Colchester Archaeological Group

Registered Charity No. 1028434

ANNUAL BULLETIN VOL. 39 1996

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Notes from the editor

Once again we must thank Pat Brown for an excellent list of speakers, everyone who helped with the projector and those members who have diligently produced the weekly lecture summaries. I must thank Andy Roper for producing the layout.

Summer Outings 1996

Visit to Hylands Park, Writtle -*Monday 29th April*

About 30 members travelled by car for an evening visit to Hylands Park, near Chelmsford, a Queen Anne house dating from 1728. We were shown round by Nick Wickenden who explained how Chelmsford Borough Council is renovatin2 the house. The entrance hall and one room are complete but there are several large rooms still to renovate.

Walk from Lexden Tumulus to Sheepen Dyke - *Monday 20th May*

Mark Davies again led this year's evening walk. We were allowed into a private garden to examine the Lexden Tumulus. The garden also contained several enormous Wellingtonia trees each well over 100 feet high. We then walked to the Sheepen Dyke and along the fields near North Station where the Borough Council is planting thousands of trees. We were shown where the Group excavated some Roman pottery kilns.

Day out to Norfolk - *Saturday 15th June*

About 50 members visited Castle Acre by coach. We were shown round by Helen Paterson. We went first to the Ostrich Inn where we had coffee in the garden. We then looked round the medieval parish church with its excellent painted screen. Helen then took us to the Castle mound and explained how the castle evolved. We then moved on to the Cluniac Priory which is a splendid well preserved monument. The Prior's house was particularly interesting with its wall paintings and moulded beams.

Summer Party - *Monday 15th July*

The summer party was at Tendring in the barn belonging to David & Angela Grayston. The usual good food was organised by Hazel West and Pat Brown. There was a raffle with prizes provided by members. There was an interesting quiz involving old farm implements.

National Archaeology Day at Great Tey - *Sunday 15th September*

The Group organised a National Archaeology Day at Great Tey. There were lots of things to see and do throughout the day. Most of the activities were based at Great Tey Village Hall but there were things to be seen in other parts of the village. Diana Freeman put on a display of old photographs in main hall. Jane Pearson gave a lecture on Great Tey in the 18th century. Mike Matthews organised fieldwalking. Richard Shackle led a walkabout in the central part of the village to look at the old buildings. Pat Brown showed people round the church. Refreshments were available all day. They were organised by Betty Young, Ida McMaster, Kath Evans, Pat Brown and other helpers. Excellent cakes were provided by members.

Obituary

Frederick Hugh Thompson

Those members who attended the Salt Weekend run by the Group in September 1974 will have noted the death of Hugh Thompson, then Assistant Secretary, later General Secretary of the Society of Antiquaries, on 24th October 1995 with regret. Although he modestly avowed no more than a limited knowledge of the archaeology of salt making in his forward to "Salt" (the proceedings), he proved an admirable chairman of the conference. He immensely contributed to its success and his passing should be recorded here in appreciation.

Losing Savour: the Decline of Essex Salt

by James Fawn

Salt is not a commodity that springs immediately to mind when considering a nation's resources in the same way that oil, gas, coal and iron do. Yet Britain produces annually about five million tons a year. Although the bulk goes on icy roads, into chemical manufacture and other industrial outlets, the traditional use in food to preserve as well as enhance flavour still absorbs an appreciable proportion of the output. Before refrigeration, the availability of salt was an even more important consideration and evidence of its production goes back into prehistory. This discussion is more modern in scope, being principally a review of some Essex salterns of the seventeenth, eighteenth and nineteenth centuries, based on published and unpublished evidence, which aims to show what happened to a once widespread industry.

A brief description of the taxation of salt is relevant at this early stage because of its effect on production generally. Salt may now seem an odd commodity to tax, but it was an important revenue earner in this country over a long period of time. The Romans taxed it and in medieval Britain it attracted customs duty when imported or exported. During the Civil War, Parliament imposed a specific salt tax, but that on home-produced salt was unpopular and later repealed. After re-imposition in 1694 (5 & 6 Will. & Mar. c.7) to pay for war, it was continued and was Gradually increased throughout the eighteenth century, apart from two years grace, 1730-32. Like that on alcohol today, it became a considerable proportion of the price and necessitated strict licensing regulations to prevent evasion, an important principle being to tax at the source of manufacture. After reaching a peak in the Napoleonic wars, the tax was abolished in the 1820s to aid the rapid growth of the chemical industry for which it was a basic raw material.

Salt is available naturally from three sources: the sea, inland brine springs and underground rock salt deposits. Manufacturing from the first two takes place near the source since the finished solid salt is easier and more economic to transport than the brine. Rock salt is as easy to move as finished salt and so, after the nation's main deposits were discovered in Cheshire in 1670, it was shipped to salterns round the coast of England and Wales for refining locally.

Extraction and refining from the three sources depends on either natural evaporation, preferably with the aid of a strong sun, or on forced evaporation using a fuel to provide heat. Because seawater contains less than 3% salt whereas brine from springs may have as much as 20 to 28% the former requires nearly eight times as much fuel as the latter to evaporate and moreover takes more time further adding to manufacturing costs. Thus the inland brine sources have a considerable economic advantage.

Nevertheless sun and seawater are free and some coastal salterns were able to economise in fuel by evaporating naturally in large shallow pits or sun-pans as a first stage. The resulting strong brine was then transferred to a heated metal pan for further concentrating until the salt crystals appeared and were scooped out. The salterns at Lymington. Hampshire in the eighteenth century operated in this way. Their sea-salt finding a ready market on the south coast, in London, and in preserving food for the Navy.

Inland salterns using fuel heat did not require sun-pans. Production from springs and wells in Cheshire and Worcestershire started in prehistory. The Romans introduced lead boiling pans and the method of manufacture continued with little change throughout the medieval period. With improvements in the performance of pumps and the advent of powerful steam engines towards the end of the eighteenth century, the forced circulation of water through the underground salt deposits became feasible. This produced a consistent increased flow of strong brine that allowed increased production and gave the inland salterns a further competitive advantage. The inland saltems. Cheshire in the particular, had easy access to coal and improving transport enabled them to supply their product further afield. The competition from them and also from sun-pans in the hotter climes of France, Spain and Portugal was of considerable concern to the British coastal salterns from the seventeenth century onwards.

Yet Cheshire came to the tatter's aid with the discovery of rock salt. They could ship in the lumps of coarse salt. contaminated and discoloured by impurities, and dissolve it in sea-water to form a strong brine which would need no more fuel to evaporate than the brine from inland springs. The insoluble impurities would fall to the bottom of the dissolving tank and the clear brine would be decanted to the evaporating pan where most of the soluble impurities would be removed in the course of crystallisation. This refining process, which was known as `salt on salt' (e.g. Defoe, 1727), could be readily adopted by the coastal salterns, for the crystallisation stage was similar to that for seawater. A dissolving tank would be required, but the sun-pans would be redundant. Production would no longer be dependent on the time of year or on the weather. Even with the expense of shipping rock salt round Land's End. a sufficiently large salt-works using ‘salt on salt’ could prosper and drive a small neighbouring works evaporating seawater only out of business.

After this discovery the refining of rock salt spread rapidly throughout the coastal salterns, although there were exceptions such as at Lymington where the market was favourable and in the Tyne area where coal was cheap. Within seven years, salt makers on the North Wales coast were refining Cheshire salt (Fiennes, 185). The 1694 Salt Act allowed tax abatement from losses resulting from the breaking-up of rock salt and stated that "salt made by melting (i.e. dissolving) and refining of rock salt may not ... be charged more than other English salt." The spreading trade in rock salt became difficult to regulate and led to evasion of tax. Hence, in 1702 another Act (1 Annea St 1. c) laid down that refining should take place within "10 miles from the pit or at such places as upon or before the tenth of May 1702 shall have been used for the refining of such salt." In other words coastal salterns which had not refined rock salt before May 1702 could not do so legally in future. Later Acts allowed a few exceptions as will be seen. but generally the restrictions remained until the end of the salt tax and obviously had a considerable effect on the structure of the industry. It gave the established local refiner an overwhelming advanta0e since a new competitor could not start refining in opposition. Thus in the late seventeenth, eighteenth and early nineteenth centuries, coastal salterns had to contend with innovation and fiscal regulation, both challenges which constantly every enterprise meets in every age. The following discussion of three Essex salterns shows how they met those challenges.

Figure 1) An 18"' Century Saltern. Excess brine from wet salt in the conical baskets drains back into the pan. A heated store in the background completes the drying process.

Bounds Farm, Goldhanger

The existence of the salt works at Bounds Farm, Goldhanger, is supported by excavation and documentary evidence. When Henry Laver and E A Fitch visited the site in 1889, they saw the excavations being conducted by Mr Francis, which were later recorded in a commonplace book (Laver 1894). Two slightly differing versions have been published, one based on information given personally by Laver (Miller Christy 1906, 201) and the other copied directly and accurately from the book (Benham W G, 1943). Another reference (Fitch 1905, 69) mentions the site and confirms Francis as the excavator.

In Christy's version, Laver expresses regret that he did not have a plan drawn to scale: it would indeed have been a valuable record. His description suggests that the saltern was similar to those shown in early illustrations such as Fig 1. The excavations revealed a small 'well' which may have been a brine holder, some shallow brick 'tanks' with double walls which were perhaps flues with baffles to heat lead or iron tanks set upon them and a 'furnace'. The finding of some coal on the site suggests that iron pans, which could withstand a strong heat, were used; the retrieval of some pieces of lead may indicate the use of wood fuel at an earlier stage in the life of the saltern. Francis was the occupier of the farm in 1889 and he was obviously engaged in field drainage when his men came upon the saltern under "about three feet of red and black soil". The excavations were thus agricultural rather than archaeological which probably explains why they were not reported at the time. Further speculation on the construction and operation of the saltern would be difficult to substantiate owing to the paucity of information, but consideration of documentary evidence concerning location and dating is more rewarding.

The earliest salterns found at Bound's farm are late Iron Age red hills, two of which are described in the second report of the Red Hills Exploration Committee (Reader. 1910, 67-77). Reader partly excavated one of these mounds, which he designated Goldhanger VIII, principally to investigate a series of nine flues found just below its surface. They

appeared to be of somewhat later date than the red hill itself (Fawn *et al*, 24-25), but were certainly not part of the post-medieval saltern. However, the following evidence suggests that the latter was not far from Goldhanger VIII.

An entry in the Epiphany sessions of 1651 reads "11 Jan 1650/S 1. Rob. Grant of Goldhanger for not laying a wholve in the (sea) wall leading from the salt-house to Goldhanger church, the path being flowen with water for want of same." (ERO Q/SR347/29: Benham, M, 15). "The salt-house" suggests that there was only one saltern in the parish at the time and that it was a roofed building. It was evidently close to the (sea) wall, either inside or outside. Another document, the Calendar of Records, gives "15 July 1650. Tho. Saffold of Goldhanger, salt-boiler, to answer the inhabitants of Goldhanger" and thus records the salters name (ERO Q/SR 345/83: Benham, M, 40).

Chapman and Andre's map indicates that the sea wall of 1777 was inland of the present wall and Fig 2 shows the relative positions of the two walls at Bound's Farm; allowance for the less accurate earlier map should be made. The later wall presumably dates from 1789 when Thomas Lee, the then landowner, reclaimed thirty acres on the west side of Goldhanger creek. The cutting -off of the head of the creek took place later still, between 1805 and 1839 (Benham, M).

The assumption that the 1777 wall was that mentioned in the Epiphany sessions of 1651 is reasonable since its line across the then head of the creek led directly northwards to Goldhanger church as described in the entry. A concomitant assumption is that the saltern lay close to it and not to Lee's later wall.

Laver's (1894) description of the excavation site provides supporting evidence. He states that the saltern lay partly "in the field below the farm house ... next to a grass marsh just inside the sea wall" (i.e. the 1789 wall) and partly "in the ditch and bank and in the adjoining part of the next field to the east side of it" where there was "a slightly raised portion of both fields." This description fits the two fields in Fig 2 named Twelve Acres and Hither Fish Pit Marsh, which still have slightly raised portions along the bank and ditch which separates them.

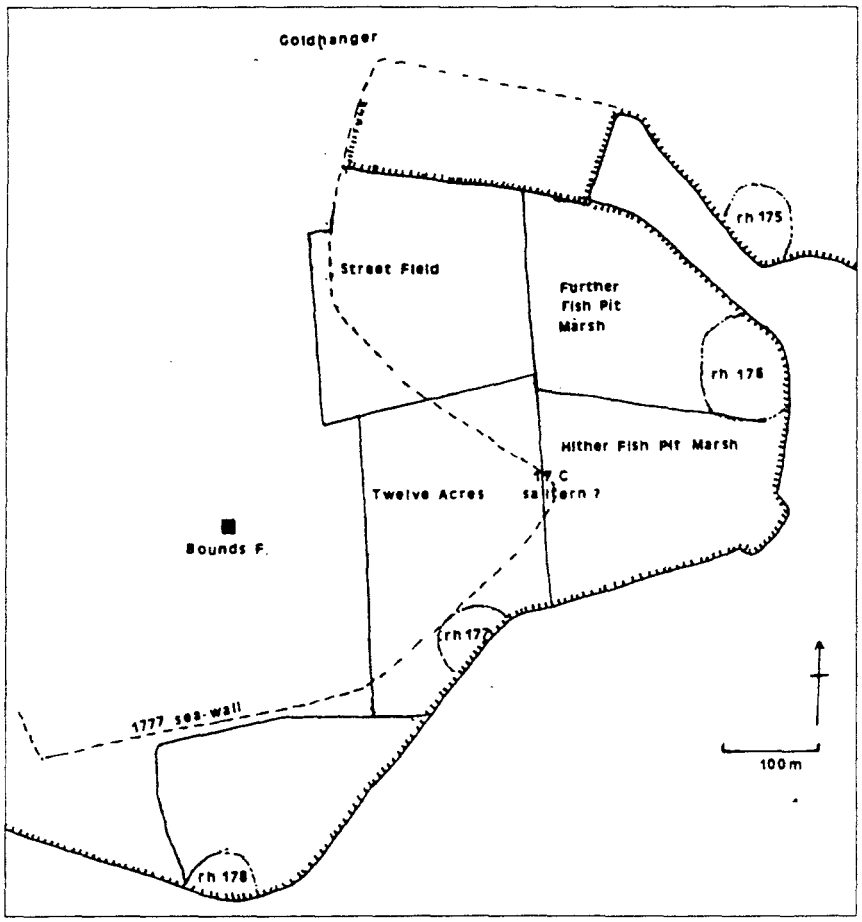

Figure 2) *Bounds Farm showing relation between pre-1777 sea wall & present wall. Also the conjectured site of the 17th Century saltern. This map shows features mentioned in the text. It does not represent the area at any specific period.*

Of the fields shown on Fig 2, Twelve Acres contains the red hill Goldhanger V and Further Fish Pit Marsh contains Goldhanger VIII. Since its excavation by Reader, the site of the latter has been occupied first by a sewage plant and now by Goldhanger Sailing Club. During his excavations in the autumn of 1907 and 1908, Reader briefly investigated Hither Fish Pit Marsh, which he found "remarkable for the number of artificial works it contains." He speculated on

whether some tank-like depressions were fish pits or salt pans. He also recorded a brief excavation in the form of small trial holes dug into mounds close to the "slightly higher cultivated land" adjoining the farm. The cultivated land would be Twelve Acres. The mounds are shown as a and b on his Fig 3 (Reader 1910, 70/7 1), here Fig 2. and must surely have been Laver's 'raised portions.' He found only ordinary clay soil, but the work may not have been extensive or deep enough to uncover Laver's 'red and black soil.' Surprisingly, Reader makes no mention of Laver's observations of Mr Francis's work even though Christy had just published his version in Essex Naturalist.

The extract from the Calendar of Records of 1650, to the effect that Saffold had to answer to the inhabitants of Goldhanger for a misdemeanour may well indicate the date of closure of the Bound's Farm works. Certainly it is unlikely to have survived the century, as will become apparent by the end of this article where the general decline of local salterns is discussed.

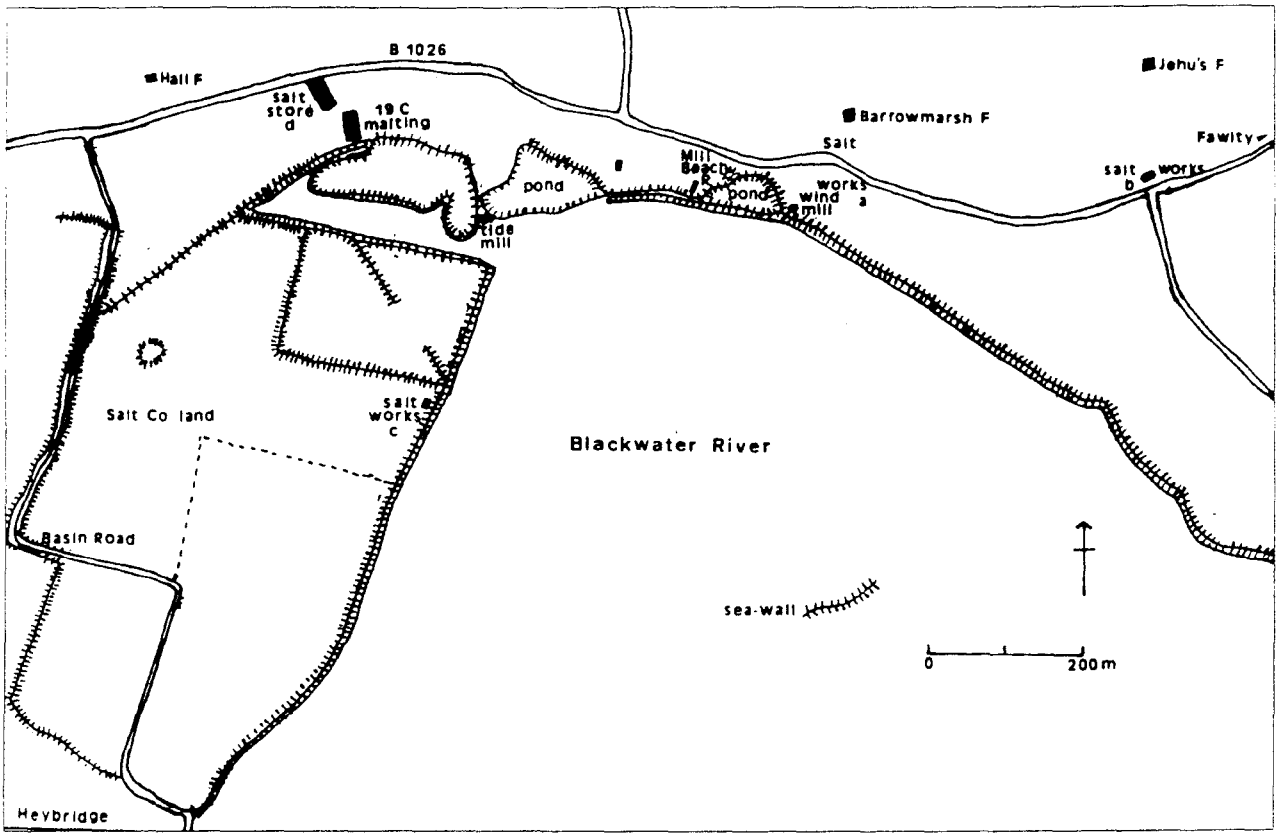

Figure 3) The Mill Beach area with three salt works a, b and c, and store d. The map shows features mentioned in the text. It does not represent the area at any specific period.

Heybridge and Maldon

The location of the next group of salterns has been subject to some debate. Miller Christy (1906, 200) quotes from Morant's Goldhanger entry (1768 2, 389b) "Here is considerable Saltwork, in which is used Rock Salt, brought from Cheshire, mixed with the sea water." Christy goes on to say that "This establishment was, apparently still working at Goldhanger in 1819." when Cromwell wrote: "The salt-works here are considerable. Rock-salt from Cheshire was formerly used; but, in consequence of the erection of very extensive works by Messrs. Bridges. Johnson, and Co, the manufactory of salt from sea-water by steam has been practised with considerable success." (A Gentleman, i.e. Cromwell, i, 37). In all probability, Cromwell here confuses the `very extensive works' of the firm named (which appear to have been, in reality, in the adjoining parish of Heybridge) with the earlier salt-works at Goldhanger. Christy then gives Laver's description of the salt-works at Bound's Farm and surmises that they were "very likely those mentioned by Morant" (1906, 201).

Morant took his passage about the Goldhanger Saltwork, where the salt on salt process was evidently in use, from his predecessor Salmon (1740, 458b). More clearly than Morant, the latter places the works in the manor of Fawlty. This manor did not include Bound's Farm and so Christy's surmise is open to question. Evidence for other salterns in the vicinity, including the Bridges. Johnson works. must be sought and so a brief survey of the area follows.

In the eighteenth century and for most of the nineteenth, before recent boundary changes, the left bank of the Black-water estuary facing Collier's Reach ran through four parishes, Heybridge, Great Totham, Little Totham and Goldhanger, within the short distance of a third of a mile. The area, between the present day Heybridge Basin and the

present day Vaulty Manor in the form of an inverted L (Fig 3), was the scene of considerable commercial activity. Before the advent of the Chelmer and Blackwater canal in 1797, boats landed and took on their cargoes on the shore. Colliers unloaded coal from the Tyne and left with Essex mud as ballast for the return journey. Other craft sailed for London with farm produce, particularly corn and flour. Some of the latter must surely have been produced in the two Barrow Mills on the northern arm of the inverted L, one a windmill near the site of the present Mill Beach Restaurant and the other a tidemill (Fitch 51. Chapman and Andre 1777). The latter had two ponds for holding seawater connected by a leat which used to run in front of the restaurant building (Fig 3). To the west of the mills was a small harbour and quay operated by the miller, now used by the Saltcote Sailing Club. Between the harbour and the B1026 coast road stood a storehouse built in the early nineteenth century and later converted into a malting. It was joined by a second malting later in the century (Fitch 1905, 51). The former has been demolished, but the latter still stands and having been used as small workshops is now being converted to residential use. (Gould 1997)

Before the eighteenth century enterprises arrived, the area was the site of mysterious features described by Salmon (p 460) under ‘Great Totham’ "upon the shore here, whereabout the colliers unload, are many rude heaps of earth, called Borough Hills." In a more recent report (Christy and Dalton 1925), the Morant Club discussed what was then known about them in relation to apparently similar mounds on the coastal marshes at Hullbridge, Tolleshunt D'Arcy and Langenhoe. The report was based mainly on excavations carried out by the Club on the latter mounds since the Borough Hills had by then almost all been destroyed. It concluded that the mounds were medieval, certainly from before the reign of Elizabeth I, and that they were dumps of marsh clay excavated during the making of tanks, either for salt-making or for the keeping of live fish. Evidence of the tanks had survived at some sites and they, rather than the mounds, were probably important components of the features. The presence of bricks, burnt clay, cinders and charcoal in the vicinity of the mounds suggests an arrangement for heating. A reasonable proposition is that the tanks were used as sun-pans and that wood-heated lead pans provided a second stage of evaporation.

Gough (1789, 57) records the number of Borough Hills then standing as near fifty and so they must have covered a substantial area without including those previously destroyed. Fitch (1905. 51) declares that "some of these tumuli were in Heybridge parish, but the more prominent were in the little tongue of Great Totham that runs down to Blackwater Bay, on which the windmill, so prominent a feature, stood till 1892, and the tidal mill still stands. Those remaining were levelled about eighty years ago...." Extracts from references given in the following account of later salterns support this statement and indicate that the mounds existed on the shore of both arms of the inverted L. Fitch himself investigated a mound on Northey Island, but found nothing of interest in his excavation before being defeated by the water table (Christy and Dalton 1925, 28,9). He remarks that a large mound on the Heybridge marshes, (which appears to exist still), may incorporate the remains of a Borough Hill (Fitch 1905. 51).

Evidence of continuity between the Borough Hills and the next two salterns is lacking although they occupied the same area. Gough, for example, makes no such link. On the earliest Ordnance Survey map (Mudge 1805) the words "Salt Works" appear over an appreciable area on either side of the 131026 road at Barrowmarsh Farm (Fig 3, a), thus suggesting an establishment of some size. The location is just to the east of the site of the windmill and the tidemill east pond and so in the late eighteenth century they would have been part of the small commercial complex described above. In addition, a small location map in a corner of the 1839 tithe map for Great Totham (ERO D/CT 368) shows a salt works at Jehu's Farm on the north side of the B 1026 opposite the junction with the road to Osea Island (Fig 3, b). Although this is a nineteenth century record, the saltern may well have gone back to the eighteenth century. The location is only 400 metres from that at Barrowmarsh Farm and, taken together, the two would indeed be a "considerable saltwork."

Like other residences, farms can change their names. In the eighteenth century the present day Vaulty Manor was Jehu's Farm and further east, the present-day Gardener's Farm was Fawlty (Chapman and Andre 1777, OS 1805). The three farms, Fawlty, Jehu's and Barrowmarsh, were all in the single ownership of the Coe family and their descendants until the mid-nineteenth century. Except for a small part of Barrowmarsh, all three lay in Goldhanger. The evidence suggests therefore that they formed the Manor of Vaulty and that the salterns at Barrowmarsh or Jehu's or both were the works referred to by Salmon and Morant.

Today the Barrowmarsh site is occupied by caravans. The area between the B1026 and the sea-wall has no evidence of works, but the ground north of the road has some undulations which may be relics. At Vaulty Manor a pond by the road, which nineteenth century maps show to be more than a century old, may be a former pan, but no other features are apparent. Further documentary evidence for both salterns may reward a diligent search, for neither are so very far back into the past.

Salmon stated that Cheshire rock salt was being refined at the manor of Fawlty in Goldhanger. The saltern would have had to have been licensed to do so under the 1702 Act. In 1734, because certain salterns on the east coast were not producing enough salt to meet local demand thus inflating its price, an amending Act (7 Geo 2 c.6 s. 17) allowed refining to be extended to a second saltern at each location, thus introducing competition. This Act named the three licensed locations in Essex as Heybridge, Colchester and Manningtree. These had of course been so designated since

1702 and thus Goldhanger was never a licensed location. Therefore, to comply with the law the rock salt refined at Barrowmarsh and Fawlty was probably sold from the premises in Heybridge, in the area at the angle of the inverted L, known as Saltcote. The following evidence supports this supposition.

An entry in the diary of John Crosier for 1778, (ERO T/A 387: Brown, 19), states that "there is an office near Maldon where they make some of the first quality salt in England. They have the rock salt from ... by ships: it's put into baskets and steep'd in salt water. After laying there a stated time it's put into pans and boiled till it comes to a proper consistency of fine salt flake and then fit for use." This interesting contemporary description of the 'salt on salt' process confirms the existence of an office "near Maldon." In the eighteenth century the word 'office' described the complete establishment or works and not just the place where the paperwork was dealt with. The occupier of the office, its location and the port of origin of the rock salt are left blank, but other records supply helpful information.

In 1780 "Edward Bright of Maldon, proprietor of the salt works at Heybridge in Essex" claimed for duty on rock salt shipped at Liverpool on the "Joseph." The salt was due to be transhipped at London for Maldon. but the ship was taken by the French off Beachy Head. (ERO Q/SBb 303/18c)." Another source, the Universal Directory for 1799 under Maldon, lists Mary Bright as a salt manufacturer, which suggests that the Bright family refined rock salt and sold it through the Heybridge office until the turn of the century at least.

However, when John Coe, the then owner of the Fawltv, estate, died in 1799, his relative and executor Thomas Piggot informed the "best friends and customers in the salt trade of the said Mr Coe that he intends carrying on the business" at the salt-office at Heybridge as well as "opening warehouses in Witham, Fullbridge and in London." (Chelmsford Chronicle 02/07/1779). The relationship between the Brights and the Coes is not entirely clear. The salt works was certainly on Coe land. Perhaps Piggot changed his mind about carrying on the salt business and let it to Edward Bright. If so, Edward was unlucky to lose a cargo of rock salt in 1780 so soon after taking over.

The 1734 Act shows that the refining of rock salt in the Barrowmarsh area started before 1702. It may have provided sufficient competition to cause the demise of the Bound's Farm saltern before then. The Barrowmarsh enterprise was surely the first ‘considerable’ works mentioned by Cromwell (and Salmon and Morant), but it was probably defunct when the second of Cromwells works started up; an establishment of different character actually in Heybridge parish.

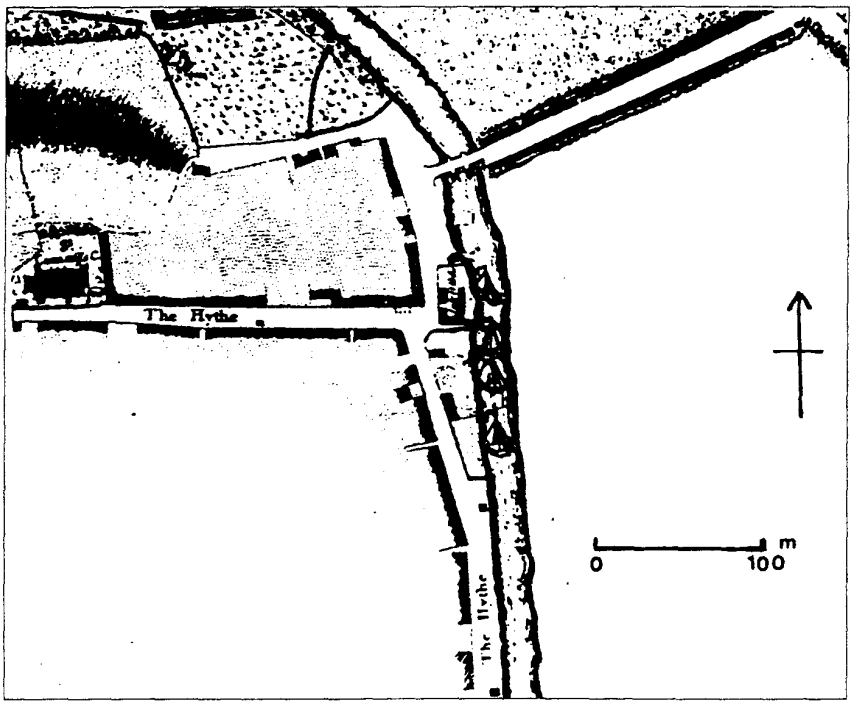

Figure 4) Sparrow 1767. Part of Colchester's Hythe showing salt works.

In the eighteenth century, whereas the northern arm of the inverted L was a scene of industrial activity. the western arm appears to have been an undeveloped area of sea marsh used for the loading and unloading of boats. The sea-wall of the time followed the line of the present Basin Road (Chapman and Andre, 1777; OS 1805). The present wall originates from the early nineteenth century as the following shows. "The lands on which the Barrow Hills stood have been completely enclosed from the sea by Mr Lawrence, in 1807, and the whole are now levelled, one excepted." (Cromwell i, 26). The enclosure can only apply to the land of the western arm since the maps show that the northern arm already had a sea-wall. Lawrence was then the occupant of Barrowmarsh Farm.

Not many years later, the reclaimed marsh provided the land for the works of Bridges, Johnson and Co. (OS 1844; Heybridge tithe map and award 1847). According to the tithe award the company owned the substantial area shown in Fig 3. Boldly reverting to the manufacture of sea-salt, it constructed sun-pans for the preliminary evaporation of sea-water, as the following passage shows. "The Barrows or Tumuli from which these lands obtained their name have nearly disappeared, the most prominent of them being levelled during the preparation of some of the lands for sun pans annexed to the Heybridge Salt Works. My brother was in attendance during their removal. buy no antiquities were discovered." (Johnson. 48).

John Bridges may have been a member of the family which manufactured salt at Manningtree at the end of the eighteenth century and therefore he would have been able to provide practical and commercial experience. He is described as a coal merchant and salt refiner (Pigots Directory, Maldon) in 1823-4, but may have left the indusury after the company ceased trading.

The Johnson family, father William and sons Cuthbert and George, were manufacturing chemists at Great Totham (Pigots Directory, 1797-1827 and 1832-3) [3]. William was evidently an innovator in the salt enterprise for he took out a number of patents between 1809 and 1826 for heating fluids by steam, including one specifically fog making salt in 1814. Since his address is given as Blackheath in 1809 and Heybridge in 1814, the construction of the works probably started between these years following the family's moving to Essex. Miller Christy gives "around 1810" (VCH Essex, II). Cuthbert, the son who attended the removal of the barrows as recorded above, would have been only eleven in 1810 while his brother George would have been eight. The company was certainly in business by 1817 when it was advertising duty-free salt (perhaps unrefined rock salt) for manuring the land. (Chelmsford Chronicle 26/09/1817, 2)

Apparently the manufacturing innovation was to introduce superheated steam from a separate boiler beneath iron evaporation pans containing sea-water previously concentrated in the sun-pans. The company evidently hoped that savings would result from more efficient use of fuel, which would outweigh the economic disadvantages of manufacturing entirely from seawater. This assumption was not justified and, like a similar enterprise in Scotland (Clove and Clove, 54), the works did not thrive. The two-stage repeal of the salt tax in 1822 and 1825 reduced the price to a level at which the business could not compete and it failed. The notice of sale of its assets (Chelmsford Chronicle) on 15.6.1825 included iron and lead pans, steam boilers, a steam engine, presumably for driving pumps, wooden brine pumps, windmill pumps for pumping sea-water to the pans, eight other pumps and a smithy. The works obviously operated with a degree of sophistication that would not be out of place today, for the sale included chalk stoves and furnaces, used in the manufacture of Epsom salts, magnesia and *sal* ammoniac, all of which can be extracted or prepared from sea-water.

Part of the wall of the works building still exists and has been recorded previously (Fitch 1905, 51 Christ} 1906, 201; Duncan 1955). A length of several metres forms part of the clubhouse of the Blackwater Sailing Club (Fig 3, c). About 0.5 m wide, it consists of two single brick outer faces with a core of coarse concrete made with flint pebbles probably from a local beach. To landward of the clubhouse is a pond which appears on the later nineteenth century OS maps and may well have been, as Christy states (1906.. 202), a salt pan originally. Immediately adjacent to landward is another pond with sub-divisions which may also have been a pan, but this does not appear on maps and its date is uncertain.

"Near the high road skirting the marsh is the store-house in which the manufactured salt was kept. It is now used as a malting" (Fitch 1905, 51; Christy 1906, 202) (Fig 3, d). This building, formerly adjacent to the B 1026 and now demolished as stated above, was probably where the liability for salt tax was assessed. The change of use to a malting following the failure of the salt company may be significant because malt was also a highly taxed commodity in the early nineteenth century and would therefore have required the strict regulation already on the premises.

The particulars of the sale of assets show that activity did not cease following the failure of the company. "A small part of the Works will remain for the manufacture of the celebrated Salt, and the extensive Premises containing the articles for Sale, with dwelling and garden, are to be let, together or separate, with 45 acres of land." The Worraker family were the last salt-makers at Heybridge. Without the new-fangled equipment and the extensive sun-pans on the 45 acres of land that reverted to pasture, their modest establishment must have used simple settling and fired evaporating pans, perhaps on the site of the clubhouse. The third of the following directory entries suggests that 'salt on salt' was practised. Robert; saltworks Heybridge (Pigot 1827. 28).

Thomas: saltworks, Basin, Heybridge (Pigot 1839). Thomas: rock salt manufacturer (Kelly 1845). Thomas: manfr (White 1848). Thomas; Manufacturer of Maldon salt and importer of salt. Heybridge (Kelly 1850). Thomas: Maldon salt manufacturer and beer retailer. Heybridge(Kelly 1855): Maldon Saltworks (Thomas Worraker proprtr) Butt Lane Maldon 1859: Thomas: salt manufacture Butt Lane (now Crown Lane) Maldon (Kelly 1862): and White 1863. The small size of the works is confirmed in the 1848 White's Directory which states under Heybridge, "Here were formerly extensive salt works, but only a small one now remains."

The imported salt may have come from the continent or from Liverpool as rock salt. Obviously salt and beer would be a good combination of commodities in which to trade. Thomas may not have been able to make a good living out of salt and so diversified into selling beer.

The entries show that the Worrakers made salt at Heybridge for over thirty years before Thomas moved to the site of the present Maldon Crystal Salt Works in Crown Lane between 1855 and 1859. The new works remained in the Worraker family for another twenty years.

T E Bland bought the business in 1882 and the reputation of the Maldon Crystal Salt Co. as a manufacturer of sea-salt from water taken from the Blackwater estuary became established. It was acquired by Mr Cyril Osborne in 1922 and ownership remains in his family. In her book "The Salt Maker of Maldon," Gillian Soudah gives a fascinating portrait of her late father and reveals the hard work that went into salt making before the introduction of such modernities as gas heating with automatic controls. As the quality of the product is much appreciated by its consumers it commands a premium price which makes manufacture viable. Moreover, since it is made in the town. Maldon salt is its proper description.

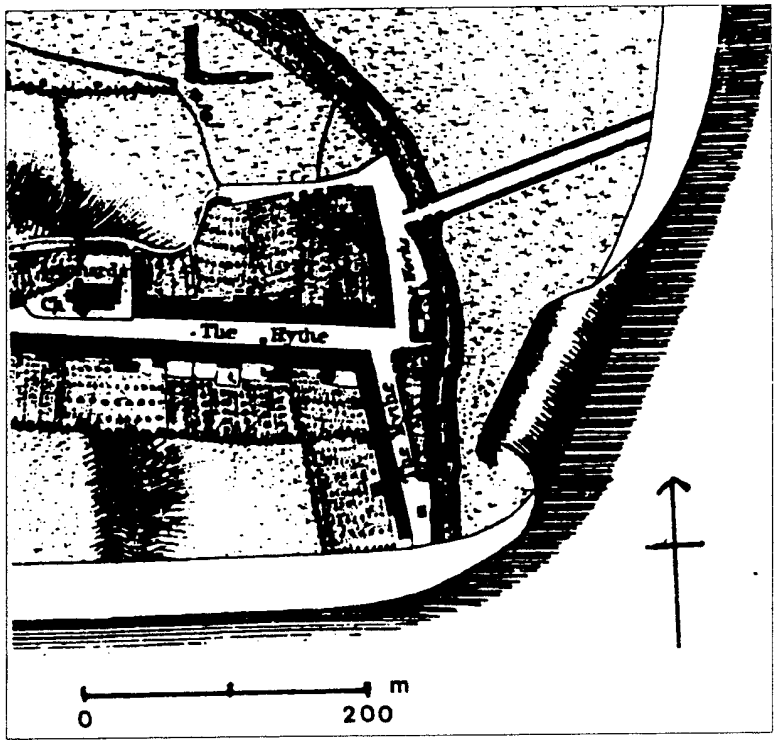

Figure5) Chapman and Andre 1774 Part of Colchester's Hythe showing salt works

Colchester

Evidence of early salt making in Colchester is meagre indeed, but certainly at least one works existed in the seventeenth century. In 1635, Sir William Brereton visited South Shields "where in is more salt works and more salt made, than in any part of England that I know and all is made of salt water." (Brereton, ed Hawkins 1844). In an account of his travels, he then describes the making of lumps of hard and black salt which "are sent to Colchester to make salt on salt, which are sold for a greater price than the rest, because without these at Colchester they cannot make salt."

Thus even before the discovery of rock salt, Colchester salt-makers were using the 'salt on salt' process to refine crude Tvnemouth salt made from seawater. The location of the salt works is not known, but a reasonable supposition is that it was at the Hythe in view of the evidence of the later eighteenth century.

The governing factor for the whole process was the price of fuel. The Tynemouth area was then the major producer of coal. While Newcastle coal of the better quality was shipped to ports along the east and south coasts, especially London, in ever increasing quantities, large amounts of inferior dross, not worth transporting, were available locally at low or nil cost. It was thus a cheap fuel for boiling seawater on the Tyne coast. The quality of salt produced depended on the care, skill and intention of the salt maker. The best white salt, made relatively free from impurities in a purpose-built salt-house, commanded a top price. In contrast, many small salt-makers operated simple unprotected pans on the shore, often in conjunction with a coal-mine, and produced salt as fast as possible in large lumps blackened with coal

dust and dirt and containing the soluble impurities which affected its preserving quality.

This crude salt was made for refining elsewhere and the price must have been low enough to allow this in spite of Brereton's comment. The Colchester refiners obviously found it less expensive to import than the substantial quantities of coal needed to evaporate the corresponding bulk of sea-water. They were still able to control the quality of their product for the local market and by adding value perhaps add to their profit. The "salt on salt" process was an economically efficient one which benefited both Colchester and Tynemouth, providing employment in both areas. But Sir William was not entirely correct, Colchester lacked not salt, but cheap fuel.

After 1700 documentary evidence provides much more information. Three generations of the Quaker family of Freshfield conducted Colchester's salt business in the eighteenth century. In 1710, Richard Freshfield. then aged 22, leased a butchers shop and stall in the Shambles which were part of Middle Row, the block of buildings in the centre of the Hiah Street adjacent to St Runwald's church (ERO Col, accessed as TI on Q5a). This subsequently became the salt shop facing the Red Lion. In 1715 a conveyance transferred to "Richard Freshfield, a salter, the shoppe and stall lately a Butchers in the South Row of stalls or shambles..." *(ibid).*

Three years previously, in 1712. Richard was called to account for not repairing pavements "before his shop up town" and was then referred to as a "salt boyler at the hoith." (ERO Col, D/Db5Sr98 rot 9) This was the year in which he took over the salt-works on the west bank of the Colne at the Hythe (VCH, IX). It was situated on land leased from the Corporation, for Morant was later to write of St Leonards (1748, II, 23) "This parish is within the Manor of the Corporation, which hath here some profitable pieces of waste, leased out for Coalyards, Lime kilns, a Saltcote &c, that bring in a considerable yearly income to the Mayor and communality."

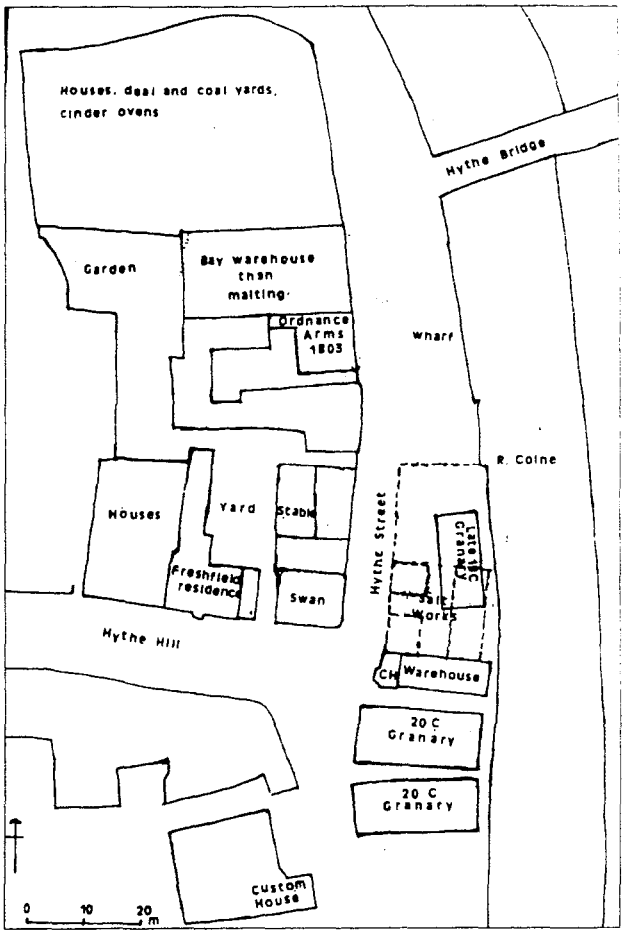

Figure 6) *The area of Colchester's Hythe salt works. The plan shows buildings mentioned in the text. It does not represent the Hythe at any specific period.*

Maps from the second half of the eighteenth century, Sparrow 1767, (Fig 4). Chapman and Andre 1774, (Fig 5) and G Cole 1805, show where the salt-works then was. They all depict a U-shaped block of buildings and enclosed yard described as "Salt works" on the southern half of the short stretch of the west bank of the Colne between the bottom of Hythe Hill and the then Hythe Bridge. The northern half was a separate wharf, later named the Ordnance Arms Wharf after the 19C public house, (Fig 6).

A reasonable supposition is that the works was at the same location in the first half of the century, but the evidence is not so immediately conclusive. Deane's map of Colchester (Morant 1748, Fig 7) shows a building a at the same spot as Sparrow's U-shaped salt-works. but it is a single block lying partly on the bank and partly in the river. Although Deane's overall surveying of the Hythe area is clearly not as accurate as that of later maps, lie provides more detail in his depiction of the location of buildings. Since he was responsible for the rebuilding of Hythe Bridge in 1737, he must have been familiar enough with the surroundings to record their presence with some certainty. Thus there is a difference between the early and later maps which invites and explanation.

Deane's map also shows two other waterfront buildings b and c to the south of a and of the junction of Hythe Hill. An abstract of title relating to a 19C sale of the property on which they stood indicates that between 1765 and 1785 Edward Morley owned it and that it then consisted of a granary and a coalyard. Included in the abstract of title (ERO Col D/DEI/T 362) is a deposition dated 1815 by William Cook who was clerk to Morley. Cook had heard that "the spot where the coalyard and granary had stood formerly had a house or houses and other buildings occupied by one Clay a baker and afterwards by Joseph Somers and that on taking down the same the aforesaid granary was erected from the materials thereof." Cook would seem to be giving a description, albeit second-hand, of the buildings b and c. Deane shows c as having an upper story projecting forward on pillars, presumably of wood. Granaries were commonly built on piers to allow air to circulate beneath the grain and to discourage rodents.

Part of Buck's South-East Prospect of Colchester, drawn in 1737 and published in 1741 (Fig 8), gives a pictorial view of the Hythe waterfront. The quays appear little used for a harbour which Defoe had earlier described as the Wapping of Colchester. The vessels lie anchored in the river, not tied up to the quays. The impression is given that the drawing of the waterfront has been tidied so as to make it look more imposing. In addition, the Buck brothers often employed other draughtsmen for their foregrounds and this practice may well have been a source of inaccuracy in detail,

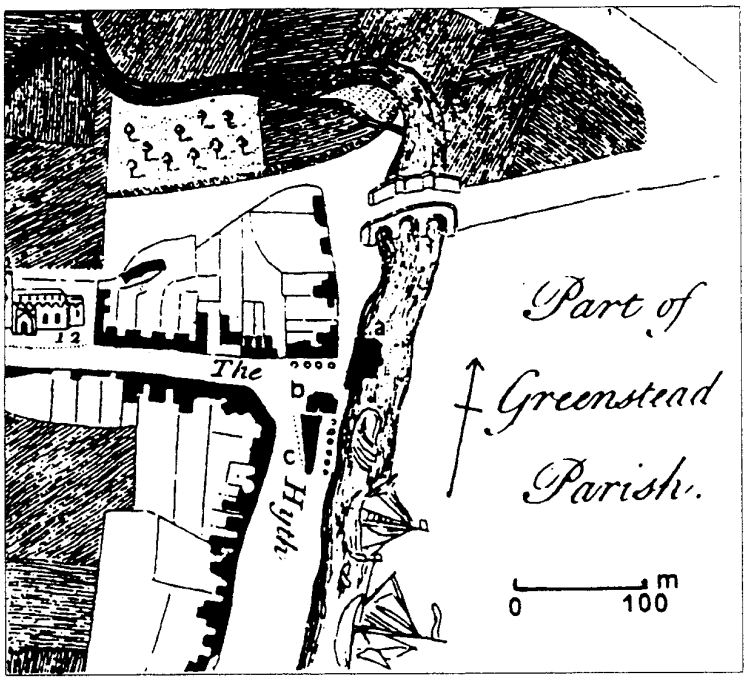

Figure 7) Deane, pre-1748. Part of Colchester's Hythe showing the buildings designated a, h, and c in the text.

The comparison with Deane's map which must have been drawn around the same date is interesting. The present former Swan inn on the north corner at the bottom of Hythe Hill, recently converted to residential use, is an early 19C building (see Fig. 6) and the Prospect shows what is presumably its predecessor. Instead of Deane's building or structure a in front of the inn, only a meagre collection of goods or materials appears. Neither is Deane's building b readily identifiable but the building with its piers in the river is presumably c although Deane shows it as entirely on dry land. It has windows and at least one chimney, and so may have been one of the houses from which Morley's granary was constructed rather than the granary itself. Thus it appears that the Prospect does not show the salt works, perhaps because the Bucks tidied the drawing or because a major re-alignment of the river bank resulted in demolition and reconstruction around the time of the drawing. The best evidence for the site in the early half of the century must be that Richard Freshfield did not own or occupy waterfront property south of Hythe Hill and so it would have been to the north throughout the century.

Richard Freshfield prospered and when he died in 1755 he owned substantial property in Colchester. particularly at the Hythe. He left the works to his son Francis 2 in trust for his grandson Francis 3 and his will gives brief details of the salt-making equipment. "Item I give and bequeath to my son Francis Freshfield all my salt-pans. Cisterns. Ovens and all other the Utensils belonging, and also my Hoy called the Endeavour of the Burthen of thirty tons or thereabouts usually employed in the fetching of sea-water... and all that my Salt Shop and Butchers Stall and chamber adjoining in the parishes of St Runwalds and St Nicholas." (Bensusan Butt 1967) .

Although Richard was described as a 'Salt Boyler' in 1712, in later references he is a 'Salt Refiner'. The Act of 1702 which restricted the refining of salt to refineries already existing confirms Brereton's evidence that the method of 'salt on salt' had been in use in Colchester for many years. Thus the Freshfields were almost certainly refining salt from Richard's start in business in 1712. Occasional claims for rebate of tax for rock salt lost at sea before reaching Colchester appear throughout the eighteenth century. One such claim (ERO Q/SB 68/1) was for a cargo of salt damaged in a storm during passage from Liverpool to Colchester in 1719; sixty-two years later, a draft certificate of 1781 for rebate (ERO Q/Sb 303/18) referred to a Quaker's loss of rock salt destined for Colchester in the "Joseph" captured by a French privateer off Beachy Head! Other claims were made in 1718 (ERO D/B 5 Sb 5/1 123) and 1721 (ERO *ibid* 323).

Richard's equipment was therefore for making 'salt on salt.' The salt pans were for evaporation. the cisterns for dissolvin2 the rock salt, the ovens for heating and drying and the utensils for raking, shovelling, removing impurities and draining (with conical baskets as in Fig. 1?). Presumably the Colne at the Hythe was not clean enough and not salty enough and so the hoy, a small vessel rigged fore and aft, sailed to the mouth of the river to obtain water from the open

sea. Hoys were formerly maids-of-all-work in inland waters and Buck's prospect shows one at anchor in the river (Fig. 8).

The item ovens may have included some used for making cinders, i.e. coke. Before the advent of gasworks in the first half of the nineteenth century many concerns produced their own cinders by partially burning coal in beehive brick ovens, the gas going to waste. The Freshfields owned other ovens at the Hythe in which they made cinders for use in their malting there and cinders would have been appropriate for manufacturing good quality salt with minimum of smoke. The iron saltpans may have lasted longer because the fumes given off by cinders would have been less corrosive than those of coal.

Francis 2 continued the business, which he inherited in 1755, until 1770 when he died and left his impressive Hythe properties to his second surviving son, Francis 3. "My tenements, outhouses, buildings, yards. Keys. wharfs. Heredits, real estate which situate, lying and being in the said parish of St Leonard and also the shop and butchers shamble with the chamber over the same in the parish of St Runwald in the town of Colchester." One item had changed. "My hoy called the Hopewell of the burthen of 40 tons or thereabouts usually employed in the fetching sea water and my barge called Rebecca and also my lighter called Chance. And all my household goods...." (ERO D/DEl B 19).

Francis 3 died a wealthy batchelor in 1808, but he had retired, from salt-making at least, in 1797. The new salt-maker was John Eglonton Wallis, whose wife had inherited indirectly from the afore-mentioned Edward Morley the granaries and the coalyard immediately to the south of the salt works. He and his cousin, James Wallis Ashwell. announced that they had taken over the works and the shop in Middle Row (Ipswich Journal, 29/07/1797). They offered 'best Liverpool Salt' which may have included not only salt refined at the Hythe, but also some refined in Cheshire. As early as 1781 the "Joseph", taken by the French off Beachy Head as previously mentioned, had been carrying refined salt as well as rock salt, a portent of things to come.

In 1802 Wallis, who had other interests besides the salt business, became bankrupt and the announcement of the sale of his assets (Ipswich Journal, 23.10.1802) includes "Lot 7 - The bankrupt's Right and interest of and in the Salt Works and cinder ovens, Salt Pans, the Counting House, now occupied by Mr James Thorn, The Coal Yard at the North-end of the works, the Cinder Shed, opposite to the coal yard, the Smith's Shop, adjoining the Cinder Shed, all situate at the Hythe, near the River, in the parish of St. Leonard, in Colchester aforesaid." This interesting list includes the cinder ovens which were presumably in the cinder shed and a smithy which would have been useful for the construction and repair of salt pans. The coal yard would be the one belonging to the works and not the one to the south inherited by Mrs Wallis.

Lot 8 in the sale includes Wallis's life interest in his wife's property and also gives further details of James Thorn's occupancy. The latter had purchased the tenancy of both properties until 1811 and was therefore now the saltmaker. The counting house, referred to in both lots, would nowadays be known as the office and was at the west end of the south building of the U-shaped block, (Fig 6 C H). The east end of the building was a tenement or dwelling, occupied by a tenant until 1802 when it was converted into a warehouse by Thorn (ERO Colch D/DEI/362). These details serve to show how small the salt works was.

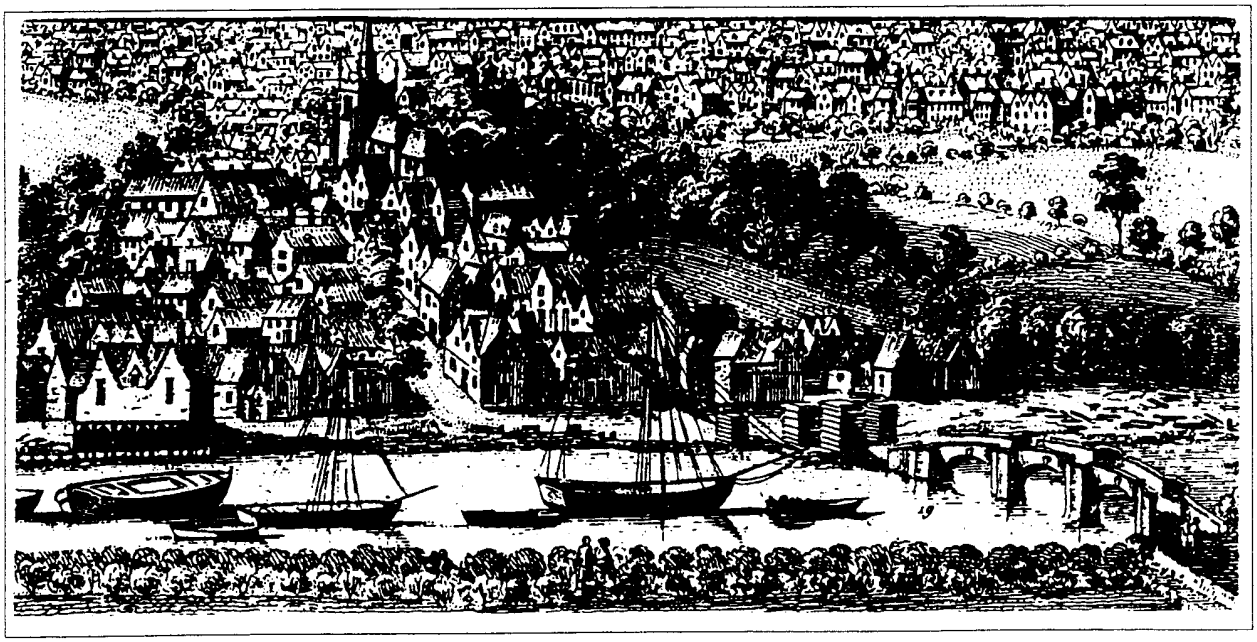

Figure 8) The bottom of Hythe hill from Bucks South-East Prospect of Colchester1737. A hoy lies to the right of the lighter on the left.

The Universal British Directory of 1811 lists Thorn as a salt refiner still. but he was the last of the line and no doubt activity was diminishing even then. By I815 he evidently owned the works outright for in that year he sold it to Charles Parker.

Parker was a merchant dealing in coal, porter and other goods, and there is no evidence that he ever refined salt. Indeed he must have demolished at least some of tile buildings for, when he became bankrupt in 1822, the sale of his assets included "Lot 3 - All that substantial recently erected brick built warehouse, 41' by 23', used as a porter store with 2 floors over the same and a commodious shed attached 16' by 41' with one floor over the same, together with adjoining coal and cinder yards with 2 cinder ovens and sheds for cinders." (ERO D/DEI T362 B2462). This description fits the building shown in a drawing of c1825 in Colchester Museum (Fig 9), with two barrels (of porter?) standing outside the door. The cinder ovens which had survived the demolition may be in the wooden structures at the end of the building and they may have continued in use until the coming of the gasworks to the Hythe in 1838 made them superfluous.

Edward and Thomas Holdich bought Lot 3. It included the counting house, but not the attached warehouse to the east which went to Robert Tabor. To the north of the latter Monson's Colchester map of 1848 shows two adjoining buildings on the waterfront and the northernmost of these may well be Parker's warehouse, being fairly close to Hythe Bridge as depicted in the 1825 drawing (Fig. 9). Both buildings appear to have been demolished somewhat later since the OS map of 1875 shows a single granary where the two previously stood. Although similar in sty le to the building in the drawing, it is larger than Parker's warehouse. It stands today, although suitably altered to suit current use by a light engineering firm.

Thus, with the possible exception of the lower courses of brick in the counting house (Fig. 6 C H), no visible evidence of the salt works survives in the present-day buildings.

The hoy. Hopewell, was still 'fit for the sea' when Thorn sold her in 1814. The salt shop, also sold in that year, came down in 1817 to allow widening of the road in front of the 'Red Lion.'

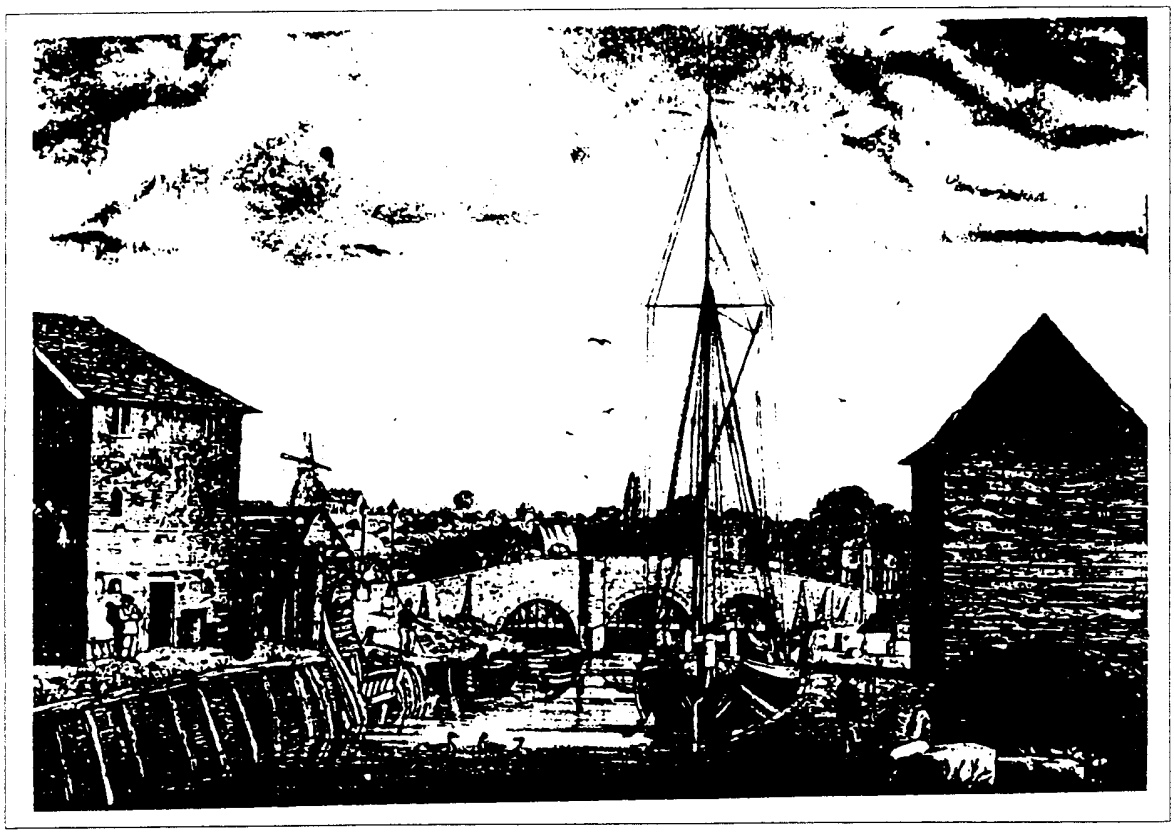

Figure 9) Colchester's Hythe Bridge bi W.H. Oldmeadow c1825 with Parker's warehouse? on the left.

An Overall Assessment

This survey would not be complete without some general discussion of the production and distribution of Essex salt. Obviously the number of salterns has declined with the centuries. Evidence of hundreds of red hills still exists. The Domesday survey lists 46 salt pans: the evaluation was not comprehensive and more must have been in use, particularly in the southern part of the county. The limited published evidence (e.g. Laver 1984, Christy 1906, Christy and Dalton

1925) suggests that fewer salterns were operating in medieval times. Paul Barford has surveyed the various periods (Barford, 1988) and has commented on the further reduction in numbers in the seventeenth and eighteenth centuries.

Imported salt was always a menacing competitor, the following offering an interesting example. In 1637 the company of saltmakers of South and North Shields petitioned Charles I "that the multitude of refiners of salt hinder His Majesty's profit and that of the company by means of importation of foreign salt in by-creeks, and that they multiply the quantity of salt by their manner of refining. Pray that the refiners or melters of salt and all others may be restrained from setting up any new works or pans but only keep to those works which they now have" {Cat. State papers 1637). Evidently, cheap and low quality solar salt from southern Europe was being refined by the 'salt on salt' process, but whether the by-creeks included those of Essex is not known.

Many post-medieval salt makers must have been unable to deal with the introduction of larger iron pans and coal, the complications of the supply and use of Newcastle coarse salt followed by rock salt linked with the licensing system. Taxation with its accompanying paperwork applied to sea salt as well as refined rock salt.

By the end of the seventeenth century one hand would have been sufficient to count all the Essex salterns: Hevbridge/Fawlty (perhaps more than one). Colchester and Manningtree.[5]

Heybridge was ideally situated at a place where coal and perhaps coarse salt were shipped from Newcastle followed later by rock salt. Its market would include the Chelmsford hinterland as well as Maldon and its favourable reputation probably took some of its product to London, Hertfordshire and beyond. Its rock salt licence and economies of scale would enable it to undercut the Bound's Farm works as well as any others surviving in its market area. It even had a tax collector conveniently close by.

Colchester had its major market to hand, served by its own specialist shop in the centre of town in addition to other outlets in the area. It also had the advantage of regular shipments of coal, coarse salt and rock salt.

Manningtree, which has not been researched for this article, had the advantage of its rock salt licence and was in a good marketing position to ship to Sudbury on the navigable Stour, for onward distribution.

And now just one Essex saltern remains to carry on an industry that has been practised in the county for at least two thousand years.

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Acknowledgements

The late John Bensusan Butt very kindly supplied useful information concerning Colchester salt works. The Record Offices at Chelmsford and Colchester were most helpful in producing necessary documents and interpreting some of them.

Endnotes

[1] A sufferer from the tax recorded that "salt with the tax upon it cost twenty shillings per bushel, and we were positively restricted in its use in consequence." (Dixon ed., 1916). Obviously, leaving some on the plate was frowned upon! By 1850, without the tax and with the benefits of large-scale production. the price had fallen to a fiftieth of that in the 1820s

[2] The Bright family were tallow chandlers and grocers whose home and shop were at Church House. Maldon. As late as 1848 White lists Briant Edw. and sons as salt merchants, but the firm was then no longer engaged in manufacture.

Edward Jnr. (died 1790) was the son of a famous father, also Edward (died 1750). The latter was noted for his girth for he reached the weight of 44 stone and prints of the time claimed that he was the largest man in the world. Whether he was the proprietor of the Heybridge salt works like his son or just sold salt in his shop is not known, as discussed above.

[3] The Johnson family pursued interesting careers. The father, William, was the proprietor of the Vauxhall distillery and then of the Coalbrookdale china works before coming to Essex. He published a number of patents on the application of superheated steam to heating fluids for 'the purposes of art and manufacture' (3236, 15.5.18094747, 8.1.1 823; 4997. 5.8.1824). Two others relate specifically to the production of salt (3826, 1814; 543 l. 1826) and presumably the principles of the patents in particular the multi-stage use of steam, were used at Heybrid$_1$ge. William's addresses given in the patents, Blackheath 1809. Heybridge 1814, Great Totham 1824. Droitwich 1826 are interesting. Although the

Heybridge works was a commercial failure, the use of steam seems to have been successful enough technically (above. Cromwell as quoted by Christy) for William to offer it to Droitwich. He was an advocate of the use of unrefined or contaminated salt as a fertiliser (Chelmsford Chronicle 26/09/1817, 27/08/18 19), but. not surprisingly in the light of modern agricultural science, the practice did not catch on. He died at Wolverhampton in 1835; a memorial to him and his widow is in St Peter's, Great Totham.

His son Cuthbert William. 1799-1878. (DNB XXX. 8) and George William. 1802-1886. (DNB XXX. 12) worked for the company and published "An essay on the use of salt for Agriculture" (2"[d] Edition. 1821). After the failure they left manufacturing for the law and were both called to the bar in 1836. George was a professor of moral and political economy in Calcutta for a short period. However, they made their names as writers and journalists. Cuthbert specialising in agriculture and George in horticulture. Cuthbert's works varied from "The use of crushed bones as manure" to "The life of Sir Edward Coke" and he co-edited "The Farmer's Almanac and Calendar." George's books included a "History of English Gardening" and "Muck for the many, or the Economy of House Sewage:" he co-edited "The Journal of Horticulture." Of particular relevance to Essex was his "History of the parish of Great Totham, Essex" (Charles Clark. 1831). Both brothers left Essex and died in Croydon where they lived in the latter part of their lives.

[4] The Freshfields were a notable Colchester Quaker family in the eighteenth century. Francis 1(c1660-17031 was a mariner whose time at sea probably did not allow much time for affairs ashore. However, in 1697 he was a mortgagee for Salt Coats House (ERO D/DU 1675/1714) adjacent to the salt works at Barrow Marsh and this link may have awakened the interest of his young son Richard (1688-1755). The latter became an astute businessman whose purchase of the salt shop and works was only the first of a string of acquisitions: at the Hythe, a bay warehouse, a coalyard, a dealyard with a garden behind and three tenements in 1722 (ERO Colch D/DC 37), a granary, another dealyard and outbuildings in 1724 *(ibid).* The bay warehouse, with the Freshfield's second set of cinder ovens, became a malting on the decline of the bay trade, which no doubt supplied the brewery at St. Giles, purchased by 1735 (VCH IX 139). Richard also acquired a number of inns in Colchester, which the brewery would have supplied in turn (ERO D/DEI B19). One was the Swan at the bottom of Hythe Hill which must have been an oasis for the thirsty salt workers across the street. Some of his activities in the Quaker community are on record (Fitch 1962) and he was clerk to the meeting in 1731 and 1733-4.

His only surviving son, Francis 2 (1711-73), inherited the properties. He was a Commissioner for the harbour in 1740 and would have had a say in any improvements made about that time, with advice from his father no doubt.

He occupied a house, stabling and grounds on Hythe Hill, adjacent to the Swan, bought from James Deane in 1740 (Fig 6). A century later in 1833, it became a porter house, the "Perseverance", its frame was transported to Surrey in 1912 to become part of a larger residence which still stands (Roberts 1988).

Francis 2 left the Colchester inns to his eldest son John, with the exception of the Swan. This went to his second son Francis 3 (1742-1808) who also inherited the house, the salt works and other Hythe properties which now included the private quay to the north of the works and most of the block to the west of Hythe bridge. The last Francis was a bachelor and sold the house, the salt works and probably much of the other property in 1793. Following in his grandfather's footsteps, he was Clerk to the Meeting from 1791 to 1798 and was a considerable benefactor to Quaker causes in the town.

[5] A description of Woodbridge in an early nineteenth century guide book to Suffolk (Anon. 1819) provides explicit contemporary evidence of the low state of local salt manufacturing in the face of external competition. It refers to "the common quay where the chief imports and exports are, and where the fine Woodbridge salt is made..." Evidently the product of Woodbridge was as much esteemed as that of Maldon. The passage later states that "The manufacture of sack-cloth, for which this place was formerly noted, and the refining of salt, are also much in decline; other places affording them on cheaper terms." Woodbridge was a licensed location for the refining of rock salt, the others in East Anglia being Walberswick, Southwold, and Great Yarmouth.

Court Knoll, Nayland

by Chris Hunt

This article is based on work submitted on an extra mural course at Essex University. As part of the course. "Introduction to Archaeology," it was necessary to produce a piece of work of the students choosing on any aspect of archaeology in order to gain credit points towards a certificate in continuing education. As the author's main academic fame was to fail his cycling proficiency test (nobody ever failed that!), it is hoped that readers will tolerate any shortfall in presentation and detail and accept the piece for what it is - a first attempt and still part of the learning curve!! The author is most grateful for the help given by a number of people in preparing this article.

Introduction

The Stour valley has ample archaeological evidence of occupation during the Bronze and Iron Age periods. The area was probably agricultural, with defensive sites for domestic and livestock use. A number of earthworks, most only identified as cropmarks, exist but the impressive remains of a monument is the earthwork known as Court Knoll. Nayland, Suffolk.

The history of Court Knoll is sketchy. There is documentary evidence of a Manor at Nayland during the 11th Century, the site of this manor is assumed to have been at Court Knoll. Remains of buildings were on the site in the l8th Century. Excavations in 1924 located remains of a wall below ground level. Finding reports of this excavation is proving difficult (in fact the author cannot find them at all - yet!), although there are photographs of the exposed trenches. Faint cropmarks show possible remains outside the Area in 1924.

Court Knoll seems to be the main survivor of a group of earthworks, ditches, and moated sites in the area. Some idea of the original use and perhaps most importantly, the date of Court Knoll may be gained from further field archaeology.

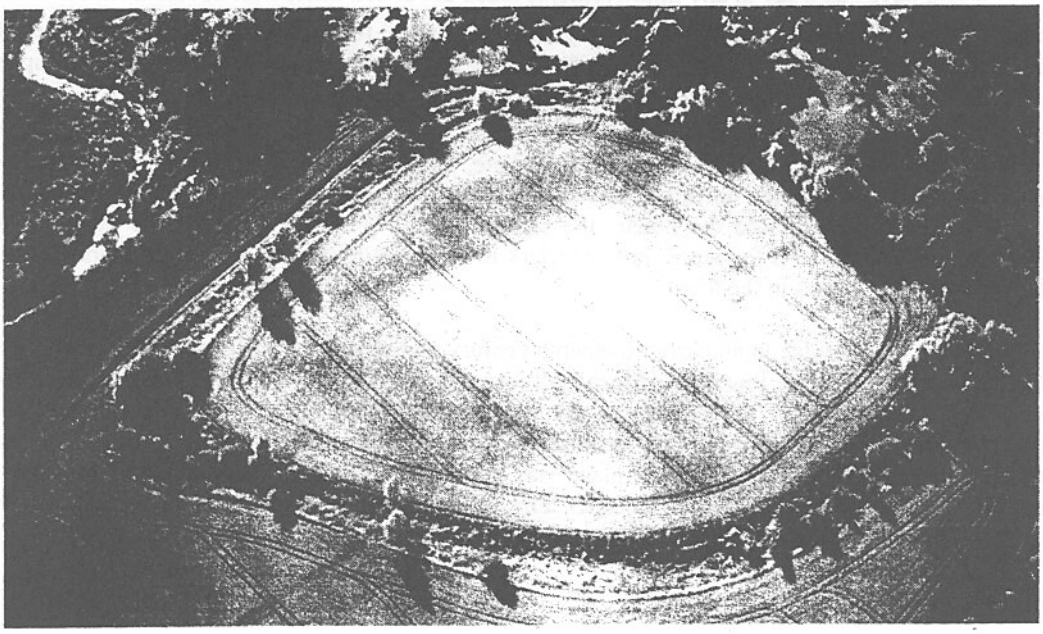

Figure 1) Court Knoll looking NW (Photograph courtesy of Ida McMaster).

Site description and archaeological history

Court Knoll is a ring work situated at Nayland. Suffolk, OS reference point - TL 976340. The site is close to the River Stour, which forms a boundary between Suffolk and Essex. Court Knoll is a scheduled ancient monument.

The Suffolk County Sites and Monuments Record (SMR) contains the following information:

"Court Knoll, ring work or possible motte and bailey castle. Situated on flood-plain of River Stour, consists of a 'D-shaped' earthwork with a mound in the NE corner. Defences comprise a low, faint rampart separated from the outer ditch by a berm. The mound, which is very vague, but appears to be near circular, measures about 40m in diameter and has a maximum height of 1.0m. There are faint traces of a ditch around the W side. Main ditch is 50 feet wide, 5 feet

deep, a gap in the NW corner is possibly an original entrance.

A building of Roman tile and Kentish rag in the N part of the enclosure was excavated by Major Dick in 1924. A scatter of tile and Kentish ragstone was visible in the ditch E of the mound in 1960. The mound marks the site of the building" (SMR record number 05636)

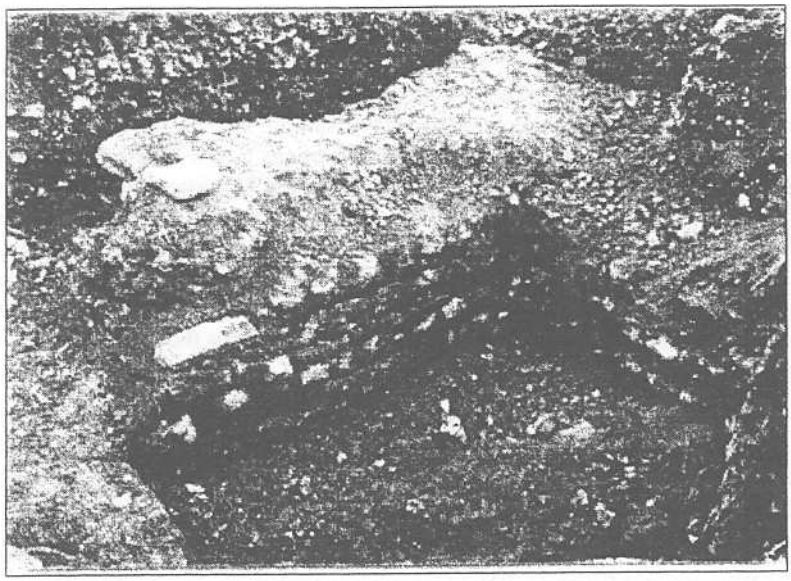

Figure 1) View of 1924 excavations (Photograph courtesy of Mrs Wendv Sparrow,).

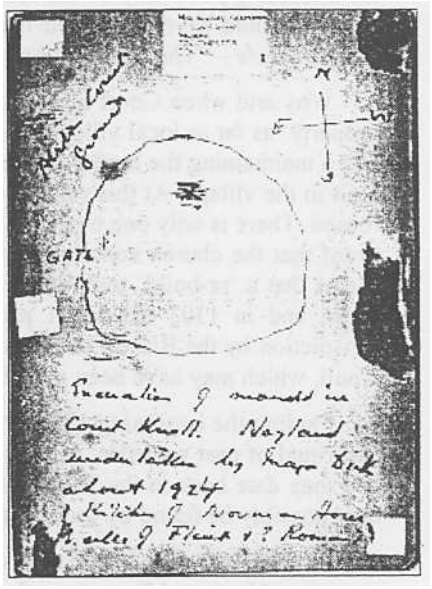

Figure 2) lnformatian about excavations written on rear of photograph (fig 2)

Morant's History of Essex, states:

"The mansion house of the Lordship of Neyland or Eiland as it is called in Domesday book was Neyland in a pasture ground called the Court but no foundations of any part of it are to be seen except the chapel." (Morant P, History of Essex, 1768, Vol 2, 233)

There is also a reference to the monument in the Victoria County History of Essex (VCH). this quotes Round:

"The great Lordship of Eiland however, which belonged to Suain of Essex, lay on a cheval on the river and was surveyed in Domesday partly under Essex and partly under Suffolk. It derives its name from the present Nayland, where the site of Court Knoll is still marked by earthworks on the Suffolk side of the stream." (Round J H, VCH Essex, 1, 1903, 408).

The Victoria County History for Suffolk (1911), lists under "earth works":

"Nayland with Wissington. A large curved moat makes a complete circuit of the high ground known as Court Knoll, 6 miles south-west from Hadleigh. This possibly marks the Fosse of an ancient camp. The moat at Wissington, 7 miles south-west from Hadleigh, covers a large area; it appears to have formerly been an oblong in plan with a smaller moated square enclosure.

At Smallbridge, on the Northern bank of the River Stour, there remain two sides of a moat and a wide channel cut from the river supplied the water and at the same time doubled the defence on the western side."

Currently the site is accessible to the public and is in private ownership. Ploughing over the years has scattered the mound but it is still discernible. Scatters of tile are evident. Random fieldwalking has confirmed that the surface is stony with an abundance of brick and tile. This is difficult to date but is most likely modem (19th/early 20th Century peg-tile or field drainpipe). Agriculturally Court Knoll has been described as 'a bit rough!' The site is currently uncultivated being left as part of the "set-aside" scheme.

Author's analysis of information to date

The origins of Court Knoll remain obscure. A manor existed in the late 11th century and therefore presumably a manor house was built at Nayland. The increase in wealth of the area during the medieval cloth trade may have resulted

in the manor being replaced and perhaps at this time, (mid 14th Century). Court Knoll was eventually abandoned much of its material being reused.

The SMR reports on the site mention a scatter of Roman tile. This could indicate that an earlier building somewhere in the area was robbed to provide material for buildings on Court Knoll.

The position of Court Knoll is close to the River Stour. The river at this point would likely have been further south at the time the earthwork was constructed. Possibly the valley would have been more marshland and the need for a crossing point may be the reason why Court Knoll developed. Interestingly it has been suggested that the name \a\ land could have originated from the Anglo-Saxon "Nyland." a village in Frisia - an area of the North German coast. (Scarfe - "The Suffolk Landscape," page 84)

Why and when Court Knoll stopped being used is a puzzle. Clearly as the manor it would have been 'private property' as far as local villagers were concerned and the village developed away from the site. A time was reached when maintaining the manor house and its outbuildings was no longer viable and perhaps a new dwelling had been built in the village. At this stage a decision to demolish had been made. Material from the buildings must have been reused. There is only one other building in Nayland built principally of stone - St James' church. There is no direct proof that the church contains material from Court Knoll. It is difficult to date when the church was built, but it seems that a 're-build' took place about 1400. Before then Nayland was a Chapel of Ease to the nearby village of Stoke and in 1303 Edward I proclaims the independence of his "Kings Free Chapel of Nayland" from any jurisdiction by the Bishop of Norwich. Perhaps at this time the Chapel was the one attached to the manor, on Court Knoll, which may have been used by the peasantry.

Finding the beginning of Court Knoll is also difficult. The Stour valley is scattered with the signs of habitation and ritual of past societies, as is most of lowland Britain. Much of the evidence for this consists only of cropmarks and mar date back to the Bronze Age 4000 years ago. or even earlier. Clues to the origin and use of Court Knoll ma\ possibly be found by looking at it alongside other sites.

Further west along the Stour valley at OS TL 929331 is Smallbridge Hall (Bures St Mary). At this point and extending North and East along the river to Wissington Mill at TL 959333 are a concentration of ring ditches which show as cropmarks. These are generally described as the "Wissington Ring-Ditch Cluster."

The description of these by the SMR include:

"Ring ditch 27m diameter, egg-shaped with two internal marks. Part of group close to River" (Record number 05631).

"Three/four ring ditches within enclosure area, one larger, open to SE traversed by smaller ring ditch 10m diameter and by NW side a rectilinear enclosure with entrance to NW" (Record Number 05634).

"Two large ring ditches (30m diameter) and twelve smaller ditches (all single rings). Scatter of struck flint and weathered brick/tile fragments" (Record number 05635).

"Cropmarks of field systems and trackways E of Smallbridge Hall Farm. At least two phases. Two trackways run EW and N-S. Also curvilinear enclosure within and traversed by boundary ditches" (Record number 10423)

There is also a significant earthwork at OS TL 948349. This is known as Grange Wood and described by the SMR as::-

"A sub rectangular earthwork internally 94m N-S. 80M E-W. Rampart and outer ditch, ditch destroyed on S side. Entrance E and W, probable gap in S.
Location: S end of flat topped E-W ridge.
Similar size bank and ditch run 50m NE from NE corner. Possible moat? Within ancient woodland" (Record number 05643).

The site is on an obviously strategic position overlooking the Stour valley. The site has not been excavated or researched and its date and purpose remain unknown.

Generally the ditches and earthworks are undated but the evidence points mainly to late Bronze Age burial sites. The district has been heavily cultivated for centuries and therefore a great deal of the archaeology must have been lost, but the abundance of finds and material do suggest that this area of the Stour valley has been continuously populated since pre historic times.

This exercise has considered the existing evidence relating to Court Knoll. It is clear that the monument is in an area rich in archaeological features and Court Knoll cannot be looked at as a stand alone site but needs to be considered as just part of an area in use over at least 2000 years and developed over many decades.

More could perhaps be discovered by excavation and suggested future lines of inquiry could include:

1) How old is Court Knoll?
2) What was built there, why, and how long did it last??
3) What really is the significance of Grange Wood??

Grange Wood is certainly an impressive earthwork, (it deserves to be classed as a hillfort!), indicating perhaps a more defensive system along a tribal frontier. It would be nice to know what else is there.

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Scarfe N. 1987	The Suffolk Landscape

The First Record of Red Hills : A Second Note

by James Fawn

The earliest published recognition of these ancient saltern mounds on the coasts of Essex and neighbouring counties (Fawn. Evans *et al*. 1990) appears to be in a report on a meeting of the Royal Archaeological Institute in Colchester in 1876 (Essex Standard 1876: Fawn 1994). However, two unpublished earlier references have now been noticed.

The journal of William Wire, the Colchester antiquarian, has the following entry for May 13, 1853.

> *"Mr Smith brushmaker who travels the county informs me that there is on Goldhanger marshes Essex a field called Red Hills or Red Field the occupier of it told him that there is a Roman pavement there and several things have been ploughed up there but he could not tell me excepting two Admiral Vernons medals and an old horse shoe. "*
>
> (Admiral Edward Vernon 1684-1757, The punctuation is Wire's.)

Wire makes no comment on the name 'Red Hills' and he may have been quite unaware of its significance.

The second reference is nearly fifty years earlier. An estate map of a small farm in West Mersea (ERO D/Dc 37), drawn by William Cole for the Reverend James Round in 1804, shows a small field of 1.5 acres with the name Red Hill. The site, still an obvious red hill today, is No III in the gazetteer of "The Red Hills of Essex," under Peldon parish. This documentary evidence so early in the nineteenth century surely indicates that the name was in use in the eighteenth and, of course, maybe even earlier. Furthermore it shows that the name was not just in use among local inhabitants, but was also known to Cole and Round. The former has been described as being the leading Colchester surveyor (Stuart Mason 1990). The latter was a member of the well-known family which owned considerable property in and around Colchester and was rector of St Runwald's, 1797-1809 (VCH, IX). Both were representative of the sort of persons who initiate or produce relevant contemporary records. Perhaps with such examples we may look forward to the discovery of an eighteenth century reference?

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Essex Standard: 11/08/1876, p3 Great	Reprinted in "Full Report of the Proceedings, Royal Archaeological Institute of Britain and Ireland -Colchester meeting", Aug 1-**8**, 1876, 105-6
Fawn A J, Evans K, McMaster I, Davies G M R 1990	The Red Hills of Essex. CAG Ann Bull. **30**, 1
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Mason Stuart A 1980	"Essex on the map" ERO. 112
Wire W 13.5.1853	"Journal of Events transpiring in the Borough of Colchester." *Unpublished.* By courtesy of The Essex Society for Archaeology & History. Deposited in ERO, Colchester branch, together with "Illustrations for a History of Colchester." Transcript of Journal in Colchester Museum.

A medieval roof in Head Street, Colchester

by Richard Shackle

In September 1998, Dave Stenning told me about a sooted medieval roof he had found in the Army and Navy shop in Head Street, Colchester. The manager of the shop.. Mr John Collins, kindly allowed me to record the roof. The building was almost entirely rebuilt in 1870 when it became The Alexandra Inn, but at the rear. on the second floor, an earlier timber framed roof was incorporated. All that survives are two bays of a sooted crown-post roof. Figures 1 and 2 are long sections of the roof,. from the front and from the rear.

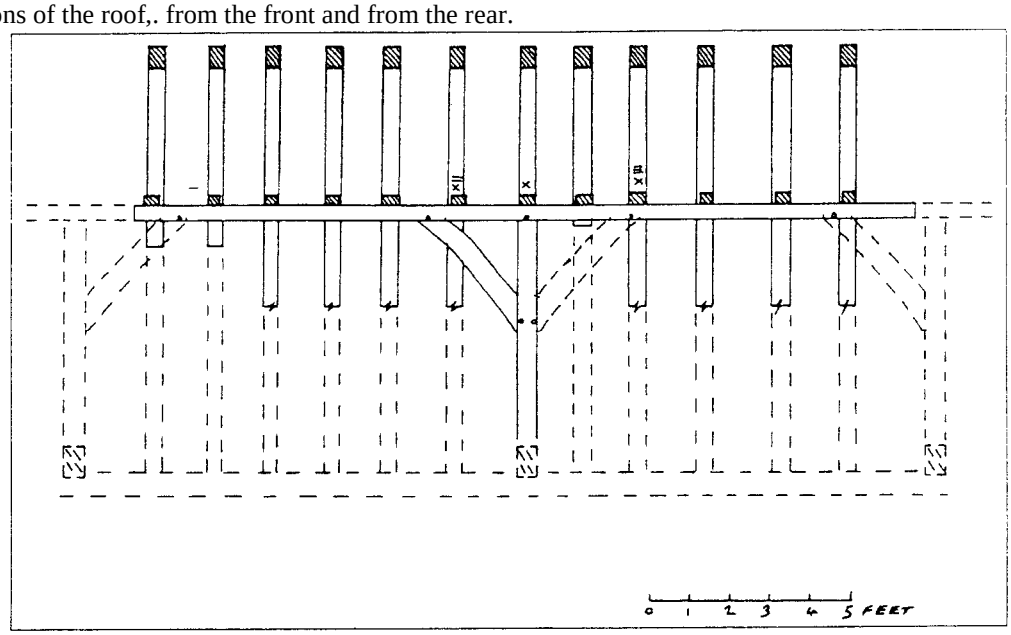

Figure 1) A medieval roof in Head Street, Colchester - Long section from Rear

It can be seen that there is a central crown post with two braces to the crown purlin, although one is now cut away. There are 12 surviving rafter couples, five of which have carpenters marks. As is often the case, the rafters are not arranged according to the numbers on the carpenters' marks.

On the underside of the crown purlin, at each end, are two more brace mortices. These would have carried braces from the crown purlin to the now missing end crown posts.

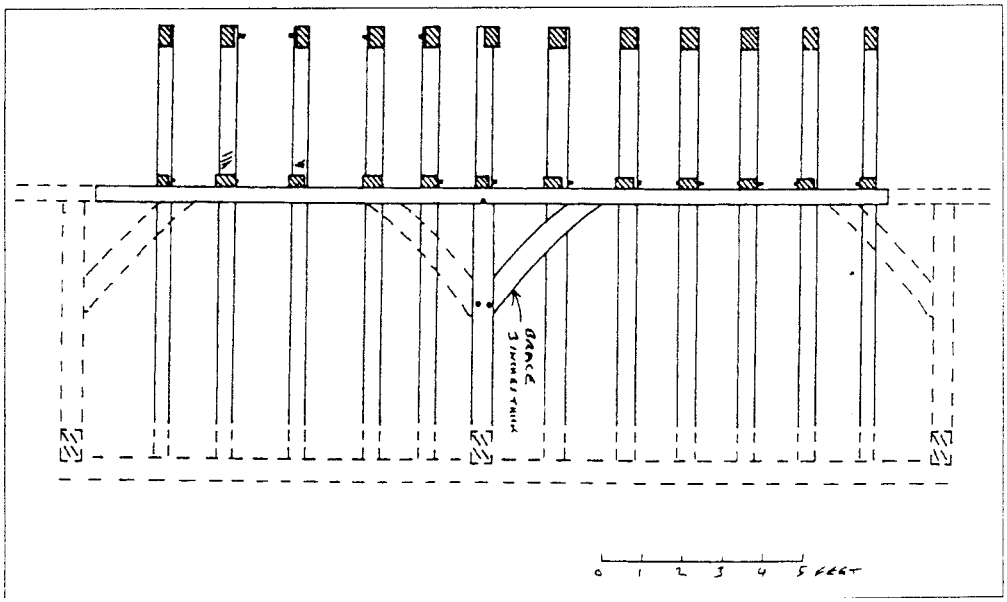

Figure 2) 4 medieval roof in Head Street, Colchester - Long section from Front

Figure 3 shows a cross section of the roof by the central crown post, viewed from the south. You can see a three-stroke carpenter's mark which probably represents the number three brace. You can also see that part of the rafter to the east has been cut away and a trimmer beam inserted to support a cut off rafter. This trimmer was put in either as the head of a dormer window or as part of doorway through to the second floor of the Alexandra Inn.

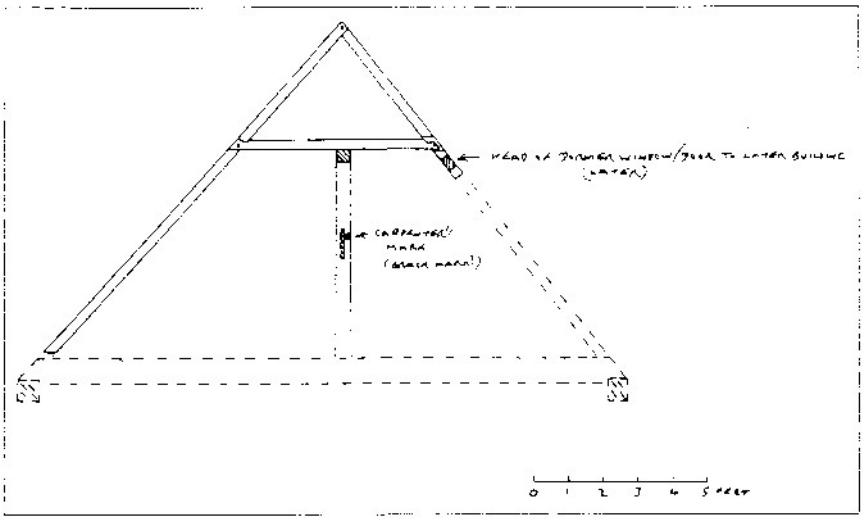

Figure 3) A medieval roof in Head .Srreet. Colchester - Cross-section

Figure 4 is the present end rafter couple to the south. This rafter couple is much later than the rest of the roof and is unsooted. The timbers within this gable are reused medieval fragments and later small scantling timbers.

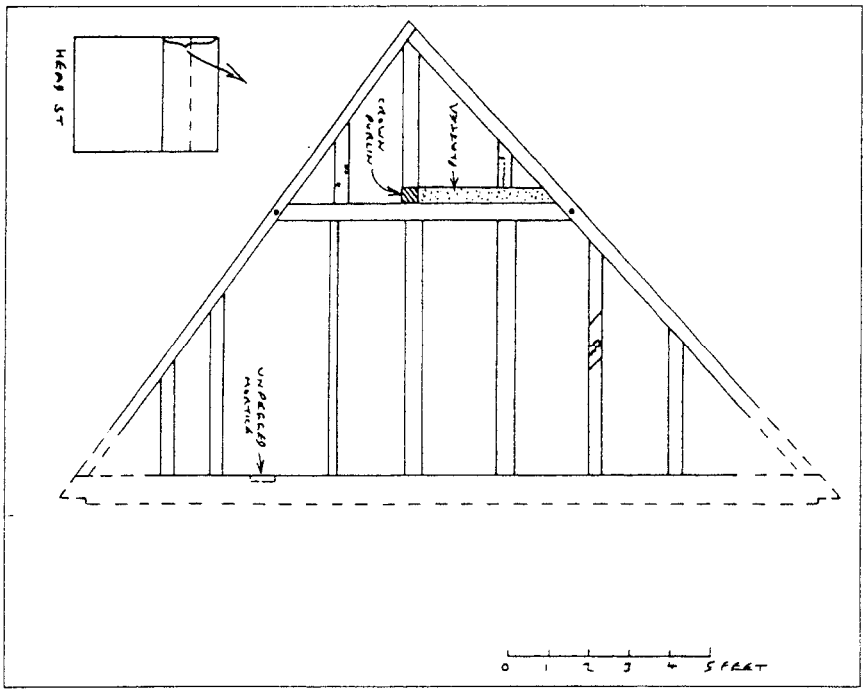

Figure 4) A medieval roof in Head Street, Colchester - End Truss

What was this medieval building? The top plates are about 20 feet above the present ground level and are set approximately 15 feet back from the present streetline. We have two bays of a heavily sooted crown post roof. It seems most likely that this was a sooted two bay hall for a medieval house that was set 15 feet back from the present Head Street. It could have been an in-line hall with parlour and service ends all under the same roof or the parlour and service ends could have been in separate crossings. Another possibility is that the house was on the street frontage but Head Street was then 15 feet wider.

The building probably dates from the 15th or 16th Centuries. The building is not likely to date from after about 1500 because chimneys of brick or timber were coming in. and open halls no longer being built. The three inch thick brace to the central crown post suggests a date in the 15th Century as crown post braces in the 16th Century are usually only one inch thick.

Two ritual deposits from north Essex

by Richard Shackle

Medieval and early modern people were very superstitious. They were particularly afraid that witches would get into their houses and cause them harm. To deter witches they made magic marks on the mantle beams of chimney s etc. They also hid special ritual hoards in their houses for the same reason. These hoards were either shoes and or clothing or pottery jars. The jars were usually buried under the hearth, under the doorstep or under the floor of die house. The purpose of this short article is to record the discovery of two ritually buried jars in north Essex.

Pot from 34 Water Lane, Bures Hamlet

In 1983, Betty Lindley bought the cottage at 34 Water Lane, Bures Hamlet. The house dates back at least to the 18th Century and has earlier origins. The house needed some work done on it to make it a comfortable home. When the workmen were digging under the hearth of the brick fireplace they found a medieval pottery jug. The pot unfortunately got broken when it was being got out of the soil but all the fragments were saved.

The pot is made of a brown fabric with an overall brown glaze. Ida McMaster took it to Colchester Museum who dated it to the 16th Century. Figure 1 shows the pot in profile.

The pot was buried under the hearth, probably to prevent witches from coming down the chimney. The pot may have contained objects such as bent nails to deter witches but if there were any such objects they were not noticed by the workmen.

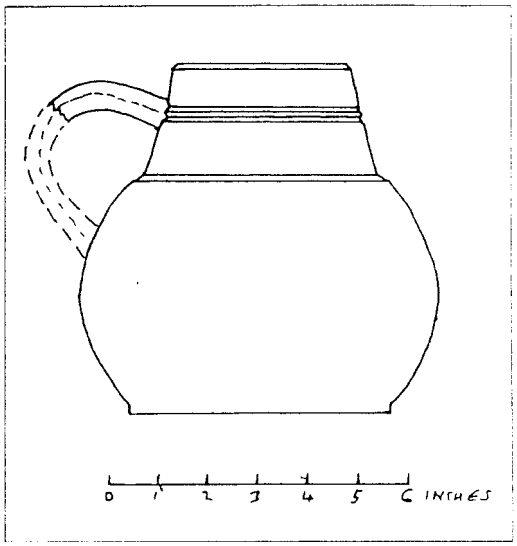

Fig 1) Pot from 34 Water Lane, Bures

Bellamine jar from Beacon End Farm, Stanway

Beacon End Farmhouse is a medieval house with a former open hall and two crosswings. When the Andrews family were modernising the house about 1950 they dug up the earth floor of the southern crosswing (Fig 2). Under the floor, in the front half of the building, they found an intact Bellamine jar. Elaine Mead *(nee* Andrews) tells me that the ground floor front room of the crosswing was formerly the diary of the farm. It sees likely that the Bellamine jar was placed under he floor to protect the milk and cheese making from the evil influences of witches.

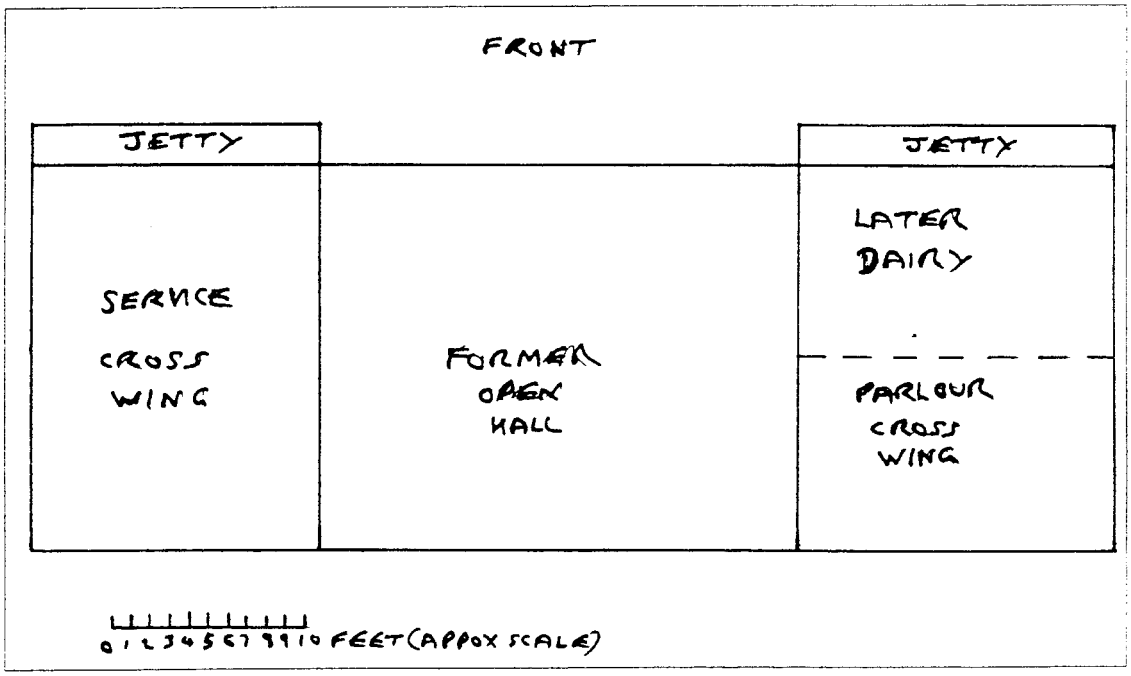

Fig 2) Plan of Beacon End Farmhouse, Stanway

SHORT NOTES

all by Richard Shackle.

Bronze weight from Magdalen Street

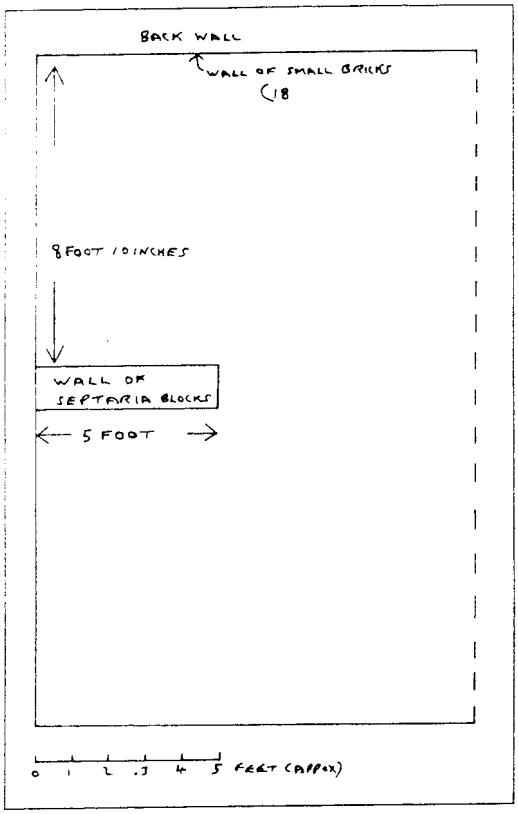

Fig 1) Magdalen Street, Colchester

In early 1998, a timber-framed 17th Century building at 176 Magdalen Street was demolished. When the site was cleared, it was seen that there was a wall of septaria blocks running across the site (Figs I and 2). This wall predates the 17th Century building and probably dates 12th - 14th Centuries. It may well be made from septaria blocks recycled from a Roman building in Colchester. Mr Norman Bone found a small bronze alloy weight (Fig 3) in the soil next to the septaria wall. Mr Bone says tells me that this is a coin weight and that the mark is the royal symbol of Henry VIII. It weighs 25 grams and is 3mm thick. On the same site Mr Bone found the bottom half of a medieval pot with letter or mark engraved on it (Fig 4). The pot is 13.5cm wide at the base and 8cm wide at the point where the pot is broken off. The surviving part of the pot is 9cm high. There are thumb marks round the base of the pot. The mark that is cut into the face of the vessel.. is incomplete and probably represents an owners mark made by an illiterate person.

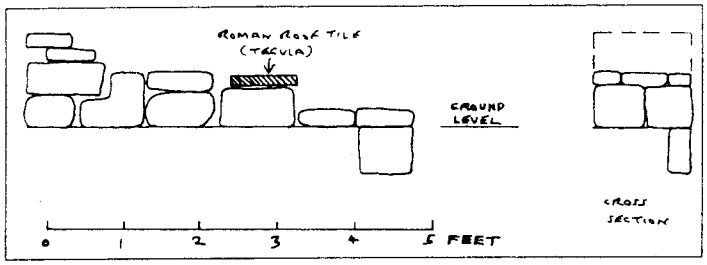

Fig 2) Magdalen Street, Colchester

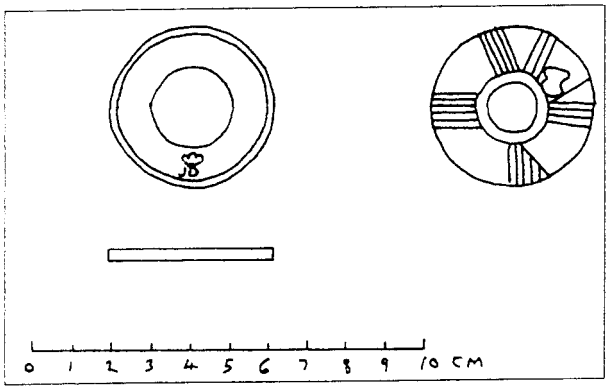

Fig 3) Bronze weight from Magdalen Street, Colchester

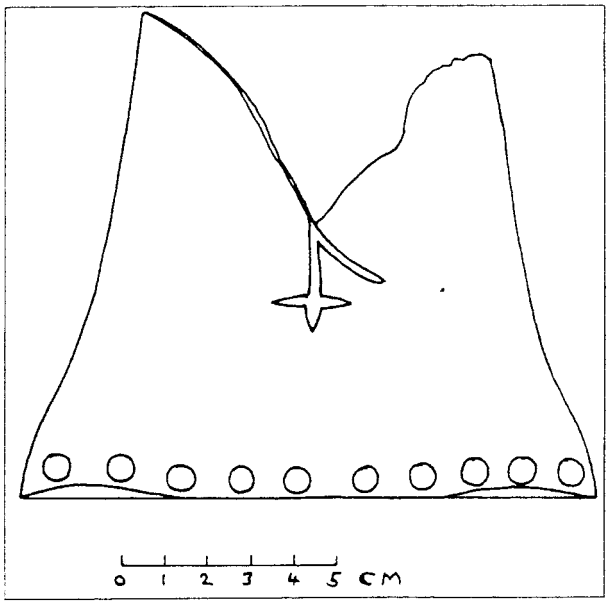

Fig 4) Medieval pot from Magdalen Street, Colchester

Lead object from River Colne

In January 1999, Ian Dines found a lead object in the mud of the River Colne at the Hythe, Colchester (Fig 5). It is a thin disk between 2 and 6mm thick and 45mm wide. It has a small (10mm) projection on its top face, which may be a handle. On the top face are a series of small panels with symbols in them. These symbols are not letters of the alphabet, but may well be marks made by an illiterate person in imitation of letters of the alphabet. The underside of the object shows signs of being turned on a lathe. The underside also has signs of a lip, which has been squashed flat on one side and removed on the other side. I think this object is the top or lid of a small container. The rest of the container could have been made of lead or of some other material such as wood. I envisage the container being owned by a "wise woman", who used it to contain her healing potions which she sold to people who could not afford more expensive remedies from proper medical doctors.

Reference: **Evening Gazette,** 13th January 1999, page 4 *"Mudlark Ian digs up a bit of history"*

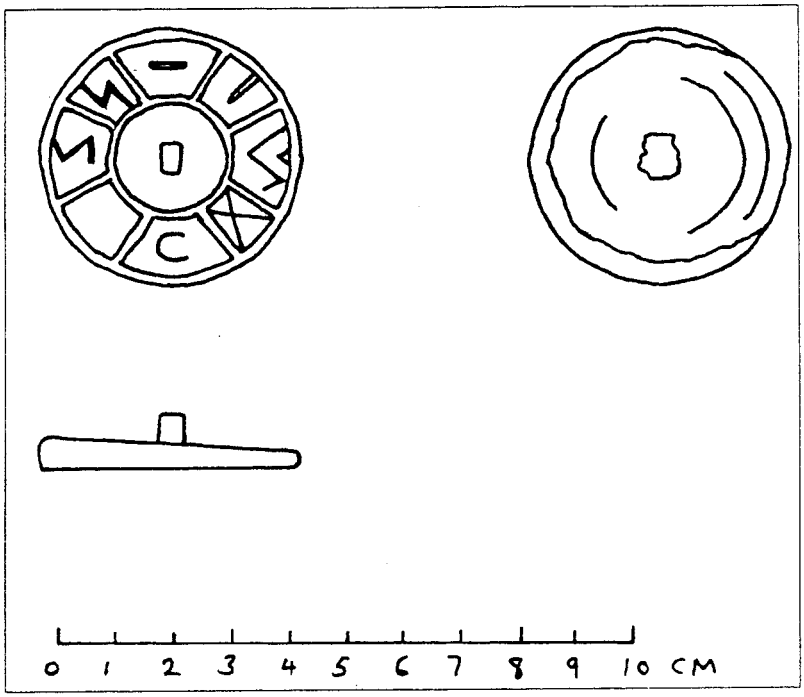

Fig 5) Lead object from River Colne at the Hythe

Seal matrix from Windsor

In 1998, Mr Plumb found a silver seal matrix in the Windsor area. He took the seal into the Ashmolean Museum who confirmed that it was a 13th Century silver seal matrix with the inscription 'Roberti de Wivenhoe'. I searched the documentary sources in the Local Studies Department of Colchester Library but could find no trace of anyone with the family name of de Wivenhoe. They are not in the Lay Subsidy rolls of 1327 or in Morant's "History & Antiquities of the County of Essex." The manorial rolls court rolls for Wivenhoe were burnt in 13 81, so cannot be searched.

All the drawings are by Richard Shackle

WINTER LECTURES 1996-97

THE GOSBECKS ARCHAEOLOGICAL PARK

7 October 1996 - *Mark Davies*

The Gosbecks site. 2½ miles from the centre of modern Colchester, was the focus of ancient Camulodunum and is a site of national importance. It was first excavated in 1842, when remains were identified as Roman, but were designated as a "villa". It was not until 94 years later that Rex Hull correctly identified the temple and theatre. Since then aerial photography, geophysical surveys and more recent limited re-excavation have revealed the full extent of the archaeological remains including the "Royal Enclosure" and the Roman Fort. Most recently excavation of the temple area has revealed architectural features including fragments of stone columns which have given a much clearer picture of the structure of the temple.

Over 400 acres of the site is now designated a scheduled ancient monument, and 166 acres of this, including the temple and theatre sites, has been acquired by the Borough as an Archaeological Park.

During the last two years much has been done to introduce the site to the general public. A small exhibition has been mounted in a 'portakabin' on the site, and display boards erected describing the monuments. An education officer. funded by English Heritage has been appointed, and on National Archaeology Days and at other times special events staged which have attracted large number of visitors.

Mark Davies concluded by outlining his vision for the future of the park, with a permanent visitor centre along the lines of those at Autun and Beaune, to mark Gosbecks truly as the "Gateway to Roman Britain".

EXCAVATIONS AT WHITE HOUSE, IPSWICH

14 October 1996 - *Joanna Caruth, Suffolk Archaeological Unit*

The site is on a windy ridge, overlooking the Gippng Valley, close to the ASDA Superstore, approximately one mile from the Roman road and three miles NW of Ipswich. The A14 truncates the side on the West.

Excavations took place in June-July 1995 in advance of development. This turned out to be a multi-period site ranging from the Iron Age, through Roman, to middle and late Saxon.

IRON AGE PERIOD

Late Bronze-Early Iron Age pits were uncovered and ring ditches similar to those found on Newmarket Common. These were filled with charcoal and were densely packed at the bottom, but one had been carefully lined with broken fine and coarse pottery. This pit was filled with dense coke and charcoal and with tiny 2mm pieces of bone. The evidence pointed to firing at high temperature but was not consistent with a furnace; perhaps the fill came from a funeral pyre. Some hazelnuts were also found.

ROMAN PERIOD

To the north of the site a substantial Roman ditch flanked by two parallel ditches was found. The large ditch was packed with 3rd century pottery including half a Saurian bowl, an almost complete Mortarium (dish for grinding food) and a small crudely made lead Mercury figurine. Seven of eight post-holes, with chalk and flint packing, from a small Roman building, were also found. A mid-Saxon ditch cut into this area later.

MID-SAXON PERIOD

The area was enclosed with a deep "V" shaped ditch 1½ metres deep, 3 metres wide, containing oyster shells, charcoal and Ipswich ware. Three buildings were identified within the enclosure, and an unfenced cemetery dated to c10th Century. Nineteen bodies were uncovered, aligned E-W in the Christian tradition. There were no grave goods or coffins. This was a mixed group; five were children under six years of age, the remainder were aged 20+ years. No obvious congenital relationships were found. One burial lay outside the enclosure, face down, radio carbon-dated to c 9th Century; the bones were in very poor condition.

BUILDINGS

No. 1) A rectangular building with a substantial entrance with three inset post holes not on the wall alignment. There was evidence of internal partitioning.

No. 2) This building overlay the Roman ditches and was the largest on site, 11.7 metres long. Internally there was a central line of post holes and it may have had window openings along the sides. Daub was found in one of the replacement post holes. .A rubbish pit lay behind this building.

No. 3) This building was identified as late Saxon. It overlay the Saxon ditch and was outside the enclosure overlooking the A14. Rectangular in shape, with opposing entrances in the long sides, it was a mass of post holes with a possible lean-to. A Thetford pot was recovered from it.

MID-SAXON PITS

These averaged 2 metres across and were filled with general rubbish. One large pit contained a nasty green slime,

and may have been a cesspit. All the objects found were functional - spindle whorls, bone, an iron key and three sceattas (Anglo-Saxon coins).

LATE SAXON

The ditch had been filled in and a clay hearth overlay it as well as a group of pits, 1.25 metres deep. Thetford ware was recovered from the fill. No water source was found in the area excavated but the gravel and silt overlying clay may have produced a spring line downhill.

This was a poor but self-contained settlement producing wheat, barley and rye, probably for the Ipswich !v~Iarket.

THE ENCLOSURE OF OLD HEATH COMMON 1811-18

21 October 1996 - *Patrick Denney, Local History Lecturer at Colchester Institute*

Mr Denney moved into Old Heath about twenty years ago and became interested in its history. Until the 1920's it was a separate part of St Giles' Parish in Colchester. He defined Old Heath thus: "as far as you can throw a stone from the Old Heath Bell". It begins along Old Heath Road at the distillery pond, with the Colne as the northern boundary, Rowhedge the eastern boundary, and Cavendish Avenue the southern boundary. The name derives from the Old Saxon 'hether', meaning harbour. In the Iron Age Colchester's harbour was in the Sheepen area, whereas the Roman harbour was near the present Hythe. In Saxon times the harbour moved to the Old Heath area along an old water course. The Normans moved it back to the present hythe, referred to as New Hythe, when the Saxon hythe became Old Hythe, or Old Heath.

The land between the meander of the old water course and the present Colne was Old Heath Common. In documents of 1777 it was divided into three separate parts, the first two were heath land, the third was marsh. The land was part of the Manor of Battleshall (or Battleswick). In the early 1800's eight farms were listed in the Manor: Whitehall, St Runwalds, Middlewick, Old Heath. Burnt House. Place, Cleavelands and Battleswick, the manor farm. The rights of grazing on the common were complicated, with the farms having different rights of common.

The borough fields were originally a large open field system around Colchester. They were half year lands: from Lamas Day to February the free burgesses of Colchester could have rights to graze three head of cattle or ten sheep. In 1803 the Corporation owed £6,324 to Philip Lawton, whereas money owing to the corporation was only around £500. The burgesses decided they would have to sell off the rights of common to pay the debt. Although Lawton agreed to let the debt go another few years, in 1807 the Corporation elected four men to sell off the Borough lands: Henry Thorne, Bejamin Strutt, Jacob Verlander and Charles Heather. They would be negotiating to sell off the rights of common to landowners. Henry Thorne, a silversmith in the High Street, was also negotiating to buy the Lordship of the Manor of Battleswick with all the rights attached, which he succeeded in obtaining in 1808.

In 1811 Thorne petitioned for an Act of Parliament to enclose the Manor. Bejamin Strutt was appointed Commissioner. However, Ralph Ward, Lord of the Manor of West Donyland adjacent to Battleswick, objected. For generations farmers from both manors had rights of grazing on Old Heath Common, though most of the land fell into Battleswick Manor. When the case was heard in August 1812, the Court of Assizes in Chelmsford decided that Thorne did not have sole rights, and the land would have to be shared. Commissioner Strutt proceeded with the enclosure rights. A meeting was held at the Old Heath Bell for all involved. A survey of the common found it included 75 acres. Of that some was set aside for roads, some for gravel, and 17 acres to Thorne as Lord of the Manor with extensive grazing rights. In 1813, 18 acres were sold to defray expenses for the enclosure. The remainder of the land was allocated to landowners who could prove in writing they had common rights.

Although Thorne was allotted 17 acres, the complicated legal negotiations dragged on for so long that he never reaped the benefit. The award was finally made in 1818, by which time Thorne had become bankrupt and sold off everything to pay his debtors. Ralph Ward was awarded four acres but died soon after. Only half the farmers of the eight farms got anything. Many of the small landowners sold the land rather than going to the expense of fencing it.

Mr Denney concluded by mentioning two past industries connected with Old Heath. He had a slide showing the only known photograph of Old Heath Mill, which was pulled down in the 1890's. A coloured map proved it to be a brick mill. One of the major industries was brick making, which finished around 1910. Zachariah Crick and family were prominent brick makers of Old Heath.

THE INDUSTRIAL ARCHAEOLOGY OF THE THAMES SAILING BARGE

28 October 1996 - *Roger Beckett, Barge Skipper*

Essex still has about 20-30 sailing barges, with plenty of remains rotting in the mud of the estuaries. They were a basic vessel. designed as a flat-bottomed box specifically for carrying cargoes in shallow water. They were originally used in London where the majority were built, mainly for carrying grain upriver to places like Henley. According to Hervey Benham they were rare in Essex before 1800. The first known barge to be built in Essex was the Experiment

built in Rettendon in 1791. At one time there were probably 2000 barges engaged in the coastal trade: there were still 1100 in 1927. The area covered stretched from the Thames estuary to Orford in Suffolk.

Their popularity in Essex was probably due to the county's growth in agriculture. Around 1850 there was a development from the older style chalk barges into a larger barge which was more sea-worthy, and therefore more suitable for coastal trade. They flourished at a time when sail was giving way to steam, because

a) they were cheap to both build and maintain.
b) they did not need ballast for stability, and were therefore cheaper to run.
c) they could be run by one or two men.
d) they were useful in low water at places like Beaumont Quay and Landermere.

The last barge built in Essex was at Mistley in 1930, built with a steel hull. Essex produced a small number of Thames barges but a disproportionately large number of them survive.

THE ESSEX PLACE NAMES PROJECT

4 November 1996 - *James Kemble, Co-ordinator of the Essex Field Names Project.*

Dr Kemble began by saying that place names are the province of historians and local groups. The study of place names is in the arts faculty, but opens itself to scientific method. Statisticians, landscape historians, linguists and archaeologists all have an interest. The conductor's task is to integrate a large number of experts bringing to bear their disciplines.

The speaker outlined the influence on English place names of the languages of the different waves of settlers:

1) **Pre-Celtic**: Basque and Old Pictish.

2) **Celtic: Irish and Breton:** In mapping Celtic names, survival is more prevalent as you move west, but disappears in Wales.

3) **Roman:** We have evidence from coins and written evidence from Roman writers such as Pliny and Ptolemy, e.g. Ptolemy's 2nd Century AD map of Britain.

4) **Anglo-Saxon:** In the fifth century when the Britons were being attacked by Picts, the British chief Vortigern called on Anglo-Saxons and Jutes for help. However these erstwhile allies revolted under Hengist and Horsa in 455 AD and defeated Vortigern. The Angles settled mainly in East Anglia, the Saxons in the Thames Valley, and the Jutes in Kent. Although the Battle of Mount Bredon kept the Saxons at bay for a while, after around 600 AD they became dominant.

5) Viking: In 850 AD the Vikings, form Norway, Denmark and Sweden, overwintered on the Isle of Man, the Irish coast , and the east and west coasts of England. Their incursions continued, finally forcing the Saxon King Alfred to sign a treaty in 886 with the Viking invaders to divide the country into East and West, where the eastern part fell into Danelaw. Many parish names east of the boundary are of Danish origin.

6) **Norman French:** This had only a small degree of influence e.g. Beaumont and Pleshey.

Dr Kemble also gave an outline of the elements of names. Examples cited included:

a) **Personal names:** Margaretting = district of Margaret; Ipswich (Gipeswic) in which Gipe is a Saxon leader and wic = trading centre; Camulodunum = hill fort of Camulos.

b) **Filed names:** enclosure names, fertility, cultivation, buildings, roads, bridges and tolls.

c) **Legal terms:** Flitlands (OE geflit = dispute); Chatterholt (was Charterhold in 1650).

d) **Industrial:** Frame Close, where cotton was worked: Witness Close, where cloth was whitened..

e) **Archaeological:** Pentlow (low = hill); Stratford (straet = street).

In his conclusion Dr Kemble stated that the Essex Project aims to record and analyse historic place names in a wav that can be used for country-wide analysis. The organisers will use local societies and individuals to gather topographical data from the parishes. The central co-ordinating committee hopes to bring all the information together into a county volume.

ROMAN BOREHAM AND ROMAN RURAL ESSEX

11 November 1996 - *Colin Wallace, Essex Archaeological Unit.*

The speaker is the Roman pottery specialist for the Essex County Council. He began by comparing the rich villas of western Britain with the eastern areas, highlighting the fact that during the 4th Century in the east there was a full scale decline in villa building which was little in evidence in the west. This decline and destruction was particularly marked during the second half of the century, and coincided with a decline in the use and manufacture of coinage. However not all sites followed this pattern, and any one site should only be interpreted in the context of the whole.

An example of decline was in the settlement at Mucking, where buildings seem to have gone out of use - even though the field system was still operating. At Heybridge too, the site contracted back towards the centre at the end of the 4th Century.

At Great Holts Farm. West Lodge, earliest evidence of occupation was from the Iron Age 1st Century, but thereafter use was not continuous. In the early to mid 3rd Century there is evidence of additional enclosures, which coupled with the absence of 2nd Century pottery (except for one item of 2nd Century Samian associated with other 1st Century ware) suggest reoccupation during this period. In the late 3rd to early 4th Century the first stone buildings were constructed, but these are in a poor state of preservation, lacking floors, that it is not possible to determine their use. Much of the material appeared to have been reused from an earlier unidentified building in the Boreham area.

Chignall St James has a large villa site with drove ways and paddocks which was in continuous occupation from the Iron Age to late Roman times. Similarly at Ivy Chimneys, Witham there was continuous occupation throughout the same period, the site finally being used for religious purposes.

At Great Holts Farm Quarry, 8 hectares of a Roman rural site was excavated with identification of field systems and farm compounds. This, and the evidence of other field systems identified by aerial photography, suggests that centuriation was unlikely in Essex. Unsurprising since centuriation was a practice primarily of the republican period.

Finally a number of unusual building sites were presented, including the western apsed building at Boreham. The speaker had originally thought this to be a church, but comparison with European examples suggests that this may not be so.

RECENT WORK AT THE LATE SAXON SITE AT MILL LANE, THETFORD

18 November 1996 - *Heather Wallis, Project Manager, Norfolk Archaeological Unit.*

Thetford is situated in South Norfolk between two rivers, the River Thet and the Little Ouse. This gives it an important position for trading purposes, looking to the Fens and the Wash to the North and to Suffolk and the North Sea to the south and east. In Saxon times the rivers were fordable at three points in the vicinity, thus providing a focus of routes. There are bridges at these points now.

The earliest evidence of settlement is an Iron Age Hill Fort, possibly of the 5th Century BC, in the same area as the later Thetford Castle. Another major site was excavated in the 1970's, possibly a religious site for the Iron Age people.

Signs of the Romans are confined to evidence of the Icknield Way, which crossed the rivers at this point. The Roman occupation site is away to the north-east of the present town.

The early Saxons settled on the Western side of the present town and inhumations of this period have been found south of the river. There is very limited knowledge about the Middle Saxon period. In the late Saxon period the site of the town moved and it flourished as a centre. It is mentioned in the Anglo-Saxon Chronicle in 870 AD, and developed as an important settlement over the next two centuries. Defensive banks and ditches were constructed, enclosing almost sixty hectares. In the Domesday Book Thetford is included in the top six towns in England.

By the late tenth century the defences were out of use although the town had continued to develop, spreading outside and over the banks and ditches. There was a Mint in the town and many churches. Indeed it was the seat of the Bishop from 1071 to 1094, after which the Bishopric moved to Norwich.

The twelfth century saw a rapid decline in the population, which became concentrated on the north bank. This settlement continued through mediaeval times to the present day. Areas south of the river became open ground and were not settled again until agreements made this century for resettling people from London.

In 1990 an agreement was made with the developers to investigate the archaeology of an area near Mill Lane. to determine if the lane was a late Saxon road and to find out about any Saxon settlement in the area prior to modern housing being built. In the event excavation did not be-in until 1995. This is now finished and the archaeologists are in the assessment phase. They are preparing reports for English Heritage in the hope that a full post-excavation report will be funded by them.

Earlier excavations between 1948 and 1960, led by group Captain Knocker, found evidence for metalworking and pottery kilns. Not restricted by Health and Safety Regulations, some of his trenches went down to thirty feet! Thetford ware was found.

Mill Lane includes two sites, the smaller near the river. They cover about 1.6 hectares. There were two churches in the area. One was St. Ethelreda's, possibly a pre-Conquest Saxon foundation which went out of use in the Eighteenth Century. In recent times there was a plastics factory on the site but previously the site had apparently been put to arable use since Saxon times.

The archaeologists wanted to obtain evidence for land use, domestic or commercial: whether there were any changes in the pattern of use or whether the situation was static; what caused the rapid decline in population in the

twelfth century; what was the relationship between the settlement and the river: what buildings and associated pits were there.

They found evidence of dense occupation, with pits, postholes and buildings. An unusual feature in one building was a stepped ramp down into the cellar, line with wattles and clay. There were many industrial features, including a lot of slag, apparently from smelting, not smithing. There was evidence for silver-working; small crucibles and hearths were found. Small finds included brooches, animal harness, a skate, a chess piece, combs, iron weights, querns, coins. evidence for wood, leather and textile trades. Also there were three new types of Thetford ware.

At present the archaeologists are still assessing the evidence, so it will be very interesting to hear more about this site in the future.

NEW DEVELOPMENTS REGARDING TREASURE TROVE & PORTABLE ANTIQUITIES

25 November 1996 - *Roger Bland, Treasure Trove Liaison Officer, British Museum.*

The speaker opened the lecture with examples of the romantic side of treasure trove such as the Hoxne Hoard, which included 200 objects of gold and silver and numerous coins. It has been estimated that there are around 400,000 archaeological finds every year, of which only 10-20% are reported to museums.

The origin of Treasure Trove goes back to the Anglo-Saxon period where all treasure belonged to the Crown. Later in the 12-13th Century the law was altered to give a 50% share to the finder.

The 1961 Treasure Act covered only gold and silver. In 1982 the Master of the Rolls, Lord Denning, declared that the find should be at least 50 % gold or silver to be covered by the Treasure Act. In a report to the House of Commons it was recommended that Treasure Trove should be the property of the Crown, a museum has the right to the objects, with the finder receiving a reward. A reward has also been paid since the middle of the 19th Century for reporting finds. Since 1886 the finds have been sent to the British Museum for evaluation, the finder being rewarded if he has acted properly, and the local museum having the right to buy the finds (and for finding the money to do so). Up until now the finder has been rewarded even if he was trespassing, though where cases were brought to court, juries tended to regard it as stealing.

Under the 1996 Act the guidelines have been altered to safeguard the archaeological record. This has been a compromise between archaeologists, metal detectrists, the NFU and country landowners. There are people in all camps that disagree with the Act, but this is only to be expected on such a controversial issue.

Pilot schemes have been set up in four areas, under the aegis of local archaeological units, running for up to two years to record all archaeological finds. There is also a lottery bid being submitted to obtain funds for the nationwide implementation of the recording scheme.

THE NEOLITHIC IN THE CHELMER AND BLACKWATER VALLEYS

2 December 1996 - *Nigel Brown, Essex Archaeological Unit.*

This area in eastern England is very important at a national level as not much in the way of excavation has taken place in the past, with the exception of Dunmow and Stansted. The early Neolithic, 4000 to just after 3000 BC, was one of transition with dispersed peoples moving up the Chelmer and Blackwater river valleys.

The tidal zone of the River Blackwater is one of oozy mud around the islands of the estuary and would have been heavily wooded. Indeed some areas still have tree stumps preserved on the old land surface. The soil is heavy clay with river gravels on the higher ground. There was no evidence of significant forest clearance but a good deal of evidence that very wide ranging areas were exploited by these first farmers.

The sea level was considerably lower, the high water mark being about low tide level today. A small excavation was mounted on the mud flats which flood at high tide so excavation could only take place at low water. There conditions, however, have preserved the Neolithic land surface in large fragmented areas.

Many pot sherds, flint work, a ground stone axe and a polished stone chisel were recovered. There were scatters on the higher land surface of pits, small post holes and probably houses, but nothing of a permanent nature. On the gravels there was evidence for repeated occupation of some sites. Macro-fossils were well preserved and plant remains of several types of wheat and barley were recovered. Wild produce was also present including fruits, roots, tubers and hazel nuts in great quantity. The evidence pointed to small areas of cultivation supplementing hunter-gathering.

An early Neolithic rectangular house, with a central bay and internal partitions, was found on the intertidal areas of the estuary. A Roman cemetery later cut away part of the site.

Evidence for large monuments is generally lacking but there was some evidence for lesser monuments such as the

slight trench of a long barrow east of Maldon. There are many crop marks at Rivenhall but the enclosures show relatively small buildings. East of Chelmsford at Springfield there are slight remains of a structure and the Springfield cursus, which cuts across higher ground. At Barnes Farm there is a long-lived and complex cursus with parallel ditches and a ring ditch inserted into one side.

On the terraces of the river gravels there is evidence of dense occupation throughout prehistory but not for the Mesolithic or early Neolithic period. Along the River Chelmer on higher ground are causeway enclosures and a cursus near a bend in the river overlooking a large flood plain. At the east end of the cursus, close to what is now the Asda Superstore car park, was a square terminal with a circle of post-holes. Sherds of a large herringbone decorated pot were recovered together with flint blades in a depression in the centre, possibly the grave goods from a cremation burial.

At Upper Springfield Lyons, a mile to the north of the Springfield cursus, a late Bronze Age site, later covered by an Anglo-Saxon cemetery, was excavated. A scatter of early Neolithic pits were discovered outside the eastern entrance. Air photographs revealed an arc and when trenched more pits were found. This may have been a partial causeway ditch across a terrace between two small streams. Large sherds of highly decorated fine ware were recovered from a deep circular pit. They appeared to have been deliberately deposited. In 1949 seven flint and stone axes were recovered from a back garden. This may have been a ritual deposit.

The monuments around Chelmsford may have been part of a meeting place for these dispersed people to come together.

THE WHITE TOWER RECONSIDERED

20 January 1997- *Dr Geoffrey Parnell, Keeper of the Tower History*

Dr Parnell opened by saying that, although the White Tower was built as a symbol of Norman authority, the construction was poorly documented. The removal, in 1996, of part of the Royal Armoury to Leeds, has opened the interior of the building and allowed its first assessment since the 1850's.

Following riots in 1066, a bank and ditch enclosing an area of approximately one acre was placed in the corner of the City of London defences. The White Tower was built in this enclosure. The date at which building began is uncertain, but Gandolf, Bishop of Rochester, with whom the plan is associated, was appointed Bishop in 1077. The building probably rose at a rate of 10-15 feet per year, and may have been completed by 1087.

The outer appearance of the White Tower has always indicated that it was built with a basement and three floors. The removal of showcases exposing scorch marks on the walls outlining the cables of pitched roofs indicates that the present ceilings are higher than the originals. At the level of the pitched roofs there are holes which pass through the outer walls and appear to have been drainage outlets. There is no break in the building work, so the walls must have been built to their present height surrounding the pitched roofs, and at the time of the original construction. It is known that the present ceilings were in place in 1603, but there is no record of when alterations were made. The conclusion must be drawn that the White Tower originally consisted of a basement and two stories, covered by pitched roofs of shingle or thatch, surrounded and protected by high walls. This form of construction is found at Newcastle, Appleby and Hedingham.

The windows positioned at the level of the pitched roofs are an architectural feature; some are not openings but marked by stone facing, and can be particularly noted on the river frontage, where they would have created most effect.

Dr Parnell summed up by saying that the White Tower was an architectural set piece whose potential was not realised when the court moved to Westminster.

EARLY TIMBER-FRAMED BUILDINGS IN ESSEX

27 January 1997 - *John Walker, Building Historian*

Timber framed buildings in Essex are mostly aisled halls, with a few churches, for example Greenstead church. made of split tree trunks. The lecture therefore concentrated on aisled halls and their development.

The first aisled halls are mainly found in the south east of England, particularly Kent, East Essex and Suffolk. These are currently dated from c1250, but dendrochronology is moving some of the dates forward by about 20 years

The aisled hall gets its name from the structure, which has two rows of supporting posts parallel with the longest side walls. This gives a church like structure with a central nave, and aisles either side. Longitudinally it is split into three bays. The central area comprises the main living space with the fireplace open to the roof, this area has two main areas on opposite walls. On one end there is the private apartment or parlour. At the other end of the building is the store room and service area. This service area has a central door in the end wall to provide access to external buildings. Frequently these end bays have upper stories over them.

The earliest examples have strengthened roof supports, identified as passing braces. These run from over side aisles

right up to the apex of the roof. They are tied in to the supporting arcade posts and the cross beams. Cressing Temple Wheat Barn has a good example of passing braces, dated to about 1280.

There are several wood-working techniques and joints that are used, and these can help an expert to date a building. Examples are the splayed scarf joint used to join two long lengths of wood for a rafter or beam, which is dated to 1325. The notched lap joint for joining a brace to a beam was not used until after 1320. There are also secret notched lap joints, examples of which dated to 1211 are found in Wells Cathedral.

Recent archaeological work at London Wharf has shown that the waterfront timbers were reused building materials and show that prior to 1200 only lap joints were used, but that after that date mortise and tenon came into use.

The lecture showed many examples of buildings where these joints were used in their construction. With regards to the open hearth in these early halls, the smoke produced much blackening of the beams. It is thought that in cases of tiled roofs the smoke would get out through the gaps in the tiles. With thatched roofs a hood would be used to direct the smoke, sometimes through an end wall. There is evidence of quite large apertures at the end of some buildings.

Fyfield Hall was mentioned as the oldest surviving domestic building in Essex, although only the central bay survives. There have been problems with dendrochronology dating but it is considered to be pre-1300, and could be as early as 1200.

In latter years the halls were expanded by the addition of cross wings at either end. Also changes to increase the height of the side walls were made so that windows could be added to increase the light in the central bay. Two of the constructions used to achieve this were raised aisled halls, mainly found in central and north Suffolk, and base cruck halls (using curved timber supports), an influence from western areas.

EPPING FOREST, AN ANCIENT LANDSCAPE

3 Februarv 1997 - *Tricia Moxey. lnformation Officer, Epping Forest*

Comprising 6000 acres of mixed woodland the forest runs in a crescent between the rivers Lea and Roding from Forest Gate in the south to 19kms beyond the town of Epping in the north. Rising to 120 metres along a ridge it is steep-sided and unsuitable for agriculture. The soil is thin and poor with river gravels and London clay. The Bagshot Beds have been used for brick-making since Tudor times. Numerous kilns have been found in the area. The Corporation of London own and have managed the area since the 1878 Forest Act which made public open spaces. It costs the Corporation £3 million per year from private sources to maintain.

The upper slopes support beech and birch with oak and hornbeam lower down. There is grassland in the open spaces and on the London clay. Cattle have grazed this since earliest times and were branded by the Forest Reeve. .Any unmarked cattle found grazing were impounded and only released on payment of a fine. The populace had the right to pollard and some of the old hornbeams show two phases of pollarding, which seems to have been done in a 10-15 year cycle.

Areas of concentrated flint working were found in the 1960 excavation and two Iron Age encampments were identified. In 1965 the one south of Epping, close to the B393, was excavated. A well-defined pudding stone entrance was recovered. Some tanged flints were found along with medieval pottery, but no evidence for long occupation. Pollen analysis showed predominantly hazel, suggesting the area had been woodland.

Roman villa farms are known along the river valleys on either side of the forest and at Chi-well two Roman jars, a cemetery urn and a glass bottle of 1-2 century date were found in a clay pit. Coins spanning the period 96330 AD have also been recovered.

In the Saxon period, around 850 AD, a change in the forest took place. Pollen evidence suggests areas of clearance with an increase in birch. Small leafed lime disappeared. This wood is easily worked, the bark being used for shields and the tender shoots being fed to cattle. The small leafed limes present today are a cultivated variety.

The Normans created the Royal Forests of England and introduced the smaller fallow deer which could be controlled more easily than the red deer. Churchmen were encouraged to create deer parks by the gift of deer. A deer park at Waltham Abbey is shown on a map of c1590. By 1130, Essex had about 100 deer parks. Forest laws were strictly enforced by the array of forest rangers. Poachers were jailed but released on payment of a fine and allowed to keep their assart.

Around 1542, Henrv VIII enclosed Fairmead Park near Chigwell and when unable to hunt through ill health had hunting lodges built. The deer were then driven slowly past the lodge and shot with crossbows. The beautiful three-storied Queen Elizabeth hunting lodge, from c1543, which went through several embellishments, has been restored and is open to view.

By 1641 the Stuarts had re-established many parks, and 60,000 acres were enclosed at Waltham and Stratford. Land around the parks was granted to leading families though the crown maintained the right to hunt. Woodland was managed by the Abbeys of Stratford and Waltham, Stratford having first choice of all timber felled. There was a

decrease in the woodland when charcoal was made for the smelting industry.

By 1774 merchants from London were building grand houses along the River Lea. One such mansion was built by the Childe family in Wandsward Park but demolished c1825. The garden house still stands and is open to the public. During the reign of Queen Victoria the Epping New Road was built through the heart of the woodland. In 1860, the City of London acquired land for a cemetery at Wanstead Park.

NEW BUILDINGS IN HISTORIC AREAS

10 February 1997 - *Dave Stenning, Essex County Council Planning Department, Conservation Advisor*

The lecturer gives advice to all Essex District Councils. Conservation areas are defined in a legal framework, and new developments must protect and enhance the character of the area.

The previous use of the area should be understood, and the aim should be to keep the same theme. If a proposal would change the character, then it should be refused. What is the character of an area? How is it defined? The basic premise is that people like old towns. There is to be an appraisal of Colchester, to define its character. The lecturer defined a historic town as being more than the sum of its individual parts.

Several slides were shown to illustrate how areas reflect common themes, e.g. similar roof shapes; common types of windows; building materials. There has to be a balance between unity in design and individuality to provide interest. It is however to get more variety by using colour or added decoration.

A good result can be due to a planning officer badgering the developer. The result can be better if the architect bases his scheme on quality and appropriateness. Several examples were presented of designs that have been proposed, with comments on why they were appropriate. For example buildings were shown that are too large for their surroundings in a village. Buildings fit in better if they take on features, in an abstraction, from existing buildings, though this must not be taken to extremes.

Several decisions that seemed to work were shown. These incorporated one or more of the following, features: application of dark weather boarding; jetted upper stories; brown frame windows: street scenes without garages or driveways, the garages being in a separate garage court.

The problem is clearly that it is very difficult to reach an acceptable compromise, which so often depends upon the judgment and taste of all those concerned.

THE MEDIEVAL LANDSCAPE OF GREAT AND LITTLE HORKESLEY

17 February 1997 - *Chris Thornton, Assistant Editor, Victoria County History of Essex*

The speaker presented a summary of his research into the development of the landscape of Great and Little Horkesley. The area the villages occupy is a clay plateau, originally heavily wooded, bounded on the north and south by the rivers Stour and Colne. Initial settlement was undoubtedly on the high ground overlooking both rivers, farmers being attracted by the rich fertile grounds of the river valleys. The plateau claylands were only settled later, by the formation of greenside settlements, and gradual felling of the natural woodlands, with the creation of small and irregular fields or extensive heathlands that persisted at Bergholt, Boxted and Mile End until recent times.

The manorial histories of Great and Little Horkesley are very different, and have influenced the development and character of the two parishes. At the time of the Conquest, Great Horkesley was part of the Manor of Nayland, held by Robert son of Wimarc, a strong supporter of William the Conqueror. His son Sweyn became very powerful and was granted other lands, including the Honour of Rayleigh, of which Nayland became part. Thereafter, Great Horkesley remained part of Nayland and was owned by a series of important absentee landlords, or by the crown, throughout the medieval period.

Little Horkesley was originally part of the Manor of Nayland, but by Domesday was granted to one Godebold, and the manor was passed down through his son, Robert de Horkesley and his direct heirs until 1332, when it passed via trustees to the Swynbourne family. Throughout this time it seems likely that the lords lived in the parish, probably at what is now Hall Farm. Through the Middle Ages there were only 3 large farms in the parish: Hall Farm: Priory Farm, created as a result of part of Hall Farm being granted by Robert de Horkesley for the formation of a Priory: and Holts Farm, which was originally part of Great Horkesley, but was given to the Priory by Henry de Creffield, and was subsequently let by the Priory to raise money.

In the absence of resident Lords, Great Horkesley was from Domesday occupied by small tenant farmers. It is recorded that 18 villeins held yardlands - probably about 48 acres - and these were subdivided further during the Middle Ages. It is probable that Nayland Park, now defined on the ground only by vestigial banks and ditches, was formed for royal hunting during one of the periods when Nayland was owned by the crown, probably in 1260 or 1275.

The plateau lands of Great Horkesley were originally part of the Royal Forest of Closterwell, and were well

wooded. As population grew, the woodland was gradually eroded, both legally and illegally, with the creation of heathland and the greenside settlements such as Hey Green. Westwood Green and Tye Green. The settlements were occupied by bordars and cottars -cottagers or small-holders.

The last landscape feature discussed was the straight stretch of raised road running north to south from Horkesley Heath to Great Horkesley known as The Causeway. It has been suggested that this is of Roman origin, and this view is supported by finds of coins, a Roman kiln and pottery, but no metalling. At 120-130ft wide, it is about twice the width of a normal Roman road, and it seems more likely that the feature is in fact a late medieval green, a view supported by the fact that medieval houses built along its length respect its integrity. This view does not preclude the possibility that the core of the feature is Roman - it would seem probable that the route was of importance in Roman times as now.

AN INTRODUCTION TO ORAL HISTORY

24 February 1997 - *Dr Steve Hussey, Essex County Council Research Fellow in Local History*

The speaker began by saying that he has been employed Essex County Council for the past three years, working in the History Department at Essex University. A sound archive had already been established but was becoming more of a depository with approximately 2000 recordings by the early 1990s. BBC Essex had also donated various taped interviews, which included recent work at Colchester clothing firms. As a result the collection was difficult to access for research and his work has been to establish a central project.

In particular he has been looking at continuity and change in the countryside, carrying out taped interviews in both Essex and Buckinghamshire. He has also trained between fifty to sixty people who work as volunteers, which has resulted in between 150 to 170 tapes and it is hoped that these volunteers will continue with their work.

This century as seen tremendous changes - two world wars, the introduction of the welfare state, better houses, facilities, etc. Life at the beginning of this century was vastly different than it is today and with oral history it is possible to obtain an insight into the lives of ordinary men and women. Although much research has been carried out on poverty and living standards in towns and cities, the countryside is not seen as having the same problems. However, in reality behind the picturesque scene there can be just as many, if not more problems.

Oral history is often said to be a new discipline because of the tape recording, but this technology has only been around for the past 40/50 years. It is only since education has been available to everyone that the written word has taken over. However, in countries where many people cannot read or write oral tradition continues. In African villages one person will recite the history of their villages in public displays. This also used to happen in Scandinavia. Britain is said to have lost its oral tradition, relying on visual means of communicating; i.e. by books, television, etc. However, in our own families we have our own oral history, those stories and recollections told when looking through photographs or at family get-togethers. If these were to be recorded they would be a unique reference document, the same as birth and death certificates, etc. The speaker advised recording these recollections before they are forgotten.

For many years history has been told by the written word, by scholars and academics and, therefore, from a particular viewpoint. The industrialisation revolution brought about urbanisation and with it many social problems. Britain was very wealthy but approximately one third of its people lived in poverty. Social researchers, such as Charles Booth in the East End of London and Rowntree in York, carried out surveys which were printed in the penny newspapers. For the first time it was possible for the Victorian middle class to hear about working class experiences. Henry Mayhew accumulated six volumes of almost verbatim recordings of working class people that were achieved by taking a stenographer to record interviews. The speaker read an account of a boy selling muffins. This demonstrated that although factual the emotion and accent were missing.

The first recordings came about in Victorian times on wax cylinders, but these mainly were used for songs. The breakthrough came after the Second World War when tape recordings became possible, but were very large. It was not until the 1960/70s that magnetic tapes were used, and which could capture the emotion and accent. Social history began to be included as a subject in universities and schools. However, many historians do not accept oral history as a discipline, they have a distrust of the spoken word. Another criticism is that it is not very scientific.

The speaker felt that oral history was vital and exiting. Firstly, it places people and experience to the fore. History used to be political/economic, the individual was missing. Oral history rescues individual from the crowd. He said the best example of this was in the history of war when battles, casualties, etc. are recorded but omit the ordinary experiences of the soldier and on home front. The Imperial War Museum has many interviews of First World War soldiers' experiences in trenches of trying to keep warm and clean. Secondly, it touches upon areas of human experience, areas of personal lives.

However, the speaker issued a note of warning, saying that sometimes the authenticity needs to be checked. He demonstrated this by playing a recording of a farm labourer called Jack singing a song entitled "Buttercup Joe", which he assumed had been learned during his work on the farm. However, it turned out that Jack had learned this song in the trenches during the Second World War!

The speaker ended his talk by playing two further recordings, demonstrating the effectiveness of the spoken word. When questioned on the use of a video camera instead he said that a tape recorder was less intrusive and people were less embarrassed about recounting their past lives and experiences, in fact being very open about their personal lives.

RECLAIMED LANDS IN THE DENGIE HUNDRED

3 March 1997 *Bronwen Cook, Historical Geographer*

Bronwen Cook gave some interesting insights into what she described as the continual battle with the sea to reclaim land around the Dengie Peninsular, using a series of maps and slides she demonstrated the relationship between the "uplands" (perhaps five or six feet higher than surrounding areas) and marshlands. It was on these gravel uplands, high enough to be clear of exceptional tides, that the earliest dwellings were found.

She described how, since Roman times, there had been a steady subsidence of the land so that Canvey Island was then fifteen feet higher than it is now. It is for this reason that half of the fort of Othona at Bradwell is now under water. Mrs Cook went on to talk about the development of mudflats, facilitated by Sales Point which gave shelter from the south flowing tide. Given sufficiently shallow waters less material is taken by the ebb tides than is deposited. Eventually a shingle spit develops, and behind the saltings, valuable land on which to graze sheep. The people who had recognised the value of this land would build up the shingle, giving better protection. In the meantime, new saltings build up to the seaward side of the spit and a marshland develops, protecting the saltings behind it.

At one point a slide was shown of sheep which, it was remarked, had certainly been there since Domesday. Amongst many interesting maps was one of Tillingham Manor in 1667. This showed "the flowing of the sea" where now there is firm land. Domesday records only four serfs here, but by 1222, records show 49 tenants and 700 acres supporting population not mentioned in the rent rolls. Another map of 1671 showed a line of farms which had developed along the shell ridge. Mrs Cook gave numerous insights into the way coastal settlement was defined by the relationship between developing saltings and marshlands with the gradual extension of coastal defences.

MEMBERS ACTIVITIES

10 March 1997

Excavations at Houchins Farm, Coggeshall, July 1996 - Vic Scott

Houchins Farm is a moated farmhouse off the A 120 near Coggeshall. Excavations were carried out in July 1996 at the invitation of the owners to investigate the moat with a view to identifying any Roman activity in the area and to confirm the 14th Century date attributed to the farmhouse.

Five trenches were cut at various points in and adjacent to the moat - all subject to waterlogging - which confirmed the moat originally to have been approximately 2.25m deep and 5.5m wide. A considerable quantity of pottery and other artefacts were recovered, man)of which were of Victorian origin. A significant proportion were found to be earlier and from throughout the medieval period, the earliest being dated from the 11th Century. No Roman material was found.

The historical record confirms the main part of the current house to be from the 16th Century. The rear portion is I5t" Century, but appears to have been originally ancillary buildings, suggesting that an earlier main building stood on the site of the present front. Maps show Water in front of the house in 1764, but no moat is marked until 1841.

Later field walking of some of the area between the farm and the A 120 showed a scatter of brick and tile, but nothing of interest or suggestive of Roman occupation.

On the basis of the new evidence found, there is no case to be made for Roman occupation of the site. but that a farm was built on the site at least 100 years earlier than previously thought. and possibly as early as the 11th or 12th Centuries. The moat was probably dug between 1787 and 1841 to provide drainage. The soil removed was used to build up the current raised front garden.

Geophysics - Peter Cott

Two techniques are currently available for non-destructive investigation of underground archaeological remains. Resistivity measures changes in the electrical resistance of the soil caused by variation in moisture content, and can detect covered features such as ditches or walls. Magnetometry is complimentary, and by measuring variations in magnetic flux density, can detect fired objects such as brick and the presence of metals. Either (or both) can be used to produce a two-dimensional plot of variation in geophysical properties over an area which reflects the underlying archaeology.

At Caistor St Edmund, survey of the Principia block has confirmed the position of the main buildings and the magnetometer survey showed clearly the presence of a central gully at the centre of the road running along its edge. At Pleshey, discovery of a priestly burial prompted investigation of an open field site, and the geophysical survey results

indicated the presence of an unequally aisled building and path which may be the remains of an early church.

At Great Tey, excavations in the 1960's revealed the presence of a Roman Villa to the south of the village. Unfortunately there was no precise record made of its exact location. Surveys to date have revealed what may be an 8m road running north-south across the approximate position of the villa, and a series of field boundary ditches, but no evidence of the villa itself.

Other investigations have lead to the discovery of a 17th Century dovecote on a small mound at Thorndon Country Park, and the rediscovery of the site of a lost hall at East Harling. Most spectacularly, a magnetometer survey of the temple area at Gosbecks, previously resistivity surveyed in 1993, has not only confirmed previous findings, but has also revealed a number of new features previously unsuspected.

The Head of Longinus - James Fawn

In 1928, at a site on Beverley Road, Colchester, whilst lowering ground level prior to the building of a number of garages, workmen uncovered a fallen tombstone. They also cut through the surface of a Roman Road. Prior to laying concrete, the finds were examined by A G Hull of The Castle Museum. The tombstone, broken into several pieces and somewhat damaged, was found to be that of Longinus, a Roman cavalry officer who had died in Colchester during the early years of the Roman occupation. It was removed to the museum, where it is now on display. The road was measured and drawn, and has been shown by a later excavation at the Grammar School, and others near Sussex Road and West Lodge Road, to be part of a three track road leading from Colchester towards London. Unfortunately the records made at the time did not accurately record the positions of either the road or the tombstone, and when the opportunity arose to remove the concrete covering the site and reinvestigate the underlying archaeology. Colchester Archaeological Trust asked the Group if they could carry out a re-excavation on their behalf. Work began in Spring 1996.

Initial excavation rapidly revealed the presence of two overlapping but distinct holes in approximately the position of the tombstone as recorded by A G Hull. Both were full of a mixture of modern and Roman artefacts. The first was shallow, and of the right dimensions to delineate where the tombstone lay. The second was much deeper, and is now interpreted with some confidence as the hole dug by the builders to remove the base of the tombstone, which was probably still upright in the ground.

Throughout the excavation of these features large quantities of flakes of very friable limestone were recovered. Not much attention was paid to them, since they were considered to be much too fragile to be connected with the tombstone, but this view was radically altered when one of the larger fragments removed was found to be the face of Longinus, missing from the tombstone, and lying almost exactly where it should have been had it detached from the monument after it had fallen. Subsequently a number of other identifiable missing fragments of the tombstone were recovered.

Further work has identified the probable south edge of the road, bounded by a discontinuous ditch from which sand had been removed to build up the road. Its position and alignment fit in well with the findings at the Grammar School. Work continues.