DISCUSSION

A NEW ARCHAEOLOGICAL FIND IN THE GULF OF CAMBAY, GUJARAT

R.V. Karanth, Department of Geology, M.S. University of Baroda, Vadodara - 390 002, comments:

The authors deserve to be congratulated for the discovery of the new archaeological find in the Gulf of Cambay, Gujarat (Kathiroli et al. 2002). However, there are a few aspects which need to be clarified:

1. It is improper to correlate the E-W alignment of palaeochannels with the direction of course of Tapi river on the eastern side of the Gulf with that of the Satrunji river on the west. If the course of Tapi river is taken as the continuation of Satrunji river channel in the west, Kalubhar river could likely be the western extension of Narmada river and Ghelo Nadi/Keri Nadi be taken as western extension of Mahi river and so on. Is it desirable to take such a correlation of E-W extension of river systems? Whether the river systems on either side of a rift are correlatable with such ease?

2. The broken barrel shaped bead (Fig.10) measures 13 mm in length, 6 mm in width with a 4 mm hole, which leaves its wall to be as thin as 1 mm. It is amazing that such a bead was made from a material like chert some eight millenniums ago. These beads need to be properly identified and thoroughly studied.

3. The rise and fall of sea level in the Late Pleistocene and early Holocene has been discussed by Nigam and Hashimi (2002) in response to Gupta's note (2002). A fall of ~40 m in ~9500 BP that stabilized for around 1000 years has been suggested by Nigam and Hashimi (op. cit.) which coincides with the likely existence of the present discovery.


We are thankful to Prof. R.V. Karanth for his valuable comments on our paper (Kathiroli et al. 2002). The clarifications sought by Prof. Karanth are as follows:

1. Correlation of E-W alignments of palaeochannels of the Tapi on the eastern side of the Gulf of Cambay with that of Satrunji river on the west is at present hypothetical and future work on sediment cores, which are being systematically collected all along the possible alignment will throw additional light on the validity or otherwise of our hypothesis.

2. The broken barrel shaped bead on chert is one of the most interesting finds from our collection so far. Making beads from hard stones like chert certainly requires an appropriate technology, especially a method of drilling. The earliest report of double tipped diamond drills used on hardstones is from Hazar-ar-Rayhani, Yemen, dated to around seventh to fifth century BC (Peter Francis, 2002). In the Indian sub-continent beads on chert/chalcedony materials were first produced at Mergarh (now in Pakistan) around 6000 BC (Jarrige et al. 1995).

In the light of evidence in Yemen and Mergarh and our discovery of a broken bead on chert, dated to around 6000 BC, a new line of research in bead technology and trade is warranted.

We are aware of difficulties involved in interpreting perforations in sandstone. It is not easy to separate anthropogenic factors from natural ones in this case. Our attempt in resolving this problem by using optical
microscopy with 100x magnification is only a
beginning; further detailed investigations are in
progress.
3. We are thankful to Prof. Karanth for bringing to our
notice a very useful note on sea level changes and
human settlements in the Gulf of Cambay by Drs.
Nigam and Hashim of NIO, Goa. Their expert views
on sea level changes and archaeological settlements
around 8000 BP will be taken into consideration in
our future work in the Gulf of Cambay.

Lastly, our paper is a preliminary report on the
archaeological finds discovered in the sea bed at a
depth of 30-40 m below the present sea level. We have
succeeded in generating interest of archaeologists,
geologists, geochronologists and other natural scientists
in India and abroad. Our next two years of multi-
disciplinary and multi-institutional studies are expected to
contribute in a significant way to marine archaeological
research in India and the antiquity of our pre-historical
records.

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BOOK REVIEW

SGAT BULLETIN, (v.3, no.1, 2001), Journal of the Society of Geoscientists and Allied
Technologists, C 73 HIG, Baramunda Housing Colony, Bhubaneswar - 751 003

The Society of Geoscientists and Allied Technologists, Bhubaneswar, has come into existence since 1980 and
for the last three years has been publishing the journal entitled 'SGAT Bulletin'. Research papers, review articles,
short communications, announcements and letters to the editor are invited on topics of geosciences, mineral
exploration, mining, materials science, metallurgy, mineral industry and trade, environment, education, R&D, legislation
and infrastructure related to mining, mineral policy and mineral development planning.

The journal under review is the third volume of the Society (v.3, no.1, 2001). It is a volume containing about
84 pages and encompasses four research papers, two review papers taking up about 60 pages and 25 pages are
devoted to several news items. Though the journal has

been started with good intentions of quick publication of the
research findings in the related fields, it needs to be
improved to a great extent. The cover page outlay and colour
could have been more subtle to attract the readers.

The reviewer has not gone into the scientific contents of the
journal as it is beyond the purview, yet there is a feeling
that the scientific standard of papers has to be evaluated
and scrutinized more stringently, so that material of high
standard only is published. It is felt that there is no need of
tabulated columns of analysis and other raw data and only
the highlights can be listed and summarised. The quality of
the illustrations like geological maps, photographs etc.
although appear acceptable, yet there is ample scope for
improvement. A lower font size, a double column printing
and avoiding unnecessary data sheets will definitely