

Neolithic and bronze-age Somerset: a wetland perspective

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A brief inspection of the Somerset Sites and Monuments Record (SMR) shows that the county abounds in archaeological sites of the neolithic and bronze-age periods. However, this masks the paucity of detailed knowledge concerning these sites. The majority of entries on the SMR refer to scatters of flint or pottery recorded from field-walking. While these may represent occupation sites, the only extensive excavation of a settlement was Martin Bell's work on the sand cliff at Brean Down (Bell, M 1990). The numerous prehistoric funerary monuments in the county have had a long history of "archaeological" investigation but also lack the modern excavations of such structures which have taken place elsewhere in England.

Only two elements of the county's archaeological record of these periods are of more than regional significance; the metalworking evidence of the Bronze Age, and the wetland archaeological evidence from the peat moors. The discoveries of prehistoric waterlogged remains and the development of techniques for their excavation, analysis and conservation are areas in which Somerset gave the lead, not only to the rest of the UK but also to many other countries around the world.

150 years of wetland archaeology

The earliest recorded finds of worked waterlogged wood in the county were reported by the Reverend W Stradling in the very first issue of the SANHS

proceedings (Stradling 1849). Stradling toured the turbaries and gained much information from the peat cutters. He provides us with the first and only record of many of the early discoveries including bog oaks, a box containing a bronze hoard, prehistoric bows and paddles, and a dug out canoe formed from an immense oak... "long known as Squire Phippen's Big Ship" (Stradling 1849, 52; 1854). However, it is likely that only the most interesting or valuable finds ever reached the notice of local antiquaries such as Stradling. One prehistoric trackway, the Abbot's Way, was considered so unimportant by the peat-cutters who found it that it remained unreported for three decades.

The problems of conserving wood means that none of the earliest discoveries survive today. Many finds, like the maple box containing the Edington hoard of bronzes which "soon fell to dust" (Stradling 1854, 92), did not long survive the day of their discovery. Squire Phippen's big ship suffered a more prolonged and practical fate. It "made its appearance partially in very dry seasons" and Stradling recounted that "I one day had a piece of the poor old 'Ship' brought me, and was told she had been broken up in the dry weather, and used by the cottagers for fuel" (Stradling 1849).

The first prehistoric structure in the peat moors to be recorded in detail was the Abbot's Way. This neolithic wooden trackway had first been seen in about 1835, and was visited by the Somerset Archaeology Society in 1864. The article published in the proceedings for 1880 concerned the detailed

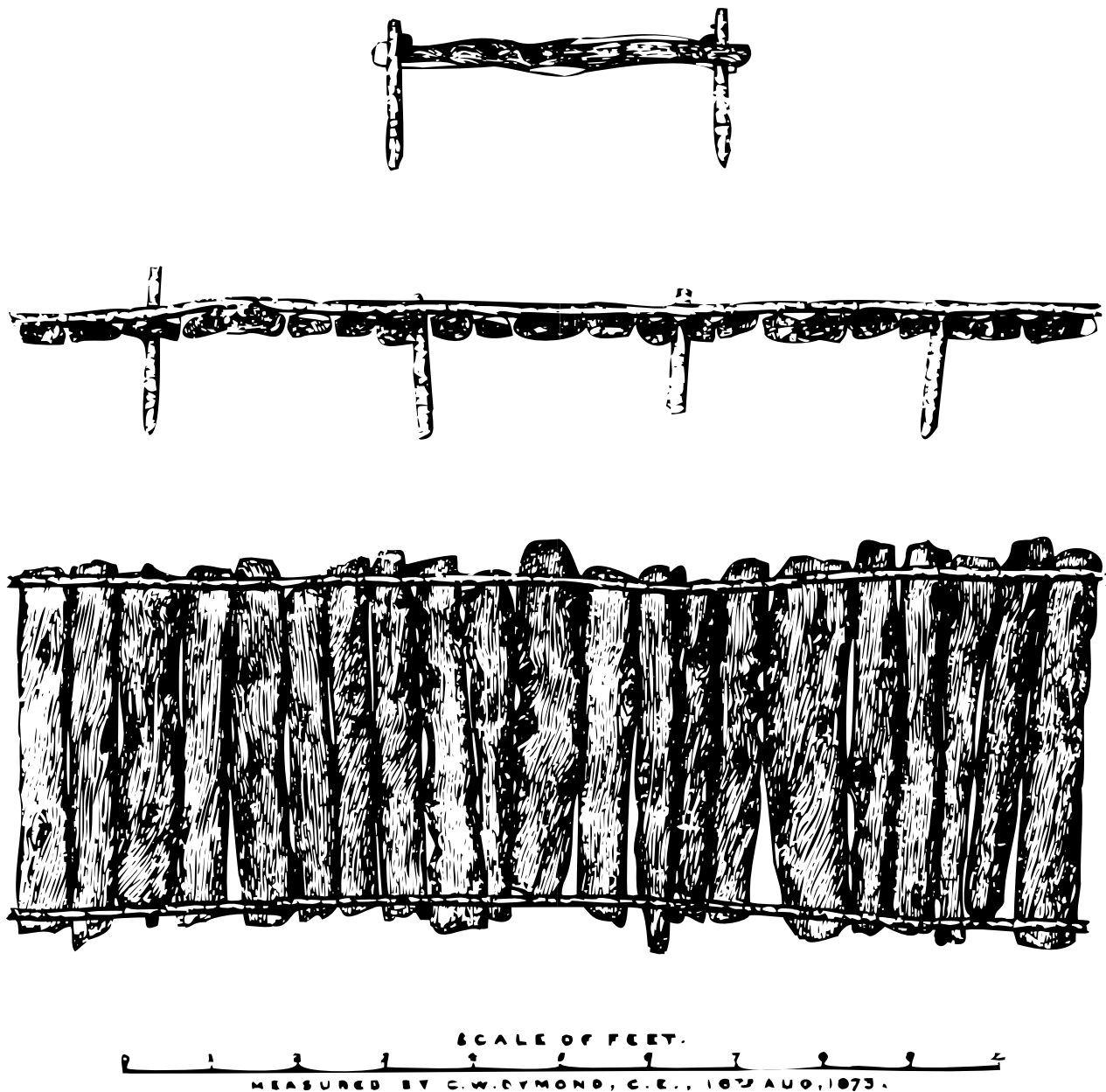


Figure 11.1: *Illustrations of the Abbot's Way made by C W Dymond in 1873*

observations and measurements of the track made by C. W. Dymond, a Fellow of the Society of Antiquaries, on a stretch freshly uncovered by peat cutting in 1873. Dymond's description was excellent and the details of grain and cross-sections shown in his drawings of the timbers puts many more recent excavation illustrations to shame (Figure 11.1, Dymond 1880).

Arthur Bulleid, who became famous for his excavations at Glastonbury and Meare Lake Villages (see Minnitt this volume), also visited the peat workings in the Brue valley and recorded the archaeology which they uncovered. This work was published by

Bulleid in 1933 in a paper which dealt with many of the prehistoric trackways, and especially the Meare Heath Track (Bulleid 1933). It was this report that inspired much of the succeeding archaeological work in the peatlands. Between 1940 and 1970 fieldwork in the Somerset wetlands was dominated by the activities of Sir Harry Godwin, then Professor of Botany at Cambridge. He had become interested in Somerset after hearing of the Meare Lake Village excavations and subsequently meeting Arthur Bulleid.

Godwin's main interest was in the environmental information within the peat deposits. From 1937

onwards he made numerous borings through the peat into the underlying clay. This resulted in the establishment of the basic sequence of environmental change in the Brue valley. For the first time this allowed a reconstruction of the landscape against which to set the archaeological discoveries. Godwin, to his credit, was also determined to record the structures which were being uncovered by peat extraction. In this work he was ably assisted by Stephen Dewar, an amateur archaeologist who lived close by on the Polden ridge and who maintained very close links with the peat-cutters, a relationship lubricated by occasional gifts of an alcoholic variety.

Godwin and Dewar recorded, excavated and reported on many small finds and trackways such as the Shapwick Heath, Blakeway, and Honeygore structures. As well as pioneering environmental analysis Godwin also made great use of the new radiocarbon dating methods that were being developed at Cambridge. These two techniques laid the basis for all subsequent modern studies and were a great step forward in our understanding of the prehistoric period. The work of Godwin and Dewar also paved the way for and inspired the creation of the Somerset Levels Project which spearheaded another leap forward in wetland archaeology.

An assistant lecturer in Cambridge University by the name of John Coles was introduced to the archaeology of the Somerset Levels by Professors Harry Godwin and Grahame Clark. He carried out some small excavations of the Viper's and Platform trackways in 1962 (Coles 1972) and was one of the team from Cambridge that investigated the Abbot's Way, the Chilton Tracks, the Bell Tracks and the Baker Platform over the next six years. This work was aided by a local archaeologist, Colin Clements, who rediscovered the Chilton Tracks, first mentioned by Bulleid, and later worked with another local man, Chris Norman, recording the wooden trackways seen in drainage ditches around Chedzoy in Sedgemoor.

In 1970 E J Godwin's peat company sent a package to John Coles containing part of a plank from what turned out to be the Sweet Track – still the oldest known wooden trackway in Europe. The early date of the structure led to a large scale excavation of the trackway in 1973 funded by a grant from the Department of the Environment. The local inspector, Dr Geoffrey Wainwright, was so impressed by the excavations continuing in the pouring rain that support from central government continued for many years, not least when Wain-

wright eventually became head of archaeology at English Heritage.

The Somerset Levels Project ran for an unbroken period from 1973 until 1989, dedicated to the recording of the wetland archaeology that was being uncovered in the peat cuttings of the Brue valley. The joint directors were John Coles and Bryony Orme, and the project was based at Cambridge and Exeter Universities where they lectured. Financial support came from a large number of sources but chiefly from English Heritage.

The detailed story of the project's work is reported in a popular form elsewhere (Coles and Coles 1986). During its life the project constantly employed an archaeologist to observe the peat cuttings and to maintain contact with the local peat cutters. Many of the latter proved to be extremely helpful, especially the staff of Fisons Plc and E J Godwin and Sons. Without such assistance many finds would never have been made. The majority of known wooden stray finds and trackways were discovered and excavated by the project in the central Brue valley. Many previously discovered sites such as the Abbot's Way and the settlements at Glastonbury and Meare "Lake Villages" were also revisited to assess their condition and gain more information.

The great importance of the Somerset Levels Project was that it was perhaps the first large-scale fieldwork programme that used modern analytical techniques for wetland archaeology. New excavation techniques for waterlogged wood were invented. Environmental analysis was frequently carried out not just with pollen but also through the study of beetle and plant macrofossil remains. The decay pattern of the wood was examined and new ways of recording and analysing toolmarks were pioneered.

Much use was made of radiocarbon dating but many samples were also taken for tree-ring dating (dendrochronology) and woodland reconstruction. A conservation laboratory was set up at the project's work base in Somerset to cope with the large amounts of wood which had to be preserved. The success of these efforts can be seen in the fact that the County Museum in Taunton Castle holds by far the largest collection of conserved archaeological wood in the UK, and possibly in the world.

The Somerset Levels Project heavily influenced the future course of wetland archaeology, both in England and in many other countries. John and Bryony Coles went on to advise on all the major wetland surveys subsequently financed by English

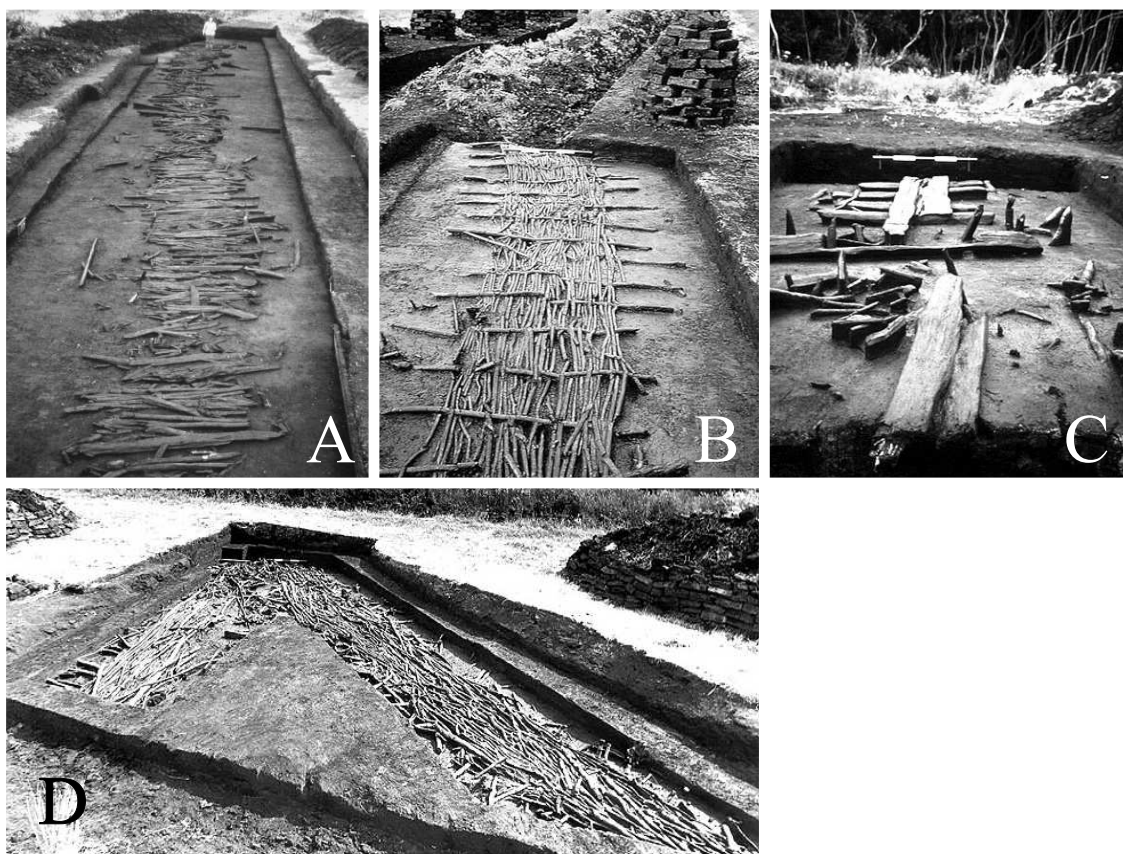


Figure 11.2: Examples of the four main types of prehistoric trackway in Somerset: A the “Abbots Way” corduroy track; B the “Eclipse” hurdle track; C the “Meare Heath” plank trackway; D “Garvins” brushwood track.

Heritage and encouraged many others abroad. They also established WARP, the Wetland Archaeology Research Project, which acts as a communication link between wetland archaeologists all over the world, organised conferences and published books on the subject.

Since the end of the Somerset Levels Project the area of active peat extraction has shrunk as the largest company, Fisons, closed down its operations in Somerset. Most of the remaining extraction areas only had a small depth of peat left uncut, below the levels at which most of the trackways and stray finds had been discovered. This coincided with a shift in archaeological thinking in the 1990s, with an increased emphasis on the preservation of archaeological remains *in situ* wherever possible, to preserve the unique information they contain for the future when techniques of analysis will have improved. This was reflected in the work on the moors which moved away from rescue exca-

vation and towards small-scale evaluations to assess the condition of known structures and develop land management regimes which would ensure their long term preservation *in situ*.

The neolithic Sweet Track has been the main focus of attention. A recent evaluation of the structure in Shapwick Heath Nature Reserve has shown that the water management system set up by the Levels Project is succeeding in maintaining the conditions required for its long-term survival (Brunning 1997a). Many of the prehistoric trackways have also now received added protection as Scheduled Monuments following an English Heritage Monuments Protection Programme review (Brunning 1995).

The other aim of recent fieldwork has been to redress the imbalance of information which was produced as a result of most previous work being concentrated in the peat cutting areas of the Brue valley. Two of the most significant sites of recent

years have been at Greylake and Harter's Hill. At Greylake, near Othery on King's Sedgemoor, reinvestigation of a site briefly examined in 1926 revealed an irregular alignment of vertical piles of late bronze-age date amongst which were planks and wood chips, human and animal bone, pottery and a socketed axe (Brunning 1997b). In its date and the combination of objects being deposited the site resembles the much longer pile alignment at Flag Fen near Peterborough. The Harter's Hill site on Queen's Sedgemoor near Coxley is also of a similar date and is a very good structural parallel to Flag Fen (Figure 11.3, Brunning 1997b). However, although the Harter's Hill alignment has been traced for over 100m the main body of the structure remains unexcavated and no non-wood finds have been recovered.



Figure 11.3: Excavation of the late bronze-age structure at Harter's Hill looking along the alignment of oak piles. The closeness of the top of the piles to the ground surface is readily apparent. Scales: 1m and 0.5m

The present and the future

If the quantity of wetland archaeological remains of neolithic or bronze-age date from Somerset is compared to other lowland regions in the UK, the richness of information in the county is immediately apparent. Of the 95 prehistoric trackways ever recorded in England 59 (61%) were discovered in Somerset. Many of the sites from elsewhere in the country have also never been extensively excavated and have either been destroyed or exist in unstable conditions such as the inter-tidal zone. This is one of

the reasons why all the trackways deemed to merit Scheduled Monument protection occur in Somerset. The large quantity of conserved wooden material also represents an internationally important resource unparalleled elsewhere.

These figures should not lead to complacency however. Only a tiny proportion of the wetlands of Somerset have been subject to detailed fieldwork. The excavations at Harter's Hill and Greylake should prove a reminder that there is still a vast resource of uninvestigated wetland archaeology including new types of site. Our knowledge of the past environments of the wetlands is also still largely restricted to the Brue valley. Until more palaeoenvironmental information is available we will not be able to reconstruct the past landscapes of lowland Somerset or predict what archaeological sites they may contain.

The future of wetland archaeology in Somerset will be judged on the new sites and new information which is generated. Four topics may be particularly important in the next decade of research: sea level and climate change, chronology, presentation of information to the general public, and preservation of sites *in situ*.

For areas such as the lowlands of Somerset the general rise of sea levels in the Holocene had enormous effects on the landscape and therefore also on human activity. The minor variations within this rise must also have had significant effects and need to be better understood. Much recent work on this issue has already been started by researchers from Bristol, Exeter and Bath Spa Universities and King Alfred's College Winchester (Druce 1998; Albersberg 1996; Haslett *et al.* 1997; Wilkinson 1998) building from and adapting earlier theories (eg Heyworth and Kidson 1982). Many of the recent studies have focused on the mesolithic period and have raised the possibility of waterlogged camp sites of that period being present at the wetland edge.

Changes in climate must also have had immense implications for the nature of human existence in the area. In theory the tree-ring chronology of northern Europe, which stretches back over 10,000 years, provides some information on climate history. The data has been used by some dendrochronologists to suggest significant short term climate changes (Baillie 1999) but the process of disentangling the other possible influences on tree growth from climatic data still needs further development. Beetle evidence from the Sweet Track has been used to show that the climate then was more like the

continental climate today (Girling 1979) and other climate specific organisms preserved in the peat hold the potential for similar information.

Tree-ring data is also the basis for dendrochronological dating which could help to unlock much new information for archaeologists. Dendrochronological dates are not only much more specific than radiocarbon and artefactual dating, they are also more reliable. Somerset is fortunate to possess many of the dendrochronologically dated prehistoric sites from England. On an individual site level it can be used to precisely date different phases of activity. For example the construction of the Sweet Track has been dated to the winter of 3807 BC or the spring of 3806 BC with repairs being made in 3800 BC. The simpler Post Track which ran roughly parallel to it, used timbers felled in 3838 BC, dispelling the original idea that it had functioned as a type of construction platform for the Sweet Track.

It is only by building up such precise data concerning the erection and active life of structures that archaeologists can hope to produce reasoned theories of intra-site contact and influence based on distribution maps. As for many other topics, the wetland areas either side of the Severn estuary both possess similar types of data. For example, if we look at a period of just over 100 years in the Late Bronze Age it is now possible to precisely compare a site at Caldicot in Gwent with three sites across the estuary in Somerset. The Harter's Hill site is the earliest, lasting from 1076 BC to at least 1064 BC. Then in 991 BC a trackway is built at Caldicot followed two years later by a wooden bridge at the same site. Seven years after that, in 982 BC, trees are felled for the planks used in the substructure of the Skinner's Wood trackway, and 19 years after that event the structure at Greylake is formed and is added to for at least 11 years. Without tree-ring evidence the chronological relationship of these events would be indistinguishable in the archaeological record.

The presentation of the wetland archaeology of the county to the public is also important. Many of the standard works are out of print and need updating. Reconstruction projects, such as those undertaken at the Peat Moors Centre at Shapwick, are one way of capturing the imagination of the public and especially school groups. Reconstructions can also prove to have considerable value as experimental archaeology projects. However, for

the full potential to be realised the archaeological community must campaign for the prehistoric period to have the same recognition in the English National Curriculum that it enjoys in Wales, Scotland and Northern Ireland.

The preservation *in situ* of the known, and as yet unknown, wetland archaeological resource in Somerset is mainly threatened by peat extraction and agricultural drainage. The scale of peat extraction has decreased over the last decade and, although the industry will continue, the current legislation provides the scope for making the developer undertake a process of archaeological evaluation and recording.

There is no comparable safety system for sites threatened by agricultural activity or natural forces of destruction. The recent English Heritage assessment of English archaeology, the "MARS" Project (Darvill and Fulton 1998), showed agriculture to be the biggest destroyer of archaeological sites in England. For waterlogged sites in peat soils the potential threat is immense. Arable activity is especially damaging because of the very rapid rate of peat wastage associated with it. Fields under pasture are still threatened by the effects of drainage on peat soils, especially soil shrinkage due to dewatering and oxidation. Peat soil wastage by oxidation has been measured at rates of between 1–2cm/year in Central and Western Europe (Armstrong 1996). Some recent palaeoenvironmental studies have also noted severe dewatering and deflation of the upper levels of peat soils in pasture fields (eg Wilkinson 1998; 89).

In Somerset there is a voluntary management scheme in the Environmentally Sensitive Area (ESA) which covers most of the peat lands. This helps to reduce the amount of arable activity and means water levels are kept high in a small proportion of fields. In wetland environments the lesson should be learnt by the much longer experience of nature conservation organisations that land ownership is vital to securing long term favourable management. Acquisition of the most important sites should therefore be actively considered so that in another 150 years there will still be some wetland archaeology left in Somerset for archaeologists to analyse and marvel over.