The prehistoric hillfort on Ham Hill, Somerset is the largest in Britain. A new quarry will open soon, bringing the opportunity for major excavation which began last year. Niall Sharples, Christopher Evans, Adam Slater, Andy Payne, Paul Linford and Neil Linford report on a project to waken the sleeping giant.

Hillforts are among the most distinctive ancient features of the British landscape. They first appeared in the bronze age, some 3,000 years ago, but visible earthworks are often iron age (800 BC – AD43). Among the best known are huge hilltop enclosures in south-west England, Maiden Castle (17.3ha) and Hod Hill (22.3ha), Dorset; Danebury, Hampshire (16.2ha); and South Cadbury, Somerset (7.3ha): such sites are distinguished not just by their multiple ramparts (known as multivallation), but also by famous archaeological campaigns.

Even by these standards, Ham Hill is massive: its ramparts enclose over 88 hectares, and it has a long and complex history of exploration. Yet very little is known about its date, occupation and significance. It seldom features in stories of the British iron age, and much of the data acquired over the years are unpublished and inaccessible.

The hill is probably better known for its stone. Quarried since Roman
times, Ham Hill stone features in many historic houses across the country, and in most of south Somerset’s buildings. The need for the distinctive, honey-gold limestone for work on listed structures persuaded English Heritage to back a new quarry extension by the Ham Hill Stone Company. More of the hillfort will be destroyed. The company is funding extensive new research and excavation, led by a joint team from Cambridge and Cardiff universities; new geophysical survey is being conducted by English Heritage.

We are not the first archaeologists to take an interest in Ham Hill. Thanks to the long history of quarrying, many local museums — especially the newly re-opened Museum of Somerset — have large collections of archaeological objects of all dates. There were limited excavations in the early 20th century, after a small Roman villa was found on the east side of the fort. In the 1920s Harold St George Gray, secretary of the Somerset Archaeological & Natural History Society, directed several seasons of excavation, opening at least 17 trenches on the northern spur; unfortunately he published only short accounts of his earlier work.

As quarrying declined — finally ceasing in the 1950s, when concrete was favoured for house construction — archaeological activity fell too. However, in the late 60s and 70s it became clear that to conserve the character of south Somerset and important historic buildings along the south coast, more Ham stone was required. Two quarries were opened.

The southern one was removing undamaged areas inside the hillfort, and rescue archaeology was required. During the 80s and 90s three separate areas were excavated, initially by the Central Excavation Unit and then by Wessex Archaeology. Meanwhile other projects began to systematically document the hill. The Royal Commission on the Historical Monuments of England (RCHME) undertook a detailed earthwork survey of the fort and surrounding medieval settlements, field systems and castle. The RCHME also sponsored a geophysical survey, undertaken by Geophysical Surveys of Bradford. Stephen Minnitt and Ann Woodward prepared to create a detailed catalogue and analysis of museum collections. However, while the rescue digs were separately published in the county archaeological journal, for a variety of reasons, none of the other projects was completed and published.

In advance of the new quarrying, we are excavating a large area (1.1ha) in the south-west corner of the fort, starting in 2011 and continuing for a further two summers. But this is only part of a bigger project. English Heritage largely completed the geophysical survey of the fort in 2011 (see opposite). We will undertake research excavations to establish the character of the inner rampart, and hopefully date it, and to explore some of the more important features revealed by the geophysical survey. We will examine and publish the St George Gray archive, we will seek a grant to examine the museum collections, and we will publish the earthwork survey. We aim to establish Ham Hill as one of Britain’s best documented hillforts.
English Heritage's Geophysical Survey Team measured the total magnetic field variation in two fields in the north-east corner of the Ham Hill plateau in March and May 2011 (above). They used an array of high sensitivity caesium magnetometers, with four specially modified Scintrex SM4 Smartmag caesium vapour magnetometer sensors mounted on a non-magnetic cart system. In these images the total field data have been reduced to pole, to centre the positive anomalies over their causative features and suppress associated negative "shadows".

Like the earlier fluxgate gradiometer surveys, the new caesium data reveal considerable detail about the multi-phased occupation inside the hillfort. The previously known Roman villa in the south-east (extreme bottom right) shows with associated enclosures of more than one construction phase. The major arterial roadway is clear in the south, with quarrying to the north (seen on the ground as large surface depressions, and in the magnetic data as an area of amorphous disturbance), that seems to have disrupted the earlier iron age occupation. Further roadways, ditched boundaries and enclosures are visible throughout the area, with many zones of pits and a scattering of circular ring-gullies indicative of iron age roundhouses with east or west facing entrances (one very clear house is near top centre). There is some refinement on earlier surveys in the new coverage, to be expected from more advanced instrumentation and techniques (this is likely to apply in other areas as well).
Iron and mustard

Information already retrieved from the hill, and more particularly the 45ha still available for geophysical survey, offers an incredibly detailed picture of not just a hillfort, but a large chunk of south Somerset landscape. The new and earlier rescue excavations are revealing apparently dense occupation from at least the neolithic.

We have excavated a substantial collection of stone tools, including many flint blades, a leaf-shaped arrowhead and a stone axe dating from 4000-3000BC. We have seen no obvious neolithic pottery, but there is some Beaker pottery. Most of this material occurs in iron age contexts and is clearly residual. Some objects, however, including a large part of a Beaker pot, may actually have been deliberately re-buried in the iron age.

The earliest surviving modifications to the landscape are a series of long parallel field boundaries (known as coaxial systems). These are clearly visible running north-south in the geophysical survey of the north-west corner of the plateau, and a similar system can be seen in the threatened area, running NNE to SSE. They have truncated ditches, 70cm deep and 1.1m wide, cut by iron age pits and an enclosure. Finds are rare, but 50% sampling of ditch fills eventually led to the recovery of a saddle quern and a fragment of a cylindrical loom weight, placing the system firmly in the bronze age (before 800BC). This was clearly an important period in the occupation of the hill, as a very large collection of bronze objects has been recovered in the past. In the 2013 excavations we found a complete late bronze age socketed knife and a fragment of a socketed axe.

The hillfort is an enigma. Its size is exceptional and the ramparts, where well preserved, are substantial. These are most impressive on the spur that projects from the north-west corner of the fort where at least three lines of ditch are visible. It has been suggested that this spur is an early primary hillfort and that the plateau, the large rectangular area that forms the main body of the hillfort, was added later. Unfortunately the area where the spur and plateau join is one of the most damaged parts of the site. It has been extensively quarried and built over, and the chances of ever locating an early boundary cutting across the spur are unlikely.

The most obvious feature on the geophysical survey that belongs to the use of the hillfort is a linear anomaly that runs from an entrance in the south-east corner, and across the plateau to the top of a dry valley which defines the east side of the spur. This major arterial route across the hillfort cuts through the bronze age field boundaries in the north-west corner. Two other possible routeways are visible, one curving south-west from the eastern entrance and one curving north-east from the coombe.

Evidence of occupation in the interior consists of ring-gally houses and clusters of pits. Pits are visible in the geophysical survey, with some noticeable concentrations in some of the irregular enclosures in the north-west corner of the plateau area. Pits explored in the previous work indicate that their use spans a considerable period of time, with examples of both early (600-450BC) and middle iron age (450-100BC) in the same cluster; they suggest these locations were foci for relatively long-lived activity.

The quantity of material culture in the pits is relatively slight, with very few of the dense concentrations of ceramics or animal bone that we would expect to recover from a chalk pit at Danebury or Maiden Castle. Special deposits are rare, but they do occur and include an important group of horse remains, a dog skeleton, quern concentrations and groups of ironwork. Iron in general appears to be much commoner at Ham Hill than on many other hillforts, and typical objects such as currency bars, n浴 hoops, bill hooks, sickles and latch lifters, and an unusual collection of iron torcs, have been found in the pits. This may reflect the good quality iron sources to the north in the Mendips, and to the south-west in Devon and Cornwall. It is noticeable that many iron objects were also found at South Cadbury, the closest fort to the north.

Yet the most unusual and idiosyncratic material recovered are the crop remains. This is the only iron age site in Britain to produce an assemblage dominated by black mustard seeds! Thousands of seeds have been recovered from several pits scattered through the excavated areas. The size of the deposits, and the number of separate finds, prove this was a domestic crop rather than accidentally or even systematically collected wild seeds. However, we can not yet say whether growing mustard belongs to a single period, or spans the hillfort's long occupation.

Rethinking convention

Rectangular enclosures, clearly imposed upon the existing field system, are prominent in the geophysical survey. Our excavations
provide the opportunity to explore a well-defined example, 85m by 110m; by the end of the three-year programme we will have examined over two thirds of it. We first thought these were a relatively late feature of the occupation. Most seem to have been aligned with the road across the centre of the hillfort, and so must be more recent than its creation. There is a cluster around the east entrance by the Roman villa, which suggested they might post-date the iron age occupation. But the 2011 excavations have revealed our enclosure to be iron age, defined by a V-shaped ditch with a single south-east facing entrance.

The prevailing model for iron age settlement in Wessex says that hillfort occupation ended in the first century BC, when the large nucleated populations in the hillforts dispersed back into the countryside into small farmstead enclosures. The rectangular enclosure could therefore plausibly be interpreted as a settlement established in the relatively deserted hillfort in the late iron age. However, as the excavation has progressed this seems less likely. The enclosure’s location is unusual, in a slight hollow on the plateau — normally small enclosures are on slight slopes with good visibility in one direction. Its interior seems rather devoid of occupation, and we found a crouched inhumation in the ditch. We hope to clarify this with further excavation and analysis, but it may be part of the hillfort occupation, marking a special place set apart from the main domestic space.

The recent geophysical survey has enhanced the context of the long-known Roman villa. It is surrounded by a complex series of enclosures, and immediately to the north-west is a substantial quarry. One wonders if there is a Roman temple concealed there. These are a feature of many western hillforts, and its presence might explain some of the high status Roman finds from the hill. The quarry may also be Roman, as there are no historic records of one at that location. Roman builders used Ham stone in nearby Ilchester, and Ham stone coffins were finding their way to Dorchester in Dorset.

Much Roman material has also been found at other locations, notably from the northern spur. It would be no surprise if this indicated military activity at the beginning of the Roman occupation of Britain, again a common feature of hillforts in the south-west, most noticeably at South Cadbury and Hod Hill. There is also limited evidence for Anglo-Saxon occupation of the hillfort. The chronology and significance of this early historic settlement will require further exploration of museum collections.

Even this brief run through of the activity on Ham Hill shows the importance of the site. The previous, but unpublished, work provides new information which is of considerable international significance. The current excavation programme is one of the largest undertaken on a British hillfort. Extensive excavations of such sites are rare, and are likely to remain so as most hillforts are protected by scheduling; large-scale destructive archaeological exploration would not normally be allowed. There are research excavations, but the costs of examining a rich iron age settlement limit the scope of such work.

The Ham Hill excavations provide an opportunity to gather an assemblage of artefactual, economic and environmental evidence comparable in scale to the large assemblages from Danebury, Maiden Castle and South Cadbury. The discovery of the black mustard seed deposits and the large quantities of horse bones, already suggest that we may need to reconsider the relatively standardised picture we have of southern British iron age farming. If the large enclosure proves to be an integral part of the hillfort, then this will again challenge existing perceptions of fort interiors. The next two years offer an exciting opportunity to examine one of the most important monuments in prehistoric Britain. We hope many people will take advantage, and come to see the excavations in the summers of 2012 and 2013.

Niall Sharplies is reader in archaeology/head of archaeology and conservation at Cardiff University; Christopher Evans is executive director, and Adam Slater is archaeological field director of the Cambridge Archaeological Unit, University of Cambridge; Andy Payne, Paul Linford and Neil Linford are on English Heritage’s Geophysical Survey Team, Portsmouth. See the project website at hamhillfort.info/ HamHillFortWelcome.html