereo aerial photographs supplemented by Land sat can help development of old river courses and creeks and would distinguish between the ones, especially by use of filters. It is also possible to develop complete history of the Indus by use of 5 and 6 above.
7. **MARINE LIFE AND HUMANS:** A close relation between the two can be established by anthropological studies, as an study of bone remains from abandoned settlements, however small.
8. **ADVANCING AND RETRACTING MANGROVES:** Aerial photography of deltaic area taken over past 36 years (1953) would project a correct picture and reflect on abandoning or establishing new settlements, both of interest to archaeology.
9. **SIWALIK RIVER:** The Siwalik River is understood to have flowed through the area. The ancient Indus Delta was northwest of Kashmore near Bugti Hills. The Indus has its old bed submerged under several feet of Thar sands. The history of Delta of the river demands study at least through the Pleistocene period. (As reported by the Editors of COURIER – Al-Biruni number, Al-Biruni always maintained that the South-Asia was formed much the presence of pebbles even in the areas where neither did a river pass nor was it near sea proved that many rivers deposited their silt to form what today is the South-Asia. The Editors of BHARAT BANI,

particularly Hayatullah Ansari have dug themselves in a position quite in opposition that standpoint which Al-Biruni had adopted. However, Al-Biruni's statement does not hold good when we find 'granite' quarries in the southern India. But somehow Panhwar seems to be indicating that we may accept Al-Biruni's Theory of Land Reforms in the South-Asia. – (Editor).

10. **HAKRA/SARSUTI/DIRSHADRATI SYSTEM:** This river had its delta near Umerkot, Nara and Khipro Talukas during early 1.9 – 0.9 million years ago and late Pleistocene - 0.9 million years. Only during Holocene period it took more recent courses through Sukkur districts. The deltas of this river with sea need to be studied.
11. **EVOLUTION OF SINDH COAST:** Study of the Evolution of Sindh coast can put forth new light on man's activities which affected formation of Delta.
12. **SEASONAL CIRCULATION PATTERN OF SEA WATER AND INFLUENCE ON MAN'S ACTIVITIES ALONG SINDH COAST:** This can be anthropological-cum-archaeological study. It can include fishing methods and finishing gears.
13. **MAN'S ACTIVITIES IN THE HILLS AROUND KARACHI:** 9,500 years ago to 5000 years ago according to Prof. Rauf of Karachi University, Department of Geography has located 250 microlithic sites around Karachi within about 30 to 40 miles. They all have a large number of sea shells on surface. Such occurrence of sea shells is mysterious and needs to be verified. Was sea level close to these sites then? (Isirat Hussain holds a view that there was, perhaps, stagnant water near the coastline or the sea itself was there where as he thinks molten 'Java' got deposited – killing the marine life and pushing the sea waters southwards. Gizri stone has profusion of sea-shells in it. But, this theory needs reexamination in as much as we find marine life entrapped within the rocks found in the northern part of Pakistan. Pink Marble of Noshera is a vivid example. Mulla Ghuri marble also shows a great amount of marine life in various manifest at showing its presence. Geologically Pakistan needs greater study right from the tip in the north to the coast line in the south. – Editor.)
14. **DELTAIC SOILS AND THEIR USE BY MAN:** It is possible within a limit to find out use of deltaic soils by man, through study of pollen.

15. **SONAR FOR DELTAIC STUDY:** Sonar could be used for study of the Indus channels under the sea, in the close vicinity of present delta.
16. **SEARCH OF ANCIENT PORTS:** This has been discussed at length. There definitely were primitive anchorages or sea ports. The demands of human migration called for such spots where they could set their foot on.
17. **MANGROVES:** 1.0 million acres of land are disappearing owing to lack of water and excessive latent saline moisture. The result is arable land turning into mangroves through out such areas of Sindh as in the proximity of the river or the canal system. These mangroves earlier provided timber, fire-wood, fodder, leaves of in turn providing organic fertilizer and also food for shrimps and lobsters etc. This phenomenon can be markedly observed in Kotri and nearby. Now Shrimps and Lobsters catch is on the decrease. **MANY VILLAGES ARE ABANDONED** and it is estimated that one million people are affected. (Will the present habitations become archaeological sites in a period shorter than is needed for anything to be declared as such? --- Editor.)

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**NOTE:** it is reported that in the preceding century a ship with invaluable cargo of precious metals, gems, Gandahara arts etc., was sunk within Pakistan waters as they are now. The reporters further say that a party of some foreign salvaging experts was called and upon its arrival was lodged in a hotel. However, nothing was let known to any agency or to the national press about what this team of experts had discovered whereas it is known that the team had salvaged a considerable amount of cargo.

We request the agencies involved in the 'operation' to please let us have full details with regard to the cargo that was salvaged and its ultimate disposal. From every angle the cargo was national property and should have been handed to the authorities with a proper inventory having been drawn. We feel this inventory is available with some one. We shall find it worthwhile to publish this inventory and full story on the salvaging operation.

Will someone head to what we say?

Editor.

WHY ARCHAEOLOGY.....

Any thing which exists scientifically has to have a beginning. Archaeology deals with the beginning of Mar, His struggle for survival in the course of which Mar learned to innovate the things. Archaeology answers unanswerable.

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