



ARCHAEOLOGY

The Newsletter of the Berkshire Archaeological Society

Spring 2021

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Dates for your diary

Wednesday 7 April 2021 The Study Group on Zoom at 3 p.m.

Saturday 17 April 2021 Lecture on Zoom starting at 2.30 p.m. Mills in Berkshire, by Mildred Cookson, The Mills Archive.

Sunday 13 June 2021 – On Line Talks Celebrating 150 years of BAS. From 3 p.m. to around 4.30 p.m.

14–25 July 2021 The Berkshire Archaeological Society: 150 years of contributing to Berkshire's archaeology. This exhibition is due to tour later this year and early next. Currently the only fixed date is 14-25 July at West Berkshire Museum (assuming full opening hours).

Saturday 2 October 2021 Day School 150 The Cornerstone, Norreys Avenue, Wokingham, RG40 1UE, from 10 a.m. to 4 p.m.

Saturday 13 November 2021 Celebration Dinner. Venue to be decided.

From the Co-Chairs

No wonder our forebears centred so many of their ritual monuments around the natural world and its seasons: the promise of spring in the past few weeks, as carpets of snowdrops and clumps of primroses are peeking up in the woods and lanes, brings with it the promise of hope. The last year has been profoundly difficult but has introduced unexpected positives: online meetings have enabled engagement with BAS activities in new ways. I cannot be the only one who has secretly relished attending a first-class lecture from the comfort and warmth of my own home and the ability to 'share screen' has transformed the ease of making presentations. I am in awe of the various trustees in the Activities, BAS 150, Communications groups and Study Group who have gone from Plan A to Plan Z and back again in the space of months as lockdown and COVID measures change. I thank them on your behalf for ensuring that the BAS programme has continued.

Back in 2019 BAS wrote to several institutions regarding the future of Reading Gaol following its prospective sale by the Ministry of Justice. Since then a developer's offer has been made and withdrawn, a campaign to save the site for an arts and heritage hub has gained momentum, and a Banksy (sadly vandalised) has appeared on the prison wall. As I write, Reading Borough Council is finalising its bid to purchase and develop the site, mainly as an arts, heritage, and community hub. The BAS Council has long felt that it would welcome the chance of the Society being part of that vision. Tim Lloyd and I have attended a couple of meetings with the Council in the past few months: as Tim commented 'the feeling I came away with was very dualistic – excitement at the potential and dismay at the mountains to climb...in the shape of planning laws, money, logistics'. I think it is safe to say that we are looking at a medium to long-term prospect for being involved with any vision but be assured you will be updated as to that vision as it becomes clearer.

The other exciting development in the county is the Middle Thames Valley Partnership (MTVP). Many of you may have heard, as part of our regular lecture series, Gabor Thomas speaking about the Anglo-Saxon warrior found at Marlow on OUR side of the Thames. BAS made a donation towards the conservation and analysis of grave-goods associated with this burial. In addition, you may recall that at the end of his presentation he briefly referred to this Partnership which has evolved from the East Berkshire Archaeology Project. BAS, more specifically Ann Griffin and Andrew Hutt, along with others participated and contributed significantly to this project. The vision is to include both desk-top and fieldwork based research and both local societies and larger institutions such as the University of Reading. It is early days yet to decide whether or how BAS will be involved but – as they say – watch this space.

Alison McQuitty

IN
BERKSHIRE

The Berkshire Archaeological Society celebrates 150 years!

Sunday 13 June 2021 – Garden Party

Some of you are already aware that sadly the Society's booking for the Garden Party to be held in June has been cancelled by the venue, which is being used as a vaccination centre. Since then, the 'road map' published by the government would mean that the Society would not have been able to hold this event then anyway. However, instead of cancelling entirely the Society now plans to hold an online event from 3 p.m. to around 4.30 p.m.

The Society's President, Professor Michael Fulford, will give a talk entitled 'The Berkshire Archaeological Society: celebrating its first 150 years', and Andrew Hutt will give a talk, 'BAS: back into projects'. The Co-Chairs will give a toast to the Society Past and the Society Future.

Another change is that as an online event this will also be open to non-members but, as usual they will need to register via lectures@berksarch.co.uk

Saturday 2 October 2021 - Day School 150

The Society is going ahead with its plans to hold this Day School 'in person' at The Cornerstone, Norreys Avenue, Wokingham, RG40 1UE on Saturday 2 October 2021 from 10 a.m. to 4 p.m. However, given the pandemic and the possibility of a mutant variant the Society has a well-formed back-up plan to hold this event online should the

need arise. The programme will be published in due course.

Saturday 13 November - Celebration Dinner

The Society is also going ahead with its plans for a celebration. Information on this event along with a booking form and instructions will be published in the Society's Autumn newsletter.

BAS 150 exhibition

A celebratory exhibition, 'The Berkshire Archaeological Society: 150 years of contributing to Berkshire's archaeology' is due to tour later this year and early next. At the moment the only fixed dates for this are 14-25 July at West Berkshire Museum (assuming full opening hours).

PAS 150

Thanks once again to Phil Smither, Finds Liaison Officer, Berkshire, for compiling the above. Phil is now tweeting four of these each week with #BAS150 #PAS150. They are also added to the Society's web site at <https://tinyurl.com/z3nrbb7u> on a weekly basis.

Julie Worsfold, BAS 150 Working Group

Archaeology on Saturday

Members' Talks

19 December 2020

The Stone of Life: Grain Processing in Jordan, by Alison McQuitty

Alison explained that the title of her talk had been taken from a book by David Peacock about ancient flour production (*The Stone of Life: Querns, Mills and Flour Production in Europe, up to c.AD 500*), as the processing of grain into flour for bread, by grinding between stones, was pivotal to the evolution of civilisation all over the world, including in Jordan.

Alison first worked in Jordan in the 1980s, as a 'dig bum' (her words, not mine!), and showed us photographs of various dig sites from this time. As there is little written evidence for prehistoric mills, Alison described how the evidence for the existence of mills was found from excavation, architectural surveys of sites, and from ethnographic enquiry. This last meant talking to elderly people, and finding from their memories when a particular mill, even a now ruinous mill, may have been in use by their grandparents, and other ancestors.

We saw pictures of women preparing and baking flatbread, known colloquially as 'Aish', in clay ovens. We learnt how it was considered very bad luck to throw bread away, and that any that had fallen on the floor and was

not fit for human consumption, was stashed away in a corner of the kitchen. Alison thinks it was later fed to goats, in order not to waste food, but that this was done discreetly and not talked about.

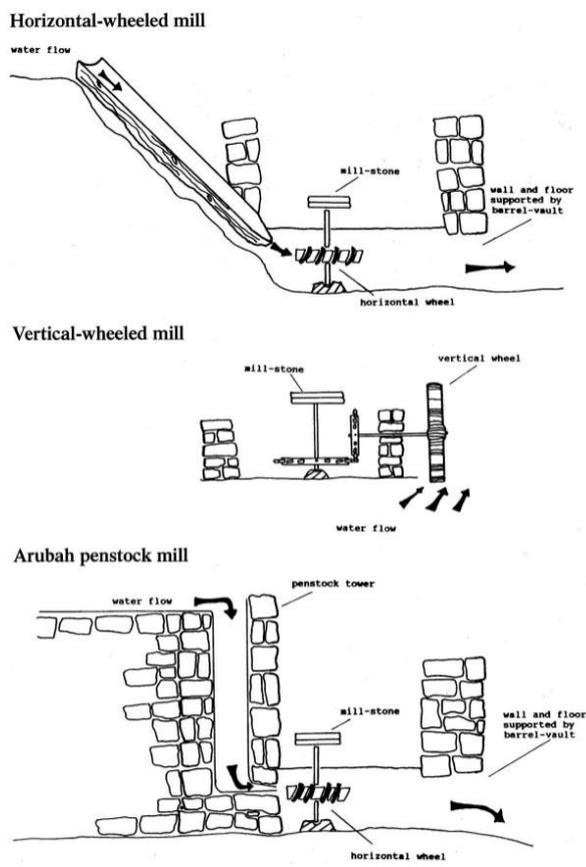
The first mills were saddle querns, where a kneeling woman ground the corn between a stone rubber and a large saddle-shaped stone. About 2000 years ago, saddle querns were supplanted by rotary querns. These worked by grinding the corn between two circular stones. The corn was trickled in through a central hole in the upper stone, which was then turned using a wooden handle inserted into the stone.



Alison explained that every household would have its own quern, that they were as necessary as pots and pans in the kitchen. This changed with the development of what is known as the Pompeian mill. Here, a huge circular grinder stone is turned by men or a donkey, needing more

room than found in a kitchen. This led to the development of 'industrial' bakeries, where corn was ground in a courtyard, processed, and then baked into bread. We saw an example of the large lower circular stone, with its prominent boss, from Khirbat Faris in Jordan, as well as a reconstructed Pompeian mill in the Museum of London.

Alison went on to talk about watermills, showing a photograph of the first one she had seen in Jordan, in the 1980s, and explaining that such mills were to be found all over the world, from the Shetlands to Kashmir, wherever there was a good flow of water. She explained that it was unclear when these mills were introduced, as it was very difficult to date the remains.



Mill types

How the various types of watermills worked was described, with the diagrams shown clearly illustrating the process. The vertical-wheeled water mill is the one most people are familiar with, but the workings of the horizontal-wheeled mill and the penstock mill were also described.

We saw the remains of a 13th century AD vertical-wheeled mill at al-Safi in Jordan, which was used to crush sugarcane, an important money crop. In the Q & A session at the end of the talk, Alison explained that as well as wheat, barley, pulses, and sugarcane being ground, watermills could also be used to grind copper and manganese ore.

From the excavated remains of a penstock mill in Wadi Arab, we were able to see how, from a distant waterway, a conduit or leat brought water to the mill. The water then fell down a 'chimney', and with the additional force of gravity, became powerful enough to turn the mill wheel.

Alison talked of the difficulty of dating the remains of watermills. The accumulation of tufa (a stone formed when the calcium carbonate in water precipitates onto moss and other plants), showed that the mill had been in use for 200 years. For *when* the mill had been in use, there was some evidence from 16th century tax documents. Ethnographic evidence from elders suggested that some watermills were still in use in the 1950s and 1960s, but then modernisation had taken place, with diesel replacing water as a source of power.

Alison talked briefly about vertical-wheeled watermills, which were very common in some parts of the Roman Empire, but said that there were no examples in Jordan, except for three built by Armenians in the 19th century. Later, in the Q & A session, Alison was to say that in spite of the excess of wind in Jordan, no evidence of windmills was to be found, with the only windmill of which she was aware having been built by German settlers in modern times.

Alison explained how previously, individual households had taken their grain to a mill to get it ground, and that this practice had continued with diesel mills. But that gradually the practice of industrial bakers grinding flour and baking bread for sale had become more widespread.

The efficiency of the various types of mill was discussed. Grinding corn on a saddle quern for an hour produced 0.5–1 kg of flour, a rotary quern produced 4 kg, a Pompeian mill produced 5 kg, and a horizontal-wheeled watermill produced 25 to 50 kg of flour. This clearly displayed how the 'Stones of Life' had enabled the faster production of flour with which to feed the expanding populations of emerging civilisations.

Alison finished her talk with websites for those interested in further research:

The Mills Archive Trust, Watlington House, Reading, to be found at: <https://new.millsarchive.org>

The International Molinological Society, at: <https://www.molinology.org>

Archaeology in Schools, by Maggie Smith

Maggie started her talk by showing us archaeology in school grounds. We saw the results of excavations by Oxford Archaeology at Mapledurham playing fields, and were told that at several schools in Reading new building work had resulted in, for example, the excavation of a Late Bronze Age roundhouse at Reading Girls' School.

Maggie went on to answer the question 'What teaching and learning of archaeology is going on in schools?' She started with a brief description of the different types of school to be found in England, and then discussed how

they are regulated. We learned about the Education Reform Act 1988, and the effects that this had had on education, with the introduction of the National Curriculum, Key Stages, SATs and OFSTED, the Office for Standards in Education, which is responsible for inspecting schools in order to maintain standards.

We saw a list of the twelve National Curriculum subjects, and learned how the details of each subject had changed over the years, and with changes of government. For example, Maggie told us, Michael Gove has a particular interest in history, and when he was Secretary of State for Education, this was reflected in changes to the National Curriculum.

We looked at the details of Key Stage 2 (ages 7 to 11 years) History syllabus in the National Curriculum. These started with Changes in Britain from the Stone Age to the Iron Age, went on to the Roman Empire and its impact on Britain, then Britain's settlement by Anglo-Saxons and Scots, and finally the Viking and Anglo-Saxon struggle for the Kingdom of England up to Edward the Confessor. A local history study was included (presumably to encourage young people to engage with their local communities), as well as a study of the achievements of the earliest civilisations, both European and non-European, with which to compare British history. Maggie told us that in Key Stage 3 (ages 11 to 14 years), English history continued from 1066 to World War II.

Maggie pointed out that up until 2019, archaeology could be studied to A and AS level, and she showed a couple of questions from the AS Archaeology examination paper, for us to have a go at answering. (I was fine on 'Archaeological skills and methods', but my knowledge of Egyptian archaeology is limited!)

In Maggie's opinion, the National Curriculum was 'very prescribed', and she felt that with SATs, OFSTED, etc., there was too much pressure for results, and no time or desire for extra studies. She pointed out that the National Curriculum varied across the UK, with Wales and Scotland, for example, having a very different approach to teaching, with fewer prescribed details, and so had room to add archaeology. As far as the rest of the world was concerned, Maggie had been unable to find archaeology taught in schools anywhere, other than in Australia, where there were courses for senior schoolchildren.

Maggie went on to answer the question 'What contribution can archaeology make to pupils' learning?' Maggie felt that a knowledge and understanding of archaeology crossed the science/humanities/arts divide, and that there were links to many other subject areas. She felt that the skills archaeology had to offer were too many to number, and that the values archaeology taught were of use in studies of cultural identity and cultural diversity. In particular Maggie felt that seemingly inaccessible time periods could be made relevant and meaningful to pupils through archaeology.

Maggie described the barriers to increasing the awareness of archaeology in schools, the most significant appearing to be a rigid or overcrowded National Curriculum and the assessment regime. Other barriers included lack of awareness, archaeology considered to be of little practical use, and history teachers not having been trained in archaeology, and hence more comfortable relying on written historical records, rather than using the real historic environment as evidence.

Maggie suggested that the barriers could be overcome by teaching and archaeological communities exchanging knowledge – sharing practice, and also by sharing examples of showcase initiatives by archaeologists. In discussing the way forward, on how to promote archaeology as a learning tool within the school curriculum, Maggie went on to give examples of sharing practice, such as that of the Museum of London going to schools and providing archaeological experiences for schoolchildren. She also described fieldwork initiatives such as Historical Association: Dig School – a free online workshop for secondary schools, and also Oxford Archaeology, which provided dig sessions for children.

Maggie talked about what BAS had done in March 2019, when a teacher had asked for help for a school visit to a local Iron Age hillfort. Maggie described a visit to the school, and the BAS-organised experimental activity of living in an Iron Age roundhouse, this being created out of a circle of chairs in the school hall, with the children going inside, working out where they would sleep and put their belongings, and how they would live there. We saw a simple model of an Iron Age roundhouse that the schoolchildren could, and did, make for themselves.

Then the actual field trip – a visit to Caesar's Camp Iron Age hillfort in Bracknell. We saw photographs of the children measuring the width of the Roman road that led to the hillfort. We saw the children on top of the hillfort, looking at, describing, and sketching the fortifications. The children looked as if they were enjoying themselves, and one presumes a good time was had by all!

Maggie described many other ways of involving pupils in archaeology, one of which was to set up a Young Archaeologists Club (YAC). Maggie described how the Outreach working group of BAS is exploring the most effective ways to work with local schools. Ways suggested were to create resources (artefacts, worksheets), to provide experiences (fieldwork, simulations), to provide specialist expertise, or to act as a gatekeeper to existing resources. Other suggestions were invited.

Maggie ended her talk by asking the question: 'Why should we work with schools?' Her answer: If young people are introduced to the historic environment, they begin to value and appreciate it, and support its preservation.

In the Q & A session that followed, Beth Asbury, Assistant Archaeologist (HER and Outreach) for West Berkshire

Council, talked about the work local museums did with schools, and also Reading Young Archaeologists' Club. Other members joined in, and discussed problems with communicating with Reading YAC, and the lack of a Berkshire YAC that covered both West and East Berkshire.

Adventures in Egypt, by Beth Asbury

Beth set the scene for her talk by showing us a map of Cairo. She pointed out the Giza Necropolis and the Grand Egyptian Museum, so that those of us who had been there before could orientate ourselves. She then showed us the location of the Egyptian Museum, and nearby, on Gezira Island, Beth's apartment block and her workplace, at the Supreme Council of Antiquities (SCA).

Beth talked about the history of the SCA, the government body which was responsible for the conservation, protection, and regulation of all antiquities and archaeological excavations in Egypt. We saw photos of Beth and her colleagues outside the SCA building, the living room of her cosy flat, and a peaceful view of Downtown Cairo.

We saw Beth's boss, Dr Zahi Hawass, posing with Beth and her colleagues. Beth talked about the work they did, in what they nick-named 'the foreign office' at the SCA. As native English speakers, they assisted Dr Zahi in the writing and editing of his correspondence and publications. She explained that the Egyptian government policy was to not employ foreigners, and so Beth and her colleagues were not officially employed!

We saw a photo taken by Beth's colleague, Meghan, in 2009, of Dr Zahi and President Barack Obama in Cairo. We saw the new tombs discovered at Giza, where Beth had gone to help a French television crew film the remains. We saw Dr Zahi with a CT scanner and at a DNA lab, and were told of the CT scanning of Tutankhamun's mummy, and of further work he intended to do on other mummies, including that of Hatshepsut.

We saw photos of the huge, labyrinthine underground storerooms of the Egyptian Museum, taken before the revolution, and looking very neat and tidy. We saw Dr Zahi at the official opening of the Islamic Museum, and Beth talked of the work he had done in Egypt, in particular the opening of 17 new storage magazines for archaeological artefacts, where they could be protected and preserved before being moved to a museum.

We saw a lively and colourful photograph of an SCA staff awards ceremony, and Beth told us how Dr Zahi had founded a training scheme for young Egyptian archaeologists. She described some of the rules Dr Zahi had introduced to safeguard Egyptian archaeology from treasure seekers, such as that only properly qualified archaeologists, who must be associated with a university, could work on Egyptian sites, and that they must publish reports in good time. These new rules were criticised, but eventually accepted as good archaeological practice.

Beth told us how Dr Zahi had raised the salaries of guards at archaeological sites, in order to stop the practice of accepting bribes for illegal visits and the taking of damaging flash photographs. He had also ruled that people should no longer climb up the sides of pyramids, as this caused damage to the ancient structures.

We looked at the Step Pyramid at Saqqara, and Beth told us how Dr Zahi had had it repaired and made safe, in order for it to be more accessible to tourists. We saw images of 26th Dynasty and 21st century repairs side-by-side, and also pictures of Beth's colleagues in the Serapeum at Saqqara, the ancient burial place of Apis bulls, where a new floor was being fitted to make it easier to visit.

On 25 January 2011, the Arab Spring arrived in Egypt. Beth described how first mobile phone signals and then the Internet was cut off, with the government presumably thinking that if it cut off communications, people would not leave their homes. But the opposite happened, and huge numbers of people rushed outside to go and check for themselves that their families were all right. We saw a photograph of an area of Cairo, absolutely packed with people. That night, the government introduced a curfew.

On a map of Cairo, Beth showed us how close she had been to the 'action'. She described how home-made Molotov cocktails – flaming tea glasses of petrol, had been dropped on the police from windows of the media building, and we saw a photograph after it had been burnt out in retaliation. From her neighbours, Beth heard of barriers being built by local people, and also army and police barriers being built. She heard tales from colleagues outside Cairo of 'highwaymen' taking cars. We saw photographs of teargas bombs on the West Bank, taken by a colleague of Beth's. In the Q & A session, Beth was to tell us that just the sound of exploding teargas bombs in a BBC report of the Arab Spring had shocked and distressed her, even when she was safe at home in England.

The Egyptian police abandoned the streets after a couple of days, and the rioting and looting of shops continued. It was at this time that the Egyptian Museum was broken into and archaeological artefacts stolen. In a photograph taken by Sandro Vannini, we saw the human chain around the Museum, formed by local people to prevent more looting. There was a tank by the side of the Museum, and in the background, a column of black smoke, rising from the burning National Democratic Party headquarters building.

Beth told how Dr Zahi had gone to the Museum and how both he and his chauffeur were attacked. She described how he had made an assessment of what had been stolen, and had later found out that even more had been taken, and that this had proved to be embarrassing.

With rumours spreading that the revolution had been started by foreigners, Beth and her colleagues did not feel safe, and she described how a male colleague had

vanished for a few days, having gone into hiding. She told how the UK and the USA had closed their embassies. How the airport had been crowded with people trying to flee the country, how it had no water, and the toilets were blocked. Then President Hosni Mubarak resigned.

We heard about archaeological sites and storage magazines, where the guards and watchmen were not protected by the police, and, fearing for their safety, had left the premises unguarded. Lorries arrived, and men broke into the magazines and emptied them of anything valuable. Beth told us how Dr Zahi had sent pleas for help, and how eventually the Egyptian Army had started protecting sites, including the Egyptian Museum.

The next pictures Beth showed us were of street art after the revolution. We saw graffiti of a tank, and also of a typical Egyptian bread delivery boy on a bicycle, carrying a ladder holding several boxes of bread on his head. Beth pointed out that this tied in nicely with Alison's talk of 'The Stone of Life: Grain Processing in Jordan'! We saw 'resistance' street art by the artist Keizer, as well as an image he had created of Dr Zahi. Under the image were words which translated into 'Oh traitor of the pharaohs', and Beth explained that some people felt Dr Zahi had betrayed ancient Egypt with the work he had done. She described one of Dr Zahi's rulings that had been extremely unpopular with camel drivers: that at tourist sites camels should be restricted to one area only, and not be allowed to wander around and poo everywhere.

As we looked at revolution murals by Helwan University art students, Beth talked about the 'grass roots' revolution and of a government unaware of the power of social media. She described how later in January 2011 the SCA became an independent ministry: the Ministry of State for Antiquities (MSA), with Dr Zahi Hawass as Minister.

Beth finished her talk with a suggested reading list for anyone interested in exploring the Egyptian Revolution, and she gave a link to her article: 'Egypt's antiquities in crisis?' in *The Archaeologist*. Thames Valley Ancient Egypt Society can be found at www.tvaes.org.uk.

Joan Burrow-Newton

What genomics can and can't tell us about human history: truths and myths from the big data revolution

A talk by Dr Matteo Fumagalli 16 January 2021

Dr Matteo started his talk by explaining that he is more used to talking to biologists and members of the medical profession than to archaeologists, with this becoming apparent as the talk progressed! However, he explained genetic techniques and technical data likely to be unfamiliar to many of us, leading to a most interesting talk.

Dr Matteo's talk was further titled 'The conquest of the High Arctic: a genetic journey.' He showed how large-scale genomic data could be used to explain how the

Arctic, in particular Greenland, had been colonised by humans. He pointed out the popularity of studies of ancient genetics today, with a sample of recent headlines which could be explored in greater detail on the Internet. (I later googled the headline 'Neanderthal genes increase risk of serious Covid-19, study claims', and followed links to a fascinating article in *Nature*, published 30 September 2020).



We looked at a chart of the evolution of human beings, showing the diverging branches of Neanderthals and of the ancient humans called Denisovans, as well as the spread of humans to all the countries of the world. We then looked at a map of the world, showing the 'Out of Africa' migration of 55-65,000 years ago. Also shown were the Paleo-Eskimo expansion of 4-5,000 years ago, and the Inuit expansion of 3-4,000 years ago, with both peoples travelling across Beringia and Northern Canada to the East coast islands of Canada which face Greenland.

We looked at a diagram entitled 'Origins and continuity of Paleo-Eskimos and Neo-Eskimos', showing a map of North Canada and Greenland, and demonstrating a migration model for these two ancient peoples. Neo-Eskimos gave rise to the modern Canadian Inuit and the modern Greenlandic Inuit.

The next slide posed four questions that genetics could address, and these questions were answered later. The talk then became somewhat technical with Dr Matteo explaining 'What is genetic data and what evolutionary inferences can we make with it?' We were shown examples of genetic sequences from different individuals, and saw how, at a particular *locus* on a genome, there could be found genetic variations. Some variations would have been inherited from ancestors and could be used to identify the people from whom the individual had descended.

We were told that of the 3.2 billion nucleotides in human DNA, about 15 million single nucleotides were polymorphisms or genetic variants. (How nice! Wouldn't it be boring if we were all the same?)

We then looked at the evolutionary forces that caused genetic variation. These included mutation and recombination, genetic drift, natural selection, and migration. At this point, Dr Matteo referred to viruses and

their high level of mutation, with reference to the new, highly transmissible variant of Covid-19; something of which most of us are now very aware.

On a whiteboard, Dr Matteo showed us how to build a 'tree'; a branching diagram that showed how an individual's genetic material could be used to show a common ancestor, and also to show how genetic variations had arisen over time. We looked at a colourful Principal Component (PC) plot that showed how individual Europeans' genes are very closely linked to their geographical location. On a slide entitled 'Inference of admixture between populations', we learned how a person's genome could infer with which different peoples their ancestors had mated.

Returning to Greenland, Dr Matteo discussed the question 'What can we do with population genetics?' In other words, what information can we derive from studies of the DNA/genomes from multiple individuals and groups? We looked at a PC plot that displayed the genetic data of people from all parts of Greenland and compared it to a map of the island. It could be seen, for example, that people from Qaanaaq and villages on the North-West coast had similar genetic data, and that this was distinctly different from that of the people in the rest of Greenland.

Greenland is an autonomous Danish territory, with a European population of mostly Danish people, whose genetic data appeared on the PC plot mentioned above, and other charts, along with the genetic data of Greenlanders now living in Denmark. We saw bar charts that showed that the average European ancestry of Greenlanders was very low. Again, there were clear geographical differences, with people from the South villages, and Tasiilaq and villages on the East coast, having very little European ancestry, and other areas having somewhat more. The capital of Greenland, Nuuk, had the highest concentration, with about 30% of people having European ancestry.

We then returned to the diagram entitled 'Origins and continuity of Paleo-Eskimos and Neo-Eskimos', and Dr Matteo discussed the question of whether there had been one or two waves of Inuit migration to Greenland. We were reminded of how a genetic tree was built, and then looked at one for Greenlanders. The tree appeared to show that all the people of Greenland were genetically related to each other, but only very remotely to Danish people, i.e., to people *not* of Greenland. It was again apparent that genetic variation closely followed the geography of Greenland, with the people on the East coast more closely related to nearby people of the South villages than they were with more distant people on the North-West coast.

Next, we returned to the questions posed earlier that genetics can address, with Dr Matteo explaining the answers. Thus, there was some European ancestry to be found among Greenlanders, with a male sex-bias, and varying among locations, as we saw earlier. This study

had *not* found Norse Vikings among the ancestors of Greenlanders. However, in the Q&A session that ended the talk, Dr Matteo explained that more recent studies using ancient DNA *had* found that some Greenlanders did indeed have Viking ancestors. One wave of migration brought the pioneering Inuits to the North-West coast of Greenland, from where they spread around the island, settling in coastal sites. Linguistic differences are seen to mirror the different population groups, with, for example, the North-West people speaking a different dialect to the East coast people.

A photograph of colourfully-dressed and cheerful-looking Greenlandic girls sitting on ice introduced the topic of how the Greenlandic Inuit have survived the cold, harsh environment so well.

We looked at a diagram that explained how, over time, as humans migrated into different environments, there occurred in the population beneficial mutations which would help some individuals to survive better than those who did not have that mutation. As people with the 'good' genes continued to live in that particular environment, the genetic change became fixed, and all future descendants carried the beneficial mutation. Dr Matteo said that when looking at the genomes of the Greenlandic Inuit, very many of these beneficial mutations could be seen, and they were not seen in the genomes of people who did not live in a cold, harsh environment.

Dr Matteo talked about the traditional Greenlandic diet, which was rich in seal and fish oils, and high in omega-3 fatty acids. He said that it was likely that the genes of the Inuits enabled them to reap the benefits of the omega-3 fatty acids found in their traditional diet, but that this did not necessarily mean that people without these genes would not also benefit. He talked of another beneficial mutation; that of a gene that helped the Inuit produce body heat, in order to counteract the extreme cold of their environment.

Dr Matteo went on to describe a short cut to acquiring beneficial mutations; by mating with a population that already had them. It is likely that when archaic humans; the Denisovans, first migrated into Siberia, their mating with Neanderthals enabled them to acquire the genes that meant future generations could survive in the extremely cold, harsh environment. In support of this theory, genetic studies on ancient bone found in Siberia had shown it to be from a person who was part Denisovan and part Neanderthal.

Dr Matteo's final slide asked, 'What other questions should we ask?' Thus:

- If contemporary humans are not descendants of ancient people living in the area, what is genetic identity? If race has no biological meaning, how about ethnicity?
- If contemporary societies are a result of hundreds of generations of mixing and replacement, is it

still appropriate to talk of “populations”? Are genetic tests of ancestry wrong?

- Is genome science inclusive? What are the ethical implications to study isolated populations (“tribes”)?

Unfortunately, there was no time left in which to discuss these questions.

In the Q&A session, the above question about genetic tests of ancestry was of interest to genealogists. Of greater interest was the genetic evidence of Vikings in Greenland, and Dr Matteo Fumagalli ended his talk by reminding us of the quite substantial ancient Viking genome to be found in the modern British population.

Joan Burrow-Newton

Provisional Reflections on the ‘Marlow Warlord’: An Early Medieval Sentinel Burial of the Middle Thames

A talk by Dr Gabor Thomas, University of Reading, 20 February 2021

In speaking of this recently discovered burial, Gabor Thomas began with two provisos. First, the ‘provisional’ in the title of his lecture indicated that more work remained to be done, for example the grave goods had only just emerged from scientific conservation, more analysis was required on organic material, and work was needed on the typology of the grave goods and on contextualisation. Second, he would deliberately be imprecise about the location of the finds, by agreement with the landowner.

He would cover three aspects, starting with the discovery leading to the investigation, followed by a description of the contents of the grave, and ending with a discussion of its significance in relation to this particular section of the Middle Thames Valley. He emphasised that the success of the investigation, whose fieldwork began in early August 2019 and continued in 2020, showed clearly what can be gained from collaboration between detectorists and archaeologists.

The first signal leading to the discovery of the grave was picked up in 2018 by Sue and Mick Washington, members of the Maidenhead Search Society (MSS) on their first visit to the field, which had previously been the object of searches by other detectorists. The source of the signal proved to be the upper rim of a bronze vessel, and the rim of a second vessel was exposed beside it. Since this was clearly not a modern deposit MSS made contact with the Portable Antiquities Scheme, after which the Buckinghamshire Finds Liaison Officer arranged for a small test pit to be dug. Because the vessels were fragmented and fragile, they were removed from the ground *en bloc* in their surrounding soil. The lifting process also exposed a pair of spearheads and a piece

of toe bone, and the ensemble indicated an Anglo-Saxon burial. The finds were in good condition considering how near they lay to the surface. Funding was raised for professional conservation of the vessels and spearheads, which were recently bought by Buckinghamshire Museum.

Things might have ended there but for the persistence of another member of MSS, James Mather, who was concerned about the insecure position of the relatively shallow burial on worked agricultural land. He made contact with Gabor Thomas.

Following permission from the landowner, Gabor undertook a geophysical survey, which showed the immediate area to be scattered with anomalies possibly indicative of buildings. Early in 2020 trenches were opened to investigate these anomalies (work carried out by students and staff of the University of Reading, with volunteers from local societies including MSS). Most anomalies were found to be natural pockets of clay and flint in the underlying chalk, and by the mid-point of the investigation it was clear that no large cemetery nor contemporary settlement lay in the immediate vicinity.

With much organisation already in place it then made sense to examine the burial itself. A trench 5 x 5m was hand dug across it, extending down to the chalk subsoil. No evidence was found of a barrow ditch around the grave, but its upper layer had a capping of flints which might once have extended upwards in a cairn. A well-preserved skeleton was found, crushed by the layer of flints, in a canoe-shaped grave-cut, together with clusters of goods, including a magnificent sword with scabbard and scabbard fittings. The stony soil around the sword assemblage prevented *en bloc* lifting, but with patience it was brought out whole.

The contents of the grave consisted of the skeleton and 24 discrete objects. Initial analysis of the skeleton by Professor Mary Lewis of the University of Reading showed that it belonged to a male, about 40 to 50 years old, unusually tall (1.8m) for the period, and of imposing physique.

Three weapons were buried, namely two spears, both of known Anglo-Saxon types from the mid-sixth century (the heads of both, and the ferrule of one, surviving); and a sword with a double-edged blade 98cm long and an H-shaped hilt. The grip of the hilt (of organic material faced with copper alloy) had a lower and an upper guard topped with a pommel. The scabbard had a copper alloy mouthband and chape, and studs survived from its suspension system. High status can be inferred from all the features of sword and scabbard, and all indicate manufacture in the first half of the sixth century.

The vessels included a flanged circular bowl decorated with repoussé around the flange, and an undecorated bucket of Gotlankessel type with a curved iron handle attached to the rim by two triangular lugs. Both were manufactured in the Frankish part of continental Europe

in the first half of the sixth century. Another vessel was a late fifth- or early sixth-century delicate, tapering 'Kempston' beaker, probably of Kentish origin. All the vessels had Kentish associations either by manufacture or probable importation.

Amongst the tools and personal accoutrements found were a pair of shears, a buckle, a strike-a-light, a knife, some copper alloy tweezers, and a pair of iron rings about 8 cm in diameter of fairly flat profile (possibly the binding hoops of a drinking cup).

Some fragments of glass and amber were also found, but in the grave-fill only. A notable missing element was any surviving part of a shield.

In summary this was a richly-furnished grave of a tall and physically imposing male dating to the early 6th century AD, seemingly buried in isolation on a commanding site offering extensive views over the Thames valley.

The context is somewhat perplexing. Most commentators believe this area of the Thames was peripheral borderland annexed successively by rival powers. A British community probably existed on the far side of the river. Not much material of this date has been found along this section of the Thames: the valley bottom settlements found by commercial archaeology are sporadic.

Local parallels are unconvincing. Downstream the Taplow princely burial too has a sentinel position but is of seventh-century date and belongs to a different cultural world in which established dynasties ruled wide areas. Upstream several large Anglo-Saxon cemeteries exist, including within them clusters of élite people, buried likewise with luxury objects of Kentish origin: but such cemeteries are low-lying, in areas rich in evidence of settlement, with no known outlying sentinel graves. Other sentinel graves (e.g. Lowbury Hill) are substantially later, from the seventh century. They often lie under a barrow and are typically on the skyline as if proclaiming ownership of the land within view.

The recently discovered grave sits uneasily with a 'disputed borderland' description of the immediate area. The individual was buried roughly north-south with his right hand over his body as if clutching his sword. The site of the grave with its extensive views suggests the leader of a community which occupied the land around the hillside. It seems to indicate a self-confident group of people, which was perhaps eclipsed over the seventh century but was holding its own a hundred years earlier.

Toby Bainton

Study Group

The Study Group has continued to meet over Zoom on the first Wednesday of each month. This has worked well for the last year and is likely to continue. When we are released from lock down I will arrange a complementary social event so we can meet and chat.

The January 2021 meeting

The January meeting heard a presentation by Keith Abbott on Roman Mildenhall. This talk gave us an understanding of the development of the Roman small town at Mildenhall, villas which give us insights into the activities of elite families, and the evolution of rural communities. The meeting also heard a presentation by Andrew Hutt on the categorisation of Roman sites – a vital step towards having a consistent interpretation of Roman sites across Berkshire.

The February 2021 meeting

The February meeting was devoted to geophysics. Andrew Hutt gave three presentations. The first explained the latest interpretation of the Ankerwycke survey results. The second explained the methods we use for carrying out geophysics surveys. During this presentation there was a discussion about the use of the software applications: Affinity Designer and the QGIS Geographic Information System for interpreting and displaying survey results. This was particularly relevant because the Society are planning to carry out a large geophysics survey at Wormstall in West Berkshire. The last presentation was about the Society starting to use

Ground Penetrating Radar. It concluded with the decision that the Society should hire some equipment to carry out a learning exercise later this year using Ankerwycke or one of the other sites as a test bed.

The March 2021 meeting

The March meeting started with an update on the work at Ankerwycke by Andrew Hutt because the National Trust had sent new evidence that changed some of the interpretations of the site. This was followed by a presentation by Keith Abbott on Roman Thatcham. This showed that this community was led by an elite family which lived on a villa site near the River Enbourne and that Roman Thatcham was a road site settlement where people earned a living offering services to travellers passing along the road from Silchester to Cirencester and Bath; a cemetery was found at Newbury station.

This was followed by a review, by Andrew Hutt, of the Roman Berkshire Project 2, which showed we are making good progress developing 8 essays for the 12 data collection areas. However, it was taking 3 to 6 months to develop an essay so Andrew and Martin Labram were looking at ways of using the Roman Rural Settlement data to cover the other 4 areas. This approach should allow phase 2 of the project to start sometime in the Autumn.

The meeting finished with a discussion of the forthcoming geophysics survey at Wormstall.

Andrew Hutt

Field Work

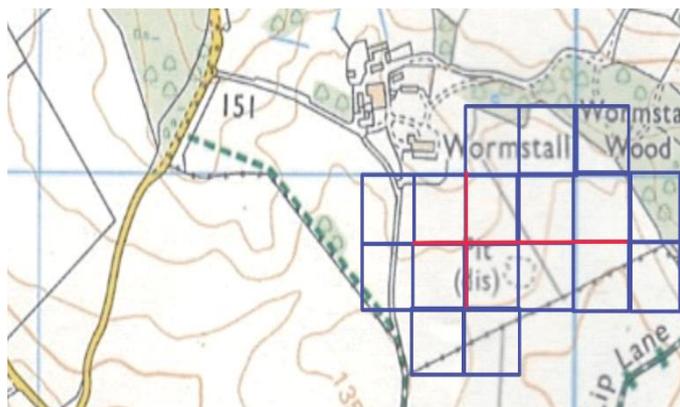
Geophysics at Wormstall

It is planned to carry out a gradiometer survey on a field at Wormstall, which subject to restrictions, is going to start on 8 April 2021 and end on 30 April 2021.

The figure below shows the field we are planning to survey because a scatter of Roman coins has been found in the field and it is likely that the Roman road from Silchester to Bath crosses the field.

The field is enormous, some 500m west to east and 400m north to south. The figure shows 17 full and part 100m x 100m grids across the field. We will survey each of these large grids as a series of 25 20m x 20m grids. The whole system of grids will be aligned to the national grid so we can navigate our way round the site using GPS. At the study group meeting in March we discussed a method which improves the rate of surveying a 100m x 100m grid so that, at a stretch, we could survey a grid in a day.

If you want to participate in this survey please contact Keith Abbott either directly or via project@berksarch.co.uk.



The Wormstall survey grid, covered with 100m x 100m squares and in red the baselines.

Andrew Hutt

'Digging around the Marlow Warrior'

Martin Labram was lucky enough to be part of the dig and below he has written of his experience. A full version of his report, is on the BAS website: <https://www.berksarch.co.uk/index.php/marlow-warlord-an-excavators-experience/>

'The two weeks of excavation aligned exactly with the August heatwave. Every morning, we drove through a farm complex, down a dusty track complete with the odd piece of metal rod sticking out, and parked in the new stubble from the recent harvesting at the bottom of the hill. Then we would all trudge back up the hill through the dry, prickly stubble carrying the majority of our equipment to the trenches.

Geophysics had identified lots of anomalies across an immense field and had marked out many of these with

little red flags (which from a distance made me think of poppies). Gabor's initial objective was to explore the surrounding context for the metal detectorist's original find. So we set to, in several groups, to strip back the top soil and start the digging. The top and subsoil layers were thin with chalk emerging in some places as little as perhaps ten inches down, especially towards the top of the hill where the burial was eventually uncovered.

The farmer had adopted a direct-drill method ten or so years previously. A consequence of the direct-drill was that the naturally gravelly clay-with-flints soil was very compacted and made for very hard work indeed. The archaeological sterility of the trenches meant that we dug a lot of them relieved only by the occasional but unrequited excitements of small holes. And all this was in the dusty dry heatwave. Volunteers, staff and students were all significantly challenged by working in the glare and heat.

A few days into the dig, we were asked to don overalls whilst Thames Water spread the field with pasteurised human ordure. This turned out to be not nearly as unpleasant as anticipated, certainly a lot better than cattle muck would have been, consisting of a very even spread of small sticky gobbets of only mildly smelly, tarry black stuff. The weedkiller spread late evening/early morning several days later was much more of an issue for me, stinging the eyes and throat, and I think causing me a mild headache too. At the beginning of the second week, Gabor decided to recognise the general archaeological sterility of all our trenches and to open up a square trench around the original find. At first, this seemed much like some of the others, reaching the chalk under a very shallow soil layer. But slowly a narrow band of flints and some discolouration emerged.



The figure above shows the curve of a sideways-on human skull, right of centre in the photo, sliced across by a plough share. While I may have had a momentary pang, thinking that after 1,500 years we had disturbed this gentleman's peace, this proves that the exhumation of the skeleton was a necessary act of archaeological rescue.

At this point, the group split into staff plus the student bubble uncovering the burial under a pagoda to provide shade from the sun and those older volunteers daft enough to survive the heat exploring what was apparently a mediaeval chalk quarry pit. The burial was excavated using dental tooth-picks and paint brushes.



This 6ft male's sword was very evident, and triggered lots of excitement, but other interesting and high status grave goods also emerged.

On the Wednesday night of the second week, the weather broke bringing welcome relief from the heat, the glare and the dust. The following morning, detectorist James picked out a couple of pot sherds from the water-washed quarry spoil. Hammering through the very hard, and compacted dry subsoil, we had missed these in our heat-exhausted exertions. Of course, we had to immediately climb back in and scrutinise the sides of our trench for more.



The last picture shows the sword just before being lifted. A spear head can also be seen in the top right corner.

We can speculate on the active, well-fed and dangerous life that this warrior and member of the elite may have led before being laid to rest in a spiritual role as a guardian of the Middle Thames with such an awesome view!

Obituary for Leslie Cram

Leslie Cram will be remembered as Principal Curator of the museum in Reading and as an active member of the society. His background was unusual. His parents were Methodist missionaries in China and he went to Kingswood School at Bath, a school set up by John Wesley, to educate the children of Methodist ministers. From there he went on to study archaeology and anthropology at Cambridge. His specialism in the study of lithics, must have made him an obvious appointment in Reading where the Kennet Valley was revealing evidence of extensive and intensive occupation in the Mesolithic period. Once in Reading, he became involved in the history of Reading Abbey, and wrote a book on it, published in 1988 and still in print.

Leslie was a member of the Society from early after he moved to Reading. At various times he was the programme organiser and in his later years with us assisted Edna Goodburn in running the Spring Tours.

Another contribution Leslie made to the archaeology in Berkshire was to be the secretary of the Berkshire Archaeological Trust. In 2003, he passed this role to Andrew Hutt and later in 2006 helped Andrew wind up the Trust and pass its assets and responsibilities to the Society. The Society were delighted to publish Leslie's *History of the Berkshire Archaeological Trust* in volume 80 of the Berkshire Archaeological Journal

After his retirement he moved to Leicestershire, where his family had lived for many years and, inevitably, became involved with local history and archaeology there.

Catherine Petts

Membership subscriptions 2021–22

Subscriptions to the Society are due in April 2021 for the year to April 2022, except for those who joined after 1 January 2021. Subscription rates are £15 for an individual and £20 for a couple at the same address and are due on 5 April. Please note that your membership will lapse if the subscription is not paid by 31 July 2021.

A number of members already pay by Standing Order or the equivalent, and we are most grateful to them for this. If you would like to pay electronically direct to the Society's account in future please ask me for the details. A renewal form is enclosed with this newsletter for use by those who prefer to pay by cheque, and also to record any changes in a member's name, address, telephone number or email. The latter is particularly important as the bulk of communication with you now is carried out electronically. Thank you.

Anne Harrison - Membership Secretary - membership@berksarch.co.uk

Input to the Newsletter

If you have an archaeological story that you feel would interest the Society, please send it to Gail Eaton by the end of May 2021 at: newsletter@berksarch.co.uk

BERKSHIRE ARCHAEOLOGICAL SOCIETY



Patron: H.M. THE QUEEN

President: Professor Michael Fulford
CBE FBA FSA

The Society was founded in 1871 and for over 150 years has encouraged and supported archaeological activities in Berkshire.

Everybody with an interest in archaeology is welcome to attend our meetings and join the Society. It does not matter whether your interest in archaeology is newly found or long standing, the Society offers activities from regular lectures, an annual Day School (conference) and visits to excavations and research.

All members receive a monthly e-news sheet with news of the Society's events and other events in Berkshire, this quarterly newsletter and a free copy of The Berkshire Archaeological Journal published by the Society.

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