

Timna discovery writes new chapter in Biblical history

During excavation of one of the larger copper smelting camps (No. 30) operated by the ancient Egyptians in the Timna Valley, in Israel, a thick layer of solid, tapped slag, was found to overlay the slag heaps of the 13th-12th century smeltermen.

This slag indicated a considerably higher standard of extractive metallurgy than that previously associated with the Timna operation in New Kingdom times. At first it was difficult to date these remains but, based on some archaeological indications, a 9th century BC origin was assumed (see IAMS Newsletter No. 1, p. 3).

Recent petrographic studies and radiocarbon dating have, however, resulted in a new archaeo-metallurgical and historical concept. It is now believed that the slag was produced as a result of more sophisticated smelting which took place in the early 10th century BC in an enterprise of Pharaoh Shoshenk I, of the 22nd Dynasty of Egypt.

After the loss of its Asian provinces and the pressure

of the Sea People and the Israelites, Shoshenk invaded Juda and Israel about the year 927 BC, shortly after the death of King Solomon. His campaign was described in some detail on the walls of the Amon-Temple at Karnak, and there is also an account in the Bible, including the plunder of King Solomon's Temple treasures in Jerusalem. (1 Kings, 14, 25-26).

Following the capture of Jerusalem, the forces of Shoshenk (in the Bible, "Shishak") marched south, but it was never known whether or not they reached the Red Sea. The discovery of Egyptian remains of the early 10th century BC in Timna is the first archaeological evidence of Shoshenk's take-over of the Arabah and its copper mines. The place-name "nqb" (shaft, cave) which appears in the Karnak inscription may in fact specifically refer to the Timna mines, now believed to represent the world's first big copperbelt.

The identification and dating of the Timna remains are part of a large-scale archaeometric research programme of modern scientific processing of the Arabah and Timna discoveries, undertaken since 1978 by the Scientific Committee of IAMS and funded by the Volkswagen Foundation.

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Sir Mark Turner

It was with deep sorrow and a sense of personal loss that trustees of IAMS learned of the death of Sir Mark Turner on December 13.

Sir Mark had been a trustee since 1975 when he succeeded the late Sir Val Duncan as chairman of the Rio Tinto-Zinc Corporation. Sir Val was a founder-trustee of the Institute and it was on his suggestion that IAMS began its exploration of ancient metal mining and smelting in the Huelva province of Southern Spain, in which the Rio Tinto mines are situated.

Sir Mark showed equal enthusiasm and support for IAMS's work in this, and in all other, fields; he was a regular attendee at trustee meetings whenever his extensive world-wide travelling permitted, and his shrewd judgment of affairs was highly respected and appreciated by his colleagues.

He will be sorely missed.

Additional copies of this Newsletter can be obtained from IAMS secretarial office, Institute of Archaeology, University of London, 31-34 Gordon Square, London WC1H 0PY. Telephone: 01-387 6052.

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