

4. JOINT FIELD WORKING

C. Johnson

Introduction

The Planarch 2 Action 2A joint fieldwork was undertaken to provide an opportunity to develop a shared approach to the evaluation of wetlands. Six sessions of joint fieldwork, with two in each Planarch partner region (Essex, Flanders and Kent) have taken place. They have been successful in bringing together archaeologists from planning departments, universities and commercial units in England, Flanders and the Netherlands in order to develop and share techniques related to the evaluation of a variety of wetland types. As well as increasing the expertise of the individuals taking part, their experience was used to improve the ongoing surveys in each of the regions, to facilitate sharing of best practice and to create a network of contacts (see Appendix 1).

Each week of joint fieldwork was structured in a similar manner, with an introductory session on the first day, followed by two to three day's fieldwork and a discussion session on the final day. Each of the partner's wetland projects have been outlined in the previous sections. This section provides an overview of the key issues and lessons learnt from the transnational joint field working.

Joint fieldwork in Essex

Joint fieldwork was undertaken in Essex, hosted by Essex County Council Field Archaeology Unit (ECCFAU) between the 10th and 14th May 2004 and between the 16th and 19th May 2005. The first week of joint fieldwork in Essex commenced with an introduction to the Stumble along with health and safety induction. The fieldwork comprised fieldwalking and surface collection on the inter-tidal mudflats of the Stumble. The aim of the week's work was to engage participants in locating and recording the current extent of artefact scatters in relation to the underlying stratigraphy in order to define areas of potential. The Planarch work revisited areas surveyed over 20 years previously (The Hullbridge Survey) but now being surveyed using GPS and employing GIS mapping. The key experience for participants during this week was to see how standard fieldwalking methodologies can be effectively applied to inter-tidal mudflats. Site visits included Cudmore Grove, Mersea Island (Essex County Council Country Park and part of a National Nature Reserve) and Othona (the site of a Roman fort and Saxon chapel) and Rolls Farm (a multi-period inter-tidal site).

The second week began with a site induction and health and safety briefing before participants joined the ongoing investigations of the Stumble, with a particular focus on its prehistoric landscape elements. A programme of investigation in the 1980s intensively test-pitted The Stumble using oil drums with the bottoms cut out serving as coffer dams to excavate the waterlogged deposits. This earlier work has been re-assessed and augmented by fieldwalking and further intrusive survey to measure the extent and degree of survival of the prehistoric horizons now under threat from erosion and rising sea levels. The aim of the joint fieldwork was to establish the nature and extent of sediment layers and their archaeological potential as a follow-up to the previous study. The joint team took part in a trial programme of small test pitting using perspex sheets to create mini-coffer dams which allowed buried deposits to be recorded. In each case a set of four Perspex sheets was hammered into the beach deposit and the sediments then hand excavated and recorded (Fig 4.1). Discussion focussed on the applicability of developing test pitting of this type during developer funded evaluation and Wessex Archaeology considered developing this approach in North Kent where similar Neolithic sites may exist. It was agreed that rather than using four sheets of Perspex it would be better in future to develop some form of water tight box that could be driven into the deposit. The Belgian and Dutch participants were surprised at the level of survival of archaeological remains on the foreshore. Although it was felt that in North Kent, for example, the more fluid mud of the Medway and Swale would be too heavy for this approach, it was noted that there are some areas of that coast with firm enough beach deposits for this approach to be adopted (Wessex, 2005). As well as test pits using perspex, an auger survey (Fig 4.2) and some direct excavation of surface deposits were also undertaken. Prehistoric pottery and flint were recovered from the surface of the foreshore, the deposits were seen to comprise complex sands and clays over Pleistocene gravels and the estimated rate of erosion calculated at 1.2cm per year.

In addition to the test pit excavation, team members made visits to Dovehouse Field, Maldon Hythe and to Abbots Hall Farm to see examples of integrated shoreline management plan implementation. The Stumble is part of the Blackwater Estuary, a SSSI covering 4,400ha split between Colchester and Maldon districts and historic environment concerns are considered alongside natural environment ones. The implications of managed retreat in England were discussed, but this approach was not seen as likely in Flanders and the Netherlands, where maintaining the main sea defences is vital to protecting the reclaimed land. In Essex, where the sea wall had been breached in one area to allow flooding behind, a new artificial creek had cut through one of the former salt-working 'red hills'. Elsewhere, a medieval ship lock had been preserved. For further details on the second week of joint fieldwork in Essex see; http://www.planarch.org/downloads/library/planarch_essex_2005_revised.pdf

Joint fieldwork in Flanders

Joint fieldwork was undertaken in Flanders, hosted by the Flemish Institute (VIOE) between the 19th and 23rd April 2004 and between the 15th and 19th November 2004. Here, the Flemish Institute (VIOE) undertook field survey (see Chapter 3.2 this report for details) to evaluate the archaeological potential of the polders. The joint team took part in rapid walkover (Fig 4.3), line walking and grid fieldwalking over a selected area of the Flemish polders running inland from the coast, but not including the foreshore. The week also included site visits to provide team members with an understanding of the nature of the Flemish polders and current approaches to evaluation in Flanders. It is generally the case that across the Planarch region, the use of fieldwalking as an evaluation method, has declined with the increase of developer-funded work. The opportunity, therefore, for the team to contribute to the Flemish use of this technique, has allowed a review of its role and the exchange of views between members of the joint team, has led to changes and improvements in practice in both Flanders and Essex. The team was introduced to the polders as reclaimed former wetlands with high archaeological potential but little present information. Fieldwalking has been used in Essex as an evaluation technique, but elsewhere it appears to be less popular in development-led schemes. In Flanders, the use of rapid walkover, line and grid field walking as an evaluation method has been adopted as a strategic survey approach to an area under a range of potential threats from climate change to agricultural change and development. Participants from England were surprised by the ease of access afforded to archaeologists to carry out survey work. In Flanders archaeologists can without problems enter land to carry out non-intrusive field survey, without permission from the landowner. In the UK, desktop survey is most usually the first stage, where as in Flanders, this had not been the case with this survey. A difference in approach to the provision of information on SMRs was noted between England and Flanders. In England there has been a movement towards providing access to detailed SMR information whereas this is resisted at present in Flanders. Whilst the Flanders survey has been concerned with comprehensive collection and study of artefacts scatters as a means of identifying archaeological potential, it was noted that in England recent survey methods have been more concerned with presence/absence of artefacts, and the collection of only a representative sample. There has been no move in Flanders to introduce a scheme similar the Portable Antiquities Scheme in England and it was noted that iron and other metal objects had very poor survival rates in the polders. Finally, it was noted that to date in Flanders, there had been little systematic survey of the inter-tidal areas (Fig 4.4), but following the joint fieldwork in Essex and Kent, this is likely to change.

Joint fieldwork in Kent

The joint fieldwork weeks in Kent were held between June 28th and July 2nd 2004 and between the 4th and 8th October. The first week focussed on boat survey (Fig. 4.5) of inter-tidal areas of the Medway and Swale estuaries, led by Wessex Archaeology, acting as contractors for Kent County Council. The second week focussed on approaches to deposit modelling on the Hoo Peninsula, using a combination of boreholes and geophysical survey undertaken by the University of Wales, Lampeter.

In the first week, participants joined Wessex Archaeology in their boat survey of the inter-tidal area of the Medway and Swale estuaries. These environments are highly dynamic and fast changing with both erosion and accretion taking place. Archaeological remains are rapidly exposed and then

covered back up. Survey needs to be flexible and repeated. A range of archaeology, from early prehistoric land surfaces and Roman industrial sites to hulks of Thames Barges and modern military installations, has been recorded. The joint fieldwork week was developed to give participants an insight into the specialised techniques, equipment and procedures needed to survey the coast and inter-tidal areas of North Kent and demonstrate the value of using a boat for access to survey areas. During the week, the group were given a presentation on development-led archaeology in the UK and the North Kent Rapid Coastal Zone Survey by Dr Anthony Firth, Head of Coastal and Marine Projects at Wessex Archaeology.

Following initial briefing presentations at KCC the group was taken to Queenborough on the Isle of Sheppey to see the work boat, go through further health and safety briefings and have initial training in the use of the GeoXT and Huskey survey equipment (Fig 4.6). Hand-held computers were used to update SMR data and add new records in the field. Wessex Archaeology demonstrated the value of liaison with local special interest groups with a visit to the Fleur de Lis Heritage Centre in Faversham. The team were also taken to Upnor Castle, built in 1559 to protect ships and the dockyards at Chatham, a good example of a military site on the Medway.

Survey sites accessed by boat, included Burntwick Island and Bedlam's Bottom, where all team members were able to practise using the GeoXT and Huskey. The survey area of North Kent comprises large expanses of deep mud with scattered islands of salt marsh cut by systems of tidal gullies. Coastlines of this type do not exist in Belgium and Holland, though it was noted that today's polders have been reclaimed from just such environments and this 'view' into their past was of great interest to the Belgian and Dutch participants.

Participants were introduced to the practice of downloading the relevant section of the existing SMR onto a hand-held computer with GIS software so that new records could be added directly in the field, existing records amended and the new and amended records then uploaded back to the KCC SMR. Participants noted that this technology allowed numerous sites to be accurately covered in a short period of time.

Access to land was seen as a major difference between the English partners and their Belgian and Dutch colleagues. In England there are considerable restrictions and much time is needed to ensure access.

The extant and breached seawalls of Kent were noted by Wessex Archaeology during discussions, not only in terms of their role in shoreline management but also as monuments in their own right. North Kent's sea walls can date from the medieval period and hence are archaeologically significant. A parallel was noted here with a large defensive dyke in Flanders dating to the 1390s, which it is understood, requires a structural and topographical survey. The need to balance the requirements of sustainable coastline management with the preservation of the manmade landscape is an issue that may become increasingly relevant to the Belgian and Dutch partners should any change to their shoreline management policy be considered.

Joint discussions raised the issue of how to record sediment and deposits with archaeological potential in Sites and Monuments Records. All participants agreed that with a defined thesaurus of terms and using GIS it would be helpful to map deposits of varying potential. This has been undertaken in the Netherlands.

This session of joint fieldwork raised important issues about risk assessment and health and safety. The main issues here included working from a boat, in areas of soft mud and within tidal regimes. The joint fieldwork brought a greater awareness to some participants of the need for comprehensive risk assessment.

For further details on the first week of joint fieldwork in Kent see:
http://www.planarch.org/downloads/library/nkc_joint_fieldwork_report.pdf

The second week of joint fieldwork in Kent allowed participants to take part in a deposit modelling study. Here, a team led by Dr Martin Bates of University of Wales, Lampeter carried out a programme of combined geophysical and borehole survey. The aim of the week was to study the effectiveness of geophysics (in this case electromagnetic survey and resistivity) at characterizing below ground deposits where Holocene alluvium overlay Pleistocene gravels. The 'ground truthing' of three geophysical transects was carried out by boreholes using a Terrier Rig. This rig produces 1m long cores and is faster than the 'Shell & Auger' type. The work was carried out at Binney Farm, Allhallows Marsh on the Hoo Peninsula in North Kent and participants were able to experience all parts of the work. Initial results were generated during the week and the data was of good quality. The boreholes demonstrated that the geophysical survey results were cost-effective and reliable. The work revealed a much greater complexity and local variability than expected. The approach is not seen as being prescriptive for other areas of the Planarch partnership, but rather demonstrating by way of case studies and active joint fieldwork, the possibilities for developing new approaches to evaluation. Participants from the Netherlands found the combined approach particularly interesting and are seeking to develop similar capabilities with the University of Amsterdam (Frieda Zuidhoff, *pers. comm.*).

Partners noted that a variety of different techniques are being explored but essentially the situation is familiar across the Planarch region. A common aim appeared to be the desire to create models of potential both in terms of the environmental history and for more defined units of buried archaeological remains using a variety of techniques and then allow the development control process to effectively test the model.

The CAI in Flanders were particularly interested in the use of GPS with pocket-arcview and the significant section of the SMR uploaded on it. This method demonstrated that a large area could be mapped quickly and accurately, new records added to the SMR and existing records updated on the field. This could be used in Flanders and would be very practical and save time but the costs might be prohibitive at this time.

Partners from Belgium and the Netherlands were surprised that in England there is little attempt to locate artefacts from borehole surveys. Defining layers and depths of artefact remains from borehole surveys is routine on the continent. The CAI considered that in providing historic environment information, the techniques used during the exchange (survey, boring and geophysics), could help give more detailed and accurate information on the archaeological value of areas (evaluation) that are involved in planning projects. Best practice examples for health and safety and comprehensive risk assessment for fieldwork were shared between all partners.

Conclusions from joint fieldwork

In conclusion, the joint field working was successful in realising wetland evaluation surveys using teams of field workers from a range of countries with the additional expertise enhancing the practice in each region. It has successfully achieved the aim of developing a transnational network of specialists who have worked together in the field and who cover a wide range of roles within archaeology and spatial planning. The six weeks of fieldwork allowed a number of specialists from across the Planarch partnership area to see how wetland evaluation was practised in other regions and countries. The principal similarities experienced by the partners were defined as including the types of threats, including climate-change, development pressures and changes in agricultural practice as well as the range of evaluation techniques available to the archaeologists (field walking, boreholing, geophysics etc.). The main differences were seen as the range of wetlands that surround the southern North Sea as well as the archaeological practice, policy frameworks and financial systems that have led to the development of a range of different priorities for evaluation methodologies. The Planarch wetland evaluation joint field working has played a useful role in helping to recognise these similarities and differences, exchange best practice and enhance ongoing survey projects. Most participants felt that during a future similar project, fewer staff should join existing projects for longer periods, but that this should also then be mixed with a larger group for a workshop to exchange and capture ideas.

Planarch 2 joint field working in Essex, Flanders and Kent 2004 - 2005



Fig 4.1 Essex 'mini coffer' excavation (A Single)



Fig 4.2 Essex augering (photo Wessex Archaeology)



Fig 4.3 Flanders fieldwalking (photo Wessex Arch.)



Fig 4.4 Flanders survey (photo Wessex Archaeology)



Fig 4.5 Kent boat survey (photo Wessex Arch.)



Fig 4.6 Kent coastal survey (photo Wessex Arch.)