## THE ARCHAEO+MALACOLOGY GROUP NEWSLETTER Issue Number 14, December 2008

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## Conus arenatus aequipunctatus at Tel Bet Shemesh, Israel: from cone 'crowns' to holed cone rectangles Karin Tamar and Henk K. Mienis

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Tel Bet Shemesh is a large, important archaeological site covering some 7 acres [2.83 ha] near the modern town of Bet Shemesh, Israel. The site has been excavated intermittently since 1911-1912. The British archaeologist D. Mackenzie carried out the first excavation on behalf of the Palestine Exploration Fund. He recognised three levels of occupation; the oldest period was dated to the Middle Bronze Age (1750-1550 BC). During the period 1928-1933, E. Grant resumed the excavation. He found six levels of occupation of which the youngest one ended at about 586 BC. Since 1990 S. Bunimovitz and Z. Lederman of the Institute of Archaeology, Tel Aviv University, have been digging at Tel Bet Shemesh. The latter excavations are especially focused on the Late Bronze and Iron Age periods.

During all the excavations large amounts of zoological remains were found. Those from the 2004-2008 seasons are currently being studied by Karin Tamar, while the molluscs among them have been identified by Henk K. Mienis. The results of these studies will be presented in a MSc thesis by Karin Tamar.

Among the shells found at Tel Bet Shemesh are 14 items of particular interest. The first nine specimens that we received for study showed all the characteristics of *Conus arenatus aequipunctatus* Dautzenberg, 1937, including the typical colour pattern. This subspecies of the Sand-dusted Cone seems to be confined to the north-east corner of the Indian Ocean (Coomans, *et al.*, 1981) and occurs commonly in the Gulf of Aqaba (Fainzilber, *et al.*, 1992; Heiman, 2002). Two specimens were found in Late Bronze Age layers, while the seven other specimens were associated with the Early Iron Age period.

What made these cones so enigmatic was the fact that these nine items consisted of the shell apex only. All the shells were represented by the upper whorls and about 0.5-1 cm of the adjoining part of the body whorl. The lower 75% of the body whorl had been cut off in a rather rough way and no effort had been made to polish the irregularly broken edge. Since all

the whorls in this cone species show regular spiny knobs on the shoulders, i.e. all the whorls are coronated, these tops looked like little crowns.

We could not ascertain the purpose of these cone 'crowns'. However, some of them were filled with a plaster-like substance as if they had been stuck into something as a kind of decoration. A search of the literature has failed to reveal any similar finds of cone 'crowns' elsewhere, not to mention the possible use of such items.

Just before we submitted this note, we received another batch of five specimens from a single locus, which showed various stages of further manipulation. One was more or less the same size as the cone 'crowns'; however, it had not only the broken edge polished, but also all around the side and the top. Although it was missing the original colour markings, the shoulder of the body whorl still showed the typical coronation.

The four additional specimens had been cut into rectangles and the top had been polished in such a way that it formed a flat surface with a hole in its centre. Since one rectangle still showed traces of the coronation in one corner, we are convinced that all the 14 specimens, ranging from cone 'crowns' to holed cone rectangles, were made from *Conus arenatus aequipunctatus*. Since they showed various stages of manipulation, these modifications appeared to have been carried out at the site.

Bar-Yosef Mayer (2008) considered the cone apex bead, a large disc bead cut from the spire of a Red Sea *Conus* shell with a large perforation in its centre, as a chronological marker for the Early Bronze II period. From the material excavated at Tel Bet Shemesh we now know that the slightly different holed cone rectangles were manufactured at least during the Early Iron Age period and possibly also during the Late Bronze Age, because cone 'crowns' were present among the excavated material from that period. Whether the holed cone rectangles served as beads or were used for other purposes remains unknown.

## Acknowledgements

We would like to thank Drs S. Bunimovitz and Z. Lederman for allowing us to study the material from their excavations at Tel Bet Shemesh.

## References

Bar-Yosef Mayer, D.E., 2008. Archaeomalacological research in Israel: the current stage of research. *Israel Journal of Earth Sciences*, 56: 191-206.

Coomans, H.E., Moolenbeek, R.G. and Wils, E., 1981. Alphabetical revision of the (sub)species in recent Conidae 4. aphrodite to azona with the description of *C. arenatus bizona*, nov. subsp. *Basteria*, 45: 3-53.

Fainzilber, M., Mienis, H.K. and Heller, J., 1992. The Conidae (Mollusca, Gastropoda) of the shallow waters of the east coast of Sinai, Gulf of Elat, Northern Red Sea. *Argamon, Israel Journal of Malacology*, 14: 1-16.

Heiman, E.L., 2002. Shells of East Sinai, an illustrated list. Conidae. Triton, 5: 19-23.