

## The West Dean Archaeological Project: research and teaching in the Sussex Downs

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*Since 2005/2006 West Dean College and the associated West Dean Estate in West Sussex have provided the home for practical training of Institute of Archaeology students, for both the initiation ritual of the Experimental Archaeology Course ("Prim Tech") and for the field training courses undertaken at the end of the first year. It is also the location of a long-term research project, aimed at understanding human occupation and land use in this part of the South Downs from prehistory to the present day. In this article the authors describe the first two years of activity of the West Dean Archaeological Project.*

Edward James inherited West Dean, West Sussex, after the death of his father in 1912 when he was five years old. He became a life long patron of the arts, especially surrealist artists like Dali and Magritte. In 1964 Edward arranged for the estate to become a charitable trust (The Edward James Foundation) and in 1971 his flint mansion became West Dean College, which is now an internationally renowned

centre for the visual arts, traditional crafts and conservation. The West Dean Estate incorporates 6000 acres (c.1350 hectares) of the South Downs with scatters of Mesolithic flint work, Neolithic, Bronze and Iron Age earthworks, a well developed Roman settlement system, Norman churches, and Medieval villages, farms and industries (Fig. 1). Apart from the river Lavant the area is characterized by smaller dry valleys, with the Iron Age

Hill top sites of the Trundle, Harting Beacon and Bow Hill commanding the largest views in the area. Today the ownership and management of this area is dominated by large estates such as West Dean with land use greatly influenced by leisure pursuits such as walking, riding, hunting and racing, as well as more traditional agricultural activities including arable and pasture farming and woodland management.

The project described here is studying the West Dean Estate and its immediate environment in order to investigate evidence for changes in the form and location of occupation and land use, through survey, excavation, environmental research and artefact analysis. The project is co-ordinated by the Institute of Archaeology led by Bill Sillar, Andrew Gardner and Ulrike Sommer in association with the staff of the Centre for Applied Archaeology (CAA), particularly Clive Meaton. West Dean is now the location for the preliminary training of all Institute of Archaeology students in fieldwork skills.

### Learning in the field

Since Mortimer Wheeler's original conception the Institute has prided itself in providing students with training in the practical skills essential to archaeology. Recent training excavations were run by the Institute's field unit under the direction of David Rudling at the Roman Villas of Bignor and Barcombe, and prior to this a series of projects directed by Peter Drewett included the landscape study of Bullock Down and excavations at Black Patch. The West Dean Project is designed to continue this tradition by involving students in fieldwork and using their help to contribute to the research aims. The continued involvement of members of the field unit (CAA) is also central to the West Dean Project as they provide students with technical expertise and share their knowledge of commercial archaeology. Involvement in all stages of the project provides students with training in topographic and geophysical survey, excavation methods, artefact analysis, environmental studies, archive research and interpretation. This complex landscape with a wide range of sites from different periods and in different states of preservation should provide students with a good introduction to British archaeology and an ability to identify and analyse landscape features and excavation contexts which can be applied throughout the world. The richness of the archaeological sites in the area covering almost all periods of occupation in Britain, also means that this area can support a very diverse range of dissertation projects for undergraduate, Masters and PhD students

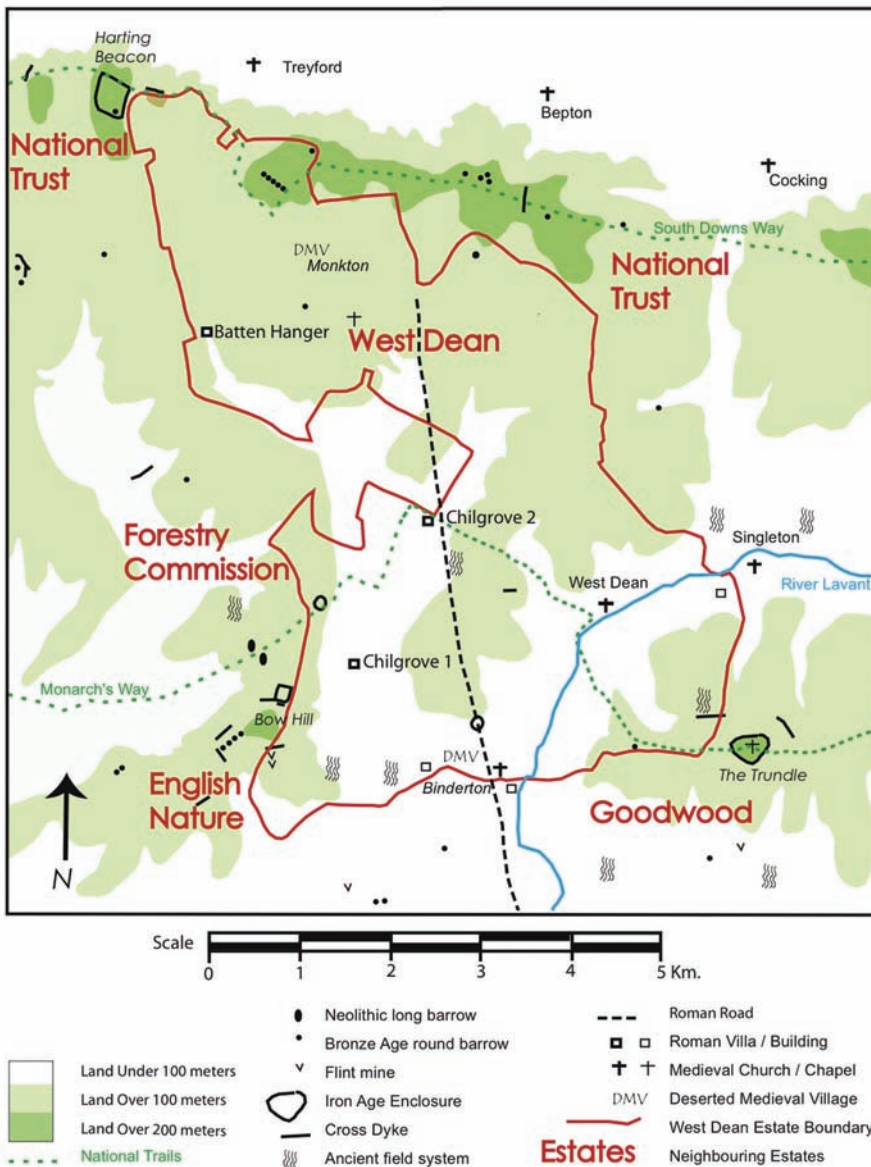


Figure 1 Map showing the location of West Dean and major archaeological sites in the area.

as well as engaging staff interests, so that the teaching and the research are recursive processes that both play their part in developing the project's aims.

Since 1982 all first year undergraduates coming to the Institute have travelled out of London to camp for several nights during the Experimental Archaeology course (formerly known as the Primitive Technology course: and still affectionately referred to as "Prim Tech"). This was started by Peter Drewett in a field adjacent to his house and has been located at a number of other locations since then, including West Farleigh Hall and Michelham Priory. Since September 2005 it has taken place at West Dean. The course gives students a better understanding of the remains they can expect to find at archaeological sites and what they can deduce about the behaviour of people in the past. The student society (SAS) and staff work together to provide an intensive but informal context for the new undergraduates to get to know each other at the very start of their degree. Experimental activities include: assessing what factors influence the survival of charred seeds; studying the choice of bone working techniques in the production of Egyptian bone "labels"; studying the properties of tree bark (bast) in textile production; using deer butchery to reconsider the evidence of hunting and resource use at Boxgrove; and a project developed as a result of the 2007 excavations at West Dean (see below) to investigating potential activities leading to the production of fire-cracked flint and its role in British Bronze Age pottery (Figs 2 and 3).

### Research themes

The broad research aim of the project is to gain an understanding of the area's long-term history and landscape biography (the sequential impact of human activities and natural processes and how these influence people's perceptions of the meaning and use of places). This includes both a focus on environmental history and a consideration of how farmers, craftsmen, artists and archaeologists shape our engagement with the landscape. The intention is to understand how wide regional changes in social, economic and ideological concerns are themselves constrained and developed within the specificity of the locality. A central feature of the project is the study of the materials and techniques used for the construction of buildings, boundaries, monuments and artefacts and how this affects people's experience of place and landscape. This can be considered in relation to how the choice of construction techniques and materials (e.g. earth, wood, stone, brick, or cement) change places at the time of



Figure 2 Experimental archaeology course 2005: tree bast skirt being prepared.

construction and subsequently deteriorate as structures collapse or are transformed by later activities, soil formation and plant growth. The diverse histories and current interests of the landowners and the high degree of public access to this area of the South Downs provide an excellent context within which to study how heritage and leisure interests are shaping the rural landscape today, an issue that has come to the fore during recent discussions about the creation of a South Downs National Park.

### The Roman economy and Batten Hanger excavations 2006

A particular strength of the surviving evidence around West Dean is the identification of a fairly large number of Roman sites (Fig. 1). Cunliffe suggests that the early date for the larger villas in the area indicates that the local Atrabati aristocracy allied themselves with the Roman invaders and maintained their land-holdings as they became a part of the "Roman" economy and administration.<sup>1</sup> The density of Roman sites encouraged us to initiate a study of the size of villa farms/estates, the agricultural activities they carried out, and how people selected their material culture from what was locally available. We wanted to try to identify evidence relating to agricultural production and other economic activities that are sometimes missed when excavations focus primarily upon the built structures. For this reason we focused our attention on what we assumed to be the working "yard" area to the north of the Roman Villa at Batten Hanger.

Batten Hanger was first excavated by the Chichester District Archaeological Unit under John Magilton between 1988 and 1991. The later phase of the villa



Figure 3 Experimental archaeology course 2005: using flint to butcher a deer.

comprised an aisled building (the "north range") and bath-house with mosaics and hypocaust heating as well as a long terrace consisting of nine rooms (the "west range"); at least two buildings pre-date this phase.<sup>2</sup> This is similar to the two Chilgrove villas (also on the West Dean Estate), which showed substantial evidence for increasing wealth and status partly expressed in extensive rebuilding around the late 3rd to 4th century.<sup>3</sup> The eastern gable of this building had a fairly grand façade dated to the late 4th or early 5th century by a scattered hoard of coins buried when it collapsed. The villa was contained within a ditched enclosure which extended to include a substantial area with no apparent structures to the north of the villa buildings. With the help and advice of James Kenny, who prior to becoming the Chichester District



**Figure 4** Excavating at Batten Hanger 2006.

archaeologist had spent several seasons supervising excavations at Batten Hanger, Mark Tibble undertook a geophysical survey North of the Villa in February 2006 which, in addition to showing the edge of the 1991 excavations, indicated a number of potential archaeological features. Clive Meaton and Andrew Gardner directed excavations between mid-May and late-June 2006 (Fig. 4).

A circular feature visible on the geophysical data-plots was revealed to be a ditched enclosure dating to the 3rd century AD, the interior of which contained a thick, dark deposit possibly indicating the use of this area as a large stock-pen (archaeobotanical samples recovered during flotation and analysis of phosphate samples may help to clarify this interpretation). This feature was cut by a sequence of pits which were filled with Roman rubbish; the latest of these pits was truncated by the foundation trench for a small square building probably dating to the 4th Century AD. The 2342 sherds of pottery analysed by Anna Doherty and Charlotte Thompson mostly date to the later 3rd and 4th centuries, but there is a significant quantity of residual 1st and 2nd century material. No prehistoric features were found but a few sherds of flint- and grog-tempered wares suggest Middle or Late Iron Age activity in the vicinity. There is a good range of Roman pottery, dominated by Rowlands Castle type wares, including an unusual group of large jars with characteristic deliberate finger-marks on the inside and a perforated base suggesting some special function for these vessels (Fig. 5). The majority of the coarse wares seem to be of a similar range to the nearby villas at Chilgrove, Upmarden and the later phases at Fishbourne with 60% of identified forms consisting of jars and 18% (sherd count) and 21% (weight) of bowls and dishes. One interesting aspect of the assemblage is the high number of mortaria in Samian or imitation Samian fabrics, including two vessels in Central Gaulish Samian, four in Oxfordshire red-slipped ware and one New Forest coarse red colour-coated ware. The “table

wares” also include between 8% and 4% of beakers including colour coated wares from the Nene Valley and New Forest; this is more than villa sites usually produce, possibly facilitated by the proximity of the New Forest industry and the market at Noviomagus (Chichester). Like the investments in building improvements, the range of dining paraphernalia suggests a high status and sociable display in the late 3rd and 4th centuries. There was a relatively small amount of metal recovered from the site, mostly consisting of iron nails and hob nails for boots, with a surprising lack of any personal ornaments. However, scattered through most deposits was a significant amount of slag, most likely from blacksmithing activities, which are also attested by the presence of hammer scale. This highlights a significant recycling of iron in the later phase of the villa and complements a pile of distorted iron objects including door fittings that were found awaiting recycling within the excavations of the Villa in 1990, and a late 4th century iron working furnace at Chilgrove I. This may link to a decline in iron production in the Weald, and a decline in the previous privileged access of the Atrebatii to iron.

#### Prehistoric field systems and Little Combes excavations 2007

The later prehistoric use of this landscape is well attested with Bronze Age barrows and occupation sites and Iron Age hill enclosures; however the dating of some sites such as the Goosehill enclosure and of widespread features such as cross ridge dykes is ambiguous. During May 2006 we started our landscape survey to characterize some of these features by looking at the land immediately to the south of West Dean College. David McOmish (English Heritage) helped to train some of our students in topographic survey by looking at the slopes below the Trundle (where a Neolithic causewayed enclosure and Iron Age hillfort are located) where they identified a series of large lynchets. Lynchets are banks which are formed at the end of a field because the soil, loosened by the plough, gradually erodes down slope, stopping at the end of the field where it probably met a field boundary. We were particularly interested in this area because a number of small platforms were identified next to the lynchets. At one of these moles had revealed knapped and fire-cracked flint as well as a couple of sherds of Bronze Age pottery which led us to believe this might be a hut platform similar to those excavated by Peter Drewett at Black Patch.<sup>4</sup> However lynchets have been variously dated to the Bronze Age, Iron Age, Romano-British and early Medieval periods; indeed it is



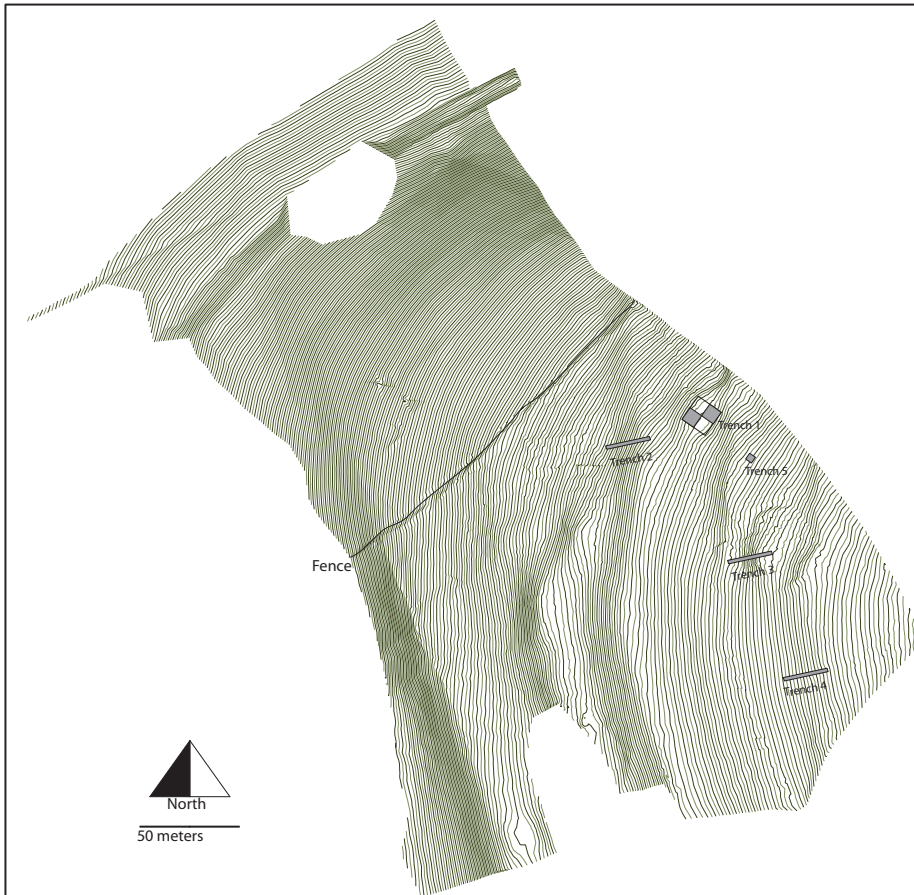
**Figure 5** Recovering a Rowlands Castle type jar during excavations at Batten Hanger.

possible that some of these fields remained in use for millennia. So, we decided to investigate when this area of land was brought into cultivation and what social, economic and environmental factors have shaped the changing use of this part of the landscape.

In November 2006 a group of 2nd year undergraduate students led by Mark Tibble and Tobias Richter began a detailed topographic survey of the lynchets (Fig. 6). While we were undertaking this the Estate Manager, Simon Ward, informed us that earlier in the century the area was used for a golf course, and the location of the platforms we had identified did indeed correspond with the nine squares shown on the 1912 Ordinance Survey Map! However, in April 2007 Mark Tibble undertook a magnetometer survey which showed areas of high magnetic reading (possibly due to extensive use of fire) close to the platform where we had encountered the flint and Bronze Age pottery (Fig. 7). We focused the 2007 summer training course on this area. Clive Meaton and Ulrike Sommer directed the excavations to address several different questions: When was this area of land brought into cultivation? How were the fields initially defined? Was there evidence for any associated activities, such as settlement? When did the fields go out of use? Our excavations (Fig. 8) revealed a surprising quantity of fairly large sherds of



**Figure 6** Survey course November 2006: training students in the use of total stations while undertaking the initial survey of the Little Combes lynchets, with West Dean College in the background.



**Figure 7** Location of excavations to investigate the Bronze Age field systems on Little Combes during the summer training course 2007.

Middle Bronze Age flint-tempered pottery which suggests that the lynchets came into use earlier than the major period of construction at the nearby Trundle hillfort. A pitted surface on the upper part of two lynchets may suggest that hedges ran along the top of the slope, but it is currently unclear if these were laid out at the start of lynchet formation or if they developed later. The high density of fire-cracked flint and survival of the low-fired pottery is more than would be expected from manuring practices. This leads us to believe that there was indeed some domestic occupation or other activity in the immediate area of Trenches 1, 2 and 5, but we have not yet located this. We will investigate the central area of fire-cracked flint and the potential hedge line in more detail in 2008. During informal walking in the area we have identified some 200 hectares of similar lynchets stretching over

long distances and running in parallel (some of which Rob Davies is currently mapping for his undergraduate dissertation). It is likely that these all date to the same period, suggesting that they represent a coordinated restructuring of the landscape to invest in intensive agricultural production. This intensive arable agriculture was subsequently abandoned; the field systems have probably been preserved precisely because the fields have rarely been ploughed in subsequent years. A few eroded sherds of Roman pottery could suggest a continued use of the lynchets into the Roman period, but it is more likely that they were out of use by the Middle Iron Age. This area has largely been used as sheep pasture since historic times (as suggested in a map of 1623). The golf course constructed for Edward James's father William had a very short period of use, but is indicative of the increasing importance of leisure activities in shaping the landscape at the start of the 20th century.

#### Medieval villages and future plans

We are currently planning the 2008 field season when we intend to return to Little Combes to dig a trench along the top of a lynchet to investigate the possible hedges and to excavate the central area of the fire-cracked flint scatter and possible occupation site. At the same time, we wish to develop our investigation of the emergence of the large estate ownership and land improvements in relation to the

changing fortunes of medieval farmsteads and villages in the area. The Earls of Arundel and Dukes of Norfolk held the West Dean estate for almost 500 years before it passed into various ownerships, including that of Richard Lewkenor who built a Jacobean manor house. Subsequently Sir James Peachey commissioned the architect James Wyatt to build a substantial new manor house in the early 1800s, with the finely worked flints that outline the windows being brought from Brandon in Norfolk. This building forms the centre of West Dean College. Unfortunately our survey for medieval features in front of the college has been compromised by more recent garden landscaping. In 2008 we will turn our attention to the nearby shrunken medieval village at Binderton where Thomas Smyth rebuilt the old manor house in 1680, destroying the Norman chapel and erecting a new one "at a more convenient distance" without the consent of the Bishop who subsequently refused to consecrate the "new" chapel. It seems that the village of Binderton was already in decline by 1680 and we hope to combine documentary research with a survey and targeted excavations of the area to the east of the former Norman chapel (now buried under the gardens of Binderton House) to investigate the layout and history of this village. Each of the fieldwork seasons has provided a wide range of training opportunities for our students, and the survey, excavation and analysis each contributes to our growing understanding of the long-term social and economic history of the area. However, we are conscious that we have only just begun our investigations of the West Dean Estate and that we will need to build on these first seasons in order to achieve the cumulative scales of analysis needed to write an informed biography of this evocative landscape. We look forward to continuing this research in collaboration with the students of the Institute and with the generous support of West Dean College and the Edward James Foundation.

#### Notes

- 1 B. Cunliffe, *The Regni* (London: Duckworth, 1973).
- 2 J. Magilton, "Elsted: the Roman villa at Batten Hanger", in *The Archaeology of Chichester and District* (Chichester: Chichester Excavations Committee, 1991).
- 3 A. Down, *Chichester Excavations 4* (Chichester: Chichester Excavations Committee, 1979).
- 4 P. Drewett, "Later Bronze Age Downland Economy and Excavations at Black Patch, East Sussex", *Proceedings of the Prehistoric Society* **48**, 321–400, 1982.



**Figure 8** Students excavating trench 2 through a Bronze Age lynchet at Little Combes, May 2007.