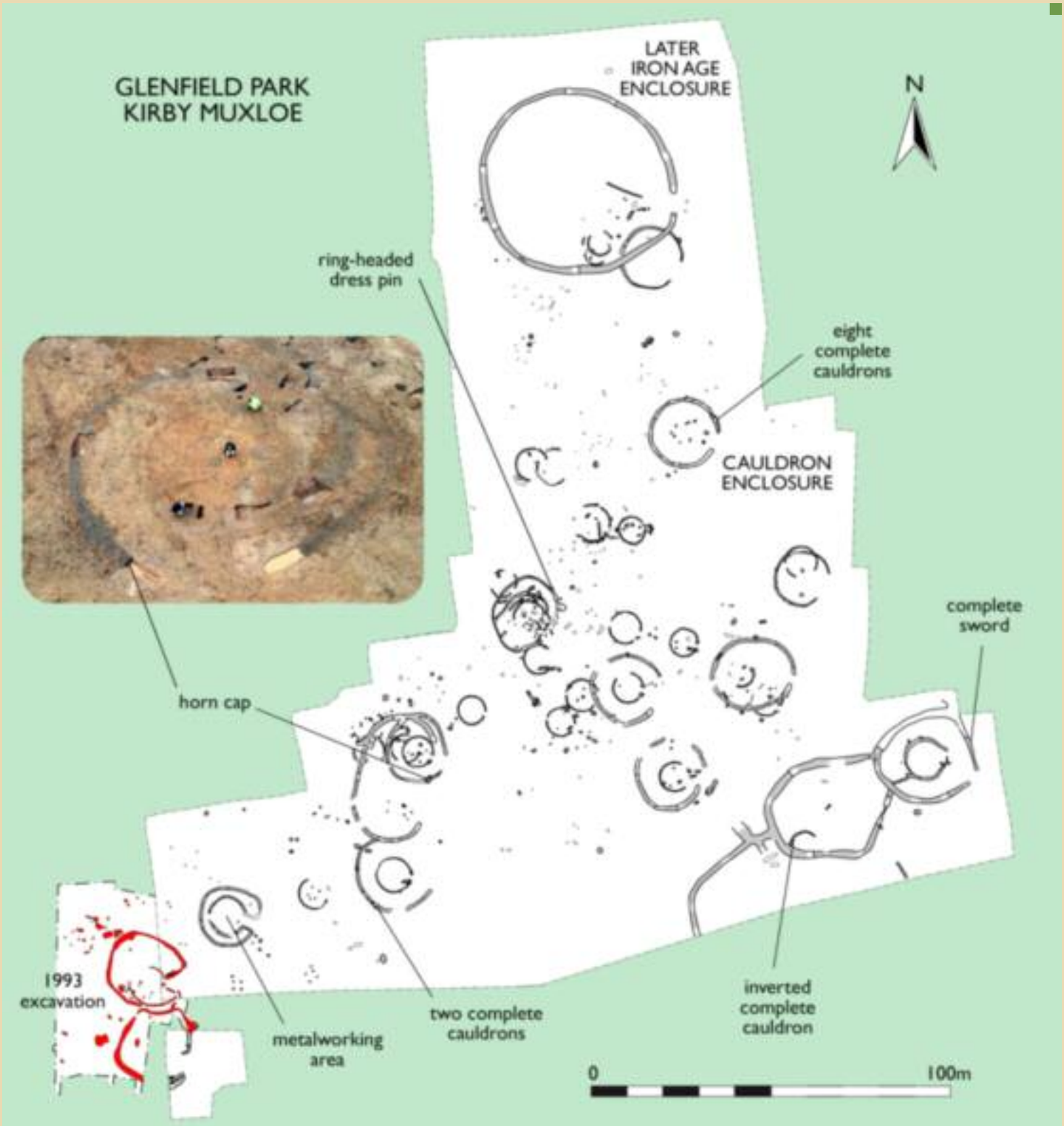
ULAS

Glenfield Park: Living with cauldrons

The heavily corroded iron rim of a larger cauldron is revealed in the cauldron enclosure ditch, close to the southern entrance terminal

Excavation in Leicestershire has uncovered unique evidence for iron age feasting and ritual at a long-lived, changing settlement. John Thomas directed the project



ULAS/AERIAL-CAM

A huge amount of information about the iron age landscape of Leicestershire (800BC–AD50) has been gathered over the past 20 years. Much of it has derived from developer-funded projects. Once described as culturally peripheral, the region's later prehistory is now seen to have a rich variety of settlement, important ritual centres, and impressive trading links with other areas.

Significant metalwork has been found at an iron age hoarding and feasting site at Hallaton (feature

Above: Plan of iron age settlement at Glenfield Park, with 1993 excavation shown in red; photo shows a better preserved roundhouse (thin dark ring) within its enclosure

Jul/Aug 2006/89) and during recent excavations at Burrough Hill hillfort (Nov/Dec 2013/133). Conversely, however, the quantity and range of metal finds from Burrough Hill brought into focus the relatively poor quality of such evidence from other contemporary settlements. This was about to change when the University of Leicester Archaeological Services (ULAS) began its next large iron age excavation in the county. It was commissioned in advance of Glenfield Park, a large warehouse and distribution development by Wilson Bowden Developments Ltd close to the M1, between the villages of Glenfield and Kirby Muxloe, both now on the urban fringes of Leicester. It took place over the wet, stormy winter of 2013/14.

The project revealed evidence for long-term landscape inhabitation throughout most of iron age and Roman times, across an area of some 12ha. But the main focus of interest was a dense, 4ha spread of settlement remains comprising many enclosures,

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roundhouses, pits and four-post structures that occupied the southern slopes of a low spur at the northern end of the area. This settlement turned out to be of at least national significance.

Part of the site had been revealed in 1993 ahead of a road development, when fieldwalking and excavation by the Leicestershire Archaeological Unit revealed settlement remains dating between the late bronze age and middle iron age (1150–150BC). At that time there had been few excavations of later prehistoric settlements in Leicestershire. It was nonetheless clear, from the wider spread of fieldwalking evidence, that the excavated site was only part of a much larger area of occupation concentrated to the east.

Sixteen years later, the warehouse development prompted geophysical survey and trial-trench evaluation by Cotswold Archaeology. As predicted by the fieldwalking, the survey picked up evidence of activity to the east of the earlier excavation, but this appeared to be sporadic, possibly reflecting occasional occupation across the area. The subsequent evaluation produced some eye-catching results. Iron age archaeology occurred in most trenches, and there were some substantial pottery assemblages. Most significantly, three complete iron age cauldrons were found in one of the enclosure ditches revealed by the geophysics – the first discovery of such rare vessels from the East Midlands. They were lifted and treated as a treasure case (a group of prehistoric metal objects) before finding a home at the British Museum, where they have been in storage ever since.

Above: The cauldron enclosure, looking north-west; five cauldrons were in the ditch south of the entrance (left), two at the back, and one on the north side

Below: An unusual concentric enclosure with quantities of metalworking debris and a complete pot in the ditch

ULAS/AERIAL-CAM

In September 2013, ULAS began work on the project's excavation phase. As stripping of the overburden progressed, it quickly became clear that the main focus of ancient settlement was considerably busier than we had anticipated. The excavation area was covered with overlapping roundhouses, enclosures, pits and postholes indicative of several occupation phases. There was very little open space.

Circular houses

The settlement shared characteristics with a number of other large and long-lived sites discovered in Leicestershire, and across the East Midlands, that have been described as aggregated or agglomerated settlements. These have both open and enclosed elements, successive occupation over hundreds of years, and the space divided into specialised activity or craft areas. Their ground plans can appear almost village-like; however excavation has shown that they are palimpsests, resulting from slight shifts of relatively small communities over time, creating the appearance of a much larger settlement.

Glenfield Park followed a similar pattern, though with denser clustering of occupation remains, perhaps resulting from a desire to live on the slightly higher and drier ground of the spur. As a consequence there was considerable overlapping of structures from each phase. Combined with a series of radiocarbon dates, this has helped us develop a good understanding of how the settlement grew and changed over time.

This slightly raised part of the

Left: A complete cauldron on the base of the enclosure ditch, lying upright with ring-handle showing

landscape was a special place before the iron age settlement began. There was a small cremation cemetery of eight burials on the highest point of the spur in the middle bronze age (1500–1150BC), perhaps a family group. Later bronze age settlement (1150–800BC) is known from nearby, and remains of this age were found during the earlier excavation at Glenfield Park. We found two post-built roundhouses which may also be later bronze age.

There was clearer evidence for occupation throughout the iron age. The earliest activity was an early/middle iron age open settlement that occupied the south-facing, lower slopes of the spur (600–150BC). It was organised into a spread of paired roundhouses, perhaps a combination of living space and craft or food preparation space, and associated pits. The houses were of ring-groove construction (defined by deep and narrow circular wall footings) and had remarkably similar characteristics – about 9m across, with easterly facing entrances marked by deep circular postholes. It is unclear how many of the buildings were occupied at any one time, but up to four households could have formed the community.

Slightly later in the middle iron age – radiocarbon dating indicates in the fourth or third centuries BC – there were striking changes in the settlement's character, seen in its organisation and its associated material culture. The old paired roundhouses were replaced by a spread of individually enclosed households and separate enclosures occupying a broadly similar space on the spur. Each new enclosure clearly cut through remains of earlier buildings, suggesting a change in community attitude during this period.

The settlement was essentially still "open", and the buildings were very similar: but each enclosed household appears to represent a deliberate expression of individualism, a pattern seen more widely across iron age Britain at this time. Things were buried in all the enclosures, particularly noticeable in the southern entrance terminals of the ditches. Those associated with roundhouses contained large amounts of domestic finds, much pottery (including several complete vessels), quernstones and burnt bone, as well as metal objects and metalworking debris.

One larger enclosure was located slightly away from the main settlement core, and surrounded a post-built roundhouse with a very different character. The original three cauldrons had been discovered here. We found a further five on the base of the ditch, making a clear connection between the enclosure and these rarely found vessels. All the cauldrons appear to have been deliberately laid in the ditch, either upright or inverted, before it was filled in; perhaps they were buried to mark the end of activities associated with this building.

This was not all. Three more complete cauldrons had been buried in other areas of the settlement, two together in another enclosure and one in a semi-circular gully. Traces of further cauldrons, including iron rim fragments and circular handles, were also frequently found across the settlement, indicating that others had been dismantled before entering the ground; regular scanning of the site with a metal detector ensured that no cauldrons were missed. In addition, fine ring-headed dress pins, an involuted brooch and a cast copper-alloy object known as a horn cap were discovered from different areas of the settlement, further emphasising the very unusual nature of the metalwork assemblage.

Later iron age occupation (150BC–AD50) spread out into the wider landscape and was more enclosed than

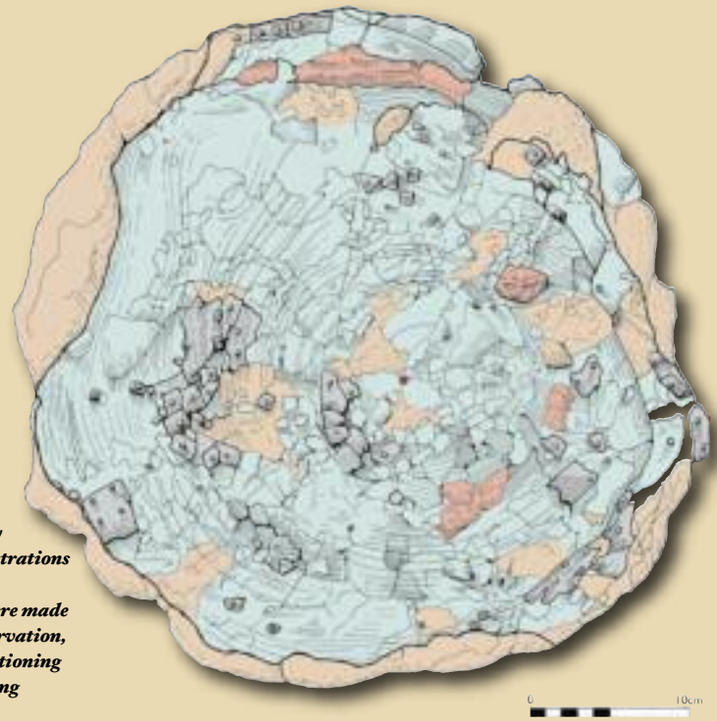
Upper rim of a cauldron during excavation of the ditch at the rear of the enclosure

The cauldron's rim is fully exposed

The soil block is carefully wrapped in plaster of paris bandages to secure it before removal from the ground

ULAS (4)

ULAS/MOLA (MUSEUM OF LONDON ARCHAEOLOGY) (4)



Right: Finely detailed illustrations of excavated cauldrons were made during conservation, showing positioning of all surviving elements

the earlier phases. At the southern end of the main area a conjoined enclosure system contained a roundhouse of very different character; no structural remains were represented but, instead, the building was surrounded by a deep eavesdrip gully, marking a change in architectural style. At the northern end of the area was a very large circular enclosure, about 50m across, defined by a deep ditch that had been recut at least twice and has been radiocarbon dated to the very late iron age.

Metalwork, including further cauldron remains and other unusual objects, was deposited at both of these later activity foci. The ditches in the southern area contained cauldron fragments and complete iron objects including a sword in its scabbard, a spearhead and several woodworking tools. The upper fill of the larger enclosure contained three clusters of cauldron fragments, mostly broken rims and handles. Metalwork deposition was clearly still important on this later settlement, but the pattern had changed. Cauldrons were buried in pieces: in contrast, it seems that it was necessary to bury other objects, such as the sword, in a complete condition.

Above: The result of weeks of careful excavation and conservation – a cauldron free of its soil block

Right: Detailed excavation of a cauldron revealed repair patches, indicating that it had been looked after for a long time

Right: A carefully riveted copper-alloy patch on the base of an excavated cauldron had shown on the CT scans as a ring of white dots

Ritual feasts

The dig's finds consisted mostly of a large collection of pottery, a group of saddle querns and the metalwork. The soils were acidic, so very little unburnt animal bone survived. This also appears

ULAS/PAUL STRICKLAND SCANNER CENTRE (2)

Left: A cauldron in the CT scanner, with result showing on the screen bottom right

to have been detrimental to the environmental evidence which is rather meagre, even though many of the deposits were rich in charcoal and burnt bone.

It is the metalwork assemblage that really sets this settlement apart however. In quantity and quality it far outshines most of the other contemporary assemblages from the area. Its composition is almost unparalleled, the cauldrons in particular making this a nationally important discovery. They are the most northerly known such objects on mainland Britain, and the only find of this type of cauldron in the East Midlands.

Iron age and early Roman cauldrons have recently been extensively researched and catalogued by Jody Joy, who identified two broad types of these large vessels: globular and projecting-bellied. The cauldrons from Glenfield Park are all of similar character. They are made from several separate parts, comprising iron rims and upper bands, hemispherical copper alloy bowls and two iron ring handles attached to the upper band. Their overall character corresponds with those that Joy termed "globular composite cauldrons".

Due to their large capacity it is thought that iron age cauldrons were reserved for special occasions. They would have been important social objects, forming the centrepiece of major feasts, perhaps with large gatherings at special events. The importance of cauldrons as symbolic objects is reflected in their frequent appearance in early medieval Irish and Welsh literature, which has been drawn upon in studies of iron age society. They are rarely found in large numbers and there have been few excavated examples in recent years, with one exception.

In 2005 17 complete cauldrons – the largest group yet seen in Europe – were excavated near Chiseldon, Wiltshire, by the British Museum and Wessex Archaeology, after an initial discovery by metal detecting (see feature Jan/Feb 2013/128). These cauldrons had been buried together in a large pit, along with fragments of other cauldrons and two cattle skulls, possibly in a symbolic act to mark a significant feast. Only the pit was excavated. Its general context and that of its contents are only partly understood, though geophysical survey revealed that it lay within a wider area of settlement.

The Glenfield Park discoveries are directly comparable to Chiseldon, and in some ways are of greater significance. The Chiseldon cauldrons derived from a single event: they were all buried together, and can be interpreted as a hoard. In contrast the cauldrons and other finds at Glenfield Park are the result of a series of events that occurred over a considerable length of time. Repeated episodes of deposition across the settlement mark it out as a potential ritual and ceremonial centre that also hosted large feasts.

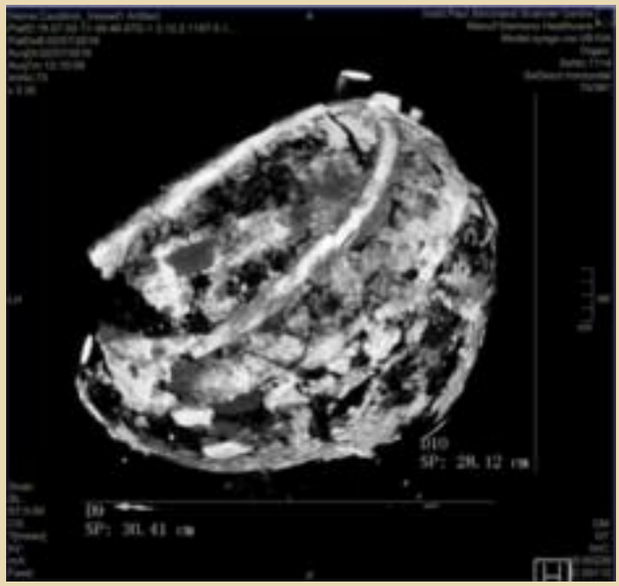
Special cauldrons

The cauldrons were fragile, precluding detailed excavation in the field. So we lifted them in soil blocks wrapped in plaster of paris bandages, to preserve their integrity ahead of more careful examination. Before any excavation and conservation began we wanted to find a way of looking into the blocks to see what had survived. We considered x-raying, but because of their size CT scanning seemed more appropriate. The cauldrons were taken to the Paul Strickland Scanner Centre, a medical facility in Middlesex with equipment large enough to accommodate the soil blocks. We weren't sure what to expect, but the scanning produced some stunning results. We learnt some very useful information about cauldron orientation, approximate dimensions and profiles, as well as tantalising glimpses of manufacturing methods, and even decoration.

From what we currently know from the CT scans, the cauldrons appear to have been of a variety of sizes, with rims ranging between 36cm and 56cm across. Pending further excavation, it is difficult to give precise measurements for the depth of each cauldron to determine its capacity. The average volume of the Chiseldon vessels was around 50 litres. If we assume the same for the complete Glenfield cauldrons, they would have a total capacity of some 550 litres: if all were in use at the same time, they could have provided for large groups of people.

As illuminating as the scanning results are, it is only through recovery from their soil blocks that the full potential of the Glenfield cauldrons will be realised. So far one cauldron has been so treated, with work on the remaining vessels to begin in 2018. Excavation and conservation of the first cauldron, undertaken by the MOLA conservation team under the lead of Liz Barham, provided much information about its

Below: CT scan of a cauldron that clearly shows the vessel's preserved profile

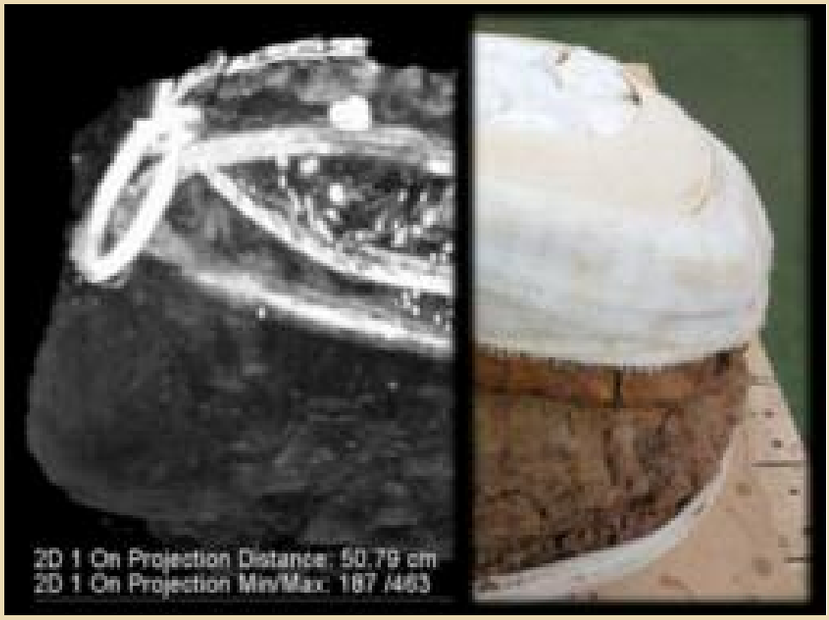


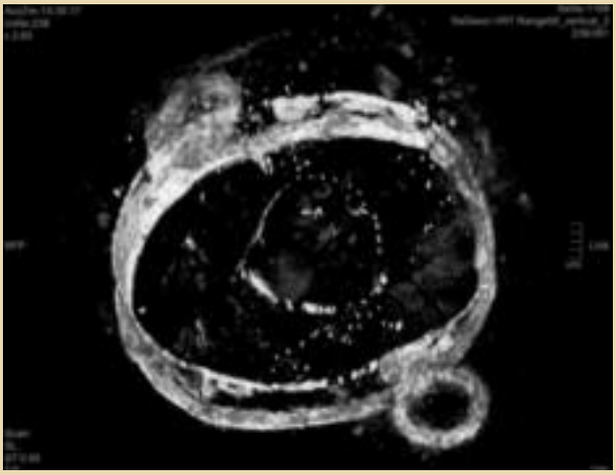
Right: Cauldron and CT scan montage

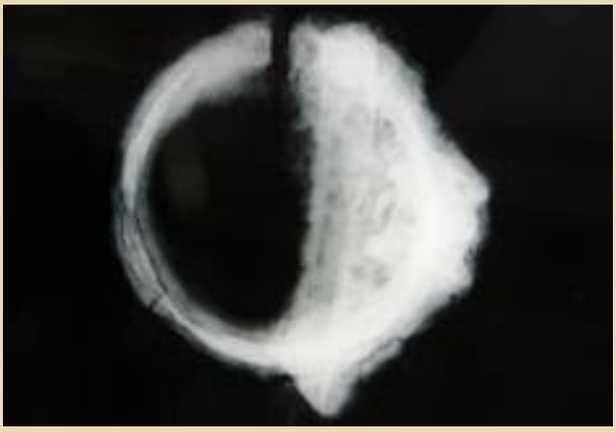
Below: Scan of a cauldron from beneath, showing iron rim, handles and upper band; the copper-alloy bowl is visible as a ghostly outline, and rivets holding it together as white dot formations

manufacture and life. For example, many neatly applied repair patches had been added to both sides of the cauldron bowl, indicating that it had been extensively used before it entered the ground. A thin sooty residue adhered to the cauldron's base, probably left from its final suspension over a fire.

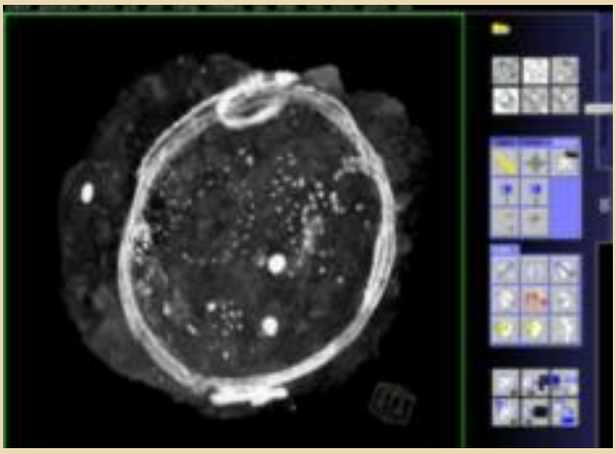
The CT scans of the other cauldrons show similar evidence of wear, tear and repair, indicating long-term and repeated use of the whole group. The







Above: X-ray image of an iron cauldron handle, showing tri-ribbed attachment which secured the handle to an iron band



Above: CT scan showing a cauldron in plan with a clear view of rivets (white dots) holding bowl and repair patches together

Right: Rendered cauldron scan with potential decoration showing as raised curving motifs on the iron band (top right)

ULAS/PAUL STRICKLAND SCANNER CENTRE (5)

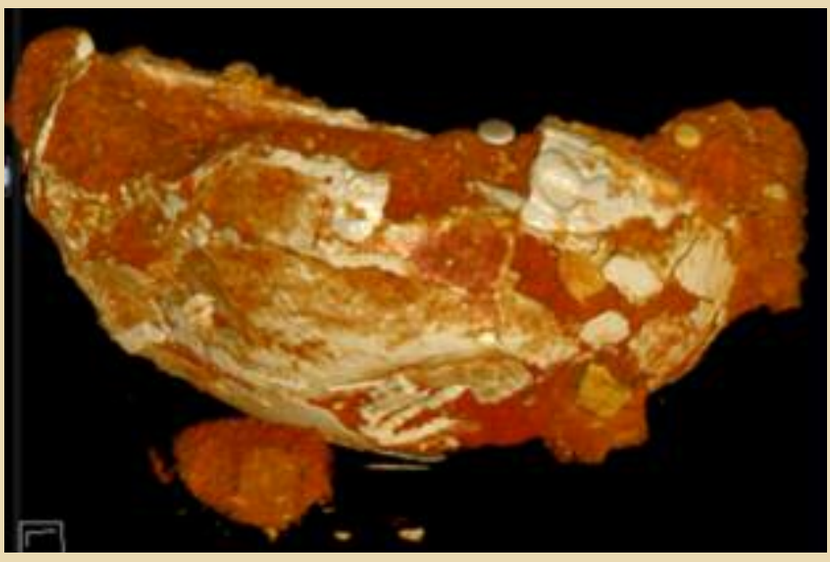
apparently long life of these objects and the care taken to repair them, shows that they were special to the iron age community at Glenfield Park. Continued maintenance of the vessels was essential to the role of the settlement.

As centrepieces in large gatherings it might be expected that cauldrons would be highly decorated. Very few examples of decoration are known for this type of vessel, however. Excitingly, two examples from Glenfield Park are decorated, further highlighting the site's significance. In one instance a small copper-alloy bowl fragment has a domed rivet or raised boss decoration, similar to that on a cauldron from Spetisbury, Dorset.

The second example was identified by the CT scanning. The iron band on one of the cauldrons from the main cluster was ornamented with raised stem and leaf motifs close to the handle locations, which are similar to the "vegetal style" of Celtic art, generally dated to the fourth century BC. This is only the fourth known cauldron to carry such decoration, and one of only ten or so known examples of this style of art on any contemporary objects from Britain: if proven during excavation, this is a very special discovery. The context of this cauldron means that it will be one of the few objects with this style of decoration that can be independently dated.

Social secrets

It is clear from this brief summary of the project to date that it has great potential to contribute exciting new information to our understanding of iron age societies in central Britain and beyond. The settlement itself adds considerable information on the establishment, growth and development of aggregated sites in the East Midlands, and offers new insights into the role of these larger



communities. The unique metalwork collection is unprecedented: the overall mix of finds and the large number of cauldrons highlight the settlement's role as a potential host site for feasting, with associated traditions of ritual deposition of important objects. As a result of the long-term occupation, there is high potential to see if and how depositional practice evolved over time, which could lead to fascinating new insights into changing attitudes and social behaviour as the iron age progressed.

Clearly this was a site of some importance in the middle iron age landscape of Leicestershire. The long-term habitation of the place, with its origins in the bronze age, may have helped instil this through repeated occupation from one generation to another. The local landscape of the spur on which the settlement formed is criss-crossed with streams that are tributaries of the Rothley Brook, which lies to the north. At certain times of the year access to the slightly higher ground may have been made difficult by wet conditions, almost making the spur an island. This liminal setting may have appealed to people as a relatively isolated place to settle, and eventually as a venue for gatherings that enabled cross-community interaction.

As work on the cauldrons continues they will gradually give up more secrets, adding to the story of this remarkable site. Until then, Glenfield Park has helped to show that even areas with apparently poor cultural representation in certain periods have the potential to make important research contributions on a national level.

Above: A beautifully made copper-alloy ring-headed pin, a distinctive British iron age dress accessory

Above: Finely crafted cast copper-alloy horn cap, a rare, enigmatic object that may be part of a ceremonial mace or sceptre

Above: An iron involuted brooch (mid third–early second century BC) found with the main cauldron cluster

The author would like to thank the excavation team, who worked through extremely difficult conditions. Post-excavation has been considerably enhanced through the input of Andrew Gogbashian, consultant radiologist; the CT-scanning team from the Paul Strickland Scanner Centre; Liz Barham and the MOLA conservation team; and Jody Joy, senior curator for archaeology at the Cambridge Museum of Archaeology & Anthropology. None of this would have been achievable without the financial support of the Glenfield Park builder, Wilson Bowden Developments Ltd.

John Thomas is a project officer at ULAS

Left: A complete iron age sword just after discovery in the top of an enclosure ditch

Right: A complete pot placed in an enclosure ditch