



PLATE I: Excavating the second section of the boat, showing the original forked end.

THE ARCHÆOLOGY OF THE A20

A continuation of the story in *Newsletter 15*

The Discovery of the Bronze Age Boat

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A BROAD SEQUENCE of archæological evidence relating to the Mediæval and post-Mediæval town had been studied by the end of the summer of 1992 and the fieldwork phase of the operation appeared to be coming to a close, when a highly exciting find was revealed by the contractors working on the new underpass.

At lunch-time on Monday 28th September, (the 345th day of continuous fieldwork by the C.A.T.) a team member spotted a group of substantial timbers in the bottom of a deep contractor's pit at the junction of Bench Street and Townwall Street, some six metres below ground level and just below Ordnance Datum. A rapid inspection indicated that these timbers formed part of a boat; moreover, the use of twisted withies within its construction, and the associated tufa and peats, suggested that the vessel could be prehistoric. Following a meeting with the consulting engineers, Mott Macdonald, and their main contractor, Norwest Holst, the remainder of the day was allowed for a fuller assessment of the extent and preservation of the vessel. It was soon obvious that the lower portion of the boat was intact, apart from the damage to one area already sustained during the machine excavations.

The initial investigations revealed that the timbers extended for some 6 metres across the full width of the pit and it became clear that we were dealing with the substantially complete mid-section of a very well preserved prehistoric plank-sewn boat, broadly similar to that found at North Ferriby before the last war, and obviously a crucial new find for nautical archæology.

Numerous telephone calls and meetings the following day culminated in the grant of six days to excavate and record the remains fully. The ever-helpful engineers had already checked and indicated that unfortunately the levels could not be raised in order to preserve the boat *in situ*.

Since the boat would have to be removed to allow the contractors to excavate even deeper to complete their work, it was decided that the boat had to be lifted. A team of experts was hastily assembled to decide how this could be achieved. The main problem to resolve was whether to attempt the lift in one, or whether to cut the boat into sections and lift these individually. Opinions were divided, and remain so. However, it was generally agreed, due to the fairly fragile nature of its construction, the time factor and the damage already sustained, that it would be safer to cut the boat into manageable segments, thereby safeguarding key structural features.



PLATE II: Detail of the boat's construction, showing a carved side cleat (uncertain purpose) and a twisted yew wood with which held the individual planks in place.

Work on the boat continued for thirteen hours each day and by the Friday night all the recording had been completed ready for the lift on Saturday. Working in conjunction with English Heritage conservators, the boat was then cut into ten lettered sections, each being manoeuvred on to a pallet and then removed from the excavation using a crane and lorry kindly supplied by Dover Harbour Board. At 5.50 pm on Saturday 3rd October the almost exhausted excavation team gave the signal to raise the final section of the boat which was then taken, by lorry, to join the other sections now resting in a large water tank previously prepared by the Harbour Board in one of its store buildings on the quay-side only a short distance away.

The lifting operations were watched by a large crowd of Dovorians, eager to see the remains of the ancient vessel, so appropriately discovered at one of Europe's most famous ports. The atmosphere was somewhat akin to the homecoming of the *Mary Rose* to Portsmouth!

From the details of its construction, the craft must have been the product of a master boat-builder working within a long established tradition – the workmanship was superb, with cleats and central rails being carved from the two large oak base planks and held together by transverse timbers. The side planks were held in place by individual stitches of twisted yew wood with moss caulking between the joints. Three species of moss have been identified – *Thamnoryumalopecorum*, *Plagiothecium denticulatum* and *Sphagnum* sp. The presence of *Sphagnum* sp. may be significant as it is not widespread in South East England today. Clearly a detailed study of the vessel will greatly advance our knowledge of prehistoric boat-building.

During the following week the contractors resumed their construction work whilst the archæological field-team correlated their somewhat hastily prepared notes and

drawings. It was clear that further substantial sections of the vessel must lie to the north and south of the mid-section already lifted. Although these sections were beyond the limits of the contractor's excavations, fears increased regarding the effects of the new deep subway and its associated water pumping station on the surrounding water table. There seemed to be no certainty that if the remaining parts of the vessel were left *in situ* for future generations to excavate and study with improved techniques, the sediments would remain sufficiently waterlogged to allow the preservation of the boat timbers. Instructions were therefore issued by the Department of Transport and English Heritage to attempt to lift the remaining portions of the boat.

The close proximity of tall Victorian buildings immediately to the north precluded excavation here but a second coffer dam immediately to the south of the first was inserted and a further eight days allowed for the excavation of the southern section of the vessel.

The reward for the considerable amount of extra effort and cost put into the new excavation was the exposure of a further 3.5 metres of the craft including the remains of an original end – it is not clear whether this represents the bow or the stern. Interestingly, this had been partially dismantled soon after the boat was abandoned. A large section of the structure had been cut away, leaving intact the feathered ends of the side planks and the rather strange-looking forked terminal of the central base rails.

The same procedure was agreed for the lifting of the second section of the boat and this was undertaken on Monday, 19th October in heavy rain, the final segment being retrieved at 8.45 pm. A total of 9.5 metres of the boat in all has now been raised, which perhaps amounts to about one half to two-thirds of the total length. There seems to be

PLATE III: *Preparing to lift a cut section of the boat*





PLATE IV: *Preparing to raise a section of the boat by Harbour Board crane.*

little doubt that the craft represents a sea-going vessel which presumably made regular trips across the Dover Straits to and from the Continent. Once conserved, it is hoped that the boat will be placed on permanent display in the new Dover Museum.

Initial Carbon 14 dating indicates that the boat is of the Middle Bronze Age. Preliminary examination suggests that the boat was old and fairly certainly it was deliberately abandoned. It appears to have been left in, or adjacent to, a freshwater channel eroded into a compact peat deposit. Sediments immediately beneath the boat contain molluscs that indicate the presence of a brook or stream with muddy banks covered with extensive vegetation. Evidence suggests that following abandonment, the boat in-filled rapidly with tufa and was subsequently sealed and protected by a thick layer of silt. Molluscs indicate this occurred within an environment dominated by damp open ground amongst small muddy pools or slowly moving streams. There is no evidence of brackish or saline water organisms present either in the mollusc or pollen assemblages despite the proximity to the present coastline. This suggests considerable palæogeographic change since the boat was buried. Bore-hole evidence, obtained as part of the project, suggests that the sediments and prehistoric surface associated with this event are widespread beneath central Dover and that a rich buried land-surface, with associated archæology, may exist throughout much of the Dour valley.

In addition to a considerable number of struck flints and pot-boilers a rich assortment of palæoenvironmental data has been recovered from the boat and immediately adjacent contexts. Molluscs, animal and fish bones, insects and plant macro-fossils were seen during excavation and preliminary assessment of the samples taken has indicated that pollen and ostracods are also present. All contexts have been

sampled and all the sediment from the filling of the boat (second stage excavation) has been recovered for study. Significant quantities of animal bone were recovered both in and adjacent to the boat. From the material studied to date it is noted that the bones appear to be largely from domestic cattle (*Bos taurus*). A scapula found lying on the boat surface showed evidence for human modification, possibly indicating filleting and disarticulation. Elsewhere, many of the bones revealed extensive marks associated with gnawing by scavenging animals.

The raising of the Dover boat proved to be a splendid example of co-operation and assistance by many different companies, official bodies and individuals. Substantial financial assistance was provided by English Heritage and the Department of Transport, whilst the engineers of Mott MacDonald and Norwest Holt gave invaluable practical help and encouragement on site. Dover Harbour Board played a vital part in the actual lifting and storage of the vessel, whilst Dover Museum and Dover District Council provided essential back-up to the excavation team. The writers extend their sincere thanks to all concerned.

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The Society has a pressing need to fill the following vacancies in its Administration.

TREASURER

This is a key post. The successful aspirant will keep the Society's books and report monthly to the Executive Committee of which he/she will automatically be a member.

ADVERTISING MANAGER

This involves liaising with approximately one third of the advertisers and potential advertisers in the *Newsletter*, a month or six weeks prior to the publication dates, when contracts become due for renewal. Also at all times to have an eye open for new advertisers or supporters. This is not an onerous job but it is a very important one: the advertisement revenue makes a very valuable contribution to the costs of producing the *Newsletter*.

Volunteers (victims?) should contact the Secretary, Leo Wright on Dover 823048 as soon as possible. It is vital that these posts should be filled.

Recently the Committee has been fortunate in gaining three new enthusiastic and very competent members and it looks forward to recruiting two more. It is most desirable that any committee should be flexible and dynamic rather than static and new talent, energy and enthusiasm is always most welcome.