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Focus on Britain

IAMS bid to probe mining history in England's Westcountry

After more than 20 years of exploration and research centred largely on the Near East and Southern Spain, archaeologists and archaeo-metallurgists associated with the Institute for Archaeo-metallurgical Studies are now turning their attention to the British Isles, and in particular to the English Westcountry.

Plans are being made for a project to establish the origin and development of metal production in Cornwall and Devon, two counties which are presently experiencing a revival of mining operations, an industry which made them famous in the past.

The project is being initiated and co-ordinated by IAMS and the Institute of Archaeology, London, but its success will depend largely on the co-operation and active involvement of local historical societies, institutions, museums, mining companies, and individuals in an investigation basic to the history of the area and to the history of metals.

Beating the Bulldozer

Much has already been discovered and written about the industrial history of the two counties: for centuries stories were handed down by word of mouth from generation to generation. But the origins of mining and smelting in the Westcountry in ancient times are still shrouded in mystery. They would probably remain so but for the development in recent years of scientific methods of exploration, and an expertise by researchers that has grown from experience gained in the Near East and Western Europe where mining and metallurgical techniques dating back more than 6,000 years have been established.

The planned project for the Westcountry comes at a critical time for archaeologists. Whilst the mining revival in Devon and Cornwall is bringing employment to many local people and prosperity to the whole district, there is great danger that operations may destroy evidence of ancient workings.

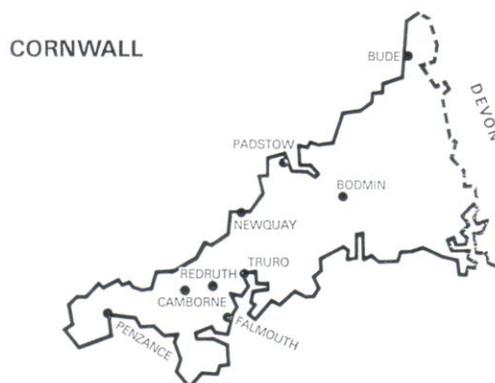
It is important that the archaeologists are ahead of the bulldozers, otherwise the veil that hides the face of England's metal history will never be lifted.

In Cornwall, a vast area north of St. Austell is being mined intensively for china clay. Here, about 10 years ago, a Bronze Age burial pit, dated to the 16th century BC, was excavated. Inside were found some pieces of tin slag which had apparently been placed there as part of a burial ritual.

These small pieces are the earliest tin slag so far found in Europe, perhaps even in the world, and form an important link in Cornwall's mining history. The site of their discovery at Caerloggas is in urgent need of further investigation before it disappears for ever.

Tin smelting sites in Cornwall are not easy to find. Whilst smelting for the metal is believed to have been carried out in the county for more than 4,000 years, the evidence on the ground is not very obvious. The early blowing houses have left very little slag as only richly-dressed ores were smelted. Furnaces were primitive and made of granite blocks which were afterwards put to other uses. The larger reverberatory smelters, introduced at the beginning of the

continued on page 2



Westcountry Probe

continued from page 1

18th century, were mostly on sites that have now been converted to other industrial purposes such as foundries or creameries. Some of the more recent, such as that in operation at Seleggan between 1887 and 1931, have been bulldozed to the ground, and today only a small amount of slag can be found where smelting was actually carried out.

It is known that tanners were at work in Cornwall as long ago as the 18th century BC. The first explorers from the Mediterranean, who settled around the river Hayle and in West Penwith at about that time discovered the secret — or brought it with them — that the mixture of sand and stone washed down by streams from the granite hills contained tin which, when blended with copper ore that they found in Ireland, turned to bronze.

From this they forged their weapons, made their domestic pots and pans, and found many other uses for the magic metal. They also quickly came to realize that in the peninsula of Cornwall they were sitting on the largest known deposit of tin in the whole of Europe. Phoenicians came to trade with them as early as 1500 BC; other merchants followed, and Cornwall prospered.

These early tanners worked on the surface, recovering the alluvial ore by panning the rivers, or “streaming” as it has always been known in the Westcountry.

Industrial Revolution

The Romans brought their own skill and knowledge to what was already a flourishing industry, but it was not until the middle of the 15th century that underground mining was begun. The coming of the Industrial Revolution three hundred years later brought a boom in Cornish tin and at one time more than 50,000 people were employed in the mines, both tin and copper.

Although the Romans had mined copper in other parts of Britain, the Cornish deposits were for centuries strangely neglected, and production of the metal in the county was almost negligible before 1650. In the hundred years between 1750 and 1850 the value of Cornish copper exceeded that of tin and was the main factor in the county's prosperity. In 1824 the single parish of Gwennap yielded more than one-third of the world's copper supply. The great Caradon mine, set on two hills north of Liskeard, on the borders of East and West Wivel, alone employed 4,000 workers, and several of the other larger mines had more than 1,000 employees.

The Cornish metal boom reached its peak in the late 1860s. Then the bottom fell out of the market. With the discoveries of large tin resources in Malaya and the development of copper mines in many parts of the world with cheaper labour and lower production costs, Cornish miners had to look across the seas for their livelihood.



“... skeletal fingers pointing to the sky”

The dramatic change in Cornwall's fortunes has been described by many writers, but none more graphically than Daphne du Maurier in *Vanishing Cornwall*: “The great days were over. Companies folded up. Mines closed down. Hundreds, then thousands, found themselves out of work, without hope of employment ... there was no alternative to starvation for the miners but mass emigration. A third of the mining population left Cornwall before the end of the century, taking their skill to other continents. Back at home, their towns and villages were left unpeopled, the mines themselves deserted, no smoke coming from the tall chimney stacks, no sound of engines in the pumping houses, the land about them reverting once more to barren waste and scrub.”

Today, the ruins of the mines stand gaunt along the ridges, the crumbling chimney stacks pointing skeletal fingers to the sky. Only the creeping ivy helps soften the grizzled monuments to a once-prosperous industry.

Skilled Cornishmen

The rest of the mining world profited from Cornwall's loss, for the ‘Cousin Jacks’ were highly skilled and few major mining enterprises have since been brought into being without their help and expertise.

Across the Tamar in Devon, much of the exploration for the new project will centre on Dartmoor. There, as on other wild and lonely areas which abound in the Westcountry, special attention will be paid to a possible connection between megalithic remains and ancient mining.

The project will provide an opportunity for further investigation into a suggestion that the chain of dolmen, stretching from the Iberian peninsula through Brittany to the English Westcountry and on into Ireland, marks the site of ancient metallurgical activities and the tombs of some of Europe's earliest miners.