

Colchester Archaeological Group



BULLETIN
Vol. 54 2014



Front cover:
Aerial photograph of the Great Enclosure, North of Sheepen Road, Colchester
taken by Ida McMaster MBE
(from the CAG Aerial Photograph collection)

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**COLCHESTER ARCHAEOLOGICAL GROUP
COMMITTEE 2013-14**

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Mrs E. Mead, Mrs A. Moore, F. Nicholls, A. White

EDITORIAL

Pat Brown

This year we are introducing colour into the print version of the Bulletin, like the online version (www.caguk.net). This may also be the last year that the print version will be supplied to all members; it is possible that next year only those who request it will be able to have a print version. Most local societies adopt this policy for their bulletins and newsletters. The decision will be made by the publications sub-committee in the New Year.

Members may have noticed that lecture reports are getting longer. This not only makes them more interesting, but also provides people who have missed lectures with meaningful summaries. The website is publishing lecture and other reports as they come along, but members may like to have them in a more permanent form. Members may like to visit Beaumont Quay, for instance, taking John Moore's article, with its fascinating photos, with them as a guide.

All this means that the functions of the Editor are changing and I shall be relinquishing most of them. I have greatly enjoyed being Editor, but have always found the technicalities frustrating (particularly the idiosyncrasies of Microsoft Publisher!) and gratefully acknowledge the patient help of John and Anna Moore.

CHAIRMAN'S REPORT

Philip Cunningham

Many years ago my first contact with CAG was as a result of the large collection of bulletins, published since 1958. I was looking for information on the Roman Road to Mistley and I still have the disc, sent by post from John Mallinson, which helped me discover both new information and in the fullness of time, new friends. It did not happen all at once and for a while key CAG members, such as Ida, Dick, Felix and James were a mystery to me, some I eventually met, others I know only by the legacy they left to local archaeology. It feels a real privilege to have my name in the Bulletin where theirs once stood.

Looking through past bulletins helps chart how things have changed. One that stands out is in regard to excavation work; we seem to be digging less in and around Colchester, where those Romanists amongst us would like to explore! We clearly have the skills and talents to take on such serious work and any in doubt should look at the group's latest work at Marks Hall, as complex and multi-layered as any site you could find. One thing that has not changed is the time it takes to bring together the technical reports on excavations. One current challenge is to complete outstanding reports on the important Bronze and Iron Age sites at Great Tey, excavated between 2003 and 2008.

The group's long links with CAT has meant the changes there have posed questions on our future direction. The Trust has taken on a huge commitment to promote the Circus and run Roman Circus House (RCH), mainly by volunteers, alongside its excavation operations. It feels as if RCH should be our spiritual home and I would encourage you all to take every opportunity to visit the Trust, take part in events and in particular let us know how you feel about moving over to Roman Circus House for our lecture programme. The library is now installed there, and available up the stairs to all members.

Looking back over 2013/14 it has been another good year for our events which included a trip to the British Museum in April to the Vikings exhibition; a weekend away in Wales in May, based in Cardiff, taking in Stonehenge on the way. In June we had a trip to Flag Fen and Buckden Towers, a walk round Lexden earthworks with Mark Davies and a tour around the Roman Circus with Philip Crummy. The summer party at Marks Hall in July was again blessed with excellent weather as was the tour of Finchingfield Guildhall and Spains Hall. Many thanks to John Moore, Mark, Barbara and others for their hard work in organising these for us. If you missed any, there are some great images on the web site and reports here in the bulletin. On the excavation front, the weather was not so kind for the second dig at Cowlin's Field over the winter and into 2014, looking at the Neolithic long barrow. Marks Hall has been another long run for us, with good facilities, but has now come to an end. The Group's Facebook pages have proved very popular as a means of keeping people informed on progress at the various digs.

Work has been completed on the 'Cropmarks in the Stour Valley' publication, and the book is now available, priced at £5 - email to enquiries@caguk.net. Also, work is well under way on a project to convert and bring together a 'CAG aerial photographic collection' in electronic form. If you have slides you would wish to donate – please let us know. We hope to make the collection and index available at a small cost to members on one very small electronic memory stick – how times have changed!

I would like to take this opportunity to thank, on your behalf, the committee and all those who have helped at the different events for their support and hard work over the last year. In particular Gill Shrimpton, who has been our Secretary for the last 8 years and whilst continuing to help us co-ordinate membership, has now passed that role onto Ellie Mead.

COUNCIL FOR BRITISH ARCHAEOLOGY 2014

Report by John Camp

The CBA year can best be described as one of celebration and commemoration. The CBA is celebrating 70 years since its foundation. It is one of only 5 bodies that are automatically consulted on planning applications affecting listed buildings. It has 10,000 members plus numerous organisational members such as CAG. Its bi-monthly magazine "British Archaeology" has a circulation of 80,000 copies. Its Young Archaeologists Club celebrated 40 years and has 60 active branches. Finally, its Community Archaeology Bursary Training Programme has been successfully run for 5 years and has provided 51 year-long work placements in the heritage sector equipping aspiring community archaeologists with the necessary skills to work with voluntary groups and communities. The aims of the CBA 70 years ago and now are very much the same. It has been at the forefront of the development of the discipline of archaeology, tirelessly working to represent the interests of all who care about the UK's archaeology and campaigning for stronger legislation to protect our heritage and for adequate funding to achieve this goal.

An integral part of the celebrations was the AGM held in London in October 2013, which saw Kate Pretty retiring as President to be replaced by historian Dan Snow who is a great champion of raising awareness of World War I, the centenary of which is currently being commemorated. The annual Beatrice de Cardi lecture was given by Michael Wood. The next lecture will be delivered by Professor Graeme Clark on 10 November 2014. Beatrice was the first Secretary of the CBA until 1973 and its standing today owes a great deal to her immense hard work and inspiration in those early years. Upon her retirement the post title was changed to one of Director. It was these previous and present post holders that came together to celebrate with her these achievements on the occasion of her 100th birthday on 5 June. She is also commemorated in the name of the CBA HQ in York "Beatrice de Cardi House".

The CBA is currently expressing concerns about the split of English Heritage into two separate bodies which was announced by the Government in 2013. One will retain the existing name and continue to care for and present the properties in its custody and will receive a one-off payment of £80 million to repair and restore these properties. This sounds a lot but the task of dealing with the backlog of work is a daunting one and has been made more so by declining public funding and rising costs. This body is expected to become self-sufficient, generating its own income from its properties and other sources by 2018. It is presented as a bold move but could be just window-dressing by a government intent on driving down spending often with little or no regard for the consequences. The remainder of the work on its statutory duties is to be vested in a new body yet to be given a name. It is interesting to note that the Welsh and Scottish Assemblies are currently examining ways to improve their heritage bodies and remains to be seen whether their proposals will present a different outlook and solution.

Two of the current campaigns being conducted by the CBA concern VAT reform on the repair of historic buildings, and for a long overdue review of the Treasure Act. The CBA recently attended, along with other heritage sector leaders, a meeting with the newly appointed Culture Secretary Sajid Javid at which there was widespread agreement that their most significant issue was the reform of VAT legislation. There is a need to address a great unfairness in VAT legislation which levies VAT at 22½%

on the cost of the repair and renovation of historic listed buildings where the owners are under a legal obligation to keep them in a state of good repair. However, new build properties are zero rated. Hopefully the new post holder will attempt to rectify this situation urgently.

The second issue concerns a long overdue review of the Treasure Act and the CBA has recently written to the Culture Minister, Ed Vaizey, to urge the implementation of a long promised review of the Treasure Act and its Code of Practice. This is to avoid a repetition of incidents such as the Crosby Garrett helmet which was a late 2nd or 3rd century AD Roman helmet made of bronze found in 2010 by a father and son using a metal detector. As it was a single bronze object the find was not subject to the Treasure Act which would have required it to be offered to public museums before being put up for auction. Sadly the Tullie Museum with the support of the British Museum was outbid when the helmet was auctioned by Christies realising £2.3 million and is now in private ownership.

An important ongoing commemoration is that of the Centenary of the First World War. It is a topic near to the heart of the CBA's new president, Dan Snow, who is a strong advocate of the newly launched Home Front Legacy 1914-18 Project. This project involves the CBA in partnership with other country-wide bodies such as English Heritage, Historic Scotland, CADW and the Association of Local Government Archaeology Officers to record the physical remains of the First World War surviving in our landscapes. One of the earliest features recorded is a replica trench system at Gosport used to train the military for the Western Front. Groups and individuals are invited to participate. At the end of the project in 2018 it is hoped a huge database comparable to the recent Second World War project will have been established. There are more details on the website at: www.archaeologyUK.org/first-world-war

The regional group, CBA East has had a good year of events. These included a tour of Saffron Walden and Audley End, a guided tour of medieval Bures, co-led by our own member Mark Curteis. Also an archaeology weekend at Norwich Castle museum and a one day conference on Roman archaeology in the East of England. The group is worth joining and is only £5 which includes a discount off the annual conference. Details can be found at: www.archaeologyUK.org/cbae

As well as looking back the CBA is also looking to the future and is launching a new campaign "Archaeology Matters" to strengthen its resources by raising an additional £250,000 each year for the next three years and is seeking to encourage more members to upgrade their membership. This is to replace the British Academy funding which ceases soon and to allow the organisation to meet the challenges in archaeology. It is also encouraging existing members to recruit additional members. The national bi-monthly magazine "British Archaeology" is well worth the annual subscription of £29. Alternatively, a subscription to the national CBA starts at £36 including the magazine and offers discounts on publications. Details can be found on the website at: www.archaeologyUK.org

YOUNG ARCHAEOLOGISTS CLUB

Report by Barbara Butler

The Young Archaeologists Club has started a time line for 2014. Taking archaeology in a chronological order, Kate Clover led our January meeting with a session on Mesolithic footprints. Providing the young people with trays of sand and plaster of Paris, they took off their shoes and socks and made prints in the sand which they then cast in plaster. Meanwhile they made footprints on paper, whilst waiting for the casts to dry. The young people completed the next stage of their Arts Award Discovery project, led by Amy Cotterill, which included, among others things, designing their own museum.

Our time line continued into the Neolithic period and Bronze Age in March, when we discussed what people might have had to eat and where it would have come from. By April we had reached the Iron Age and made huts. At one centimetre to 100 years, our time line covered one A1 board and we had to extend it into another one to take us into the Roman period. In May Katie Marsden led a meeting on Saxons and Vikings, culminating in a re-enactment of the Battle of Maldon outside.

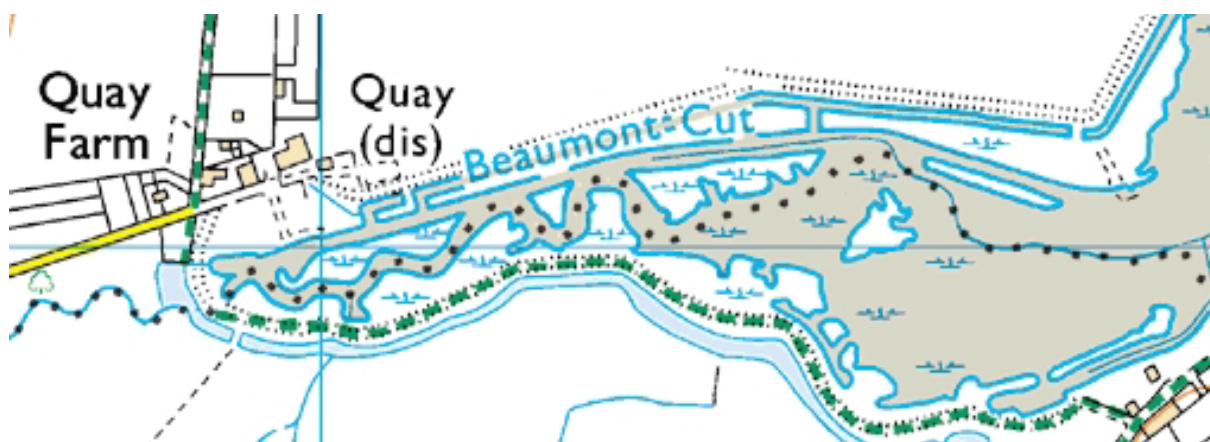
BEAUMONT QUAY

John Moore

“Six boats, one after the other, left the open water and pulled into the narrow mouth of the canal. This was the queerest bit of exploration they had done, but easy to put on their maps, for the canal was almost straight. They stopped when the water ended and they could go no further, close under some old, tarred piling that had once been a staithe for barges.....Close to the staithe were some houses with an inscription on them to say that they had been built with stones from old London Bridge”.

(‘Secret Water’, Arthur Ransome, 1930)

Beaumont Quay is just a speck on the map, lying at the end of Quay Lane, off the B1414 between Beaumont-cum-Moze and Thorpe-le-Soken. It consists of a couple of farms and a handful of light industrial units, plus, of course, the disused quay. The quay sits at the end of the tidal Landermere creek, which leads into Hamford water (part of the Walton back-waters), and thence into the North Sea. It has a surprisingly interesting history, and in January 2003 was designated a Scheduled Ancient Monument.



Ordnance Survey 1:25000 Map of Beaumont Quay 2014 © Crown Copyright

The history starts, as with many places in Essex, with the Romans. A red hill site (indicating salt-making) was excavated here, probably in the early 1940s, and some late-Roman tile and pottery and a fragment of Iron Age pottery were unearthed. These finds were donated to Colchester Museum in 1944. Another red hill site was investigated in the 1950s by Dick Farrands, a member of Colchester Archaeological Group, who excavated some more late-Roman tile and pottery. A Roman road leading from Colchester to Beaumont Quay via Tendring has been mapped, so it would seem likely that there was water-borne traffic here at that time. Salt-making was still in evidence in Anglo-Saxon times, Beaumont having two salt-pans recorded in the Domesday Survey of 1086. Evidence of later medieval salt working has also been found, and in a further excavation Dick Farrands discovered a relatively large amount of early medieval pottery and a small amount of post-medieval pottery.

Until the eighteenth century, however, Beaumont Quay virtually disappears from recorded history. It seems to have been part of the medieval manor of Beaumont Hall, which itself became part of the wider Beaumont Estate, owned in the early eighteenth century by Francis North, 2nd Baron Guilford (sic). In 1728, North sold the estate to the Governors of Guy's Hospital, London. Thomas Guy had died three years earlier, endowing the Hospital with over £220,000 (around £28 million in today's money). The Governors of the Hospital decided to acquire land as an investment – they purchased over 8000 acres in Essex alone, including Lee Priory and the Great Bardfield estates. From this time onwards, we get the more interesting, and visible, history.

If the creek leading up to Beaumont Quay had been navigable in Roman times, it certainly wasn't in the 1800s, being extremely convoluted. The Governors of Guy's Hospital decided that the time was right for a resumption of river traffic for commercial purposes, but to accomplish this a new quay and a navigable channel would be required. In 1831 the medieval London Bridge (built between 1176 and 1209) was demolished and the Hospital acquired a number of stone blocks, which were used to construct the new

quay in 1832. A plaque describing the event was later set into the side of a storage building (see page eleven), but it has recently been removed and its current whereabouts is unknown.



Ordnance Survey Map of 1875, showing the Cut (above the natural channel)

In order to ensure that barges had a navigable channel with sufficient depth of water to reach the new quay, Dutch workmen were commissioned to dig a canal (known as the Cut) from the quay to Hamford Water. This needed to be nearly two metres deep at high tide, in order to allow access to vessels of up to 100 tons. The Cut consisted of a series of straight sections with slight elbows connecting some of them, covering about one kilometre before naturally deeper water was reached. A basin was dug at the quay end to allow vessels to turn round, and for the next hundred years or so, Beaumont Quay was host to an active sailing barge trade. Barges would sail to London carrying barley and straw, and return carrying 'night soil', coal, building materials, lump chalk and limestone. There were two boats based at Beaumont Quay – 'Beaumont Belle', a 65-ton spritsail barge and 'Gleaner', a 49-ton barge, both belonging to Mr Stanford, the tenant of Beaumont Hall, who rented the quay. A third vessel also plied its trade here. This was 'Hector', a small 22-ton spritsail barge owned by Hector Stone of Kirby-le-Soken, which was based at Landermere Quay.

To take advantage of the huge demand for lime for agricultural use a kiln was constructed in 1869 by Mr Sewell, the then tenant of Beaumont Hall, together with a number of other buildings, including a large two-storey arcaded store, stables and a small storage building. Only the kiln and the small storage building survive, the foundations of the other buildings remaining below ground. The kiln, brick-built and circular, is the only complete lime-kiln surviving in Essex, and the best-preserved of a style unique to East Anglia (rivalled only by a kiln at Whitlingham Park, Norfolk). It was active until around 1925.

The quay was little-used after the closure of the kiln, and the last barge to unload there was 'Veronica' in the 1930s, with a cargo of 110 tons of flint stone. Guy's Hospital sold the Beaumont Estate after the Second World War.

Today, the only visible, albeit poignant, reminder of the quay's maritime history is the skeleton of 'Rose', a 42-ton spritsail barge, built at Maldon in 1880. Having been sold in the 1960s and towed to Beaumont Quay for restoration, it was never restored, and is now decaying in the mud.



The remains of 'Rose'

The Quay

The quay is about 80 metres in length, built along the northern bank of the Cut in a straight line, apart from the eastern end where it was altered to curve round the later lime kiln. It is built mainly of wood, apart from the western end which is built of stone. The wooden section consists of horizontal planks

held in place by large vertical posts. The stone section is constructed of massive ashlar blocks, the largest being 92cm x 53cm x 34cm.



The wooden structure



The stone structure

The blocks are laid in four courses, forming a frontage nearly 26 metres long. They are un-mortared, but many were held together by iron staples, which have now mainly rusted away. Behind the quay is a level earthen strip about 6 metres wide, which formed the quayside where goods were loaded and unloaded.



The stone blocks showing the iron fixings



The quay basin (the quay on the right)

The Lime Kiln

The lime kiln is a circular red brick structure contained within an earthen mound. The mound itself measures nearly 13 metres in diameter and stands 2.5 metres high. The kiln floor is sunk a further 0.5 metres below ground level and is reached via a flight of four steps and a short passage. The interior of the kiln consists of a round, barrel-vaulted circulation passage, 1.5 metres wide and 2.25 metres high, around the central pedestal of the combustion chamber. A small rectangular opening on the northern side is probably a ventilator, allowing regulation of the draught to the kiln.

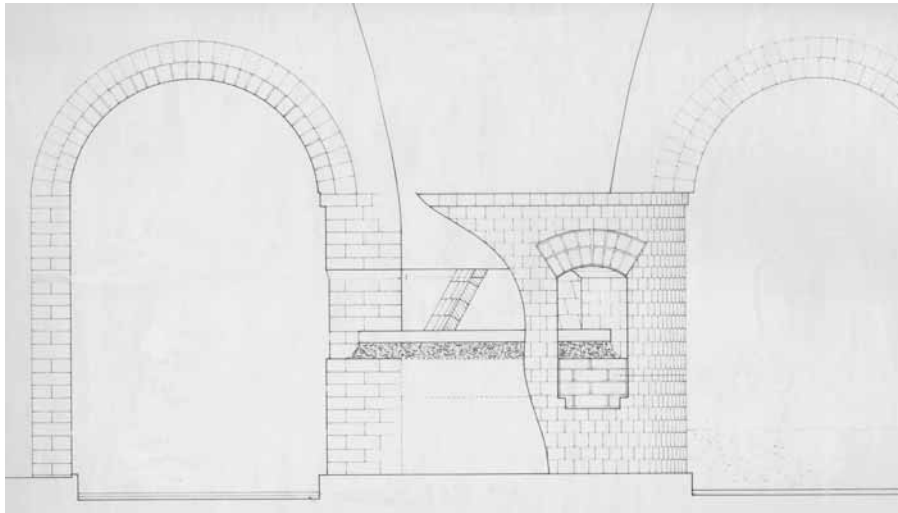


The kiln entrance



One of the central openings (ventilator at rear)

The central pedestal of the combustion chamber has three openings, one used for setting the fire and the other two for raking out the lime and the ash created by the fuel. The internal base of the chamber is nearly 1.5 metres wide flaring upward through the mound to an open top over 2 metres in diameter. The kiln design was known as 'mixed-feed'. Firstly a layer of wood and coal was put in and set alight, then the pot was filled from above with alternate layers of chalk or crushed limestone and layers of coal, until the pot was full. At around 900°C the chalk or limestone would turn into lime and fall to the bottom of the pot. It would then be raked out and taken outside for storage or transport. The feeding process would be repeated 24 hours a day, 7 days a week, for up to a year, the fire only being put out for maintenance. It has been estimated that farmers would use up to 4 tons of lime per acre per year, so agricultural areas such as the Eastern Counties required a huge number of continually active kilns.



Cross-section of the kiln, showing the central combustion chamber
with the domed passage-ways either side
Drawing courtesy of Chris Byford-Smith

The Storage Building

The storage building is single-storied and rectangular, measuring 10 metres long and 5.5 metres wide. It is built of red brick, cement-rendered on three sides. There is a single wide entrance in the west wall and there are no windows except for a small glazing band above the door. An unusual feature of the building is the massive buttressing along the north wall and part of the eastern wall, more than a metre wide at the base and sloping steeply to just below the eaves. The plaque commemorating the construction of the quay (mentioned on page nine) was formerly set in the west wall.



The storage building seen from the quay



The rear of the building (the kiln mound on left)

“It (Beaumont Quay) represents a rare survival of a complex of contemporary features which has been largely unaltered since it was abandoned in the early 20th century. The quay itself, the remains of the sailing barge, the associated store where the traded goods would have been stowed away and the lime kiln representing associated industrial enterprise together give vivid testimony to the nature and scale of the quayside activities”.

(Extract from the summary of the designation for scheduling under the Ancient Monuments and Archaeological Areas Act 1979, January 2003)

It is well worth a visit.

PRINCIPAL SOURCES

A biographical history of Guy's Hospital, S Wilks & G Bettany 1892

‘Essex Red Hills in the Hamford Water Area’, RH Farrands, Colchester Archaeological Group Annual Bulletin Vol 2, 1959

Essex Historic Environment Records Nos. 3016, 3017, 7409, 7410, 7411 & 7412
(www.unlockingessex.essexcc.gov.uk/)

The National Heritage List for England, (www.english-heritage.org.uk/professional/protection/process/national-heritage-list-for-england/)

English Heritage National Historic Environment Database - ‘Pastscape’ (www.pastscape.org.uk/default.aspx). This references the Roman road as RRX 114, Colchester - Beaumont Quay; Ordnance Survey Linear Archive file, NMRC Swindon

Mersea Museum Sailing Barges Archive (www.merseamuseum.org.uk/mmbarges.php)

AXE FROM MARKS HALL

Anna Moore and Denise Hardy

This Neolithic handaxe was found in the upper fill of the medieval ditch, obviously re-deposited. The light colour is due to patination from lying in the soil. It was probably hafted and used for hoeing.



Length	1965mm
Max width	775mm
Max thickness	460mm
Weight	750gm

With thanks to Hazel Martingell

CAG AERIAL PHOTOGRAPHY PROJECT

Philip Cunningham

Several summers in the mid 1970's were particularly hot, bringing out crop marks of archaeological interest. Several CAG members had the means and equipment to take to the air and photograph these. This was also an age before deep ploughing damaged such features forever, so these records became even more valuable. Ida McMaster in particular took literally hundreds of photos over several years with her optical 35 mm camera, some in black and white, later colour. This was bulky, manual kit, difficult to operate, particularly when leaning out of an aircraft window at 100 mph during a steep turn. Some of the photos came out less than perfect, only discovered after the film was sent off and developed. Nothing like the modern cameras – imagine trying to change a roll of film in mid flight!

Dick Farrands and Felix Erith also took to the air, they also captured some interesting ground shots during the same period; James Fawn created his own considerable collection. In more recent years other members have ventured out with modern, easy to use 'point and shoot' cameras.

To show, view or copy any part of the collection was more difficult in those halcyon days, with slides and projectors being order of the day and a trip to Boots the only means of creating a copy or hard print. Some cataloguing was done and the individual collections of 35 mm slides, held by different people, were usually kept in boxes. Ida used at least 12 boxes, some containing up to 200 slides.

Analysis of the images was done through a build up of experience and cross referencing with excavation work, if this was undertaken. One of the main problems was linking the photo back to the spot on the ground, often using basic Ordnance Survey maps. It is really easy to get confused and lost when flying round in circles over the flat Essex countryside. Ida's collection was kept remarkably ordered, mainly using notes and grid references, hand-written on the slide casing. Much of this collection, in the form of the original slides or prints, has now been passed to local museums, Essex County Council (ECC) Archaeological Section, or one of the national units at Cambridge University or English Heritage records in Swindon.

A number of new technologies have changed how the collection can be brought together, stored and made accessible. Digital slide and photograph scanners are now cheap, easy to use, whilst providing high resolution images from the originals. The capacity of computers and cheap digital memory means these large files can be stored easily and copied.

So a small team set out to scan the main Ida McMaster collection held in County Hall, Chelmsford. This took several visits over a number of months and with cooperation of the Essex Archaeological Unit was eventually completed in early 2014. An electronic copy of all the roughly 1,000 slides was passed over to ECC for their records. Further work in the future could be done to link the photos with Essex Historic Environment Records (EHER) held by the County Council to give access on-line through the 'Unlocking Essex's Past' web site (www.unlockingessex.essexcc.gov.uk).

A good deal of time was subsequently spent cataloguing the growing collection. Each slide was given a six figure map reference number, possible features were identified and the location ascribed to a particular parish, village or town. Also a link to an on-line satellite map was created. This allows the image to be located on 'Bing', a system similar to Google maps, which automatically switches the map's orientation to that of the photo. This index was created using Microsoft Office Excel, a simple spreadsheet set up to order the catalogue in a number of different ways (by OS reference, by feature type, by parish etc). The spreadsheet can be 'searched' using plain text. One click opens the image, another the satellite map, right over the spot the photo was taken.

All 1800 images collected, along with the index, can now be stored on a small memory stick, costing only a couple of pounds. This can be plugged into any computer or laptop for individual research, though you do need 'Excel' to make the index work. Over time the collection can also be added to, both with historic photos from elsewhere and new images. The CAG flight of the 13th July 2013 has already been included.



Aerial photograph of Lawford Neolithic Enclosure
taken by Dick Farrands
(from the CAG Aerial Photograph collection)



Aerial photograph of the Marks Hall excavations
taken by Philip Cunningham
(from the CAG Aerial Photograph collection)

Click here to Open Aerial Photo indexes (Compatibility Mode) - Microsoft Excel non-commercial use							
E12 Cowlins Farm							
OS Grid Reference	File or Ida box no	Date	Source	Place or feature name	Feature type	Link to file	Click Link to go to web based Map (Bing)
Use the different tabs at the bottom to explore the index from different starting points. Click the link to open the file/photo and the second link for Satellite Map							
3 TL908 318	Box_2_191	1970 - 74	Ida McMaster	Mount Bures, Essex. Ryde field corner	1 st C pottery site & Christmas trees	Ida's aerial photo/Ida Box2Box_2_191.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
4 TL908 318	Box_2_192	1970 - 74	Ida McMaster	Mount Bures, Essex. Ryde field corner	1 st C pottery site. Close up	Ida's aerial photo/Ida Box2Box_2_192.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
5 TL908 318	Box_2_193	1970 - 74	Ida McMaster	Mount Bures, Essex. Ryde field corner	1 st C pottery site. Close up	Ida's aerial photo/Ida Box2Box_2_193.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
6 TL999 209	Box_7_176	1979	Ida McMaster	Colchester Highwoods South side. looking S.	Agricultural marks	Ida's aerial photo/Ida Box7Box_7_176.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
7 TL876 065	Box_10_172	1989 to 1990	Ida McMaster	Heybridge. Slough Farm. Looking S	All Gravel ? enclosures.	Ida's aerial photo/Ida Box10Box_10_172.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
8 TL876 065	Box_10_173	1989 to 1990	Ida McMaster	Heybridge. Slough Farm. Pat Adkins. Looking S	All Gravel ? enclosures.	Ida's aerial photo/Ida Box10Box_10_173.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
9 TL844 163	Box_5_081	1977	Ida McMaster	Riverhall End. Tony Bonner Land	Amphora site	Ida's aerial photo/Ida Box5Box_5_081.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
10 TL844 163	Box_5_082	1977	Ida McMaster	Riverhall End. Tony Bonner Land	Amphora site	Ida's aerial photo/Ida Box5Box_5_082.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
11 TL830 960	Box_9_200	1982	Ida McMaster	South Woodham Ferns Looking E to Clements Creek. (1982) TL830 963	Any red hills?	Ida's aerial photo/Ida Box9Box_9_200.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
12 TL914 331	DSC_0089	19/06/2013	Philip - CAG	Cowlins Farm	Barrow & rings Multiple	Flight914.11.2013DSC_0089.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
13 TL914 331	DSC_0090	19/06/2013	Philip - CAG	Cowlins Farm	Barrow & rings Multiple	Flight914.11.2013DSC_0090.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
14 TL914 331	DSC_0091	19/06/2013	Philip - CAG	Cowlins Farm	Barrow & rings Multiple	Flight914.11.2013DSC_0091.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
15 TL914 331	DSC_0092	19/06/2013	Philip - CAG	Cowlins Farm	Barrow & rings Multiple	Flight914.11.2013DSC_0092.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
16 TL914 331	DSC_0093	19/06/2013	Philip - CAG	Cowlins Farm	Barrow & rings Multiple	Flight914.11.2013DSC_0093.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
17 TL914 331	DSC_0094	19/06/2013	Philip - CAG	Cowlins Farm	Barrow & rings Multiple	Flight914.11.2013DSC_0094.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
18 TL914 331	DSC_0095	19/06/2013	Philip - CAG	Cowlins Farm	Barrow & rings Multiple	Flight914.11.2013DSC_0095.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
19 TL914 331	DSC_0096	19/06/2013	Philip - CAG	Cowlins Farm	Barrow & rings Multiple	Flight914.11.2013DSC_0096.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
20 TL914 331	DSC_0097	19/06/2013	Philip - CAG	Cowlins Farm	Barrow & rings Multiple	Flight914.11.2013DSC_0097.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
21 TL914 331	DSC_0098	19/06/2013	Philip - CAG	Cowlins Farm	Barrow & rings Multiple	Flight914.11.2013DSC_0098.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
22 TL914 331	DSC_0134	19/06/2013	Philip - CAG	Cowlins Farm	Barrow & rings Multiple	Flight914.11.2013DSC_0134.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
23 TL914 331	DSC_0162	19/06/2013	Philip - CAG	Cowlins Farm	Barrow & rings Multiple	Flight914.11.2013DSC_0162.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
24 TL914 331	DSC_0163	19/06/2013	Philip - CAG	Cowlins Farm	Barrow & rings Multiple	Flight914.11.2013DSC_0163.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC
25 TL914 331	DSC_0164	19/06/2013	Philip - CAG	Cowlins Farm	Barrow & rings Multiple	Flight914.11.2013DSC_0164.JPG	http://www.bing.com/maps/?v=2&cp=mmj6n1jym&M=1&dr=90&sty=b&form=LMLTCC

Part of the Index to the CAG Aerial Photograph collection
(Microsoft Excel format)

BRICK KILN NEAR WORMINGFORD LODGE

Andrew White and Dick Marriott



Kiln from the East, with stoking tunnels and remains of firing floor



Site of the Kiln excavation, 2012

Introduction

In 1961 Jim Brackenborough and John Jackson were ploughing the field on the West slope of Lodge Hills, East of Commolions field, for the Wormingford Hall Estate. At one point the plough ran into a brick structure which broke open to reveal a cavity beneath. This was identified by Colchester Museum as part of a Tudor brick kiln. The site was recorded by Miss Winifred Beaumont, a local historian.



Stoke hole of kiln in 1961

On learning their find was not a secret tunnel the finders lost interest, so they inserted a time-capsule and closed the structure in October 1961.



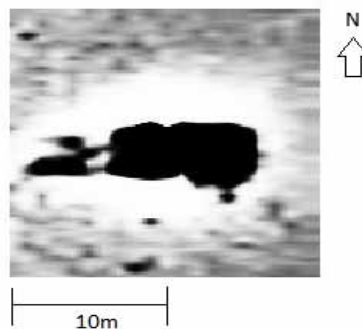
From the time capsule (rediscovered)

The letter says: “11th October 1961 This Tudor Kiln was discovered in Sept. 1961 by Mr James William Brackenborough and Mr John Jackson and recorded by Miss W Beaumont. Photographs were taken before being closed in October 1961 J W Brackenborough”

CAG were excavating the nearby Tudor hunting lodge at Lodge Hills, Wormingford and in 2010 were invited by the Estate to re-locate and excavate the Kiln.

Rediscovery

Phyllida Tufnell (of Wormingford Hall) had visited the site in 1961. She and John Jackson were separately asked to pinpoint their best guess of the kiln’s position. These points coincided, and a magnetometry survey of the area was carried out by A and D Black of CAG. This disclosed a likely structure on the site. The location is at N 51.9564° E 0.8014°, or OS TL 9284 3255.



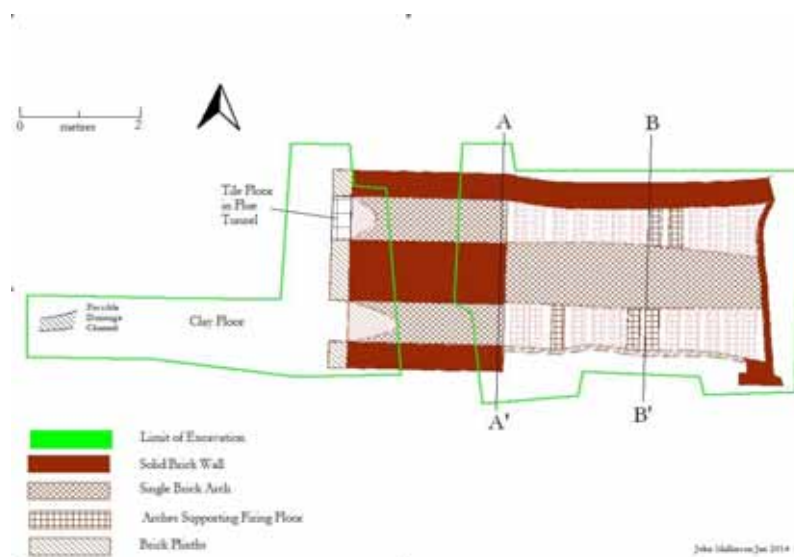
Magnetometry survey of likely kiln site 2010

Test trenches were started in 2010 which disclosed a broad scatter of brick rubble matching the outline of the survey. Excavation continued through 2011 to April 2012. Two parallel tunnels of 3m length and 1.2m apart were uncovered and identified as the stoking holes of a brick kiln. The face of the brickwork showed the effects of the heat. The time capsule, a sealed glass jar placed under a “Snowcem” tin for protection in 1961, was recovered from the Southern tunnel.

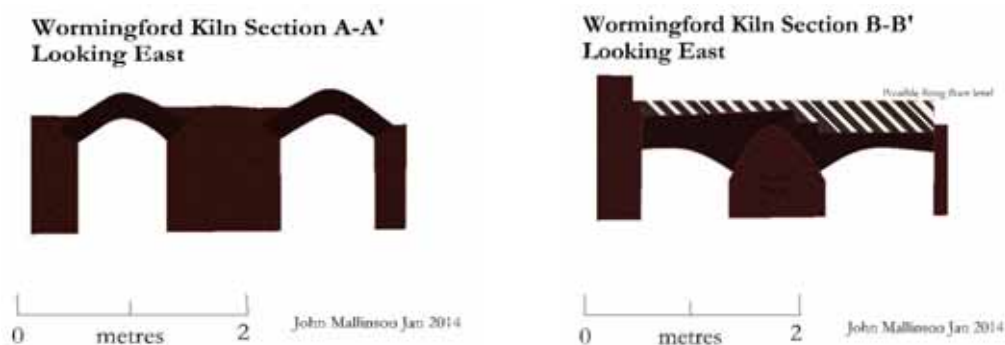
The walls of the stoking tunnels were built in English Bond and constructed of dark blue bricks eight courses high. The roof arches sprang from the top layer of brick. The two stoking tunnels were arched with 20 bricks of varying thicknesses, placed end-on, the space between filled with rubble.

To the West of the tunnels was found the tiled floor used to charge the stoking tunnels. To the East was uncovered a rectangular pit dug into the natural clay with sand (brick-earth) soil of the site. This was identified as the firing chamber of the kiln, where the raw bricks would have been stacked. Further excavation of this pit revealed a wall of 3 bricks' width on the North, an apparent wall of just half a brick width to the South, and a back wall of ½ brick width. All walls were somewhat bowed inwards from the pressure of the surrounding soil. There was a brick plinth of 1.2m width running East/West along the centre, providing the base for two sets of arches, one on each side. Four extant arches were found, together with the springing points of all 13 arches on each side. Each arch was of one brick width and there was a gap of half a brick between each arch. The arches were misshapen, apparently by the heat of the firing. Their existing top surface was some 30cm or more below the top of the stoke hole openings.

Excavation



Plan of the kiln site



Sections through the kiln

The whole site had been filled with rubble consisting of numerous brick and tile bats, soil and natural clay. It also contained pieces of charcoal and un-burnt coal.

Bricks used in the construction

The kiln is built of bricks of dimensions 215/230mm x 100mm x 50mm, fairly regular with sharp arrises. It is difficult to assign a firm date to the construction. As Nathaniel Lloyd in “The History of English Brickwork” demonstrates, the dimensions of bricks show such variation over a long period that size alone is not a reliable guide. See also “Tudor brickwork” by Gerard Lynch (1). Indeed, expert Pat Ryan (2) thinks the bricks were of 16th to early 17th century date, while Peter Minter of Bulmer Bricksⁱ (3) suggests a much earlier date, even as early as 1430 to 1480.

The brickwork within the stoke-holes would have become glazed through the heat. Some of the headers in the West face of the kiln were also glazed. This is a powerful argument for the presence of an open wood-fired clamp on the site before the kiln was built. A revived wood-fired clamp was fired in 2010 and the headers adjoining the firing tunnel were found to be beautifully “flared” or potash glazed, as a direct result of the combination of becoming stained by the potash given off from the adjacent timber fuel and the melting of the silica which forms a protective glaze (4).

The bricks of the stoking tunnels were generally of a good quality and were blue grey glazed. The bricks of the tunnel entrances were bonded with lime mortar. In the rest of the kiln, subject to high temperatures, clay had been used as mortar. The temperatures involved had turned this into a fine red powder.

Finds

Whole bricks found in the fill rubble were measured. They were found to be of a size compatible with those found in the structure of the kiln. This suggests they formed part of the structure rather than later manufacture. Some showed traces of lime mortar, which would not have been subjected to the intense heat of the firing chamber itself. Peg tiles were found to be of the standard size current throughout the life of the kiln. Tiles would have been used to cover the stacked bricks to control heating during firing. It is likely, but not proven, that the kiln was used to make both bricks and tiles.

Several odd shaped blue bricks were found on site with a bloated outer face and a clinker like interior. Peter Minter said these were caused by the use of high oxide clay not being dried out properly at the leather-hard stage. This was sometimes the product of early season brick production with inadequate shelter from damp. The water inside the brick combined with the oxide in an exothermic reaction. The additional heat turned the brick into a crude form of clinker.

A number of curved and trapezoidal bricks were uncovered. The bricks were almost certainly designed for use in the construction of a well and would have used 23 bricks in the circumference, indicating a well about 1.5m diameter. We have not identified such a well in the locality. They are likely to be of an early date, since one was discovered in the fabric of the structure.

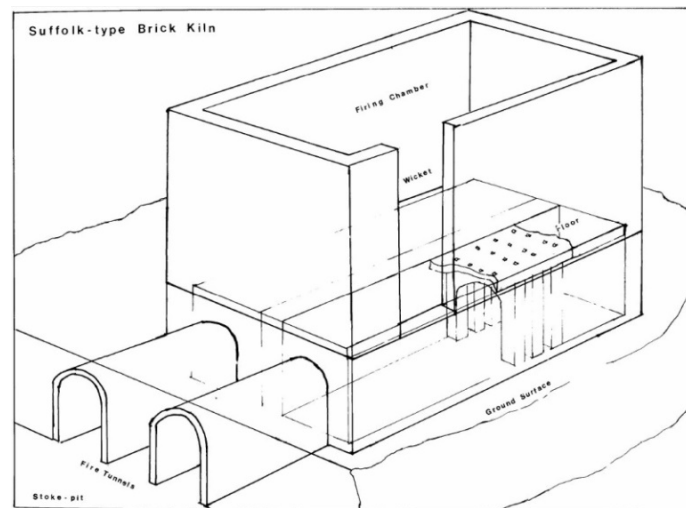
Other finds

Apart from brick and tile, very little man-made material was discovered. This included a few pipe stems, together with 2 pipe bowls found in the rubble fill, which were dated 1660-1719. As well as charred wood, small pieces of un-burnt coal were found in the stoking tunnels and mixed in with the general fill of the site.

Discussion

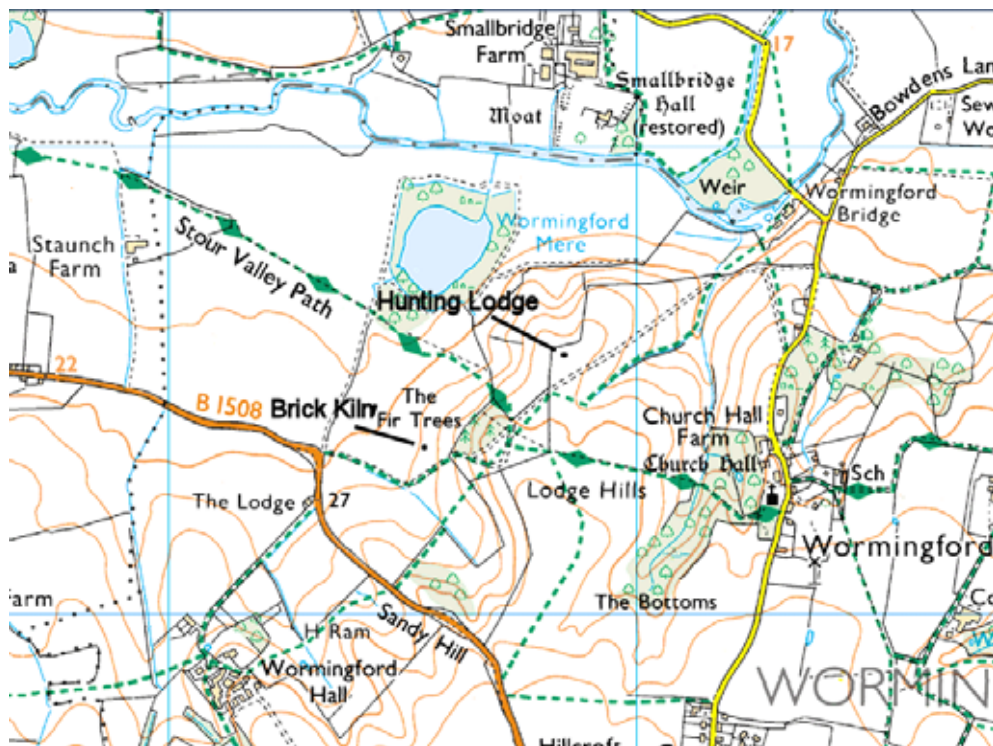
The Kiln

The excavation shows the kiln is a typical example of a “Suffolk” kiln. That is, a brick and tile kiln built into a bank or hillside. Thus the fire and much of the firing chamber was below ground level, providing better insulation for retaining the heat. The kiln would have had an open top and the stacked raw bricks would have been covered with tiles and/or turves. There would have been gaps in the covering, moved around during firing to provide an even heat to all bricks in the stack.



A Suffolk Brick Kiln (5)

Location of Kiln and early history



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Location of Brick Kiln

Once brick became established as a building material it made sense to establish a brick kiln close to the building works and where clay/sand and firing materials were readily available. The Wormingford kiln is conveniently situated to supply Smallbridge Hall, Wormingford Hall, the Tudor Hunting Lodge on Lodge Hills and eventually other buildings in Wormingford. Given the kiln itself is in an excavated clay pit, it is likely the first firings on the site were made using a simple open clamp of raw bricks. A successful test firing was made using the local clay and sand mixture (brickearth) which formed the pit sides.(6) No traces of other clay pits were found, but these could have been obliterated by ploughing in subsequent centuries.

Later History of the Kiln

The presence of pipe bowls dated 1660-1720 in the fill rubble strongly suggests the kiln was destroyed during that period. The presence of un-burnt coal in the fill suggests the last firing was made using coal. The Stour was used for transport over generations, yet it is unlikely to have been economical to use coal until improvements in the navigation had been carried out, following an Act of 1705 (7). This created 13 pound locks and 13 additional flash locks or staunches. Indeed, coal was said to have reached Sudbury in 1707 (8). This brackets the last firing and the destruction of the kiln between 1707 and 1720. It is even tempting to suggest the coal firing, which could have reached much higher temperatures than the wood firing, was unsuccessful, perhaps leading to the deformations found in the arches and the abandonment of the site.

1. www.buildingconservation.com/tudor-brickwork Gerard Lynch, 2012
2. Author of "Brick in Essex from the Roman Conquest to the Reformation", P Ryan, Chelmsford, 1996
3. Bulmer Brick Co. Ltd Bulmer, Sudbury, CO10 7EF
4. "Reviving a Wood-Fired Open Clamp at H.G. Matthews' Traditional Brickworks, Bellingdon, Buckinghamshire, England, in February and May 2010", Gerard Lynch, Information Bulletin 116 of the British Brick Society, April 2011
5. From Brick Kiln excavation at Oliver's Orchard, Stanway, J Fawn, CAG Bulletin Vol 27, 1983
6. Carried out by Andrew White of CAG
7. "Historical Account of the Navigable Rivers, Canals and Railways, of Great Britain", Joseph Priestley, 1831
8. "The Complete Book of Canal and River Navigations", Edward W Paget-Tomlinson, Paine Research 1978

14th CENTURY SEAL MATRIX

Francis Nicholls



This particularly fine seal matrix was found at Marks Hall, Coggeshall, with the aid of a metal detector, in March 2014. Seals were used as a means of security so that letters and messages were only opened by the recipient. Early seals were personalized and signified status. After the start of the C14th non-personal seal matrices became much more widely used with the seal imprints incorporating many varied designs and legends.

The above seal matrix has been identified as C14th and is made of copper-alloy. It comprises an open-work trefoil handle (the suspension loop is broken) and a collar of three raised ridges, widening to an hexagonal seal-base with a circular seal matrix.

The designs and legends on these seals offer an insight into the humour of the late middle ages. Hunting scenes and animals were often incorporated into the designs, whilst the legends sometimes had hidden meanings. They were written in Latin, French or English.

Some examples of seal legends:

IE SV REY DE BEITES ('I am the King of Beasts'), ALAS IE SV PRIS ('Alas I am caught') and LEGE TEGE ('Read, keep secret').



The Marks Hall seal has the design of a squirrel (*above*), with the inscription I CRAKE NOTIS ('I crack nuts'). There is however good evidence that this innocent legend may have a more bawdy meaning! In *A Guide to British Medieval Seals*, it states that this legend can mean sexual conquest and quotes a medieval story of a young knight who had designs on a married women. He asked her "Madam, would you care to crack nuts?". This question so shocked the woman that the relationship was immediately terminated.

Whoever thought that metal detecting could be so exciting!

Reference: *A Guide to British Medieval Seals* (Harvey and McGuinness 1996)

Grateful thanks also to Katie Marsden, *Portable Antiquities Scheme Liaison Officer at Colchester*.

CROPMARKS IN THE MIDDLE STOUR VALLEY

Andrew White

Study group

Readers will remember that a few years ago, a small study group was formed to examine in detail the extensive cropmarks in the Wormingford to Bures section of the Stour Valley. This was prompted by several draft publications issued by Essex County Council over the last few decades which had never been brought together into a full report; and the knowledge that the archaeology of the Valley is constantly under threat from agriculture. Although there are cropmarks throughout the Stour Valley, three areas are considered particularly rewarding, Dedham, Wormingford to Bures and Clare. There are at least 50 ring ditches in the study area, large numbers of field boundaries and other linear features.

Recently, aerial photographs taken by CAG members of cropmarks in the Stour Valley have been digitised and catalogued into an aerial survey database. The study area was divided into areas based on the Sites & Monuments Records (SMRs), with each member of the group responsible for a detailed study of a particular area. These studies are now complete in draft form. It was also decided to publish a more popular guide aimed at members of the public and it is hoped that this will be ready shortly.

The bulk of the cropmarks in the Stour Valley date from the late Neolithic, circa 3000 BC to the Bronze age 2000 - 800 BC. This long period is particularly fascinating as it marks the transformation from a hunter-gatherer society to one based on agriculture. It also shows a change in mortuary practices from large communal graves to single burials.

Neolithic Period

There are some examples of Neolithic monuments. The largest is a 'cursus' so called because William Stukely an antiquarian of the eighteenth century thought they were like a Roman 'circuit' used for chariot racing. They are in fact Neolithic and probably used as processional ways with some astronomical function. The largest known is in Dorset stretching for over 10 kilometres. The precision with which they are laid out is outstanding.

There are potentially 3 cursuses in the study area, at Bures St Mary, Bures Hall and Metlands, Wormingford. The Metlands cropmark consists of a parallel set of marks 350 metres long running in a NW/SE direction. The banks are 50 metres apart and slightly curved. In this example the parallel lines do not terminate with a closed end, common with most cursuses. The Bures St Mary cursus is very similar to the one at Springfield, Chelmsford having a curved end and a feature that could be a funerary pyre. The Bures Hall site (though it is highly questionable), is more fragmented than Springfield.

The orientation could be connected to the winter solstice or even the lunar cycle. The Metlands cursus would appear to line up with the setting sun of the winter solstice at approximately 110 degrees. Bures St Mary is 120 degrees and Bures Hall is 115 degrees. The two Bures Cursuses are clear to the horizon whereas Metlands is angled to the rising land of Lodge Hills.

At Metlands, in Wormingford, the excavation of a mound in 1836 was observed by the local vicar who saw hundreds of urns laid in parallel rows. The concentric ring ditch west of the Mere has been identified as the barrow destroyed in 1836. However Howard Brooks has also noticed a large number of pits alongside the Wormingford cursus which could be the "rows of urns like streets" of the Rev Strickland in 1836.

Could they be Neolithic droveways? We know cattle were herded over great distances for ceremonial feasting. In 2012 and 2013 field walking was carried out at Metlands and at the end of one day a beautiful stone hand axe was found by one young archaeologist. It is probably Neolithic in age i.e. the same period as the cursus monuments and may have been placed near the river's edge as a votive offering. There is some evidence that the course of the river Stour may have moved and the cursus terminated at the river at its NW end.

Bronze Age Period

Ancient earthworks, such as the cursus monuments, often became focal points in landscapes devoted to the dead. Groups of burial mounds are spaced along the Stour Valley, which may also represent tribal territories.

There are approximately 50 ring ditches and burial mounds in the study area. By the Bronze Age single burials had become common, as opposed to funeral pyres. Remains were frequently buried in Beaker pottery, with grave goods. The ring ditches appear too large and too permanent to be habitations such as round houses. The population tended to live away from the burial sites, although archaeologists have found little evidence because of the impermanent nature of their dwellings.

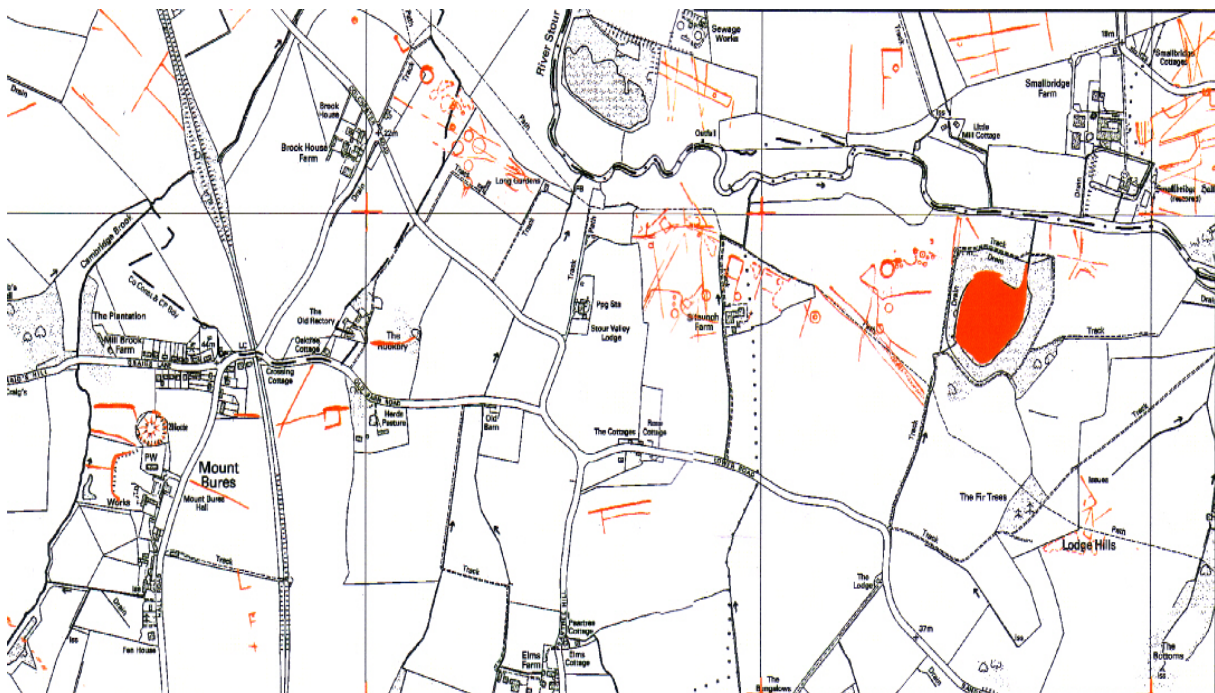
These crop marks consist of concentric ring ditches approx. 30 metres across and single ring ditches approx. 10 metres across, forming cemeteries aligned with the valley on ground several metres above the river. The course of the Stour has changed in several places at some unknown time in the past, and the cemeteries appear to be aligned with the ancient course of the river.

Parallel ditches were found during an excavation by Oxford Archaeology (East) of the Wormingford – Abberton pipeline in the vicinity of Staunch Farm. They were aligned NW/ SE and spaced 70 metres apart. They are 3.2 metres wide and up to 1.06 metres deep. Five sherds of Beaker pottery were recovered from one of the ditches. Bronze Age field systems consist of small square field boundaries called coaxial or brickwork field patterns, as opposed to the linear strips of a later period. The fields can be as small as 20m x 20m and were also used as stock enclosures.

What was the role of Wormingford Mere, a focal point in the landscape? Water was very important and probably seen as an entry into the after life, sometimes used as a place of offering of metal objects such as bronze swords, which were bent or broken prior to sacrifice.

Iron Age period

There is very little evidence of Iron Age activity apart from field boundaries in the study area.



Map of Cropmarks Study Area, by kind permission of Essex County Council



Wormingford Mere and Cursus, looking north-west



Longbarrow and rings, Cowlins Field, Mount Bures

REPORTS ON LECTURES

COINS AND THE BIBLE

Richard Abdy, British Museum

14th October 2013

Report by Lynn Sturges

Richard Abdy illustrated his talk with slides and concentrated on Ancient Rome as a theme in relation to the Bible stories and events in Jesus's lifetime. Three main areas were highlighted in his talk. Firstly, coins mentioned in the Bible, particularly the New Testament, secondly, the individuals at the time and politicians and, thirdly, developing influence of the Bible and Christian art.

From 300-27 BC coinage was being introduced by the Roman Republic very much influenced by the cultural significance from Greece. A definition of coinage is a stamped metal disc issued by a government for trade and valuation. Obviously, beyond 27 BC and into the AD years, Rome became a real money economy and certain coins had very high denominations. There were no notes.

Typical Roman coins were made of gold, silver, brass and copper, all valued in much the same way as our own money values according to size and weight. Coins consisted of the portraits of Emperors as they embodied state and policies and, on the reverse, bore images referring to the city such as temples and gods worshipped by their inhabitants. Money was carried in purses and common coins were named e.g. denarius and sestertius.

It was said that one needed a million sestertius to become a member of the Roman Senate. A soldiers' pay was 225 denarii p.a. paid to them three times a year as a stipend.

The Old Testament reveals there were no coins prior to the Iron Age. Barter was often done by wheat and oil but reference was made to the silver shekel as a standard measurement. The talent was another weight very much associated in the Old Testament with gold and silver. However, there are many references to coinage and taxes in the New Testament. The denarius was the daily pay for Roman soldiers and the wage of a day labourer in Palestine (Matthew 20:21). It was the tribute penny that was thought to have been shown to Jesus when he made his famous speech "Render unto Caesar the things that are Caesar's and to God the things that are God's" (Matthew 22:21; Mark 12:17; Luke 20:25). He recognised that taxes had to be paid to carry out public works. It was observed that every male Jew was required to pay an annual head tax to the Temple Treasury.

Other Bible references to coinage refer to five sparrows sold for two assaria and even thirty pieces of silver were given to Judas as payment for betraying Jesus.

Mark 12:42 tells us that Jesus watched as a poor widow put a coin into the Temple Treasury. The coin only had a small worth, possibly two mites which makes a farthing but Jesus noted that he thought her contribution was greater in proportion to the other donations.

The Good Samaritan (Luke 10 25-37) rescued an injured man and gave an innkeeper two silver coins as a down payment on food, lodging and care for the person he had helped.

The Bible also has Paul's observation that "the love of money is the root of all evil".

Coinage then, like now, relied on artwork on coins showing a face with inscriptions; there were heads of eagles and designs indicating events. Coins eventually influenced the development of Christian images and symbols e.g. Constantinian crosses. The face of Jesus on Byzantine coins eventually appeared, a topic always difficult showing him in different guises and, on one coin, holding the Bible.

The lecture ended with the showing of some manuscript writings e.g.. Codex Sinaiticus indicating sacred words and symbols as well as showing Christian artwork in the form of mosaics and ivory panels.

THE SEDGEFORD HISTORICAL AND ARCHAEOLOGICAL PROJECT (SHARP): AN UPDATE

Gary Rossin, Project Director, SHARP

21st October 2013

Report by Ellie Mead

The Sedgeford Project began in 1996 as 'an experiment in democratic archaeology' to study the human settlement and land use within the parish of Sedgeford. The River Heacham is a significant feature within the landscape and the village moved across the river from South to North in the late 10th or early 11th century, thus leaving a greenfield site for study and excavation of earlier settlements. Gary Rossin took us on a tour through '5,000 years of human development' based on findings at this multi-period site.

Late Neolithic/ Bronze Age: In 2009 an early Bronze Age crouched burial was excavated. The skeleton was found to be that of a male, in bad health throughout his life and suffering from spina bifida. Dating to 2300 BC this burial was accompanied by a piece of worked Red Deer antler which appeared to have been deliberately snapped into three pieces.

Iron Age: Pottery from this period had been found in 1913 but unfortunately had been used as hard-core on a local road! In 2003 39 Gallo-Belgic gold staters (60-50 BC) in mint condition were found hidden in a cow's femur. In 2004 the head of a torc was found; the rest of the torc had previously been found by a farmer in 1964. In 2008 a collection of small ornate mystery objects were discovered which are thought to be late Iron Age. The burial of a female in her 40s, dating to about 230BC, along with 6 beads, was also excavated and is thought to be one of only 30 Iron Age inhumation burials in Norfolk.

Roman: In 2005/6 the project worked on excavating a late Iron Age farmstead which fell out of use, but which was resurrected as a Roman farm/food processing centre. A system of flues, thought to be used for drying grain, contained a deposit of ash into which was mixed a scatter of human bones. Dating to about 370 AD these were probably the bones of a murder victim whose remains were thus disposed of.

Anglo Saxon: Of the pagan Anglo-Saxon landscape little is known, but since 1996 the mid to late Anglo-Saxon period has been the main focus of the project, particularly in the area known as Boneyard Field. Between 1996 and 2007 approximately 300 burials have been excavated. All are East /West aligned and there are grave goods; most were shroud burials, only about 10 appear to have been coffin burials. Males and females are evenly balanced, the average being 35-40 years old at the time of death. Evidence from these burials would indicate a reasonable quality of life: the average male measuring 5ft 10in and average female 5ft 5in. A low number of child burials could indicate low child mortality, unless children were buried in a separate, as yet unexcavated, area. It is estimated that there are about 300 more burials still to be dug.

A recent focus for excavation has been Chalk Pit Field where, since extensive geophysics was carried out in 2007, evidence has been found of a series of rectangular timber buildings, similar to those at West Stow. These could have been used for light industry e.g. weaving sheds. One area would appear to be a mussel processing plant; huge quantities of shell being deposited here; and another area could have been used for smithing and smelting. This year a 2m deep trench was dug in one area of Chalk Pit field and, at some depth, baked clay ovens were uncovered which could have been associated with malting grain. Next year it is hoped to continue excavation in this area; further ovens are expected.

Medieval: In 2005 a burial was found close to the site of the old Chapel. About 50 test pits have been dug in gardens in the village and much Thetford ware has been discovered. It is hoped to continue to excavate the medieval settlement in 2014.

World War 1 Aerodrome: RAF Sedgeford came into being in 1915 to counter the threat of German Zeppelins; within a year however it had become a training base with about 1200 personnel based there. We were shown photos of the mortuary building (required due to high mortality amongst pilots in WW1) and the foundations of one of the hangars. Several other buildings still exist and again it is hoped

that further information can be revealed about this period of the site's history in the coming season.

Overall this was a fascinating and well-illustrated talk which I am sure has inspired many of our members to visit the site on one of its Open Days next summer. Further information is available from the website: www.sharp.org.uk

THE TRUMPINGTON BED BURIAL IN ITS WIDER CONTEXT

Sam Lucy, Newnham College, Cambridge

28th October 2013

Report by Anna Moore

Ahead of development in Trumpington, trial trenching had revealed a widespread Roman and pre-historic landscape but thus far very little Anglo-Saxon.

Excavation of a small area by the Cambridge Archaeological Unit found an Iron Age enclosure and a double Beaker burial. The rest was Anglo-Saxon. Five Middle and Late Saxon sunken-featured buildings were identified (although one turned out later to be an Iron Age feature), one post and trench building and a complex of ditches. From the Early Saxon period came four burials, sunken-featured buildings, ditches, a hall and two wells.

An Early Saxon sunken-featured building contained Thetford Ware pottery from the 10th and 11th centuries and some worked bone items, the implication being that the settlement was abandoned and the feature left open for several centuries. All other structures dated to the 7th century and contained contemporary material. Another sunken-featured building contained Early Saxon pottery and animal bone. The Hall measured 9m x 20m and contained very few finds except a small amount of 7th century pot.

Of the four burials, all were aligned west-east; the first was an adult of 18-25, sex uncertain, with no grave goods; the second was an adult of 18-25, probably female, buried with a pair of shears; the third was a female of 15-20, found with a buckle at her pelvis; the fourth was a female of 14-18 who had possibly suffered illness or dietary deficiency in childhood, and was buried in a bed with a metal frame; the frame had fabric adhering to it, and this is being analysed in York.

The body was found with a gold and garnet cross in almost perfect condition (one of only five such finds) which had probably been sewn onto clothing via four attachments at the back. Also found were a pair of gold and garnet linked pins for fastening clothing, again in perfect condition. A chatelaine had been buried with the body which has preserved textile attached. Bone and tooth analysis on the body is planned. Very few bed burials have been found, with small clusters around Cambridge and Salisbury, and a small number of other isolated instances. They all contain high-status females. Distinct late 7th century assemblages are found in the burials and are possibly Christian.

A bed burial from Bloodmoor Hill, Suffolk contained a typical assemblage of T-shaped key, shears, chatelaine, silver jewellery including crosses, caskets and boxes, beads, spindle whorls, strike-a-light and brooches which were already old when deposited. This burial probably dates from 640–670AD.

A bed burial from Westfield, Ely contained blue glass palm cups, combs, pendant crosses, jewellery box and beads; a copper alloy box, which was once thought to have contained a sewing kit, could have held items of Christian significance. Dietary analysis indicated a lot of fish was being consumed, and this could possibly point to Christian influence.

An English Heritage late 7th century chronology project shows peaks of female burials with grave goods separated by troughs when there are no grave goods. The Trumpington burial fits into one of these peaks. It contained one of 4 cloisonné pectoral crosses found in female burials. The bed could be associated with Christianity, as it could be seen that the body was resting, ready for resurrection. The conclusion is of a high-status, Christian cemetery and settlement, possibly a female monastic site. A

further observation suggests that the nearby double Beaker burial may have been covered with a mound; it is known that Anglo-Saxon cemeteries were sometimes sited near barrows.

Further information can be found on website:

www.cam.ac.uk/research/news/mystery-of-anglo-saxon-teen-buried-in-bed-with-gold-cross

CROSSRAIL: RECENT ARCHAEOLOGICAL WORK IN WEST LONDON

Andy Shelley, Principal Archaeologist, Ramboll UK Ltd

4th November 2013

Report by John Spears

Andy first described the Crossrail project, as a brand new railway running from Shenfield to West London with links to Reading and the West of England. He is concerned with the archaeology of a section running from Tottenham Court Road to Royal Oak. He also looked forward to investigating a later development of the project at Ilford depot where previous excavations found 1,600 fossil bones, a hand-axe and the famous Ilford mammoth.

Excavations at Royal Oak, where the new line becomes over-ground, has identified traces of river beds which once flowed towards the Thames. Within the river-beds, deep underground, were found bones from a prehistoric ox and a reindeer bone with scores which might have been animal tooth-marks or made by an early human butcher. Traces of flora indicated the area was once (50-70,000 years ago) open grassland where perhaps animals wintered because of the ample water supply. The climate was perhaps similar to that of Northern Scotland today.

Andy explained that the vast amount of soil excavated by the project is taken to Wallasea Island where it will be used to create a wildlife nature reserve.

The lecture then moved forward 70,000 years to the 19th century and changed from classical to industrial archaeology with the coming of the Great Western Railway. He described the building of the GWR running from Bristol to London by Isambard Kingdom Brunel and engineer David Gooch. The line was originally projected to terminate at the Euston Arch, but disagreement between the companies resulted in a temporary terminus at Paddington Station. The line opened in 1841. The original station was later demolished and a new station built nearby which opened in 1854. Andy hopes to investigate the site of the original station within his work with the Crossrail project.

He explained how Brunel over-engineered most of his development and how he built the GWR to a broad gauge of 7'1/4" instead of the standard gauge of 4'8 1/2" to give faster running and a more comfortable ride to passengers, but of course this increased costs. However, the GWR eventually converted to standard gauge in 1892. Some of Brunel's track has been uncovered. It had no sleepers but rail supports.

Andy showed slides of Old Oak Common where in 1903 a railway maintenance depot was built, including slides of steam locomotives, a turntable, archaeological finds of porcelain ware, a letterbox and graffiti. The turntable was restored after 1965 when steam was replaced by diesel power. Andy is clearly a railway enthusiast and has a collection of railway memorabilia. Altogether an interesting lecture which scanned 70,000 years in 60 minutes!

GEOPHYSICS AND THE ROMAN SETTLEMENTS OF HERTFORDSHIRE

Kris Lockyear, Senior Lecturer at the Institute of Archaeology, UCL

11th November 2013

Report by Nick Rowe

It was a refreshing and informative lecture by a new speaker, Kris Lockyear, on the geophysical survey undertaken by him and others of Late Iron Age and Roman sites throughout Hertfordshire from small farmsteads to the city of Verulamium (modern St. Albans). Kris' first hand knowledge and his enthusiasm really shone through and seeing the results he and the team are achieving with the up-to-date Magnetometer, GPR and Resistivity equipment kept me on the edge of my seat for the entire evening.

Kris explained the results in understandable detail of the accumulating surveys from Verulamium Park (May to November 2013), where houses, shops and roads could be easily picked out and he explained some of the more modern features including pipelines and ditches that disturb or obscure their results. I was fascinated how the equipment has developed since undertaking my A-level archaeology only three years ago, the quality of results and power of these machines has increased several times over but, alas, the price tags have not reduced to a realistic non-academic capacity.

We have been extremely fortunate to acquire the evening from a member of a team at the pioneering edge of the next generation of non-invasive archaeological equipment, but as yet they have not invented a suitable replacement for an archaeologist and their trowel. I hope we are able to sign Kris up for next winter's programme to give us some updates.

For more information please visit www.Hertsgeosurvey.wordpress.com

THE RED HILLS OF STANFORD WHARF: IRON AGE AND ROMAN SALT MAKING IN THE THAMES ESTUARY

Edward Biddulph, Senior Project Manager, Oxford Archaeology

18th November 2013

Report by John Mallinson

The best summary of the talk given by Edward Biddulph can be found at: www.oxfordarchaeology.com/featured-projects-by-name/214-stanford-wharf-nature-reserve-london-gateway

It runs:

Stanford Wharf Nature Reserve, a 44-hectare site bordered by Stanford-le-Hope industrial area to the north, Mucking Creek to the west, and the River Thames to the south, was investigated as part of the DP World London Gateway port development, which combines the UK's newest deep-sea container port with Europe's largest logistics park. The nature reserve was created from farmland to the west of the main port development to provide a wetland habitat for wading birds and other wildlife, as well as green space for residents and visitors. This ambitious project involved reducing the ground level across the whole area by 0.5m, and breaching the existing sea wall to allow the site to be flooded by the tidal waters of the Thames Estuary. DP World London Gateway funded a series of field investigations at Stanford Wharf Nature Reserve by Oxford Archaeology to ensure that archaeological remains were preserved or investigated before the site was flooded.

By the middle Iron Age (c 400-100 BC), settlers arrived for one purpose – to make salt. Excavation across the north-western corner of Area A uncovered the remains of red hills, a characteristic feature of long-term salt production on the Essex coast. Other evidence relating to salt production included pits, hearths and briquetage, a coarse ceramic used for making salt-processing equipment, such as cylindrical moulds, troughs, pedestals and firebars. Scientific and ceramic dating confirmed that this activity belonged to the middle Iron Age. The dating was exciting, identifying the red hills from Stanford Wharf as among the earliest known in Essex. Although archaeologists have long accepted a link between red hills and salt making, quite what red hills are made of has remained a mystery, and how they were formed

in view of the conventional understanding of late Iron Age and early Roman salt production methods has never been satisfactorily explained.

The analyses revealed that the mounds consisted of fuel ash derived from burnt salt marsh plants and sediment. The plants, harvested still with marsh sediment adhering, had been burnt as fuel for hearths, above which brine was evaporated to crystallise salt. A by-product of the fuel burning was a salt-rich ash, which when mixed with seawater, was turned into a highly saline solution. This was filtered, and the resulting brine was then also evaporated above salt marsh plant-fuelled hearths. It was the residue from hearths and filtering that was dumped to create low mounds or red hills. This discovery is of enormous importance for Iron Age studies in Britain, as it revolutionises conventional understanding of salt production.

From about AD 250, the site was reorganised. New ditches were laid out and four salterns established. One saltern contained a hearth, a three-celled tank, and dumps of salt-processing waste. Three more salterns were set up within an adjacent enclosure. The recovery of fuel ash dominated by salt marsh plants in the late Roman salterns indicates that the method of brine and salt production, established in the middle Iron Age, continued to be employed as late as the late 3rd and 4th centuries. In the late Roman period, however, there were no red hills. The salt marsh sediment that gave the red hills its colour was not collected, pointing to more careful harvesting – and sustainable management – of the marsh plants.

There was also continuity in the use of briquetage troughs and equipment. The late Roman use of briquetage was another unexpected outcome of the analysis, as it has been difficult to show in earlier studies of red hill and salt-working sites in Essex that the date of the material extended beyond the 2nd century AD. That said, evidence for continuity was also accompanied by evidence for a fundamental change in the scale and methods of salt production during the late Roman period. Traces of lead recorded in two salterns pointed to the adoption of lead evaporating pans at the site for use alongside briquetage troughs. The use of lead pans is well known in the salt industries of the West Midlands and North-West England, but in Essex had remained a matter of conjecture only. At the time that lead vessels were being used for evaporation, wood was being burnt in the hearths below. This may have been a result of the pressure to obtain large quantities of fuel as salt production intensified and expanded.

There were other surprises. The dumping of a mass of tiny fish bones in a late Roman ditch suggested that fish sauce, probably liquamen or allec, was produced. Stanford Wharf is not the first site in Britain to have produced evidence for the manufacture of fish sauce, but never before has the evidence, mainly comprising juvenile herrings, sprats, and juvenile smelt, been so abundant and in such a clear association with salt-works. And, in the early Roman period, a timber-post structure with an apsidal end erected on the edge of the palaeochannel was identified as a probable boathouse, which hints at coastal fishing and the trade of salt and other resources.

For those interested in more details, the Library has purchased a copy of the excavation report: *London Gateway: Iron Age and Roman salt making in the Thames Estuary: Excavation at Stanford Wharf Nature Reserve, Essex* by Edward Biddulph, Stuart Foreman, Elizabeth Stafford, Dan Stansbie and Rebecca Nicholson. This is also available as a free pdf download at:
www.library.thehumanjourney.net/909/8/London_Gateway_OA%20Monograph_18.pdf

THE HISTORY OF ARCHAEOLOGICAL INVESTIGATIONS IN THE BOROUGH OF CHELMSFORD

Nick Wickendon, Museums Manager for Chelmsford City Council.

25th November 2013

Report by Mary Coe

Nick showed the history chronologically, beginning with the Neolithic. The Springfield Cursus was excavated by the County Council Field Unit in 1979, ahead of the development of Chelmer Village. This cursus, at nearly ½ mile long, must have been important as it would have taken the effort of a community to complete. From the Bronze Age there was an enclosure at Springfield Lyons. This was first recognised from the air and the excavation was funded by the British Museum, in return for keeping all the finds. Before reaching the Bronze Age level, a C5th and C6th pagan cemetery was found, which respected a ditch. This Bronze Age ditch had in it, on either side of the entrance, a collection of clay moulds for making swords.

Excavations in the 1970's at Little Waltham in advance of the construction of the bypass, revealed Iron Age round houses. The archaeology was only about 1ft below the surface.

The site of Chelmsford became settled by the Romans after the Boudican rebellion. It lay about half-way between London and Colchester and had river access to the sea. The Antonine Itinerary mentions *Caesaromagus* and the site of this place was debated until the 1970's, when it was agreed that it was Chelmsford. Excavations showed the presence of an early fort. In 1758, William Stukeley drew an incorrect plan but correctly labelled it as *Caesaromagus*.

In 1968 the Excavation Committee was formed following a threat to buildings for the construction of Parkway. Before destruction, the buildings were recorded and excavated. Paul Drury was in charge of excavations in Chelmsford, Great Dunmow, Heybridge and Braintree. Later, the Excavation Committee was renamed the Chelmsford Archaeological Trust, which continued until the late 1980's.

In the Roman era, *Caesaromagus* was a small town surrounded by a bank and ditch. The Roman road to Colchester lay on the line of what is now Moulsham Street. The major buildings were the *mansio* and bathhouse. Excavation was done by the County Council Field Unit in 1988. Just outside the defences was a Romano-Celtic temple, dating to about 325AD. The name of an emperor being used in the name of a town only occurs for somewhere important. It is possible that *Caesaromagus* was so called as it was planned to be the capital after the Boudican rebellion. The bathhouse was excavated by Drury and box flue tiles were found. An inhumation was found in the town in 1972, with grave goods including a jet pendant with the head of medusa.

In the surrounding countryside there were a number of farms. A crop mark showed up from the air in 1975, at Chignall St James. The site was scheduled and has never been excavated. There is another villa site near Broomfield church. Excavation of Pleshey villa was stopped by the outbreak of WWI. The County Council excavated the villa at Great Hols in the 1990's. Gravel extraction at Boreham in the 1990's exposed a building with apses. This may have been a church, but it was more likely to have been the country house of an official.

The Saxons were farmers who did not use towns such as Chelmsford. Some of the places where they settled later became Springfield, Broomfield and Great Waltham. Other settlements formed smaller villages. During digging for gravel in 1880 at Broomfield, a burial of about 624AD was found. There was no body but the grave goods were comparable to the Prittlewell burial. There were items decorated with gold and garnets and a pair of blue glass jars. A similar pair was found at Prittlewell and fragments were found at Sutton Hoo.

After the Romans had left, the wooden bridge over the River Chelmer collapsed, meaning a detour through Writtle. As a result, Chelmsford declined. In about 1100, new bridges were built over the River Can and River Chelmer. In 1199, the town received a Royal Charter to hold a market, so in July 1999, the town celebrated its 800th anniversary. The market was on a triangular piece of land in front of the church.

SOME ESSEX WIND AND WATERMILLS

Graham Robinson, County Millwright

2nd December 2013

Report by Louise Harrison

Graham Robinson is one of a team of four, responsible for the maintenance and repair of Essex's seven remaining mills. The mills are open to the public during the summer months, all free of charge. Private viewings are also welcome. Most mills were used for grinding flour but some hollow post mills were used for driving a saw or a pump. It takes about 1½ horsepower to turn 1 pair of millstones. It's now fashionable to attach turbines to waterwheels for the generation of electricity. Before the C15th, ownership of mills was limited to the Church or the Crown. Later, although individuals could own mills, often they were leased to millers.

Windmills

Mills mentioned in Domesday could be either water or possibly animal-powered mills. Windmills do not appear before the early 1200s. The earliest reference to a post mill with 4 sails comes in 1338. Post mills are designed so that the whole body of the mill can turn on a central oak post to face the wind. The central post is supported on a wooden trestle. Originally, the supporting posts were driven into the ground but were later supported on a brick plinth. Extending out from the mill is the tail pole which is used to turn the mill. After the 1750s, the trestle, which had been open to the weather, was protected with a surrounding brick wall and roof. This is called the roundhouse. Mountnessing Mill has a 16-sided roundhouse, and Bocking Mill has a 2-storey roundhouse.

Sometimes oxen were used to move the tailpole. A lever, called a talthur, is used to lift the mill steps up by 2 inches, to facilitate the turn. A mill could also be turned via a fantail, eg at Aythorpe Roding. A thousand turns of the fantail = one revolution of the mill, and was mounted near ground level replacing the tailpole. Later, as at Rayleigh Tower Mill, only the cap of the mill turned, not the whole body, and the fantail was attached to the cap. The fantail had to be greased by someone climbing out onto the fan. A tower mill has a brick body whereas a smock mill, as at Upminster, has a wooden tower.

Some windmill sails are made of canvas attached to a wooden lattice frame. The canvas sails can be reefed individually. Other sails have spring shutters instead of canvas, which can be opened or closed by pulling on a single bar. Stock Tower Mill has a patent shutter which means that the shutters can be set without stopping the mill and all the sails can be set at once. This was an expensive mechanism.

Watermills

Watermills date from Roman times and certainly existed here at the time of the Norman Conquest. A good example in Essex is Thorington Tide Mill. Over time, there have been many disputes between landowners over use of water. At Alderford Mill, a steam engine was used when there was insufficient water. Beeleigh had had a very large mill including two docks for lighters but it burnt down in 1875. However, the adjoining steam mill was saved and still contains its original beam engine, original boiler, and original grinding machinery.

There were three types of waterwheel: undershot, breastshot, and overshot. In Essex, the undershot was the most common because of the flat landscape. The breastshot was more efficient but the overshot was the most efficient because it used both the momentum and weight of the water. There are few overshot mills in Essex.

The best millstones are quarried in France and are used only for grinding wheat. The millstones are not solid stone but made from small pieces cemented together and bound by an iron ring. The stone surface is furrowed to enable the bran to be split from the grain in large flakes which are then sieved out of the flour. The furrows need regular re-cutting by a stone-dresser using a double-ended steel chisel. The chisel becomes blunt after 30 secs! This work takes 2/3 days every six weeks. The stone-dresser's hands would be grey with tiny pieces of embedded metal which gave rise to the expression "Show us your metal".

Roller mills

By 1900 most mills used rollers, replacing wind and water. They were faster, used less labour, and produced better quality flour. Where rural mills survived it was by grinding animal feed. In 1950, the last viable rural mill closed.

Repairs

Postmills revolve on windshafts, first wooden then later, iron. Surviving wooden shafts are very rare but there is now one at Finchingfield after a new wooden shaft was made for it. A new cap had to be made for Thaxted, lifted into place by a very expensive crane. A new wheelshaft for Alderford Mill, using green French oak, was also made using a lathe powered by bicycle! Elm was used to make new paddles for the waterwheel at Alderford Mill. No grants are available for restoring mills and maintenance grants are difficult to get.

Graham gave an absolutely fascinating introduction to these once-common icons of our industrial past. His talk, packed with information though it was, barely scratched the surface of the lives of these amazing structures. I would love to know more about who built them, who worked there, what happened in the disputes he mentioned, how does one become a millwright? Finally, we were shown an unforgettable image of Graham on the bicycle powering the lathe! Wonderful.

MEMBERS' ACTIVITIES

13th January 2014

Report by Pauline Shinn

CROP MARKS IN THE STOUR VALLEY AND BEYOND

The evening began with a dramatic musical accompaniment to the pictures of the sunrise over Lodge Hills on the morning of the December Solstice taken by Sally Bartrum.

Andrew White began by saying the survey group started with five members which gradually expanded in size and with CAG approval set out initially to survey an area in Wormingford known as Metlands. In the middle of the Metlands area is a Mere lying in a bowl between Clicket and Sandy Hills. In size it is 12 acres and circular probably formed by a kettle hole - trapped ice melting to form a lake - there are 112 similar ice melt lakes in East Anglia.

The Metland Cursus crosses the field behind the Mere. The River Stour has since altered its course, but the original route would have given convenient access to the Cursus, which is open at either end so making this a possible processional way. Ring ditches surveyed by Ellie Mead follow the line of the Cursus and are scattered across the site.

Bronze and Iron Age material was found in spoil being dug for the laying of a pipe line, by Birmingham University students in fields not far from the Mere site.

From a southern boundary of an area called Weston Green, since disappeared from modern maps, which bordered on Smallbridge Hall, Mark Curteis and Ellie Mead surveyed the ring ditches, 10 in number with pits and one prehistoric enclosure. The linear arrangement of ring ditches appear to cut off the neck of the meander of the Stour. This is a characteristic of a number of sites within the Valley including the cursus sites, as a result it is generally believed cursus monuments have some connection with death and may represent ceremonial ways in which the dead are carried to their place of interment. Stonehenge is one of the best examples.

Together, Sally Bartrum and Anna Moore traced the cropmarks from Staunch Farm fields to the Bures St Mary cursus. Following the 20m contour line the cropmarks are a continuation of those at Metlands, with the exception of a gap before Cowlins. Again running close to the course of the river. The oldest

feature in the landscape here is the barrow, interpreted as a longbarrow or mortuary enclosure. Charcoal found in the ditch fill in 2011 was dated to 3,570 BC. Also on the Cowlins fields are ring ditches varying in size. One of these was excavated by Ida McMaster of CAG in 1974 and contained the cremated bones of an adult male. A larger ring ditch, nearer to Bures and excavated by Ida McMaster in 1967, measured 87ft across and contained a barbed arrowhead and a scraper.

The estimated date of a Bronze Age circular barrow is between 2000 BC and 750 BC, so the long barrow predates them by some 2000 years. A late Neolithic/early Bronze Age flint axe was also found on this site, but not close to any of the features by the farmer in the 1980's.

Phillip Cunningham took to the floor to show us a video of the flight in a light aircraft he and Francis Nicholls arranged giving the visual aspect of finding crop marks from the air. None visible on this occasion, but we had a brief glimpse of Marks Hall where the excavations are continuing.

Howard Brooks completed the talk on our Monuments by posing the questions: were the cursus always astronomically aligned or perhaps instead to something in the landscape? could it be that the Mere also had some ritual significance with the Metlands cursus?

RECENT WORK AT HAUA FTEAH, LIBYA

Tim Reynolds, Senior Lecturer, Archaeology, Birkbeck College

20th January 2014

Report by Phil Beeton

Tim Reynolds came to address the meeting on work being carried out at the Haua Fteah cave excavations in Libya, which turned out to be an interesting if somewhat challenging lecture. For most members it was definitely unfamiliar territory in terms of place and terminology.

The Haua Fteah cave is located in Cyrenacia, eastern Libya, approximately 8 kilometres east of Apollonia and about 1 kilometre inland from the glittering azure blue of the Mediterranean sea. It has a huge opening 80 metres wide and 20 metres high. It was American-born Cambridge archaeologist Charles McBurney who first discovered it in 1948 and returned with his colleague C. T. Houlder to begin excavations in 1951. Over four years they dug a huge shaft to the depth of 14 metres, recovering a vast quantity of artefacts of human occupation going back 100,000 years. Much of the research centred on the study of flake tools dating from the Middle Paleolithic period from around 30,000 BC which are known as Aterian (after the site of Bel-el-Ater, south of Annaba in north eastern Algeria) and have a high standard of workmanship and standardisation.

After this period the cave was neglected for many years until a new programme of research was begun in 2007 organised jointly by Queen's University, Belfast, Birkbeck College and Royal Holloway, University of London and led by Professor Graeme Barker. This team cleared the infill from the McBurney trench to a depth of 8 metres and armed with state-of-the-art dating equipment continue to study the stone tools, shells, and carbonised plant remains they believe can take the story back to close on 200,000 years of human activity.

The whole story is complicated and enlivened by the extraordinary climate changes that have affected the Sahara region over millennia and its consequences for human migration. This is apparently due to changes in the tilt of the Earth which occurs every 41,000 years. In the Neolithic period around 8000 BC, the Sahara was then more like a flooded savannah region with swamps and vast lakes the size of European countries. Cave paintings discovered in Algeria indicate the presence of buffalo, elephants, rhinoceros and hippopotamuses, animals that died out after the rapid desertification of the land around 3500 BC.

In conclusion, Tim Reynolds indicated that, the political situation allowing, research would be resumed in 2014.

MEDIEVAL SPITALFIELDS BURIAL GROUND; A GLOBAL DISASTER

Don Walker, Senior Human Osteologist, Museum of London Archaeology

27th January 2014

Report by David Black

Excavations by MOLA throughout the period 1999 to 2002 on a site adjacent to the Augustinian priory and hospital of St Mary Without Bishopsgate (established in 1197) uncovered the remains of over 10,500 human skeletons. Part of the cemetery had been truncated by piling during the construction of the Victorian Spitalfields Fruit and Vegetable Market so there may have been around 18,000 burials in total.

Relatively few single burials, categorised as 'attritional' burials, were found in this cemetery; mostly in neat rows close to the priory church. The rest, categorised as 'catastrophic' burials, were in some 140 large pits, each containing from 8 to 40 skeletons, away from the church, close to the south and east boundary of the cemetery. From the position of the skeletons it was clear that the bodies had been placed carefully, not just dumped into the pits. These mass burials occurred in two phases. The first group of pits were roughly rectangular; the second group roughly square. The latter had been squeezed into gaps between the former and some of them had clipped the earlier pits, resulting in numerous limbs from the earlier corpses being reburied in the later pits. On excavation these limbs were found to be articulated, which implies that the two phases of burial could only have been separated by a few years.

So what fate had befallen the occupants of these mass graves?

Only about 0.1% of the skeletons showed any sign of cranial trauma, which ruled out the possibility of battle injury. So what else could have necessitated the burial of such large number of bodies at the same time? The most obvious possibility was the Black Death (1348 - 1350) which killed 30 - 40% of the population. Another possibility was the Great Famine (1315 - 1317) during which 10 - 15% of the population died. Were there any tell-tale signs on the skeletons that would point to one or other of these disasters? Victims of the Black Death were killed quickly by micro organisms that leave no skeletal trace. People rarely die of starvation – famine reduces their ability to resist diseases which kill them. Whilst some diseases such as tuberculosis can leave their mark, famine doesn't leave a characteristic skeletal trace either!

Fortunately, unlike many other cemetery excavations, MOLA had the necessary funding to carry out extensive carbon dating. This technique gave dates of around 1250 (1230 - 1260 with a 95% probability which pre-dates both the Black Death and Great Famine by a considerable margin).

There is documentary evidence of famine in 1252 and again in 1257/8. A Benedictine monk from St Albans Abbey called Matthew Paris recorded, amongst other things, his observations of the weather from 1250 to 1259. His entries for 1258 describe a long period where plants and crops didn't grow, resulting in such loss of life that large pits had to be dug in cemeteries to dispose of the bodies. Sounds familiar? So what could have caused such a famine?

Although there is uncertainty as to which volcano caused it, there is physical evidence around the world of a huge volcanic eruption, considerably larger than Krakatoa, that occurred around 1258. The climatic impact of such a huge eruption, including the phenomenon known as 'dry fog' which weakens sunlight and increases rainfall, could have caused the famine that necessitated the mass grave pits of Spitalfields. Such an eruption would have had impact over a huge part of the world's surface and the lecturer is interested in working with a group in Berlin who have discovered a mass burial with a similar date to Spitalfields.

MOLA was funded by the Spitalfields Development Group that were undertaking a major rejuvenation of this, then dilapidated, part of London to the north west of Liverpool Street.

ROSKILDE AND VIKING SHIP CULTURE

Tom Williams, British Museum

3rd February 2014

Report by Frank O'Connell

Tom Williams gave a timely talk on the exciting find of the longest known Viking ship (an incredible 37 metres) which was recovered from the Fjord at Roskilde (site of the famous Viking Ship Museum) in 1997. Tom is the project manager for the *Vikings life and legend* Exhibition which will have the privilege of being the first exhibition to be staged in the British Museum's new multi-million pound Exhibition Centre (6 March – 22 June 2014). A setting to absorb (in safety) the intimidating scale and maritime excellence of a ship (known as *Roskilde 6*) which might well have the greatest ever impact of any Viking ship in our history. CAG has been very quick off the mark to organise a Coach trip to this headline Exhibition (9 April 2014).

In his talk Tom focused on the unique status of the Ship in Viking culture. He acknowledged straight away that the term *Viking* has become one with perjorative overtones, synonymous with violent raiding and terror. Prestige, power and a warrior culture were their driving forces. Their *Valhalla* paradise envisaged eternal fighting and drinking after a brave warrior's death.

But Tom was at pains to highlight the great maritime ability of the Vikings which, combined with their ferocious energy and daring, made them an unstoppable force. Their boats reached the four then known continents and they were able to navigate major rivers which brought them immensely lucrative trade and plunder sites. The wealth they amassed was often distributed and used to display power and status with an element of "bling" in the sheer scale and weight of some of the gold status jewellery worn by Viking leaders.

Tom told us that the British Museum Exhibition will include the entire *Vale of York Viking hoard* which is thought to have been buried in or about 927AD and which was only found as recently as 2007. We were shown slides of this hoard which included Islamic coins, Russian silver, Irish brooches and a spectacular silver vessel which was probably plundered in Northern France. Also forming part of the Exhibition will be some skeletal remains from the mass grave of 54 Vikings discovered near Weymouth, Dorset in 2009. The evidence of "disarticulated heads" (Tom's coy description) showed that the Vikings were not always invincible.

But undoubtedly the centre-piece of the Exhibition will be *Roskilde 6* which was probably a royal warship constructed around 1025 AD. It was built in 3 sections from oak sourced from South Norwegian forests (under royal control) and to a specialised design. This facilitated close and fast shoreline access. The bulk, speed and power of this ship must have been hugely intimidating. It was the ultimate status symbol of the Viking era, both in life and in death, as *Roskilde 6* was deliberately sunk to form a Viking ship burial. Some 32 metres of oak timbers from *Roskilde 6* have been preserved, through an impressive drying treatment, and these will be displayed in place on a supporting steel framework at the Exhibition. An opportunity, therefore, to witness Viking history spectacularly recovered from the depths and from its awesome past.

Tom William's talk provided an appetiser for the Exhibition and a welcome insight into the features of Viking life that will be covered by it.

A THOUSAND YEARS OF LIFE AND DEATH IN IPSWICH

Richard Brown, Oxford Archaeology.

10th February 2014

Report by David Harrison

Oxford Archaeology were asked to undertake an archaeological assessment of the area bounded by Great Whip Street and Stoke Quay prior to a mixed dwelling/business development.

Ipswich background - located on the confluence of the Rivers Orwell and Gipping. Alluvial strata consists of limestone and flint with clay. A map/drawing of 970 shows Great Whip Street and Stoke Quay area along with the church of St. Peter and also the church of St. Mary, but no mention of St. Augustine, possibly already demolished. The map of 1874 shows the Kings Cooperage occupying the site. Pennington's map of 1778 shows the area having a shipyard. The 1848 map shows no shipyard and the area cut through by a road. The second edition of the Ordnance Survey map shows malting houses.

Archaeologically there is evidence of Mesolithic and Palaeolithic occupation. Roman occupation: the Castle Hill Villa. Saxon cemeteries along with Ipswich ware and also C10th - C12th enclosure. Ipswich ware was exported all across the Eastern counties and showed dynamic trade. The area of Stoke Quay initially had 10 trenches opened and photographic studies taken using a helicopter drone, with GPS facility. This showed a bird's eye view of the whole area.

During the period May to December 2012 1,181 burials, 741 pits and 417 post holes were discovered. Pottery recovered was prehistoric and Roman, followed by C7th - C8th pre-Ipswich ware, C8th - C9th Ipswich ware and C9th - C12th Thetford ware. Prehistoric finds included blades, cores and scrapers. Of the 1,181 burials by far the majority were East-West but some were North-South including one of a 35-year-old woman. These burials were of C7th - C8th. The East-West burials were probably early Christian; they were poorly preserved with very few finds. The earliest, to date, partially preserved kiln from Ipswich ware was found. This dates to the C8th - C9th. South of the burial area there are signs of wells, oyster shell dumps and also general household rubbish pits. Several post holes were also found which indicated that buildings were erected over the site at a later date. To the North of the site there is evidence of a cemetery and the continuation of the palisade. The burials were a mixture of pillow stone, coffin, stone lined and stone lined with head niche. All the burials showed poor health which indicated general low status individuals, the mortality had the expected U-shaped profile and the diseases included TB, leprosy, syphilis, cancer and various fractures.

Ongoing analysis means that we have increased knowledge of Ipswich. Questions included: why and when did the population change? when was trade in Ipswich ware superseded by Thetford ware? when was St. Augustine's church demolished?

BENEATH THE WAVES: INVESTIGATING SUBMERGED LANDSCAPES OF THE SOUTHERN NORTH SEA

Dr Louise Tizzard, Geoservices: Wessex Archaeology

17th February 2014

Report by David Parr

It has long been recognised that in the past Britain has been at times joined to the Continent. The broad outline of this was clear 100 years ago with, for example, the Thames flowing past the site of Happisburgh into the Wash to join the North Sea near the Dogger Bank. Since then, much more detail and the timing of this have emerged, showing a cycle of falling temperature leading to establishment of the land bridge, followed by warming and inundation, roughly every 100,000 years for the last million years.

There have been many sources of information about the submerged landscapes, ranging from the traditional maritime (both wrecks and debris) and aviation, to more recent and sophisticated surveys for

cable-laying, port and foreshore construction, wind farms and oil/gas exploration. Scanning, echo sounding, drilling samples, diving and photography have all played their part. Evidence of woolly rhinoceros, woolly mammoth and giant red deer, together with butchered bones has been discovered, but no sign of archaeological hot spots.

Two voluntary initiatives continue to be valuable – one, a collection of flakes, tools and faunal remains donated by amateurs on both sides of the English Channel; the other, of items recovered from the grading processes of aggregate dredged from the seabed, with the winning find publicised in the trade magazine. An indication of the magnitude of the challenge is the number of finds in Autumn 2011 in a specially selected area off Great Yarmouth – 20 flakes and 3 hand axes from 40,000 tons of sediment. This highlights the challenge for the future of this work – to identify high potential areas to justify the very high cost of this exploration.

AN INTRODUCTORY TOUR THROUGH JOMON, YAYOI AND KOFUN PERIODS OF JAPANESE ARCHAEOLOGY

Gina Barnes, School of Oriental and African Studies, University of London

24th February 2014

Report by Andrew White

This fascinating lecture opened up a whole new world of archaeology but which resonated with much of our own.

Japanese periods break down as follows:

Paleolithic 50,000 -14,000 BC	Jomon 14,000 -1,000 BC
Yayoi 1,000 BC – AD 250	Kofun 250 – 710 AD

Paleolithic: Some of the oldest pottery in the world has been discovered in Japan dating from 16,000 BC. It was simple in form, hand built and bonfire fired. We were shown shell, bone and wooden fish hooks as well as familiar flint tools made from obsidian, a naturally occurring volcanic glass which is plentiful because of the amount of volcanic activity in the islands. A wonderful collection of flint and obsidian arrowheads was displayed. Paleolithic settlers were semi-sedentary, living mostly in pit dwellings arranged around central open spaces and obtained their food by gathering, fishing and hunting.

Jomon: The majority of Jomon pottery had rounded bottoms and typically were rather small and used for cooking. The name Jomon means “rope patterned”. This refers to the patterns created by pressing rope into the clay similar to Beaker pottery. Later Jomon vessels had much more elaborate rims. The pottery was hand built by coiling and bonfire fired. The people were sedentary for longer periods. They lived in square shaped pit houses that were clustered in small villages. They fished and hunted animals such as deer, bear, rabbit and duck and gathered nuts, berries and mushrooms.

Yayoi: This is the Iron age in the history of Japan which is distinguished by new pottery styles and the start of intensive rice agriculture in paddy fields. Yayoi lived in the same pit or circular dwelling as that of the Jomon. Their pottery was simply decorated and produced on a potter’s wheel. It was fired in a simple updraught kiln. By C1st yayoi farmers were using iron agricultural tools and weapons. They wove textiles, lived in permanent farming villages and constructed their buildings of wood and stone. Three main symbols of the yayoi culture are the bronze mirror, the bronze sword and the royal seal stone.

Kofun means “old mounds” and refers to the distinctive practice of covering tombs with huge piles of earth. There are about 30,000 scattered throughout Japan, the largest of which is 486 metres long by 305 metres wide and 35 metres high, more than twice the area of the great pyramid of Giza. The most distinctive style is the key hole tomb of C3rd -C6th. During this period the clan leaders of Yamato in central Japan became dominant and claimed succession to the imperial line. This brought about much greater contact with China and Korea. The end of the Kofun period marks the transition to a literate society and the introduction of the Chinese writing system and the adoption of Buddhism.

This was a most interesting lecture with many parallels with our own island heritage.



Jomon period pot

Middle Jomon period rope pottery 4000-3000BC



A STUDY OF SKELETAL HUMAN LEUCOCYTE ANTIGEN-DR AND MITOCHONDRIAL DNA IN A 3RD-4TH CENTURY AD ROMANO-BRITISH PAGAN AND CHRISTIAN CEMETERY IN COLCHESTER

Professor Nelson Fernandez and Patrick Spencer, Dept. of Biological Sciences, University of Essex
3rd March 2014

Report by Richard Todd

The final lecture of the 2013-2014 programme attracted a large audience.

Professor Fernandez opened with a brief description of the Major Histocompatibility Complex, and of Mitochondrial DNA. The former, also known as the Human Leucocyte Antigen system (HLA), has evolved over millions of years as a defence mechanism against bacterial and viral infection and has gained additional relevance in recent times in the field of transplant surgery. These genes, comprising one per cent of the human genome, are specific to the individual. The other ninety nine percent, about 30,000 genes in total, are common to us all. HLA genes are found on chromosome 6 and are divided into two classes and several sub-groups. Each gene can occur in many different forms, accounting for our immunological individuality.

Mitochondrial DNA, found in those cytoplasmic organelles that are responsible for energy production within the cell, contains only 37 genes but is of particular significance in tracing ancestry because it passes down the generations only in the female line (embryonic cytoplasm is derived solely from the ovum while the ovum and sperm each contribute half of the nuclear material). Patrick Spencer then gave an overview of the excavations at the Butt Road Romano-British cemeteries, both the police station site, first excavated by William Wire in 1846 and more extensively by the Colchester Archaeological Trust in the 1970's and 1980's, and the former Artillery Barracks site dug in 2012-2013. He explained that legal, social and religious customs influenced the manner of disposal of bodies. At the police station site there were two cemeteries, one superimposed on the other, the first pre-Christian and the second, dating from the early 4th century, showing evidence of Christian influence. The majority of deposits were inhumations with coffins, and some graves were grouped in clusters or rows or were stacked one on another. In

particular there were some timber vaults, possibly for the interment of priests or deacons or other prominent citizens, each containing two or more burials, with other graves, perhaps for family members, placed closely around them.

Professor Fernandez then resumed to report the results of DNA testing of 26 skeletons from some of those graves around two timber vaults. This involved purification and two stage amplification of the extracted DNA. The findings of the HLA group DRB and of the mitochondrial DNA support the presence of family groups in these graves. He noted that the study was limited by the small number of specimens so that statistical analysis was not possible. He expressed his ambition to establish a laboratory at the university for the examination of "Ancient Bones" but explained this would be an expensive project not only in setting up the laboratory but also in terms of the ongoing cost of skilled personnel and reagents.

In response to questions he said that most vertebrates had a similar immune system that was essential to survival. The skeletons examined were all of a broadly Caucasian type but he could not be more specific. He could not speculate about the likely findings in burials at other types of site, for example rural as opposed to urban. More generally he explained that successful organ transplantation depends on achieving as close a match as possible between donor and recipient and then relying on immuno-suppressive drugs to prevent rejection. With regard to possible inheritance of specific diseases most depend on multiple genes which, even when present in any individual, may or may not be "switched on".

Philip Crummy commented that at the Butt Road sites there was archaeological and osteological evidence for family grouping of graves and that the DNA findings correlated well with osteological identification of gender. With regard to the geographic origin of individuals, examination of tooth enamel minerals was the most informative technique.

TRIP TO CARDIFF AND WALES

2nd-5th May 2014

Report by Gill Shrimpton

Friday 2nd May

Just after 9 am a party of 46 souls began their journey under the care of our driver, Steve. The first stop and main event of the day was the new visitor centre at Stonehenge. Although most people had visited Stonehenge in the past, this was a completely new experience. So new, in fact, that work was still going on. After the ticket office there is an interpretation centre and then you can get the shuttle (or walk the $\frac{3}{4}$ mile) to the site itself. There is plenty of room to stroll around the stones and to try to understand the historic landscape. We boarded the coach again to arrive at our hotel, the Maldron in Cardiff.

Saturday 3rd May

A fairly short coach journey took us to our first objective, Caerleon. The Roman fortress was established here in the C1st after the subjugation of the local Silures and continued in use until the early C4th. It was built by, and was the home base of the 2nd Augusta Legion while based in Britain. There is a fine, and quite unusual theatre just outside the fort area. Inside, many barrack blocks have been excavated. The modern town is built over much of the fort, but the military bath-house has been partly excavated and displayed. There is a good Roman Army museum with finds from both Caerleon and Usk.



Caerleon Walls



Caerwent Amphitheatre

Nearby is Caerwent (Venta Silurum). This was established by the Romans as the tribal and civil capital of the Silures in C1st. It was a walled town, initially with earth and timber, later rebuilt in stone with 4 defended gateways. At least half the walls survive in good condition, standing in some parts up to 5m high. In the other half of the town we were able to see some excavated houses and shops, part of the forum and basilica and, nearby, a Celtic/Romano temple within a courtyard area. In the church is a commemorative stone, presumably erected by the townsfolk, to Paulinus, Governor of Britannia Inferior.

Sunday 4th May

There were several options available today. The morning was spent in Cardiff. The group split up, to visit the large castle, the museum and the botanical gardens or a trip on the waters of Cardiff Bay. In the afternoon most of the party visited St Fagan's History Museum, a large complex of buildings (some re-constructed) celebrating country life and crafts.



St Fagan's Gardens



Cardiff Castle

The other group (14) had an interesting and enjoyable walk, led by John Moore, from St Nicholas to Trevoe, about 5 miles. The route was mostly over gently rolling pasture and we were able to visit two fine Neolithic long barrows at Tinkinswood and St Lythan. Both had a sort of wind-up audio guide - you could choose English or Welsh. Later we passed the George cave - a Neolithic rock shelter which had been excavated and produced some worked flint tools. Not actually much to see even though a few intrepid members climbed the fence and almost disappeared!

Monday 5th May

On our last day we packed up and began our return journey. We made good time and arrived at the village of Lacock. The whole village is owned and administered by the National Trust. It has featured in several films and TV series. Most of us headed for the Abbey, founded in the C13th by Ela as a nunnery. It prospered during the Middle Ages until the Dissolution when it became the property of William Sharington who converted it into a lavish residence. However, much of the monastic building remains on the ground floor. There are also extensive gardens and the adjacent Fox-Talbot photographic museum. A splendid final day of our trip. We are hugely grateful to Barbara for organising everything so smoothly, and to Mark for his historical input.

SUMMER PROGRAMME 2014

Report by Gill Shrimpton and Sue Harrington

Wednesday 9th April

A full coach left Colchester for a visit to the British Museum to see the 'Vikings – Life and Legend' exhibition. This important show was arranged in the brand new Conservation and Exhibition Hall. It was extremely informative with 3 rooms displaying artefacts from all over the Viking world, some very beautiful and finely worked. Finally you arrive at the ship hall where the Roskilde boat (what remains of it) had been brought over and reassembled. Nothing can prepare you for just how big it really was!

Saturday 7th June

On a rather damp morning our coach party left Colchester and arrived at Flag Fen in time to meet our guide who took us around the site pointing out things to see. It is a very important Bronze Age site which was initially discovered and excavated by Francis Pryor. Amongst other things, we saw the site of the Neolithic trackway; reconstructed Bronze and Iron Age huts; remains of a Roman road; a small museum displaying a few of the many finds – several of which, it is thought, had been ritually deposited. As Flag Fen is now a centre for the conservation of waterlogged wood it was very exciting to see the Bronze Age boats from Must Farm being treated. Members may recall we had a fascinating talk about this project last year.

By this time the rain had cleared and we had time to picnic or lunch at the visitor centre, watching the antics of a little water vole! We set off again and very soon arrived at Buckden Towers – originally called Buckden Palace, when the property belonged to the Bishops of Lincoln. It is now a Claretian Missionary Centre used for retreats and conferences. We split into 2 groups each with a guide. Much of what we saw was C15th. There is an imposing gatehouse and a large square tower. The site was walled and moated, some of which still exists. A part of the original structure was demolished to make way for a large Victorian house. We were made very welcome and given tea and biscuits in the beautiful walled garden before setting off on our return journey home. An excellent day out!

Monday 16th June

A group of members enjoyed an evening walk around Lexden led by Mark Davies. Taking our lives in our hands, we crossed Lexden Road to disappear down a barely visible path which followed the line of the Iron Age earthworks. From Lexden Springs Nature Reserve, an oasis of greenery with only the dull roar of the distant A12 to spoil it, we passed old houses in Spring Lane and a lovely C16th house in Lexden Road, to go into St Leonard's churchyard where we stopped for Mark to explain the history of the area. We then went into Lexden Park and as we walked through the park and along the footpaths Mark told us about the earthworks and showed plans and photos. The earthworks cover a very large area and there was speculation as to whether more would be made of these earlier remains were it not for the

focus on Roman Colchester. There is an English Heritage board at Bluebottle Grove. As we returned to Fitzwalter Road we saw the Lexden Tumulus, now in the back garden of a private property, but occasionally open to the public. Owning a house in St Clare Road with an Iron Age earthwork at the bottom of the garden would surely be the dream of any amateur archaeologist!

Monday 23rd June

A group of members met at Roman Circus House early in the evening, where we were welcomed by Philip Crummy who gave us a tour of the current excavations taking place immediately in front of the building. We also saw the reconstructed starting gates in their actual position. We were able, with Philip's guidance, to gain an idea of the extent of the whole circus. It is hoped that in the future more land will become available and that more of it can be revealed as it is now a scheduled monument.

Then we went inside and Philip explained his plans for the interpretation displays. It is a very exciting prospect for the people of Colchester and visitors.

Monday 14th July

Our annual summer party! We were again fortunate to be able to gather together at Marks Hall and to have lovely weather. It is a beautiful setting and we were able to enjoy the walled garden. For those inspired there was a plant sale and a quiz. Just over 40 people enjoyed an excellent evening, due to the generous donations of food and raffle prizes. We are grateful to the Trustees of Marks Hall for allowing us to use their facilities yet again.



Summer Party - outside Marks Hall (Barn)



Summer Party - visit to Marks Hall dig

Monday 4th August - Afternoon at Finchingfield

Report by Anna Moore

Finchingfield has three outstanding Grade I listed buildings; we started at Spains Hall, a great Elizabethan mansion dating from around 1570, and incorporating a fragment of the earlier C15th house. The owner, Sir John Ruggles-Brise and his wife, gave us a guided tour of the house and grounds, followed by tea.

We then moved on to the late medieval Guildhall. Dating from around 1470, it is a "building of exceptional importance" (RCHM). Having been on the English Heritage 'Buildings at Risk' register and closed to the public, it re-opened in 2013, housing a museum, a library and a community space following a seven year £1.8 million restoration project. We were given a talk on the history of the building by one of the volunteers, before exploring it ourselves.

Our final visit was to the Church of St John the Baptist. Dating mainly from the C14th, with the lower two stages of the tower late-Norman (C12th), the Church is especially noted for its screens and its collection of corbel heads.

IDA MCMASTER MBE (1918 – 2014)

Mark Davies



With the death of Ida McMaster on Friday 14th November, aged 96 years, the Group has lost its longest serving member. Ida was born on 4th October 1918, in Birmingham, but grew up in the suburban environs of Shenfield, Woodford, Wanstead and Loughton. She was educated at Brentwood Ursuline Convent and then at Brentwood High School, after which her father provided the means to open a bookshop, knowing her interest in books. In those pre-World War II days there were no public libraries locally and so the shop was of the "tuppenny library" type, based at the Lopping Hall, Loughton.

By 1939, with war looming, Ida had become engaged to her first husband, Richard Thomas Calvert, whom she married on 22nd October 1939, and they opened a second bookshop at Bishops Stortford, with Ida's sister Betty taking over the running of the Loughton bookshop. It was not long before Richard was swept up into the armed forces, becoming a Lieutenant in the Royal Marines. But sadly he was badly wounded in the disastrous airborne battle for Crete in May 1941, and became a prisoner of war. He died in Athens hospital in September 1941, aged 23, and was buried with full military honours by his captors and fellow prisoners. This terrible news was conveyed to Ida a week before Christmas, on 18th December 1941.

In Ida's own words, Life had to go on, the shop at Bishops Stortford was giving solace to people who were left at home with children or elderly family members. However, the war was not going well for Britain and women without children were directed into active war work. Ida was somewhat aggrieved to go before a tribunal of three civilian ladies who officiously gave her the choice of factory work, oiling machinery or helping in the American Officers' Club. As she herself put it, "You can guess which one I chose."

At the end of hostilities, Ida and two land army friends decided to start a country club. They chose West Lodge, at Berechurch, Colchester, which had been the Officers' Mess attached to the German prisoner-of-war camp there. The club flourished, but within four years all three girls, being lively individuals, were snapped up in marriage. Ida married Bill McMaster the son of a Scottish farmer on 26th August 1950 and they had 53 happy years at Mount Bures Hall Farm, blessed with daughter Pamela, son Joe, son-in-law David and three grandchildren - Daryl, Matt and Kate.

At the age of 50 Ida's absorbing hobby became Archaeology, particularly observing the landscape and recording visible cropmarks from the air. She made numerous significant discoveries of new sites during her 25 years of flying, particularly over North Essex and South Suffolk. These included ring-ditches galore, many other previously unknown prehistoric sites, and some red hills as well as two Roman Villas – at Lidgate, near Bury St. Edmunds, and Chignall St James near Chelmsford. Each year's cropmarks were carefully identified, recorded, and published in the Group's Annual Bulletin.

Ida had become a member of the CAG in the late 1960s and, as far as she was concerned, that meant 'active' membership. She was soon enthusiastically involved with the Group's excavations - often as a follow-up to her aerial work - and serving on the Committee. For many years she was a mainstay in

organising the Summer and Christmas parties and, when the redoubtable Kay de Brisay died in 1981 after 24 years as Secretary, Ida unhesitatingly stepped into the breach to maintain continuity for the following 3 years. She then spent the next 6 years arranging the winter programme of weekly lectures. "No sooner said than done" is a phrase that always comes to mind about Ida. Whenever anything needed doing, she would quickly weigh up the situation and do what was necessary, almost invariably before everyone else had stopped thinking or talking about how to go about it.

In 1978, Ida and another CAG member, Commander Dick Farrands, compiled an Album of Cropmarks which was submitted under the Research Category of the Essex County Amenities Award Scheme and it gained first prize for themselves and the Group. This was not to be the only public recognition of her major contribution to Aerial Archaeology, the results of which she made freely available. Under her written instruction, members of the CAG are currently scanning all her most important slides (over 2000 of them) for deposit with the various archaeological repositories.

As if her life wasn't then busy enough, from 1975 to 1980 Ida somehow found time to act as Treasurer of the Colchester Archaeological Trust. A considerable amount of archaeological activity was going on in the town centre and there were over 100 people on the Trust's payroll at one point. Such challenges were always met cheerily and with enthusiasm. It seemed at the time that she was in and out of Colchester from Mount Bures almost every day. Ida remained one of the Trust's most ardent supporters and it was only a year or so ago that Pamela brought her mother into town with her wheelchair to see the latest progress being made on the circus and at Roman Circus House.

In 1990 Ida was one of the authors of the "Red Hills of Essex" researched and published by the Colchester Archaeological Group for which she worked on the index of these ancient salt-making sites. Then in 1996 she was delighted to achieve a particular ambition when, with the help of Kath Evans as co-editor, she published "Mount Bures, its lands and its people." Twenty-five years of research had been completed on the village history of Mount Bures where Ida had spent so many years of happiness and peace, as she put it. She felt that perhaps something had been returned for those special years in this small parish on the Essex side of the river Stour. A typically modest sentiment!

Ida's husband Bill died in December 2003 aged 85 years. For the second time, Ida picked up the pieces and carried on with her interest in archaeology, helping with Alan Beales's history queries from his Mount Bures website, for which she provided a wealth of material.

While recovering from a stroke in November 2006, Ida received some unexpected but highly deserved news that she was to be recognised for services to Archaeology in Essex with the award of an MBE in the Queen's New Year's Honours List. Ida proudly received her medal from the Queen at Buckingham Palace on 13th of February, 2007.

Ida's passion for aerial archaeology and local historical research had been sparked off by her interest in the deeds to Hall Farm and its historic location next to St John's church and the adjacent medieval motte which held a special fascination for her as its owner. In 2011 a long awaited dream came true when the top of the Mount was excavated by Carenza Lewis and her team with many local volunteers. A crowning glory, so to speak, was witnessed by those present and before the TV cameras when Ida was carried up aloft in her wheelchair by three soldiers from Colchester barracks to see the excavation. It made for a very memorable occasion, which she thoroughly enjoyed. Bronze Age pottery and flints found adjacent to the Mount also confirmed Ida's long-held view that it might have had prehistoric origins.

In the last few years of her life Ida became increasingly frail, but was comfortable in her home, with her family close by and being able to see her favourite view overlooking the valley. More could be said about Ida's character, her individuality, her kindness and thoughtfulness towards others, her determination and her humour, but there is no doubt that she will be long remembered with much respect and affection.

Back cover:
Cropmark Survey - Bures St Mary Cursus
Painting by Carol Wheeldon

