

Flint and Fire



ABOVE James with Dr Rob Wiseman (left) from Cambridge taking part in a specialist review and discussion about the **Havering Hoard** prior to its display at **MOL Docklands** – to be seen there until **April 2021** (photo: Museum of London)

BELOW While at university, James kept in contact with his mentor **Sylvia Beamon**, a retired archaeologist, and his local museum at **Royston**. In **2013**, he and his dad built a ‘stone age hut’ for a family open day there (photo: Royston Crow)



Dr James Dilley has been shaping a career in prehistory since he was a child, and is finding new ways to bring the past to life across Britain and beyond.

Becky Wallower met him via Zoom in lockdown to probe the detail of his far-reaching work.

At 28, Dr James Dilley has three degrees, his own business, an abundance of skill, and a seemingly unquenchable fervour for the prehistoric.

This occasional *Just the job* feature series has probed many uncommon corners of archaeology – epigraphy and conservation for instance. In this case, James has invented his own unique career: experimental archaeologist, craftsman, educator and specialist consultant in prehistoric technologies.

His path was encouraged from the start by family and mentors. On walks in local woodlands, his grandfather (a retired specialist cabinet-maker) introduced him to the utility of trees as James collected specimens of wood and stone. A love of history developed in primary school: ‘Egyptology grabbed me initially, until I realised that the days of Brits opening tombs were gone,’ he recalls, ‘and started looking closer to home.’ He remembers telling his mum en route to school at age 8 or 9 that he had decided to be a doctor in archaeology.

Visits to local museums, and signing up with the Young Archaeologist Club (YAC), in Cambridge, took his interests ever back in time. A YAC holiday on Bodmin Moor in Cornwall when he was 10 focused mainly on experimental archaeology such as flintknapping, bronze casting and bone working. James was ‘absolutely hooked on it’. Inspired by Cornwall’s groundbreaking experimental and community archaeologist, Tony Blackman, and with flint readily available around his Hertfordshire home, James started trying to make stone tools, ‘and then discovered it was really difficult.’

He had so many failed attempts that he had to seek sources of flint beyond local gardens and fields. Though his skills and knowledge gradually improved, he was often frustrated by not knowing how the process worked. ‘I’d sometimes have to just leave it for

a while, but always went back,’ he says, ‘and kept trying until I finally started to understand fracture mechanics and could make what I wanted to.’

Developments

He became proficient enough to be able to sell replica tools for pocket money, and with the help of his dad, set up AncientCraft and its website when he was 15. And on the academic front, even before he sat his GCSEs (including Archaeology in the last year it was offered), he had gained a top grade in his Archaeology A level in year nine.

Southampton was his chosen university. When he sat down for his initial interview with Dr Fraser Sturt, he was asked to describe an artefact as an archaeologist might. Fortuitously presented with a handaxe, he launched off an exposition on the date, material, function, production and likely source: he was offered a place on the spot. He specialised in maritime and palaeolithic archaeology (though the maritime side was dropped early on) and within months was teaching fellow undergraduates parts of the course where his expertise was valuable.

For his BSc in Archaeology, his thesis explored the manufacture and use of Neolithic polished stone axes in Britain using experimental archaeology undertaken in the building of a Neolithic village at the new Stonehenge visitor centre. Commissioned to produce a large collection of Neolithic axes and woodworking tools for use in the materials gathering stage, James recorded and analysed the process of making, using and maintaining the tools as trees were felled for supporting timbers and hazel coppiced for walls and roof frames. The tools then continued to be used in the prototype building at Old Sarum (Salisbury) and for the construction at Stonehenge. Finally, surviving tools were kept in the replica dwellings as points of

discussion between English Heritage guides and visitors.

He has provided consultancy, replicas, workshops and public engagement events for many other museums and heritage sites, from Scotland to Cornwall, and including the British Museum. There, he provided replica tools for displays in the new Early Societies section of the updated Joseph Hotung Gallery of China and South Asia, which was reopened by the Queen in 2017.

The AncientCraft business continued to grow alongside his studies, with most weekends spent engaged in public events across the UK and Europe. More recently, he has developed the media side considerably, presenting and consulting on projects.

His TV debut was in 2010, appearing in National Geographic's *Stone Age Atlantis*, demonstrating prehistoric technologies in a Mesolithic camp. Further exposure came with more flintknapping and archery with Julia Bradbury for BBC's *Britain Beneath Our Feet* series, and in 2015 in Jersey, where he was part of the Ice Age Island project excavating Upper Palaeolithic sites with Matt Pope and Becky Shaw. For an episode of BBC's *Coast* filmed there in 2015 he taught presenter Nick Crane how to flintknape, demonstrating the super-sharp result by butchering a deer leg. He has recently done work with ITV Wales and the Smithsonian Channel, and alongside a team from the US for *History in the Making*.

James also works with publishers Dorling Kindersley. Having loved their books as a child, he now provides consultancy and replicas, and has occasionally stood in as a model flintknapper.

Online lockdown

During restrictions of lockdown from March 2020, James has expanded his online presence. Workshops are easily adapted for the medium, and he's seen how they can bring a wide range of people to subjects around prehistoric tools and manufacture. 'I remember so well the sort of thing that encouraged me in the early stages – at YACs and museums – and it feels like completing the circle if I can bring similar experiences to other people.'

Putting something back is clearly a driver in his career. On one of many visits a child, he was poking

around a cavity in the cliff wall at Creswell Crags, and serendipitously discovered a bison bone; it is now in their archaeological collections. He also referenced the site in his PhD thesis on Upper Palaeolithic hunting technology. When the consequences of lockdown started to bite, Creswell Crags had only recently become self-sufficient, and their income ground to a halt. James made and donated a variety of artefacts for the fundraising auction and also devised the KnapTime series of YouTube videos demonstrating flintknapping and tool making. From a standing start, they got high numbers of views, with viewers encouraged back to Creswell donation sites.

A video that many in and around London became familiar with during the pandemic is one demonstrating bronze casting at the Havering Hoard exhibition at Museum of London (MoL) Docklands (until April 2021; see preview in Spring 2019 LA). Socially-distanced groups and queues regularly form, and it's particularly popular with children, who can watch James (in animal skin clothing and a realistically grubby face) prepare the charcoal fire and the moulds, select broken scraps of bronze, bring it to 1000° C with hide bellows, and pour molten bronze into the moulds before opening them to reveal the axes. An imperfect one is broken up and returned to the scrap pot and one, along with the clay mould and other replicas, is positioned just in front of the screen for handling. James thought the exhibition did an excellent job of drawing people in with the mystery of the hoards. 'It was so carefully thought out,' he says, 'and especially imaginative in bringing the often overlooked aspects behind making bronze tools alive. The landscape, gathering of wood and raw or recycled materials, producing charcoal, and making moulds, are as crucial as casting and finishing the tools.'

Experimental

James was one of a group of specialists from across the UK, staff from MoL and site archaeologists Archaeological Solutions, who gathered around the 453 items from the hoards and all the other artefacts from Havering. They contributed to the MoL



ABOVE Neolithic axes and adzes commissioned by Hatfield Moors for volunteers to use felling trees for a trackway (All photos ©AncientCraft unless otherwise cited)

BELOW LEFT the Neolithic village at Stonehenge, constructed with materials gathered using stone tools fabricated by James and volunteers
BELOW RIGHT Places in flintknapping workshops were offered in fundraising efforts for Creswell Crags – here James discusses flint sculpting and great prehistorians with Sir Anthony Gormley and Dr Paul Bahn in a lunch break





ABOVE TOP Experimental bronze palstave axe mould and first casting
ABOVE CENTRE Experimental work encompasses more than stone and metals – but this log boat was only manageable on still water
ABOVE Clothing made from hide, linen, nettle and wool being tested in the Scottish Highlands

RIGHT TOP Making tools, cordage and fire in a living history event at Butser Ancient Farm for Beltain (May Day festival)
RIGHT BELOW Film and media can make prehistory more immediate and understandable. Here James demonstrates copper smelting for ITV Wales's *Wonders of the Coastal Path*.

exhibition's presentation of the theories as to why the four distinct and differently composed hoards, buried close together, were left in Havering in the late Bronze Age. James believes that proposed experimental archaeology with some of these specialists and others may help to clarify why raw copper in the form of ingots or cake was still being gathered and circulated when so much scrap bronze was by then available. Is it possible that after multiple recasts of the bronze the alloy was degrading and needed to be refreshed?

The experimental side of his work also takes the form of exploring the technologies of tool making. In late 2020 he made his first bronze moulds and cast both palstave and socketed axes. He believes that most moulds were probably bronze, but, since they could themselves be broken down and recast, few survive. Experimental castings can help understand how long they might last under what circumstances.

This and other experimental

work is undertaken both out of personal interest and curiosity, and to expand his offering. Such experiments have the added benefit of being easy to make available to the public online, and to engage people in what are essentially research questions and in alternative theories.

Accessibility

This approach of 'making prehistory and the processes real, tangible' is an adaptation of his own learning experiences that he knows works. He believes that there's almost always something in history and prehistory that will catch the imagination especially if it can be seen, or done, or experienced: 'a bit like modelling or Minecraft maybe'. With an understanding of prehistory in Britain from Palaeolithic to Bronze Age, he tries to make the past relevant and immediate through activities that reflect the local geology, resources, tools, expertise and processes. 'It makes a big difference,' he says, 'if you can demonstrate the products of copper mining in Great Orme if you're in Wales, or how use of local stone affects what you make if you're in Yorkshire.'

With travel and events at museums, schools and heritage sites curtailed during lockdown, the online models have expanded. As well as producing practical demonstration / teaching videos such as the KnapTime series, James is making his webinar offering personalised – easily done from his home office where numerous replicas and materials are

readily to hand for wide-ranging interactive question and answer sessions that follow a short, engaging presentation. In one for Lynn Museum in Norfolk, he was able to reference bronze tool marks on the timbers of 'Seahenge' that are displayed there, and go on to deal with questions ranging from how the Bronze Age changed the landscape, through the position of craftsmen in Bronze Age society.

Having completed his PhD in 2020, he's not looking to go into academic teaching, for the time being at least, though he's continuing to publish: a paper is being prepared with his main PhD supervisor that explores Upper Palaeolithic resource management. The business of AncientCraft has proved itself to be viable. And, as shown with innovations forced on James's work by pandemic restrictions, it looks like it's resilient as well, with adaptable output relating to the circumstances of his audiences and clients. Straddling academic and engagement disciplines as well as technologies, sites and cultures from the Palaeolithic to the Bronze Age means he's also well placed to expand his media work.

As AncientCraft develops, he's looking to find a base where he can have a suitable workshop for tool making and videography ... and space to use the tools to build a roundhouse. 'Everybody needs a roundhouse in the garden, right?' he asks.

For much more, see James's website: <https://www.ancientcraft.co.uk/>. You can follow him on Instagram, YouTube, Twitter and Facebook.

