Colchester Archaeological Group

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COLCHESTER ARCHAEOLOGICAL GROUP

EDITORIAL

In this volume we welcome two more first time contributors, Frank Lockwood and Dennis Tripp for the report of the interesting and rewarding excavation at Crouched Friars. It is also pleasing that the three major articles of this issue contain specialist reports from members of Colchester Archaeological Trust or the County Archaeology Section. We are most grateful for such help and encouragement. Of particular encouragement to the Editor is the complimentary review of the 1984 Bulletin reprinted from the Essex Journal Volume 20 1985. The review comments on the value of reporting group lectures and so we take the opportunity of thanking Harry Palmer once again for his assiduous labours in producing, without fail, a weekly summary throughout the winter. Also again this year we thank Ida McMaster for arranging another excellent series of talks and Pat Adkins for manning the slide projector regularly and efficiently.

Readers will notice that the Minutes of 1985 Annual General Meeting appear on page 78 of this issue. Please read them and then remember to bring the Bulletin with you to the next Annual General Meeting which will be on Monday 13th October, 1986 at 7.30 p.m. in the Castle Lecture Room.

Sadly, we have another death to report. Michael Organ died on 25th November, 1985. He had been a member of the Group for only a few years but in that time had impressed us with his knowledge and expertise in the field of mills. We shall miss his specialised knowledge and his cheerful presence. An obituary is included.

Editor.

A RARE CAST-IRON GRAVE MONUMENT

E.J. Russell

In Myland Churchyard, set a few inches from the western boundary wall, is a wholly cast-iron monument. It is the only one of its type discovered by the writer in the Borough's (pre-1974) graveyards, and may be unique. The sketch (1) is to show what the memorial looked like originally: the cross is broken off now, and the front part lies on the ground between the base and the wall to the A 134 road. That sketch is 1/10th inch = 1 inch, to the nearest half-inch measured against rough rusted edges. The intention is that Group members may recognise quickly any similar specimens. An unbroken example would be 57" high, overall, and 25" wide at the base.

The construction appears to be a single casting for the entire front, as shown in the sketch; the base may be solid, but the rest is a shell, the metal being about 1/16" thick. The shell is completely open at the back, rather like a jelly-mould. A foot-square aperture takes a cast inscription plate, set in from behind. The back of the monument, a flat casting of a thickness similar to that of the front, fits into the front casting: it was secured by four screws, one for each arm of the cross. Those screws entered into nuts, each in a holder cast with the front, that holder with a riding slot. (Sketch 2). Where the lower end of the back met the apparently solid base of the memorial a fillet of lead had been run along the join.

At either end of the base, and at right angles to it, are two cross pieces, projecting 6" on opposite sides; they are part of the casting. They were intended, no doubt, (and probably to be a selling point) to prevent the memorial settling aslant, the common failing of gravestones. (Sketch 3). Some remains of white paint are on the lower part of the monument.

The inside of the monument is now packed with rust flakes and fine rubbish. Frost has split the inscription plate; the lower left-hand side is hard to read, and will not take a rubbing. The inscription reads:

CHARLOTTE ELLEN

The beloved wife of

HENRY GREEN

Departed Oct 27, 1888

Aged 41

Below that, in smaller capital letters, is, so far as it can be read:

1st line	“We need not fret if she be gone
2nd line	In paradise reclining
3rd line	Until her flesh to ---------
4th line	With heavenly vesture--------"

Does anyone recognise it?

The inner and outer edges to the circle of the cross, and the edges of the memorial from which the cross springs, have a 4" bevel. The "JESU MERCY" on the cross is in Gothic script. The inscription aperture edges have a 'picture frame' moulding.

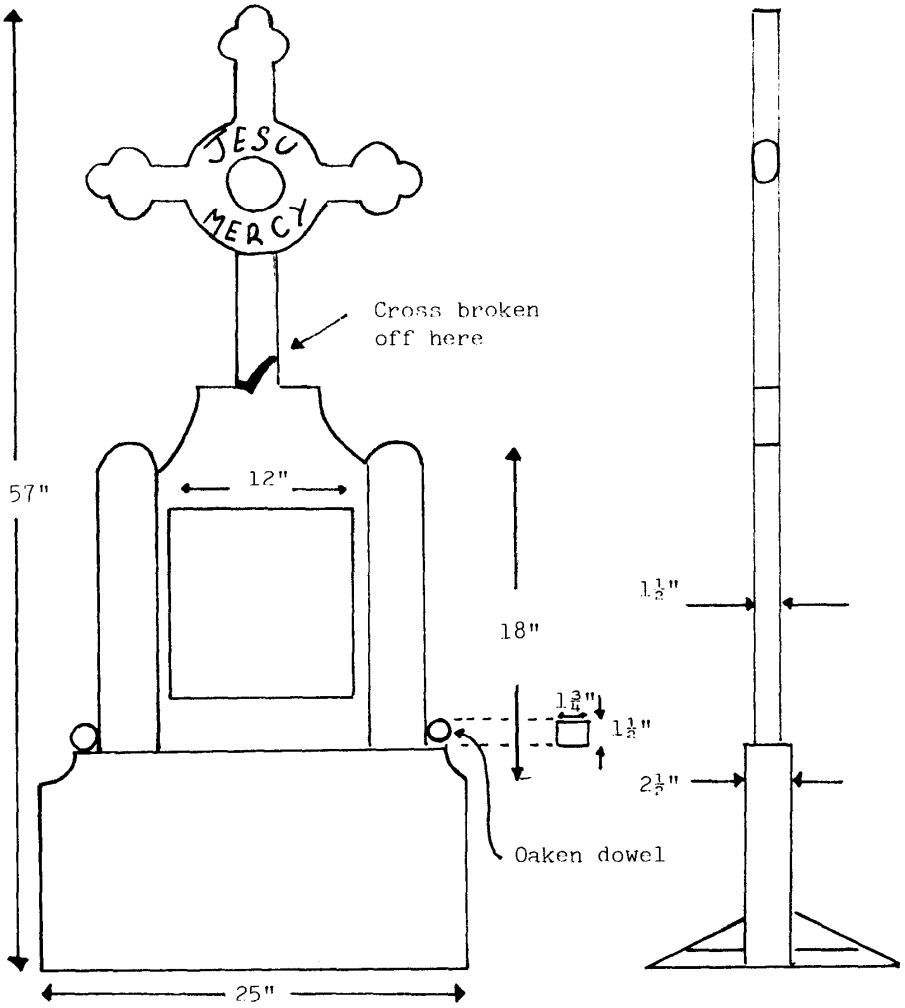
The designing and pattern-making work for this memorial was considerable, and must have been expensive. Clearly, the intention was to take trade from the stone-masons; but the public's liking, evidently, remained with stone.

The back of the casting has a double cartouche, as seen in Sketch 4. Much application of rust remover and use of wire brush failed to provide a rubbing that could be read. The Colchester High Street foundry did make grave markers, of the round-headed peg type, seen in N.E. Essex churchyards. One at Marks Tey is to Mary Ann Ringe, who died in 1913, seven years before the closure of the foundry. STANFORD & CO. Engineers, Colchester, is cast on the peg. (Sketch 5).

The Mile End marriage register shows the marriage of Harry Green, Widower, aged 39, on August 4th, 1889. He was a carpenter: the father of the widow he married was a MOULDER (William Perry), i.e., he worked in a foundry. It would be interesting to know where Henry Green worked as a carpenter; one hopes "carpenter"

Cast-iron grave monuments from Myland and Marks Tey Churchyards.

1



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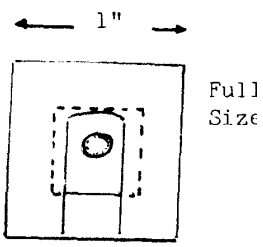
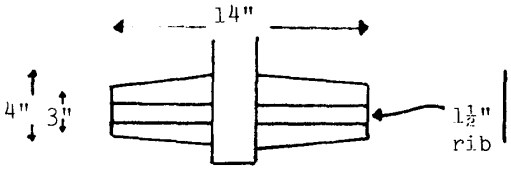


1" square nut holder: one inside each arm of the cross, with riding slot.

3



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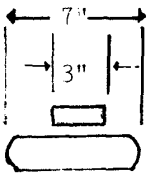

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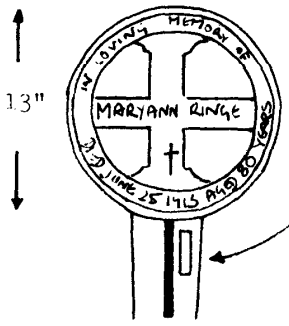
MARKS TEY CHURCHYARD



4

was not the Mile End Rector's mistake for "pattern-maker".

The monument has a couple of oddities: the two little cylinders on the sides appear to be of oak, cemented to the iron.

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Could it be ?

We need not fret if she be gone
In Paradise reclining
Until her flesh to Christ has come
With heavenly vesture shining

Ed.

A VISIT TO THE KILN IN OLIVERS SPINNEY BY PRIMARY SCHOOL CHILDREN

Mary Dale

Rupert Knowles' willingness to allow parties of school children on his farm is well known to, and appreciated by, teachers in Colchester. The recent excavation of a kiln in Olivers Spinney led to Mr. Knowles suggesting that this might also prove of educational interest, and present an opportunity to introduce children to archaeology in the locality.

So it was, on an icy winter's day in November, 1985, that forty plus children - with attendant adults - descended upon Olivers Spinney. Kath Evans and James Fawn (the excavator) kindly gave up a morning to talk to the children about the kiln, and then answer questions on it. The children were particularly impressed by the age and size of the kiln and also by James Fawn's dedication in spending two years on the excavation.

Although I was not sure that seeing an archaeological site in such arctic conditions was the best introduction to archaeology, the children did not seem to mind the weather one bit and obviously enjoyed the visit. They were delighted that they were allowed to take some tangible proofs of their visit - tiles, bricks and horses' bones - back to school, although they were a little disappointed that the bones were not human. Two bucketfuls of clay also accompanied us, from which a model of the kiln is being constructed.

Follow-up work showed the children had learnt a great deal from the visit, and so many thanks to Rupert Knowles, for suggesting the outing, and to James Fawn and Kath Evans, who made the site so clear for the children.

Mount Bures

The 83 metre long trench at Hall Farm, for investigation of the Iron Age ditches described in Bulletin No. 26, page 23, was excavated to about 10 cms. below plough depth in the Spring of 1985. Certain lengths revealed subsoil disturbances which were excavated further to gravel. Pegtile of comparatively recent date was found at this level and it was concluded that the trench was dug along the line of a lynchet as the topography of the field boundary indicates.

To reach an ancient surface would therefore have required doubling the depth of the trench and, as the task would have been laborious with small chance of reward, the project was abandoned. In any future investigation a more profitable approach would be to follow the line of the ditches within the field.

A.J.F.

A KILN AT OLIVERS, 1985; SECOND REPORT

A.J. Fawn

The First Report, (1) described the site of a brick kiln in a small coppice called Olivers Spinney about 250 metres south-west of the house, 'Olivers', in the parish of Stanway 5 kilometres south-west of Colchester. Preliminary details of its remains were given and the usual method of firing such kilns was described. Dating evidence was presented which indicates that the kiln was used from before 1658 and not after about 1800.

The site was said to be occupied by two successive kilns but even when the Report was written there was some evidence that this was too simple a view and it appears more correct to describe the changes of structure as phases of a single kiln rather than as separate kilns. Three main phases have now been distinguished and will be reported here. It is possible that there may have been more but, if so, the relevant structural changes, rebuilds of flues for example, have ceased to exist because they have been replaced by a later modification.

For several reasons the site was not excavated to the fullest extent. The presence of mature trees with their attendant root systems limited the area available. More extensive investigation of the stoke-pit and the areas adjacent to the kiln would have been too laborious. During the severe winter of 1984/5, the structure showed rapid deterioration where exposed and therefore appropriate baulks were left for support since it was felt that the kiln should be preserved to a large extent. Only sufficient of the fire tunnels was excavated to determine their form and construction. A depth of a metre or more of fill was left inside the kiln, otherwise walls and arches could have collapsed, a consequence both damaging and dangerous.

Nevertheless enough was uncovered to reveal the main features of the three phases as shown in the plan of the excavation, fig. 1. Their common axis is 24 degrees west of true north so that the front of the kiln lies to the south, and the west and east sides may be referred to as the left and right.

Phase 1 is an interesting structure for a brick kiln since the 1985 excavation has revealed that its remains are entirely of clay and do not incorporate any brick as stated in the first Report where it was referred to as Kiln 1. A search in the literature has so far failed to uncover an exact precedent. Discussion will be deferred until later in the Report because prior descriptions of the second and third phases which are conventional in construction will help to show the unusual nature of the first.

Phase 2

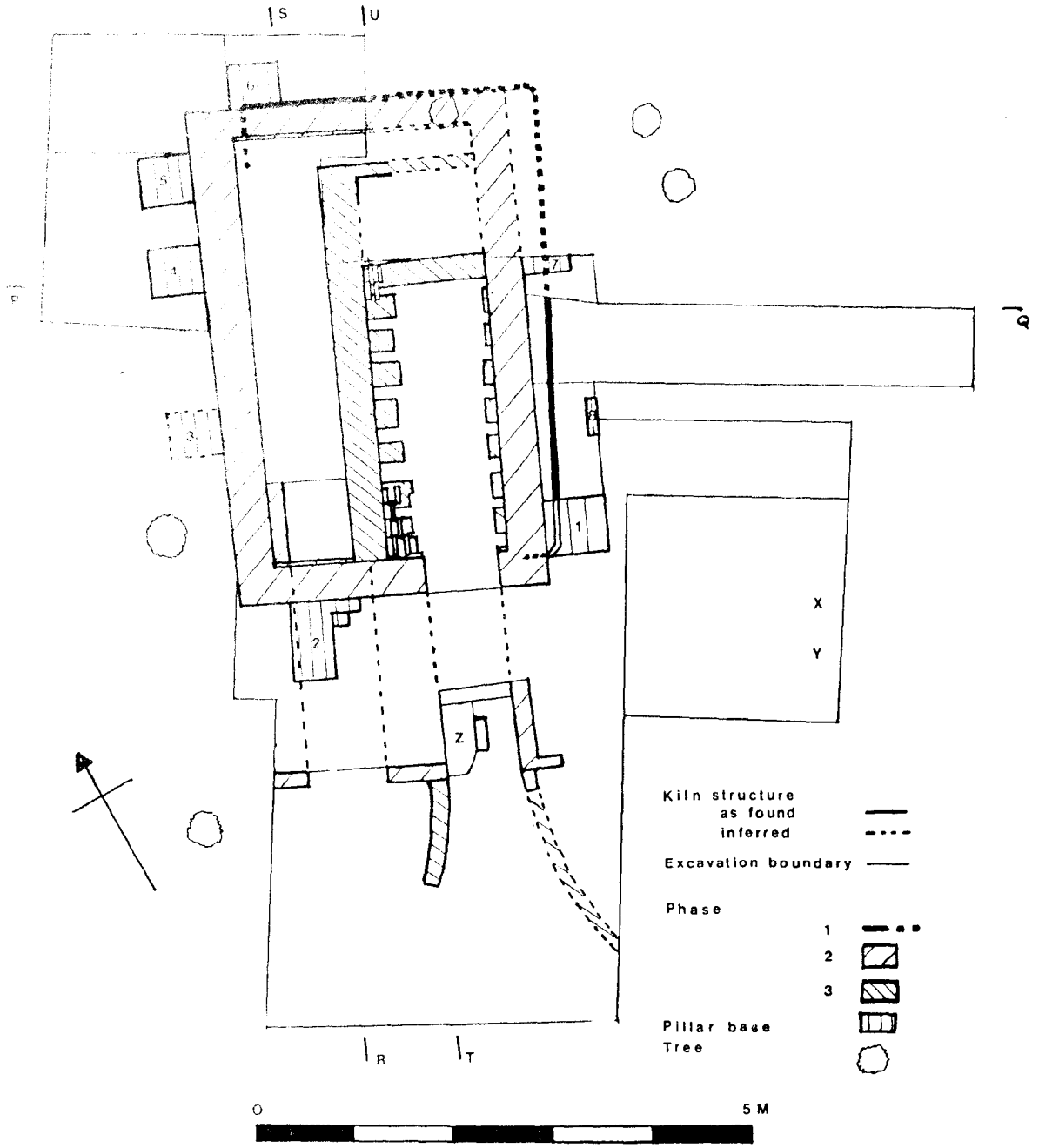
This is a brick-built kiln with two fire tunnels and corresponding longitudinal flues, similar to the example shown in fig. 2. in the First Report. As stated in that Report, in effect only the below-ground structure of all three phases remains and that of phase 2 sits within the interior of phase 1, enlarged to the south and west by the removal of yellow clay subsoil. It should have a central interior wall dividing the two flues as shown in fig. 2. in the First Report. However the existing wall belongs to phase 3 and the right-hand flue has been adopted for the later phase so that only the now incomplete left-hand flue is available to show how phase 2 was constructed internally.

The interior of the flue was not completely excavated as the section in fig. 2a. shows, but enough of the fill of earth, clay and brick-bats was removed to reveal that the left-hand springers of the arches carrying the firing chamber floor are resting on a ledge or abutment incorporated in the left-hand wall. Thus, from the flue floor to the springer level the flue is narrower than from the springer level to the firing chamber floor. Since the existing central wall does not belong to phase 2 the width of the lower narrower part is not actually measurable but it was almost certainly the same as that of the fire tunnel and thus the lower flue would have been continuous with the tunnel. The right-hand flue would presumably have been similar. Fig. 3. shows a section across phase 3 flue which is built in the same fashion and indeed the principle of arches springing from a common abutment is usual if not universal. See, for example, two kilns previously excavated by the Group, the Roman tile kiln at Lexden Lodge Farm (formerly Moat Farm) (2) and the 17th century brick kiln at West Bergholt (3).

The gaps between the arches will have formed the transverse flues, their length being the greater width above the abutments. To smooth the upwards flow of the hot gases through these flues the tops of the abutments will have been sloped and one of the slopes was found intact, with an inclination of 54°.

The fired pattern of the alternate arches and flues is still visible on the left-hand wall and it is estimated that there were eleven arches and twelve transverse flues.

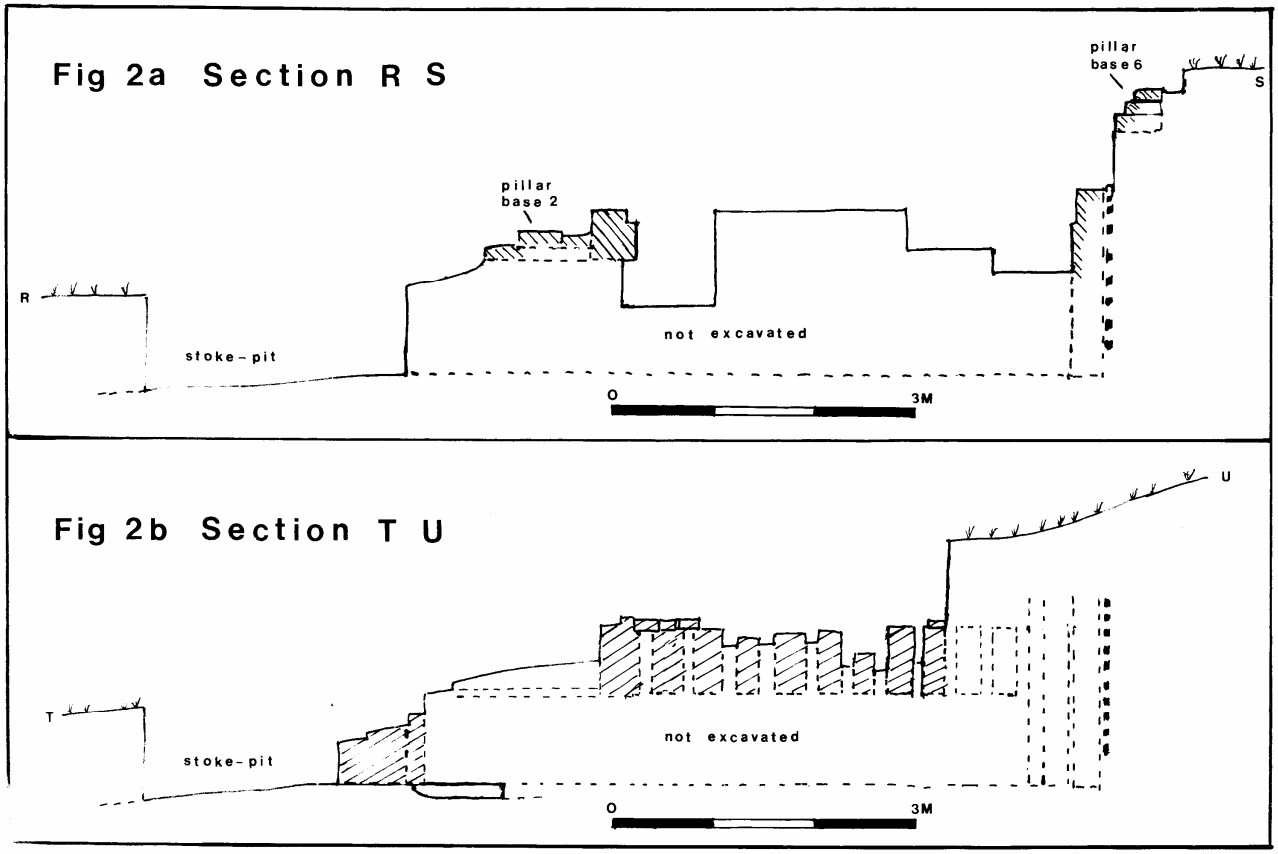
Fig 1 Kiln Site at Olivers. Plan



The nature of the floor of the longitudinal flue is not known since the interior fill was not removed to full depth. However part of the tunnel floor was exposed and this is of clay which appeared to have been puddled, laid and fired in situ. The flue floors are probably similar although it is possible that they may be brick.

The firing chamber floor of phase 2 no longer exists but its position may be inferred from the existence of two transverse abutments running across the front and rear walls of the kiln. They will have supported the floor spanning the first and last transverse flues. The possible nature of the floor will be discussed later in relation to phase ~.

Small sections of brickwork in the left-hand and rear walls, existing above the level of the firing chamber floor, indicate that the superstructure of phase 2 consisted of walls with a thickness of about thirty cms. rising to a height which is not known but which may be compared with that of the restored kiln at Ebernoe in Sussex (4). There, the dimensions of the chamber are 4.0 m. by 3.0 m. by 2.5 m. compared with 4.45 m. by 2.36 m. by height for the Olivers kiln so that a figure of 3.0 m. maximum should be about right for the latter.



The north-west corner of the kiln is the only area available for excavation where the walls of phase 2 impinge upon the yellow natural clay. Elsewhere they are associated with the remains of other phases or cannot be uncovered owing to adjacent trees. In the corner the substructure walls fit very neatly into the pit dug for them in the yellow clay with only a centimetre or two of dirtier clay in between. Above the kiln floor, however, the pit has been opened out so that its walls slope down to the kiln and the intervening gap is filled with a yellow clay layer containing some brick underneath a thicker deposit of earth, brick and dirty clay. Further reference will be made to this later but it was noticeable that at this point as elsewhere the original ground surface has been stripped to the yellow clay subsoil before becoming covered with man-made deposits.

Of the two fire tunnels the left-hand certainly belongs to phase 2 and the right-hand probably does, although adapted later for phase 3. They are lined with a single course of bricks and covered with clay soil to a depth of 20 cms. existing. This soil is very red and much affected by the heat as is to be expected from its proximity to the tunnels. In comparison, the colour of the natural clay butting on to the north-west corner of the kiln is still yellow and shows no sign of being affected by the firing. This presumably demonstrates the difference in temperature between the tunnels and the ends of the flues as well as the heat-insulating properties of a 30 cms. kiln wall compared with those of a 10 cms. tunnel lining.

Part of the brick lining of the left-hand tunnel remains intact so that the height above the floor, 1.13 m., and the width, 0.77 m., are known. The width of the right-hand tunnel is somewhat less, 0.70 m., but the height was probably similar to that of the left-hand although it is not possible to take a measurement as the crown has collapsed. The tunnel walls are perpendicular to a height of about 1 m. where they provide abutments from which the arch linings spring in a manner similar to the flue arches. This arrangement will have enabled the linings to be renewed with the minimum of disturbance when necessary.

The tunnels are 1.8 m. long. The entrances in the stoke-pit are set in a brick facade which was originally carried above them to act as a revetment holding back the covering soil. The facade does not extend more than 0.4 m. on either side of the tunnels and the stoke-pit wall on the excavated right side continues as a clay bank. The unexcavated left side is presumably similar.

Only part of the stoke-pit was excavated as shown in fig. 1. The floor is of natural yellow clay which, during operation, has become covered with a layer of 10 to 15 cm. of black ash and earth mixture. The same layer extends on to the tunnel floors which, as described previously, are of burned laid clay. The stoke-pit may run on the level into the large pits to the right of the kiln where, as mentioned in the First Report, the brick clay

was probably dug but this would have been no particular advantage in production as the clay will have followed a different route entering the superstructure higher up via the wicket in the form of raw brick.

There is no sign of a wicket or door in what remains of the superstructure and it may therefore have been set high in the firing chamber walls or the kiln was loaded from the top.

In such a small structure having several modifications, it is perhaps not surprising that there is no recognisable bonding pattern in the brickwork, with the possible exception of English Garden Bond in the front wall.

Phase 3

In this phase the kiln was made smaller. The phase 2 arches and centre wall were removed. As fig. 1. shows, a new interior wall was built to the left of the kiln centre so that it partially blocked the exit from the left-hand tunnel which meant that the left side of the kiln was no longer used. The new wall is the existing one and it is bonded into a new rear wall that runs inside the old one to meet the east wall of phase 2. This rear wall lies in an area which has not been excavated owing to the proximity of trees but sufficient information has been obtained for its nature and direction to be established by the unorthodox but common method of burrowing into the baulk. Whereas the new central wall is substantial at 40 cms. thickness, the new rear wall appears to be only one brick thick, about 12 cms. This is surprisingly thin for a kiln wall and may be an incorrect observation owing to the limitation of burrowing. The central wall is not bonded into the front wall. Whether the rear wall is bonded into the east wall is not known.

The phase 3 kiln is therefore narrower and shorter than the phase 2 version. Its longitudinal flue occupies the same position as the phase 2 right-hand one and, from limited excavation, it appears to have been served by the right-hand phase 2 fire tunnel which continued in use. Indeed the flue may be the phase 2 one re-used but the transverse flues with their arches have been rebuilt on top with a leftwards bias because, whereas the right hand abutment is the same width as the old, the left-hand abutment has been made wider to take up the extra width created by the building of the new off-centre wall.

The new wall is the left side wall of the new single-flue kiln and must therefore have been carried upwards to the full height of the firing chamber. Whether the height of the single-flue kiln differed significantly from that of the double-flue one is not known.

The part-blocking of the left-hand fire tunnel by the new side wall and the useless gap left between the new and old rear walls are not the only evidence that the left side of phase 2 was never fired again. The new walls exhibit no sign of firing on the outside and the clay pointing is as yellow as fresh clay.

A further feature of this phase is the addition of two curving walls which project from the mouth of the fire tunnel into the stoke-pit. Their position and length are shown on fig. 1. as excavated but originally the left-hand one may have been longer and the right-hand certainly is since it disappears into the baulk. The former partially blocks the entrance to the left-hand fire tunnel, thus showing that the arrangement belongs to phase 3. Only a few bricks of the right-hand wall remain in situ, its course being indicated by a curved line of tumbled debris. More of the left-hand stands, about 1.4 m. long and up to 0.4 m. high. They are both built on a poor foundation of about 10 cms. of black ash resting on the stoke-pit clay floor beneath.

These walls were obviously added to reduce the chance of variation in kiln draught when the wind changed in strength or direction and are quite a common feature of kilns. No doubt earth and rubble were piled behind them and a point to note is that their presence substantially reduced the stokepit area which may therefore have been extended southwards in this phase.

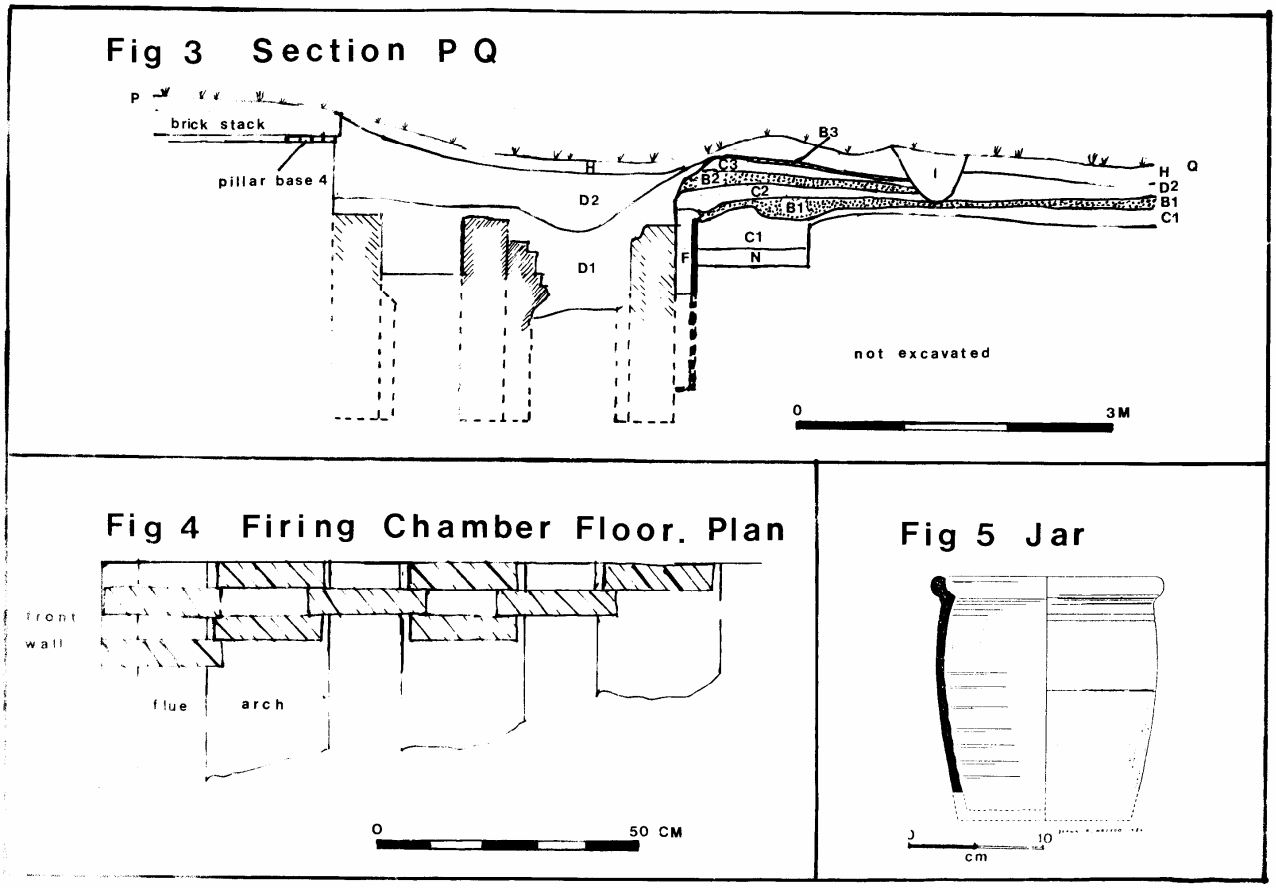
The number of transverse flues is estimated to be 11 and the number of arches 12, one set less than for phase 2. The tops of the two abutments are sloped in a similar manner to that of phase 2, the left being inclined at 50 degrees and the right at 54 degrees.

Two small areas of the firing chamber floor survive at the front and rear of the excavated part of the kiln. There may be more in the unexcavated part. It will be sufficient to describe the front section.

Small bricks are laid on edge with their ends resting on the tops of the arches to span the transverse flues. More small bricks are laid wholly on the arches to act as spacers, thus forming a chequered pattern as shown in fig. 4. This arrangement allows the hot gases from the flues to pass through the spaces between the bricks and up into the firing chamber. The fortunate survival of part of the front row of bricks shows that

one end rests on the front wall abutment which belongs to phase 2 and has obviously been re-used - suggesting the possibility that the floor of phase 2 was similar to that of phase 3.

One of the Roman pottery kilns (No. 7) at Holt (5) and the West Bergholt kiln (3) had similar sub-floors but with a renewable floor of clay or tile and clay on top. At Olivers it appears that the bricks were the whole floor and were renewable as small stacks of the requisite size were found on the site.



The primary kiln? Phase 1.

The principal feature appears to have been a pit dug into the natural clay with an area of 4.8 m. by 2.9 m. and a minimum depth of 1.8 m. Only part of the north and the east walls remain since the west and south were destroyed when the larger phase 2 kiln was built within it - assuming it was rectangular. Nearly all the floor will have been destroyed also, by the phase 2 flues, the bottoms of which are 0.3 m. below it.

The clay walls of the pit have been fired. A section indicates that there is a layer of red about 5 cms. thick followed by a black layer of much the same thickness which gradually shades into brown and the yellow of unfired clay. The division in colour and hardness between the red and the black is quite sharp indicating a difference in composition between the two layers. A tentative explanation, following some experiments on a domestic gas ring, is that the red material has been puddled and applied as a daub which, when fired, gives a denser texture and more uniform reddening than the more granular natural deposit.

The pit firing cannot have reached a normal kiln temperature since even the red layer is not significantly vitrified and all the layers are friable, disintegrating fairly readily when wet. The test pieces in the experiments showed blackening in areas which were exposed to the lower temperatures and it would seem that the colour in this instance was due to carbonisation of vegetable matter in the clay rather than reduction firing. Such carbonisation is suggested to account for the black and brown layers behind the red in the pit wall and all the evidence points to lower temperatures than in phases 2 and 3 where the flue bricks show the usual glazed surface resulting from excessive vitrification, encouraged by the fluxing action of wood ash.

Much of phase 2 stands inside phase 1 in such a way as to indicate that the builders made full use of the existing void. The north wall of phase 2 butts on to that of phase 1 but there is a gap of 20 cms. between the two east walls which is filled with earth, clay and brick rubble. The filling shows no sign of firing, a further

demonstration of the insulating property of the phase 2 walls. Removal of some of the fill revealed enough of the phase 1 wall face to show that it exhibited no firing pattern or structural remnants corresponding to transverse flues.

If there was no internal structure, phase 1 may have been a form of clamp which was used to fire bricks at the start of production when no bricks were available for the building of a kiln. The only reference relevant to this situation so far found is taken from a letter dated 1683 (6). "When we begin a new Brick Ground, for want of burnt bricks we are fors't to build a Kiln with raw bricks, which the Heat of the fire by degrees burns, and this will last three or four year; but afterwards we make it with burnt bricks, which we reckon better, ----". The letter gives no further help since the ensuing description of what appears to be a clamp rather than a kiln is not entirely clear and certainly does not mention a pit. However, it at least confirms the logical principle of a temporary initial kiln built of unfired material which is soon superseded by a more permanent structure of burnt brick.

The incomplete remains of phase 1 give no clue as to the nature of its southern wall. It may have been open to a stoke-pit like the later phases. Certainly the east wall turns a rounded corner to give a lead into the south wall but it is then cut into by the east wall of phase 2 (see fig. 1) and the remainder has been destroyed.

It is possible that the pit was dug with the construction of a future kiln in mind and that the first bricks were clamp fired in it because it was conveniently to hand. This raises the question of one or more phases intermediate between 1 and 2, for which there is some evidence as follows.

Nearly in the centre of the laid burnt clay floor of the right-hand phase 2/3 fire tunnel are set two bricks with their long axes parallel to the tunnel axis. Under the burnt floor to the right of the bricks, there is natural clay but under the floor to the left there is a hollow, at Z on fig. 1. up to 15 cms. deep, filled with black ash and earth. It runs under the left-hand wall of the fire tunnel and therefore predates the latter. It may be the remains of an earlier fire-tunnel, centrally placed to heat a single flue kiln, earlier than phase 2. It is unlikely to have been used with phase 1 because there is a difference of 44 cms. in level between the hollow and phase 1 floor.

In view of the limited evidence, further speculation is not worthwhile. Complete excavation would be necessary to investigate further.

The Pillar Bases

In fig. 1. eight features marked 1 to 8 are shown adjacent to the walls of phase 2. Seven of them appear to be the bases of pillars, made with good bricks, 0.5 m. (i.e. two bricks) square. Numbers 1, 4, 5 and 6 are complete squares while what remains of numbers 3, 7 and 8 is not inconsistent with them being of that form originally. Their uniform construction suggests that they are contemporaneous whereas the appearance of the odd one, number 2, being rectangular and built of waster bricks, indicates that it is of a different date.

They may have been buttresses to support the firing chamber walls of phase 2. If so, they are obviously late additions, rising from the existing ground surfaces at differing levels with no foundation preparation and without the bonding into the walls of properly constructed buttresses. However, numbers 4 and 5 in the north-west corner are standing on the brick rubble layer which appears to overlie the demolished left-hand wall of phase 2 so that as buttresses they would have supported a non-existent wall.

If the bases were built after the phase 2 wall was demolished they must belong to phase 3. A second possibility therefore is that they were pillars which supported some form of roof. This would explain the appreciable quantity of roof tile found mixed with earth and brick found in the upper strata all over the excavated area. Some form of protection from the elements would be advisable in winter to prevent the kiln's clay mortar joints from disintegrating as they have done during the two years of excavation.

The odd base, number 2, stands directly on the partially collapsed left-firing tunnel and would surely not have been built while the tunnel was in use so that it must belong to phase 3. Perhaps the whole of the front wall was left standing for phase 3 and was given a buttress for support after the left-hand wall was demolished and the tunnel had been filled in.

Notwithstanding the above, it must be said that the bases remain a mystery, especially as there are as many as eight (or more, taking into account the unexcavated north-east corner) for what is, after all, a small building.

The Area Surrounding the Kiln

In the phase 2 description mention has already been made of the opened-out pit in the north-west corner outside the kiln, with its lower filling of relatively clean clay and its upper filling of dirtier material. The clay may be the spoil dug out when the kilns were constructed and the earth and bricks are the kiln waste and demolition debris which occur over most of the site. Pillar bases 4 and 5 stand on the dirty fill as stated above. A stack of finished fired whole bricks has also been found above the fill lying on a floor of roof tile wasters, presumably to keep them clean. The stack overlies the pillar bases and therefore represents late activity carried on after the pillars but not necessarily kiln 2 had been demolished. Above the stack, two bricks thick, is the surface humus layer.

The other area which the absence of trees leaves available for investigation is to the east of the kiln and two east-west trenches were dug there as shown in fig. 1. Fig. 3. gives a section from one of them, extended to cross the kiln. It shows alternate layers of yellow clay and brick rubble as mentioned in the First Report and the sequence is as follows, beginning at the bottom.

There is no humus layer between the natural yellow clay and the layers above and so the surface was stripped to the clay at the start of operations as mentioned previously. The natural is N. The first artificial clay layer C1 is clean and may be the material dug out from the pit for phase 1, the difference from the natural being barely discernible. The first brick layer B1 does not overlie the phase 1 wall and therefore must be contemporary with it, being perhaps the debris from its operation.

The next clay layer C2 and brick layer B2 overlie the phase 1 wall and the fill F between phases 1 and 2/3 walls but stop at the demolition fill D1, earth and brick, of phases 2 and 3. They may be linked with the phase 2 operation, the clay being the spread from the pit enlarged to take the kiln and the brick being the waste product.

The next layers C3 and B3 are less extensive and may belong to phase 3. Inside the kiln there is a layer D1 containing more brick than earth, evidently the immediate destruction material of the kiln. In it were the two horse skeletons mentioned in the First Report, lying directly on part of the firing chamber floor of phase 3. The layer D2 above is evidently a slower accretion, more earth than brick, merging into the humus surface H.

The intrusion I is a modern trench filled with earth and brick, with no discernible purpose.

An area to the south of the excavation trenches, shown on fig. 1, was stripped to the top of layer B1 which extends as far as the stoke-pit and beyond the excavation to the east.

Dating and Operation

Most of the dating evidence is presented in the First Report. In the second year the eighth horseshoe was found in D1 just above phase 3 floor. Fragments of a second pipe bowl similar to the first were found in D2, also above phase 3. In the north-west corner of the site a 3 mm. bore pipe stem lay on the tiles under the stack of finished bricks.

The most significant evidence remains the Oliver's estate map of 1658 which describes Oliver's Spinney as Kell Field and shows a small square at the location of the kiln. According to Morant (7. See also 8) an owner of Olivers Who died in 1646, John Eldred, repaired St. Mary's Church, Little Birch and it is a possibility that bricks from the kiln may be found in the church as well as in Olivers itself.

A mid-17th century date for phase 2, following a short-lived phase 1, is therefore feasible, perhaps with a single-flue kiln phase between.

The jar fragment, fig. 5., with a suggested date of 1575 - 1675, and the pipe bowl, Oswald type G6 c. 1660 - 80, were found at X and Y (fig. 1.) respectively, in the clay layer C2 associated with phase 2.

The change from phase 2 to phase 3 with the building of the two windbreaks in the stoke-pit may indicate a change of brickmaker with new ideas after an interval of some time, although the problem of maintaining the structure unused should be borne in mind.

In the First Report it was conjectured that the kiln provided bricks for the extension of Olivers in the 18th century and the horseshoes and the pipe bowl in the phase 3 fills, D2 and Dl, predicate this period for the latest firing. As additional confirmation, a map of 1809 shows the field as wooded.

If all the clay fired in the kiln came from the two pits to the east, an estimate based on their volumes indicates that the number of firings was less than 50 and perhaps as low as 30. At the rate of one per week in three months of summer operation only, the 50 figure gives three years of use in total which seems rather short in comparison with the possible life span of one and a half centuries. However the speculation should not be stretched further.

Further Work

Although the kiln is being filled in to preserve it, the surrounding area will be investigated to a limited extent to see whether any evidence of the ancillary processes can be found. The bricks will be examined further and compared with those in the house, Olivers, and in Little Birch Church. A search for documentary evidence may provide useful information particularly if references to the extensions of Olivers can be found.

Acknowledgments

The Group is grateful to Mr. and Mrs. Edwards for the opportunity to excavate and for their continued interest in the project.

The following members took part by excavating, photographing and surveying; Dinah Beckett, Audrey Davy, Tony Doncaster, Kath Evans, Rupert and Jenny Knowles, Bill and Ida McMaster, Dennis Tripp, Joanna Wood and Betty Young.

We must express our appreciation to Carol Cunningham of the Chelmsford Archaeological Trust who was kind enough to examine the jar and pipe bowl and contribute the accompanying report; and to John Cotter and Raphael Nazroo of the Colchester Archaeological Trust who arranged for and executed the drawing of the jar.

Vessel from the Brick Kiln, (Olivers Spinney), Colchester

Large fragment of a tall, narrow jar or skillet, in red earthenware (Fabric 40) with a clear lead glaze internally. The rim is hollowed and everted, and there are traces of rilling below the neck, although the exterior is badly abraded.

This fabric persists with little change from the 16th century (about 1490 - 1500 in the Chelmsford area; about 1550 in the Colchester area) to the 18th century. The vessel is insufficiently complete to date it accurately by its form although:

1. its relatively straight profile suggests it is later 16th century onwards.
2. the rim form is not found in groups of the late 17th century onwards, where similar vessels tend to have thickened or heavily beaded rims (e.g. Tilbury Fort, Aldersbrook Manor).

I would, therefore, suggest a date range of about 1575 - 1675.

The clay pipe bowl is Oswald's type G6, about 1660 - 80.

C.M. Cunningham.
Chelmsford Archaeological Trust.

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MORE TALES OF AN ANTIQUARY

D. T-D. Clarke

1. The Epic of Bacchus

Since this saga has recently appeared in print it seems desirable to set it down as it was told to me. It will be recalled, as background, that one of the highlights of Rex Hull's life was the arrival of the Colchester Mercury some years previously.

Just before Hull left for the Museums Conference at Worthing in 1959 he was visited by a local collector well known for his regular visits to construction sites where he removed quantities of pottery and small finds. This time he had a bronze statuette of Bacchus, almost as big as the Mercury itself. It was reported to have come from Lexden.

Hull obviously had some doubts but observed that, if it were genuine, it was an extremely important discovery. He then left for the station. The collector proceeded to the newspaper office which, of course, splashed the find in the next edition.

The national network bestirred itself and Worthing was duly invaded. An embarrassed Hull fended them off. He spoke about it at the Conference. By coincidence, unaware of my future destiny, I was in the audience, though more concerned that my infant daughter was unwell, and that we had problems with the neighbours who felt the rows of nappies reduced the tone of the locality.

Pictures were published. This was fine, but letters now began to arrive from persons owning similar statues, but of varying size. The British Museum coldly observed that the original was from Pompeii and entrepreneurial Neapolitans had made copies, to suit all pockets. In the 19th century there was even a catalogue. (Please state size when ordering?) An analysis of the metal indicated an alloy nearer to brass than bronze (sorry, copper-alloy) far outside the normal scale for antiquities.

That should have been the end of the story. Bacchus went into discreet retirement. Several years later, however, he was sold to the owner of a local stately home and duly exhibited as having been ignominiously rejected from the hallowed galleries of the Castle.

The owner, who was widely travelled, had it photographed by a distinguished predecessor of David Bailey and it certainly looked splendid. So he proceeded to Naples and enquired to see the original. It is never easy to go behind the scenes in Italian museums, but the Milord was well-connected, and in due course the original was produced. It was, apparently, rather scruffy; after all it had endured the full fury of Vesuvius.

It then transpired that, in the closing stages of the war, the statue had been stolen and subsequently recovered from the kitbag of some retreating soldat, doubtless glad to be rid of it for some fags and the chance to get back to Lili Marlene.

"But" mused the noble lord "was this true?" "Could it be that, as there were replicas, it was a replica that returned to Naples, and the Real Thing passed to some Arthur Daley (the British Army was full of them, I can assure you) and came to England - or Colchester?

Well, there for the present the matter rests. I have examined the statue and I do not like the nut and bolt which secure it to its base, but it could, of course, have been added by a 19th century restorer.

It makes you think, but I must confess that I am not unduly worried.

Reference:

Bailey, D.M. "Classical Antiquities - forgeries and reproductions." Thompson j. (Ed), Manual of curatorship, Butterworths, 1984.

2. Upstairs, downstairs

At the end of my first day in Colchester I wandered round the museum in the evening light and looked at the vast collection. It is - at least I think it is - an essential qualification for curatorship that one should love the collection entrusted to you as if it were your own. (Ten years after leaving Leicester I was able to tell one of my successors where to find something he could not locate). "How shall I cope?" I thought as I surveyed the rows and rows of exhibits.

The castle court was covered in tarmac and packed with a variety of showcases. One I regarded with particular venom, as it had been used to house the Mountsorrel Bucket, our prize piece from the Leicester Collection, when we lent it for the exhibition of Roman metalwork in 1950. The case did not, I thought, do it justice and salt had been added to the wound when the then Borough Treasurer of Colchester brought the bucket back carrying it by the handle! My shriek of alarm echoed through the galleries for minutes.
So I cleared the case out and smashed it up.

The rest of the court contained three coaches and masses of rural life material suspended from various large fragments of medieval buildings. We obtained a corrugated iron shed in Lion Walk and duly transferred the large items there. The floor was relaid in African hardwood. "What a splendid dance-floor" said the then Town Clerk - a warning the significance of which did not entirely escape me at the time.

Still enjoying my 'honeymoon' money, and with the co-operation of an Assistant Borough Architect who, alas, eventually moved into private practice, we added new double doors in aluminium, (I am a firm believer in modern materials for modern jobs) and removed the turnstile. This historic device had been adapted by Poulter to count visitors with an old cyclometer. (Poulter would never buy anything if it could be obtained second-hand). It was inevitably slightly slow in its reaction, so that there was a brief delay between the time that the visitor's body hit the turnstile and the time when it began to move. The physical result can be imagined.

We transformed the old cupboard in the so-called "oven" into a showcase, and then there was the problem of the Great Stairs. A slatted gate of uncertain vintage denied access but impeded the view of the stairs, one of the greatest features of the castle.

What should we do? I studied photographs of surviving examples of Norman ironwork, but they were all too massive. Then one day I was at a party in Oxford where, as sometimes happens on such occasions, those who acquired their education on the banks of the Cam were a little uncertain of their relevance to the scene. I idly turned the pages of one of my host's many volumes and found therein a photograph of the railings around Charlemagne's tomb at Aachen.

It was the obvious answer. I sketched it into my diary and, in due course, translated it into a full design. On my return I took it to a local metalsmith, who, as it happened, had been compelled to leave the former Holy Roman Empire when its Imperial aspirations led it to forget its Christian origins and the edicts of Justinian. But he still cherished the memories of his native shore, as we all do. "Make it", I said, "with modern methods, just keeping to the general design".

So he did, and we finished it off with the coat of arms of the Lanvalleis copying the incised lion which normally hides behind the front door.

Later on we opened up the well and reconstituted the railings round the entrance to the vaults. The design is based on the old Roman symbol of Justice as carried by the Lictors, a bunch of rods with an axe in the centre. Alas its ancient power has failed to deter today's un-classically educated youth who have been climbing over it, and it is currently being reconstituted. However, we adorned the gateway with the other symbol of the Republic (a symbol so revered that it continued into Imperial times), the letters S.C: Senatus Consulto, by order of the Senate. I wonder how many of today's councillors appreciate the compliment?

Meantime the Colchester Quakers, more properly known as the Society of Friends, had erected a tablet to commemorate their first martyr, James Parnell, outside the garderobe on the first floor, the traditional place of his confinement. Study of the original account convinced me that this could not be right, and that the "oven" and the muniment room above, fitted the description better. So we moved the tablet, I hope rightly.

In passing, James Parnell was 19. This is a salutary thought.' Will Greenham and Molesworth have their martyrs in years to come?

3. Jack of Spades

Last summer our colleague Ivor Noel-Hume, who used to work in the Museum of London and is now excavating Jamestown, Virginia, wrote to enquire about some iron spade-ends and billhooks which he had discovered. The settlement at Virginia was destroyed in 1622 and the only parallels he could locate were some in Camulodunum.

Of course, he is too good a scholar to consider such a possibility himself, but group members who read Antiquity will be familiar with the phenomenon known as 'Myth America' which is regularly and entertainingly pilloried in that journal, and we had an awful vision of Ph.D's emanating from universities with extraordinary names, claiming that the Romans had, after all, upstaged the Vikings in crossing the Atlantic.

It is known, indeed the report refers to it, but does not elaborate, that the top of the hill above Sheepen was used as a fort built by the redoubtable Colonel Ewer in 1648. Martin Winter conducted a diligent search through the original small finds lists, and after almost all hope had been abandoned, discovered that several iron objects were found on the first day of the 1938 dig.

Reference to plans and other data indicated that the site was on the top of the hill, the depth was about two feet, and the find was made by the workman who cut the initial trench.

So, although the objects are not specifically identified it does look as if our "Roman" spades must now be moved into the Siege display.

Interestingly enough, a study of Roman agricultural iron-work has been published as a BAR report (no. 69), in which the author commented on the unusual form of our spades, duly classified as Group II c.

There must be a moral in this somewhere!

AERIAL PHOTOGRAPHY CONFERENCE AT CAMBRIDGE

I. McMaster

Two members of the Group, Ida McMaster and David Grayston, were invited to attend the two day aerial photography conference held at Cambridge in September 1985. Staff of the Air Photographs Unit of the National Monuments Record organised the meeting on behalf of the Aerial Archaeology Research Group and some 50 members attended. Excellent overnight accommodation and food was provided at Emmanuel College.

The programme for the meeting was divided into two principal sections:

1) Consideration of the problems associated with the classification and archaeological interpretation of the information recorded on air photographs, together with discussion of the underlying practical and academic purposes of such work.

2) To provide members with an opportunity to share experiences; to discuss common problems; to review and appraise recent technical developments and, above all, to consider ways of putting scarce flying resources to most profitable use.

Needless to say, some superlative photography was exhibited, not least of which were the false colour transparencies shown by members of the RCHME Dartmoor Mapping Project. It is not easy to record many acres of moorland without the aid of aerial photography. It is, in fact, a most appropriate use for this comparatively recent discipline.

Mary Aris, a self-styled complete amateur, chose to try her luck away from her usual locality of Anglesea and showed some spectacular slides of the Hebrides. Judging by the quality of her photographs over the more northern island it was a most successful choice.

Another mapping exercise, this time in Kenya, caused Dr. Ian Findlater to cast around for the most efficient method of mapping the vast bushlands. Here again, aerial photography was the answer but it seemed

obvious that it required complete vertical cover. The technical solution was ingenious particularly in view of the fact that funds were not available for the hire of a specific commercial aircraft for the whole of the period needed to carry out the map making. Finding that the Cessna 172 was a commonly used private aeroplane, Dr. Findlater procured a spare door of that type to which he fitted four different cameras suspended on a rigid bar. It proved somewhat difficult to avoid various vital parts of a 172 but the project was eventually achieved. That spare door with its attached photographic equipment was transported by Land Rover from one friendly landing strip to another. Local business or farming owners of Cessna 172s willingly agreed to the simple operation of removing one door from their aircraft for the photographs to be taken.

A majority of the lesser mortals among us, however, were all agreed that, however economical the Kenya equipment appeared, it was still beyond the resources of the average flyer. Most of us take a comparatively inexpensive camera and scramble into any available aircraft when the crops commence to display their secrets.

One considerably more practical idea came from the Isle of Wight archaeologists. With a velcro strip they attached a video camera to one side of the plane (I hope they had an additional strap on it somewhere else). Two of them then proceeded to use normal hand-held cameras on the opposite side of the plane. This gave them a whole hour's video at their leisure later on when any particular shot could be stopped and studied. Of course, there must have been a certain amount of blank sky on the video screen where the pilot had banked for the hand-held shots on the other side!

Another more serious aspect for private aviators and, therefore, for archaeologists was outlined by Chris Cruickshank who has made a study of aviation legalities. Apparently, insurance ruling will shortly require that passengers are only transported by pilots holding a full commercial licence. This will, of course, cut out all those friendly lifts given by private pilots - either from their own airstrips or from various flying clubs, unless they take the extra qualification.

Lastly, the central funding of archaeological reconnaissance projects has been changed. In future, funding will be the responsibility of RCHME who will monitor and co-ordinate regional programmes of general purpose archaeological reconnaissance. This body will issue its own application forms and liaise directly with individual flyers. Stringent terms and conditions will prevail for those seeking this type of funding.

The 1985 season was deemed to be largely a failure for crop mark production due to the heavy summer rainfall. Hopes that 1986 would repeat the splendid 1976 year were expressed but, fortunately for landowners, this was probably a once in a lifetime season for flyers.

Various other problems were thrashed out in the congenial atmosphere of the seminar room and offices which were kindly provided for the occasion by David Wilson of the Cambridge University Committee for Aerial Photography.

EXCAVATIONS AT CROUCHED FRIARS, COLCHESTER

F.D. Lockwood and D.P. Tripp

Introduction

Crouched Friars, which is a Georgian house with a substantial Victorian addition, lies at the extreme western end of Crouch Street West on its northern side. It has borne that name only since 1900. Although it is built on land that was owned by the Order of Crouched (Crossed) Friars, the land being known by the name of 'The Holy Cross', the medieval chapel and hospital of the Order were not on this site but further down Crouch Street on its southern side.

The house stands in just over half an acre of land with, in the north west corner, a block comprising stables, groom's quarters and coach-house/garage. The garden at the rear of the house is enclosed by walls.

Dr. and Mrs. Bradshaw occupied Crouched Friars from 1926. Dr. Bradshaw died in 1970 and Mrs. Dorothy Bradshaw in 1983. We are extremely grateful to their two daughters for allowing us to carry out excavations in the period between Mrs. Bradshaw's death and the sale of the property.

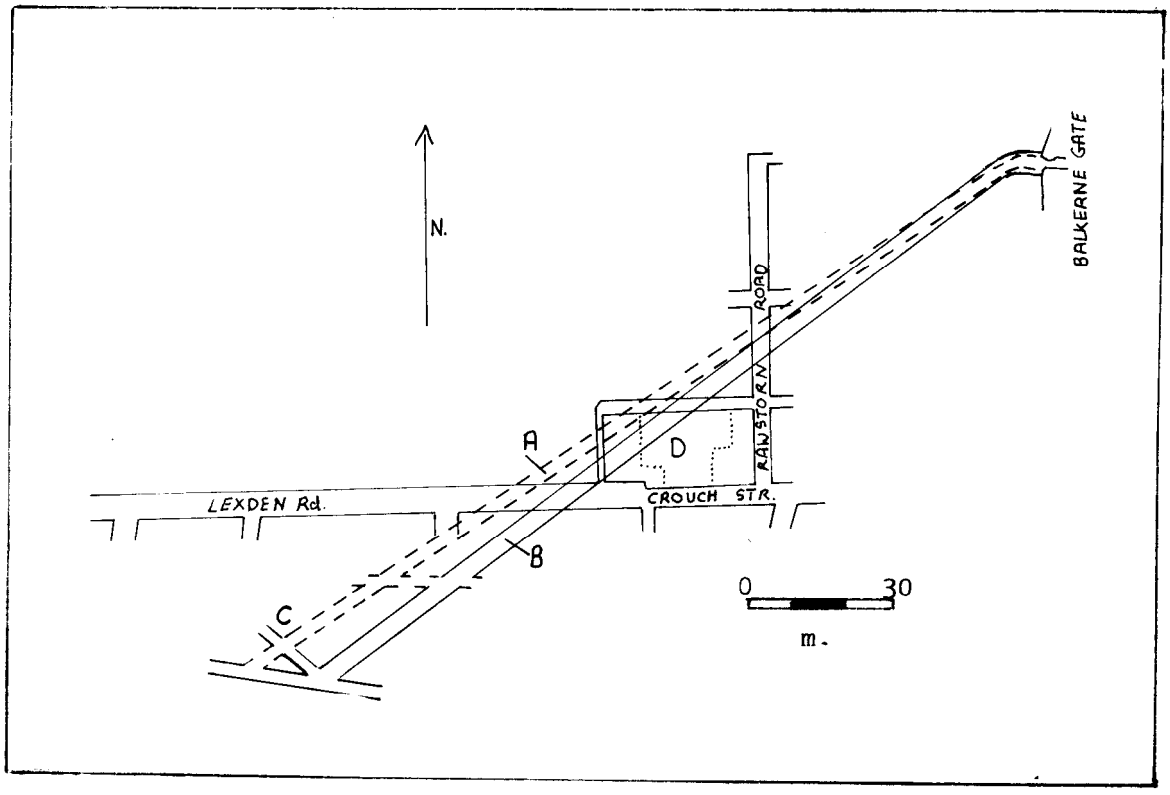
Outline of the Excavations

Our interest in the archaeology of Crouched Friars was aroused by the visit of a plumber to mend a leaking pipe in the yard outside the back door. His activities revealed Roman pottery lying only a few inches below the surface. In the late summer of 1983, we dug a small trial trench. We found a considerable concentration of Roman pottery but the trench was too small to enable any features to be identified.

From April to July, 1984, we undertook a larger excavation in another part of the property that would be more likely to enable us to form an opinion on earlier occupation or other uses. In particular, we were interested in the possibility of establishing a relationship between the area of the garden and the Roman road which is known to have run from the Balkerne Gate to a point near the Colchester Royal Grammar School, where it joined the main east/west road to London. The line of the road has never been conclusively established. The relevant part of the line accepted by Hull (1) is shown in Fig. 1. marked 'A'. It can be seen passing through the north-west corner of the Crouched Friars property. At the outset, therefore, we believed that the road-edge nearest to Crouched Friars lay under the stable-block and so was inaccessible to us.

We dug trial holes at the western end of the walled garden in the vegetable area, then no longer in use, expecting at best to find there some evidence of buildings or burials beside the road. However, at one hole approximately 18 metres to the east of the stable-block, we made contact with a hard surface and subsequent excavation showed that this was part of a road. At this stage, we consulted Mr. Philip Crummy, Director of the Colchester Archaeological Trust. He told us that his recent re-interpretation of the Trust's excavations at Balkerne Lane and also some fresh sitings of the Roman road had caused him to conclude that the line of the road lay more to the east than had previously been supposed as shown in Fig. 1., marked 'B'.

FIGURE 1. The Roman Road from the Balkerne Gate to the Colchester Royal Grammar School.

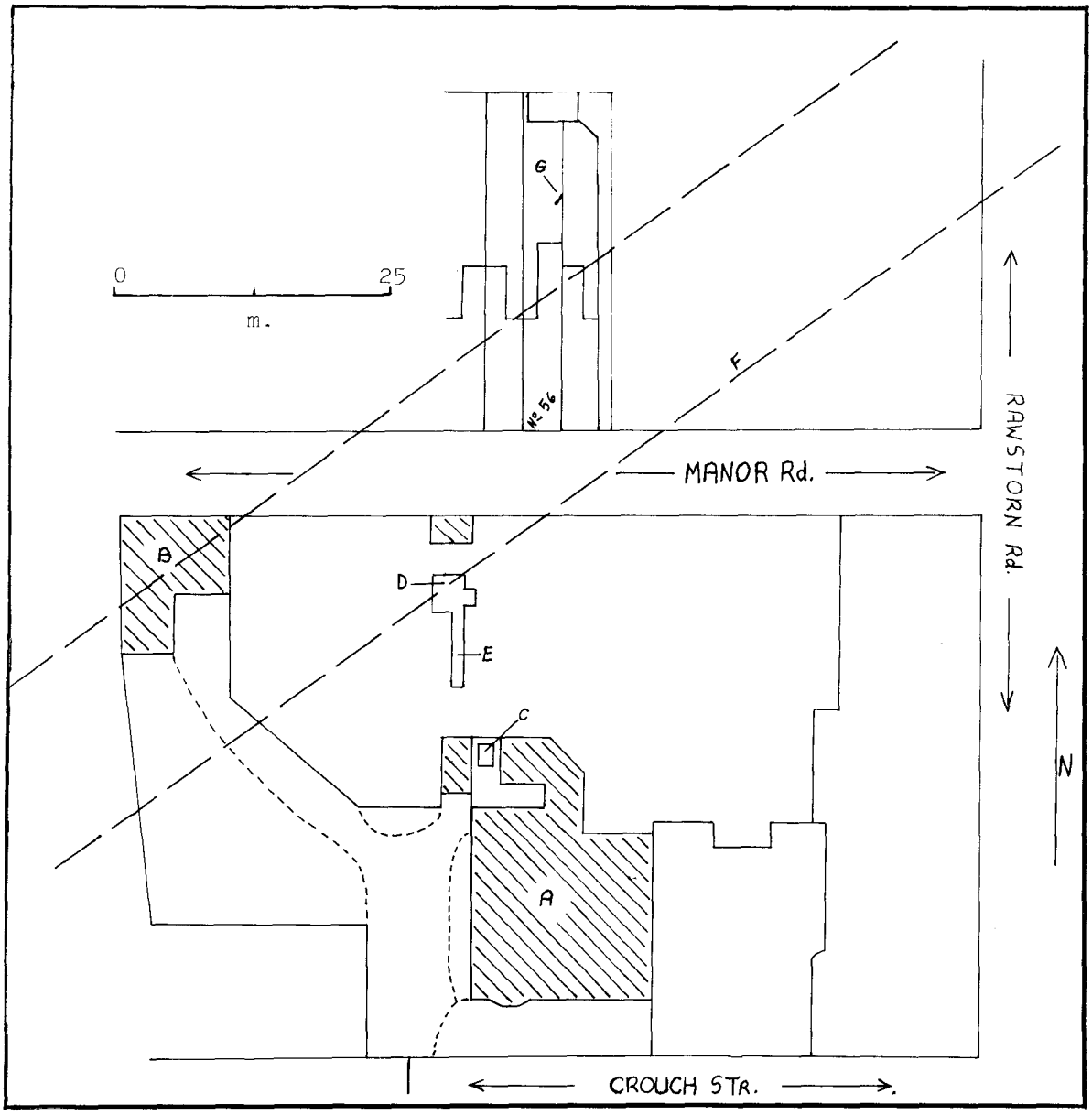


A The line accepted by M.R. Hull
B P. Crummy's revised projected line
C Colchester Royal Grammar School
D Crouched Friars

In addition to uncovering a small part of the road's edge, we extended a trench to the south in an attempt to evaluate roadside occupation or use.

The property, the excavation sites and Mr. Crummy's revised projection of the line of the road are shown in Fig. 2.

FIGURE 2. Crouched Friars.



A The house
B The stable-block

Excavation sites:

C Trial trench
D Road area
E Extension trench
F Southern edge of P. Crummy's revised projection of the line of the Balkerne Gate Roman Road
G Independent sighting north of Manor Road

The Trial Trench

The area excavated (C in Fig. 2.), restricted because of the dimensions of the yard, was 1 x 1.5 metres. The stratigraphy was well-marked and, whilst there were some dark, thin occupation layers, most were a light sandy loam. Natural sand was reached at a depth of 1.5 metres. The amount of pottery for so small an area was considerable. With the exception of one medieval sherd, it was Roman predominantly of the 1st but also of the 2nd and 3rd centuries. There were a few small finds, notably a shale bracelet and a copper-alloy stud,

both illustrated in Fig. 6.This excavation was of interest but it was too small to enable any conclusions to be drawn.

The Road Area

Initially, we excavated an area (D in Fig. 2) 2.5 by 3.5 metres and found a metalled surface over much but not all of it at a depth of 65 cms., immediately below topsoil. The southern side was cut by a substantial trench and the south-western corner was heavily pitted. Because of this, it was impossible precisely to locate the edge of the road or to discern its direction. The section of the road (Fig. 3) shows the successive additions of metalling, culminating, somewhat unusually, in a top layer of Kentish rag. Also shown is an underlying pit, the nature of which it was not possible to ascertain.

The section establishes clearly that this area was part of a road and adds to Mr. Crummy's other reasons for adopting the revised projection shown in Figs. 1 and 2 for the road from the Balkerne Gate to the Grammar School. We happened to learn that, at about the time of our excavations, one of the Manor Road residents had located a wall-foundation running north-east to south-west with a little gravel to the south. The position of the wall foundation, which indicates the northernmost limit for the edge of the road, is marked G in Fig. 2.

It is open to question whether what we uncovered can properly be termed 'road' or whether it was a footway or some other part of a road. This problem can only be solved by more extensive excavations.

Because the road area excavated initially was partly destroyed by trenches and pits we made a small extension 1.5 by 1.5 metres to the east. However, although there was continuity of stratification between the road edge and occupation layers to the south, we were unable to decide which occupation layers were contemporary with any of the metalling layers.

There was little reliable dating evidence in the road layers but such as was provided by pottery is consistent with the generally accepted view that the Balkerne Gate road was 1st century, dating possibly to the time of the fortress, A.D. 43 to 49.

In her Report on the small finds, Mrs. Nina Crummy comments (page 37) on a group of brooches found in Feature 18, which is not illustrated in this Report. This was a small area, sealed by topsoil and sealing the earliest (about 1st century) layers. It was made up of mixed sandy-loam, quite disturbed and cut by a post-medieval trench to the east and just south of the road metalling. There was 2nd and 3rd century pottery in Feature 18.

The Trench Extension

This excavation (E in Fig. 2) to the south of the road area, was 6.5 by 2 metres and its object was to determine if possible the nature of any features along the roadside. The results were inconclusive, mainly because almost half of the trench was cut by an oblong post-medieval feature of unknown purpose. This abutted the road area. However, it was possible to identify chronological layers, sometimes with specific evidence of occupation, as shown in part of the section of the trench (Figure 4.) The part illustrated was approximately half way along the trench, before it started to dip down to a pit 2 metres deep at the southern end. We were unable to excavate the whole of the pit because of the limits of the excavation.

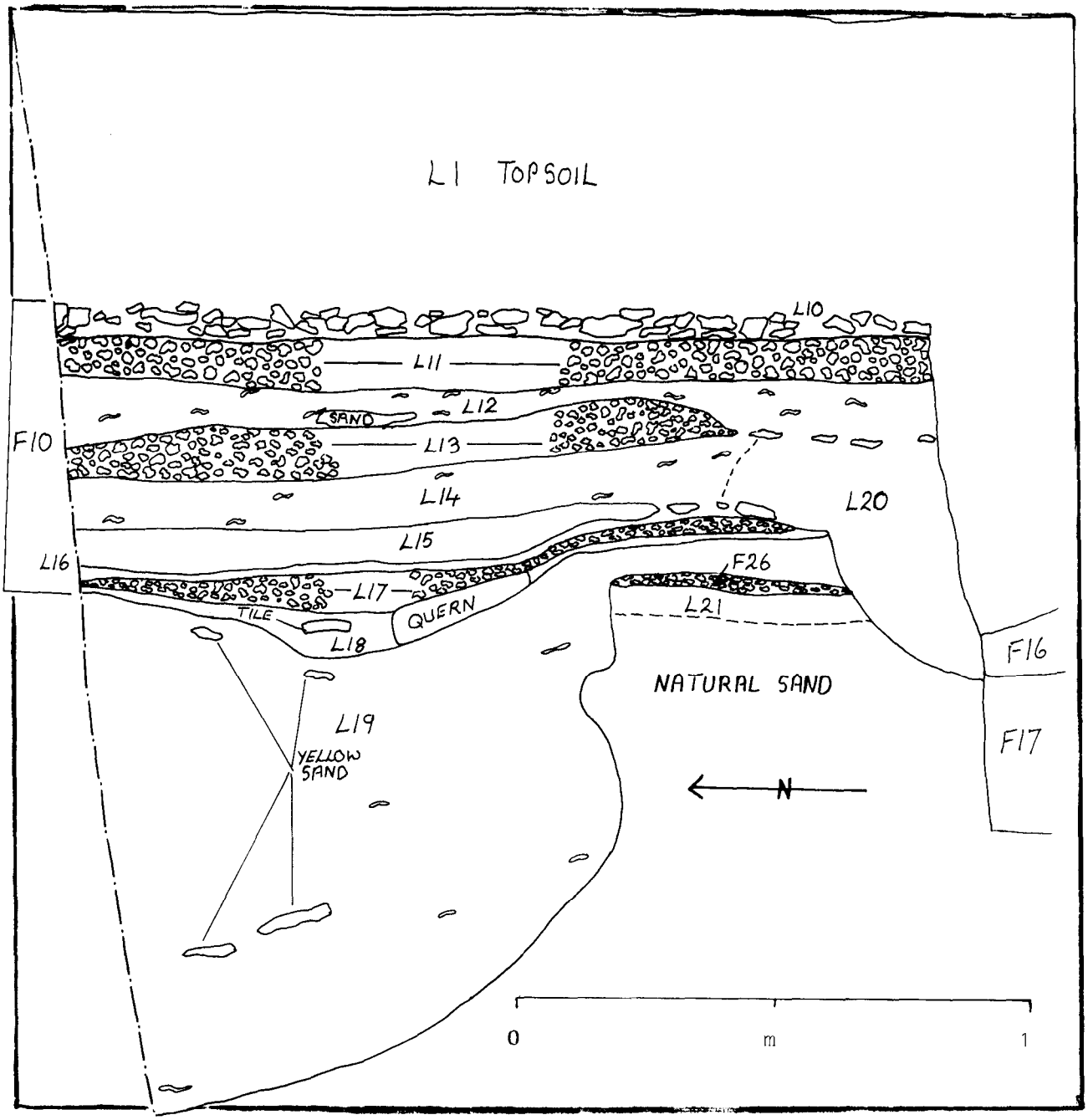
Pottery

Pottery from the road area and trench extension included two sherds of pre-conquest pottery in a pit in natural sand and a small amount of post Roman material in topsoil. Roman pottery was found at all levels, including topsoil, and items were dated to each of the first four centuries. Dr. Robin Symonds, who kindly carried out the dating, attributed to southern Gaulish ware of the 1st century a small Samian pot with a stamp, complete except for a small chip. This was found in a layer of sandy-clay-loam, dated to the 1st century. Dr. Symonds has also provided the following note on a Samian sherd found in topsoil:

> 'Lion's Head' spout of a Central Gaulish Drag. 45 mortarium, probably late 2nd century. The applied-moulded spout does not appear to be especially fine by Central Gaulish standards, but its overall character suggests that the mould may have been of rather higher quality than the vessel made from it.

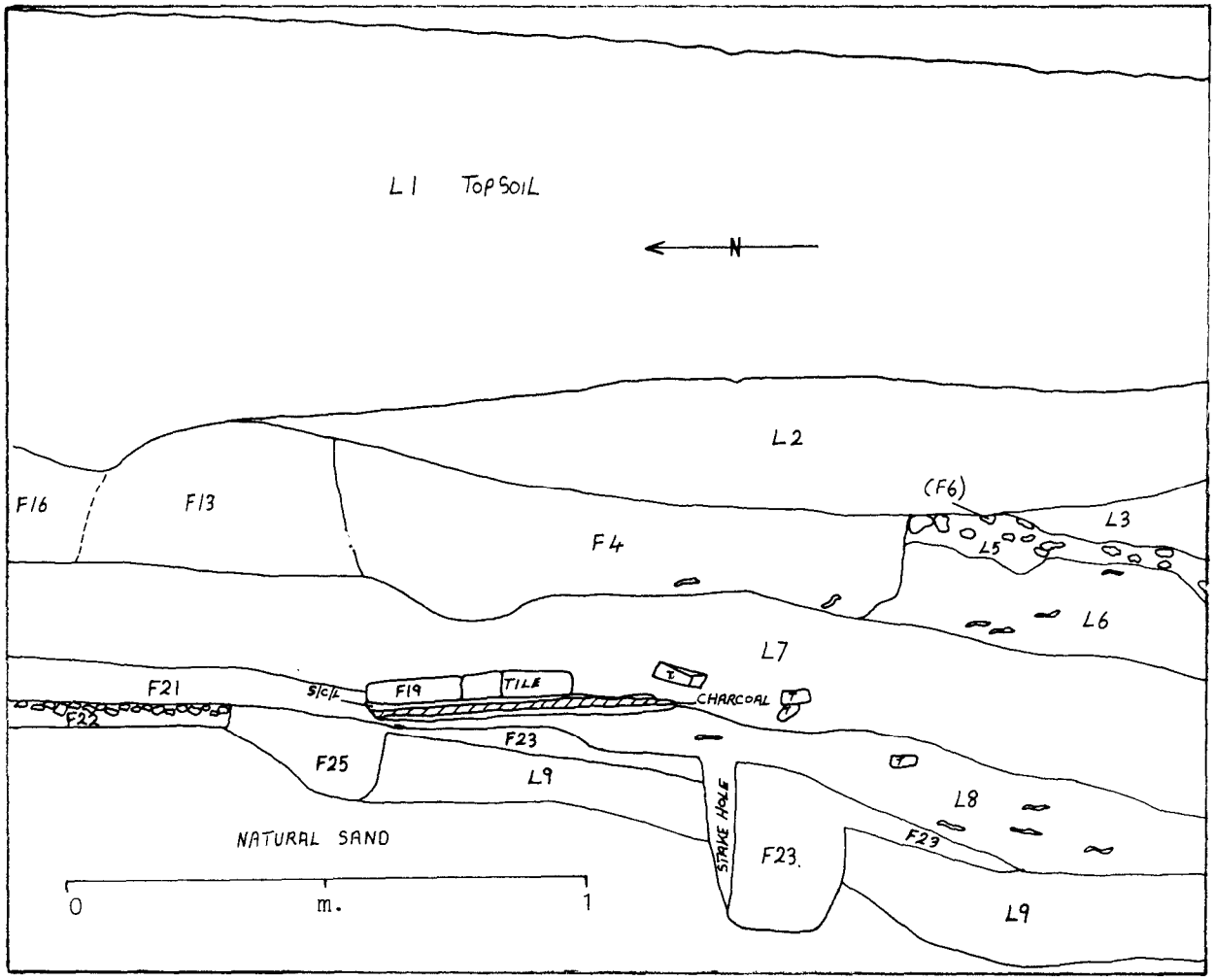
The pot and spout are illustrated in Figure 7.

Figure 3. Section of the road area



L 1	Topsoil	
L10	Kentish rag (re-used with some mortar)	Metalling) Probably contemporary
L11	Gritty sand with hard-packed gravel.	Metalling) with each other
L12	Dark brown sandy-loam	Occupation
L13	Hard-packed gravel	Metalling
L14	Dark yellowish-brown sandy-loam	Make up/dump?
L15	Yellow-brown clayey-sandy-loam	Surface?
L16	Dark brown sandy-loam	Occupation
L17	Sand with hard-packed gravel	Metalling
L18	Dark brown sandy-loam	Depression – 1st century
L19	Yellow-brown loamy-sand	Pit - 1st century
L20	Dark brown sandy-loam	Make up/dump?
L21	Stained natural sand	
F16	Dark brown loamy-sand	) Post-medieval
F17	Very dark brown sandy-loam	) trench
F26	Thin layer of hard-packed gravel	Metalling

FIGURE 4. Part of the section of the Extension Trench.



1	Sandy-loam	Topsoil	Modern, some with 4th century pottery
2	Sandy-loam	Dump	Post Roman
3	Sandy-loam	Dump	3rd 4th century?
5	Sandy-loam	Floor?	3rd century
6	Sandy-loam	Floor/make up	200 - 275
7	Sandy-clay-loam	Make up	Late 1st century
8	Sandy-loam with charcoal	Dump/make up	61 - 100?
9	Clay-sandy-loam	Floor/make up	61 - 100?
F 4	Sandy-loam	Pit	Mid 2nd to 3rd century
F 6	Burnt daub	Burnt daub spread	3rd 4th century
F13	Sandy-loam	Dump?	3rd century
F16	Dark brown loamy-sand	Trench	Post medieval
F19	Tile hearth	See note 1	Late 1st century
F21	Hard-packed sandy-loam	Dump/make up	61 - 100
F22	Hard-packed gravel in sandy-clay loam	See note 2	61 - 100
F23	Clay-sandy-loam	Remains of floor	61 - 100
F25	Sandy-loam	Slot	61 - 100

NOTES

1. There were two hearths, evidence of domestic cooking, one being set on a sandy-clay-loam base.
2. Feature 22 ran about half way along the trench, abutting a clay floor and provides the only obvious connection between the occupation evidenced in the extension trench and in the road area (see F26 in Figure 3).

Small Finds

We are extremely grateful to Mrs. Nina Crummy for providing a detailed report on the small finds, including coins, from the road area and the trench extension. Her Report is set out on pages36 to 39 and is followed by Frank Lockwood's illustrations of the more important items in Figs. 5 and 6.

Particular attention is drawn to Mrs. Crummy's comments on the group of brooches, three fragments of red porphyry and another marble veneer fragment. These do not provide evidence of burials in the area which we excavated but it is interesting to note Hull's observation that "burials have been found on each side of the Roman Road on its course from the Balkerne Gate to the Hospital and Grammar School". One such find was the lower half of a civil tombstone just over the wall from Crouched Friars at the western end of Manor Road (4)

Summary

We found evidence that the line of the Roman Road from the Balkerne Gate to the Colchester Royal Grammar School runs through the garden of Crouched Friars and not, as previously thought, further to the west. There was little evidence of roadside occupation or use but there were important finds of Roman brooches and fragments of red porphyry.

General

We would like to record our appreciation of the various ways we have been helped by Mr. and Mrs. Crummy, by many of the staff and volunteers of the Colchester Archaeological Trust and too by Mrs. Jacky Thomas.

With the consent of the Bradshaw family, we have handed all the pottery and small finds, except for a very few items, to the Colchester Archaeological Trust. The collection will eventually be passed to the Colchester and Essex Museum. (Acc. No. COLEM 105.1985).

We like to think that our venture would have met with the particular approval of a former occupant of Crouched Friars, Henry Laver, and of his son, Philip G. Laver - both surgeons and noted archeologists who had studied the problem of the Balkerne Gate road.

References:

(1) Hull M.R. Roman Colchester. Soc. of Antiqs. Res. Rep. XX (1958) p. 3-7.
(2) Op. Cit. p. 253. pl. XLIII.
(3) " " p. 253.
(4) " " p. 4.

Report on the small finds from Crouched Friars, Colchester

Nina Crummy

Of the small finds from excavations in the grounds at Crouched Friars in 1983 and 1984, those from the road area and extension trench, dug in 1984, are discussed here.

The trench produced 90 small finds of which 11, a remarkably high proportion, are brooches (8) or fragments of brooches (3) dating to the second half of the 1st century A.D. Thirteen coins were found, again a high proportion, ranging in date from Vespasian (A.D. 69 - 79) to the mid 17th century.

The ten brooches include three Hod Hill brooches (SF 52, 56, 63) which were introduced into Britain by the invading Roman army and continued in use to about A.D. 60/5. Hod Hill brooches show tremendous variety in their decoration, with a minimum of 19 subdivisions within the series. All have hinged pins, and most are made of leaded gun-metal (a copper-zinc-lead-tin alloy) with a coating of tin.

Three of the brooches (SF 33, 54, 55) are derivatives of the Colchester brooch, a simple two-piece sprung brooch for which Colchester is the type-site. The most closely related brooch, SF 54, dates to between 50 - 70 A.D., the other two to between 65 - 80, though the terminal date for the latter may be earlier.

Of the two remaining brooches one is an unusual key-hole shape, (SF34) with three lugs (one now missing) placed around the sunken circular part. The uppermost lug serves to mask the hinge fitting for the pin on the underside. Key-hole brooches, dated Claudius-Nero, are related to rosette or thistle brooches, though in the broadest classification the late M.R. Hull saw them as plate, not bow, brooches.

The most exciting brooch is in the shape of a hare, (SF 53) though with the back leg and ear missing it rather resembles a sheep! The hare was one of the animals sacred to the Celts, and was sacrificed by Boudicca to her war goddess before battle. This is one of several hare brooches from Britain, and the second that I know of from Colchester: one was found at Camulodunum. On many of the brooches the hare was depicted leaping or bounding along, though some have a shape more closely akin to this one, which seems to be squatting at rest. Of those from Britain with a similar shape, examples from London and Winchester are interesting in being decorated with two tiny confronting hares in enamel on the main body of the animal.

The majority of hare brooches were enamelled, though the Crouched Friars hare is decorated with grooves and has been coated with tin. The brooch can be dated to the 1st century, and is probably pre-Boudiccan.

Of these eight brooches, six (SF 52 - 56, 63) derive from F18, and are associated with several other small finds including some brooch fragments, a coin of Nerva, AD 96 - 8, a 1st century military buckle made of antler, and a barbarous radiate coin dated 270 - 90. Feature 18 is difficult to interpret, but groups of brooches do not commonly occur on sites other than burial areas or those connected with brooch manufacture, and are certainly not usually to be expected in residual contexts as implied by the 3rd century coin. It is possible that the brooches represent indications of' one or more of the many pre-Flavian burials which flanked the Colchester - London road, disturbed and redeposited in F18.

Three fragments of red porphyry veneer also came from the site (SF 1, 5, 32). As with the brooches, this is a high number. Only five fragments were found during excavations in the town between 1971 and 1982. Red (imperial) porphyry comes from quarries in Egypt, and was used in the early imperial period in particular for sarcophagi, imperial statues, and the most prestigious of public buildings. In this extra-mural part of Roman Colchester it is again likely that the fragments are to be associated with a tomb alongside the Colchester - London road.

Other early Roman small finds include the above mentioned antler military buckle, of characteristic D-shape (SF 47), and a fragment of a copper-alloy girdle-plate tie-hook (SF 74), from legionary laminated body armour (lorica segmentata), both of which are 1st century in date. Belonging within a broader 1st to 2nd century date range are a bone pin fragment of Colchester Type 1 (SF 14); a speculum (high tin bronze) mirror fragment (SF 28); the bone needle heads of Colchester Type 1 (SF 36, 67); two fragments of turquoise frit melon beads (SF 50 and 82); a marble veneer fragment (SF66), again possibly associated with a tomb; and SF 84, fragments of a quern of lava almost certainly from the Mayen quarries in the Eifel Hills, Germany.

The remaining small finds of Roman date cannot be attributed to specific centuries. They include fragments of copper-alloy toilet instruments (spoon SF 21; probe SF 70), a glass counter (SF 22); pieces of copper-alloy sheet (e.g. SF 18); chain fragments, and odd copper alloy fragments such as the ring terminal SF 58.

Two stones, probably sarsen (a sandstone), were found each showing signs of having been used for sharpening tools. They are too large to be portable hones, and are most likely to be naturally-occurring stones utilised 'on site'.

The Roman coins from the site reflect in miniature the range that might be expected on any Roman site in the town. There are five 1st century coins: two each of Vespasian and Domitian, and one of Nerva. The 2nd century is not represented, nor is the early 3rd, and coins of this period are indeed scarcer as site finds. Then there is a barbarous radiate, A.D. 270 - 90, and another late 3rd century coin, less legible, but also probably a barbarous radiate. The 4th century is represented by coins of Licinius II (A.D. 320 - 1), and two copies of Constantinian coins, Urbs Roma (AD 330 - 45), and the Fel Temp Reparatio reverse (AD 350 - 60). There is also a very corroded coin which can only be given the general date of 3rd to 4th century.

There are two post-Roman coins, both types which commonly occur on sites in Colchester. One is a copper Royal farthing of James I, of Lennox 'round' type, dated 1614 - 25. The other is a trade token of William Alldred of Colchester, dated to the mid 17th century.

Of the general small finds only two can with certainty be attributed with a post-medieval date. They are the copper-alloy strap-tag SF 78, which would have protected the end of a leather strap, and the lead object with impressed hatching on the reverse (SF 61). The latter is probably the back part of a seal used to mark cloth as having reached the required standard for sale.

FIGURE 5.

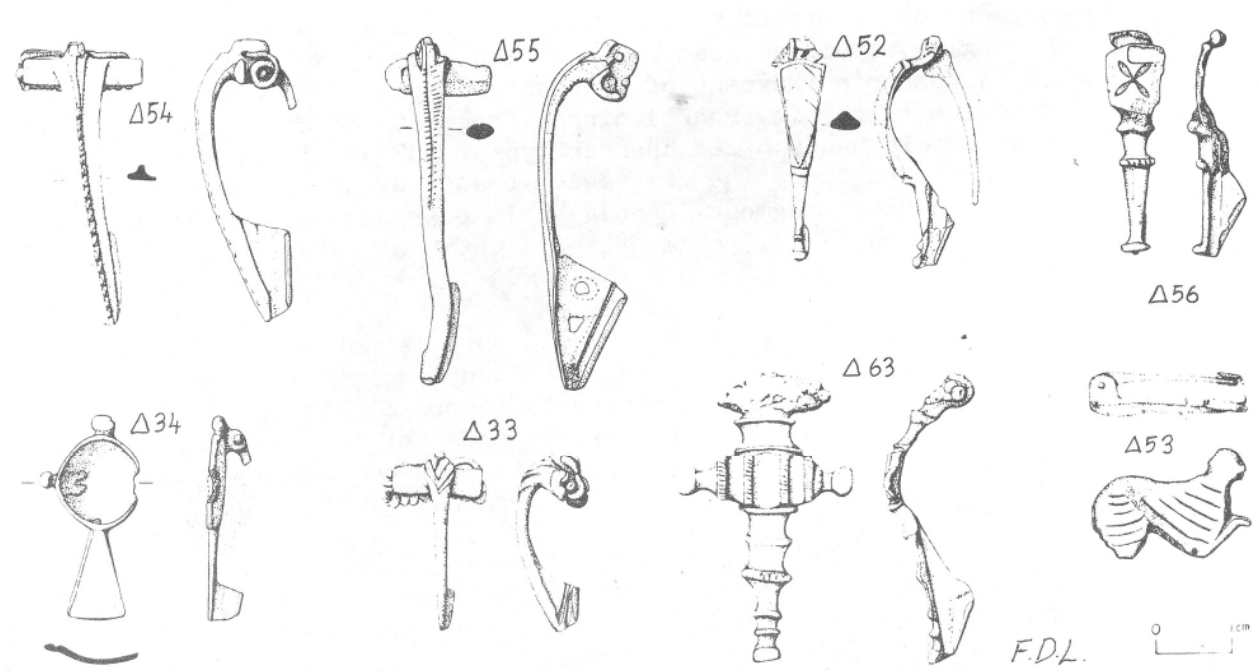
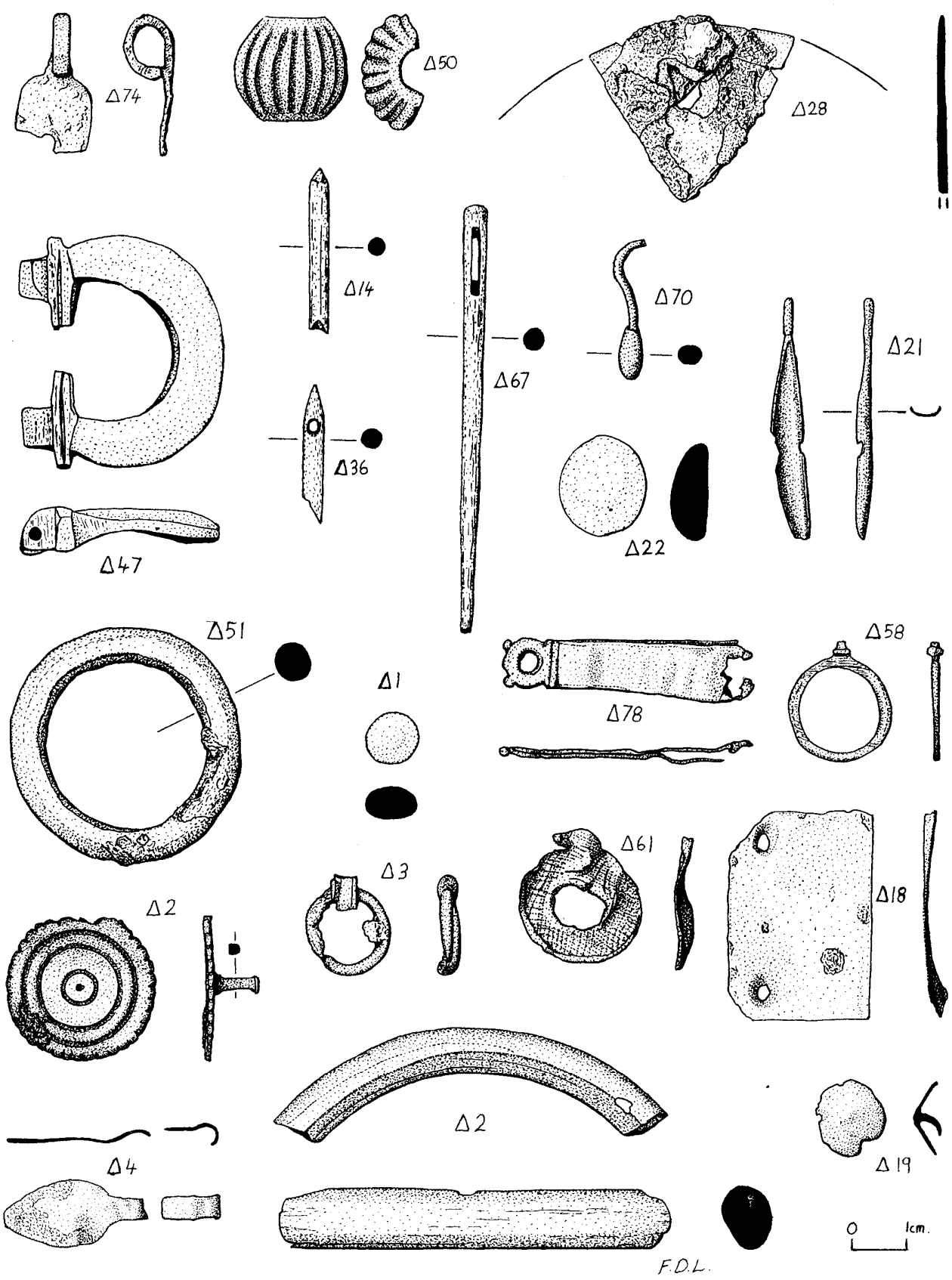
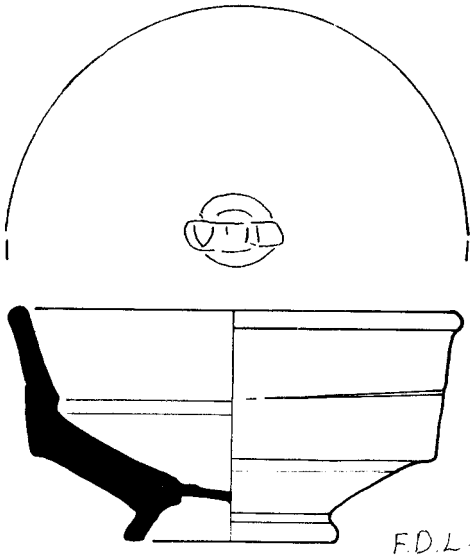


FIGURE 6. Objects from the 1983 and 1984 Excavations.

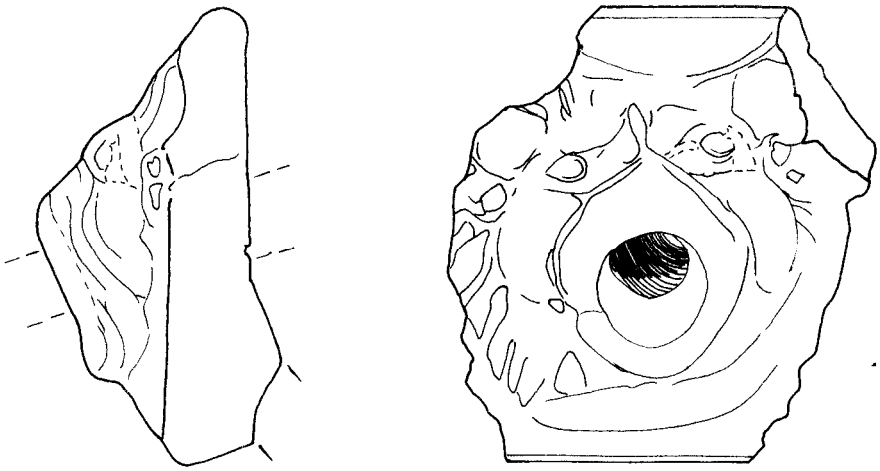


Copper-alloy (SF 74, 28, 70, 21, 58, 78, 18, 19; 2,3,4), frit (SF 50), bone or antler (SF 47,l4,36,67), glass (SF 22; 1), iron(SF 51), lead-alloy (SF 61), shale SF2).

FIGURE 7. Pottery



Samian Pot (Ritterling form 9)



Lion's Head Spout of a Dragendorff form 45 mortarium (drawn by Karen Westgate)
Scale 1/1

COLCHESTER ARCHAEOLOGICAL GROUP ANNUAL BULLETIN VOLUME 27, 1984

A Review from the Essex Journal Volume 20 No. 3, Winter 1985
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It is interesting to note how the publications of the various Societies and Groups in Essex vary, a thought prompted by the receipt of the latest issue of the ANNUAL BULLETIN of the Colchester Archaeological Group.

The particular emphasis of this publication is to make available the results of local archaeological fieldwork, whether it be from the air, as in the useful survey of cropmarks recorded during 1984 by Ida McMaster, as well as by the more traditional method on the ground; here represented by several articles of which may be particularly noted the investigation of what is proposed as a Neolithic cooking pit at Chigborough Farm, Little Totham by P.C. and K.P. Adkins, as well as Roman burials and a new Villa site at Fordham reported by Mark Davies. It is the topicality of the archaeological reports that makes this BULLETIN interesting reading.

It would be wrong, however, not to draw the attention of ESSEX JOURNAL readers to the two contributions by David Clarke who presents an affectionate appraisal of the work of his predecessor as Curator of the Castle Museum, Rex Hull, as well as an engaging account of his appointment to the post.

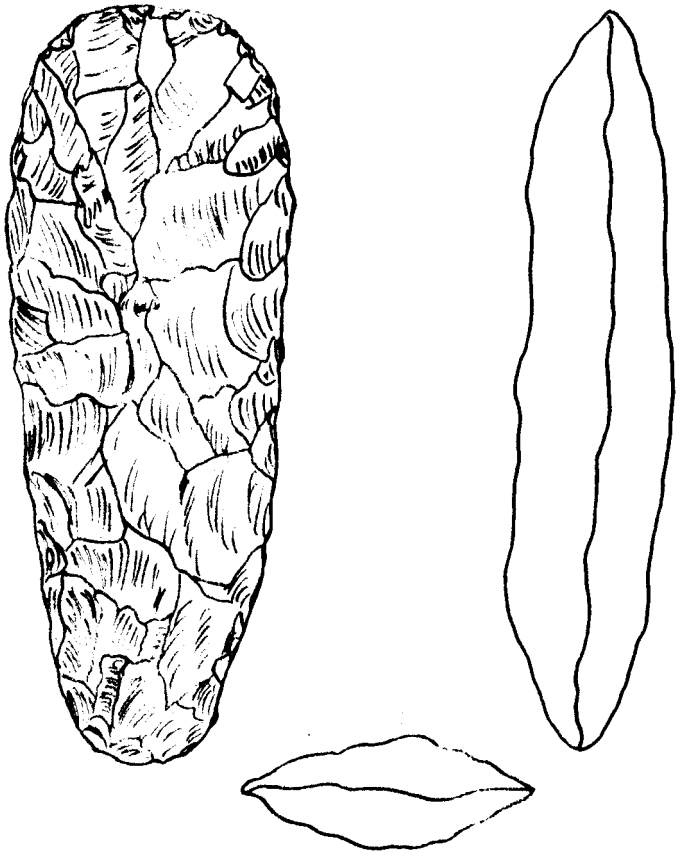
Further, other societies might ponder upon the value of that excellent practice of summarizing lectures delivered to C.A.G. audiences. These notes not only help those who attended to recall what was said, but are also a good way of getting ideas and thoughts into circulation and to stimulate discussion, often long in advance of any 'final' report or review.

I.G.R.

A NEOLITHIC AXE FROM SUFFOLK AND AN INSTANCE OF HIDDEN HISTORY IN STUTTON

V.M. Scott

A Neolithic Axe from Suffolk

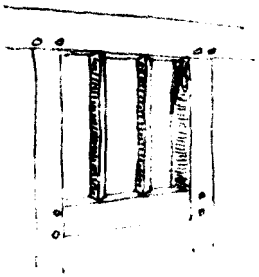


The large neolithic flint axe illustrated above (scale 1/4) was discovered in 1959 during levelling of land owned by Woolverstone Marina (TM 19503894). A similar axe was found at Great Bealings in Suffolk.

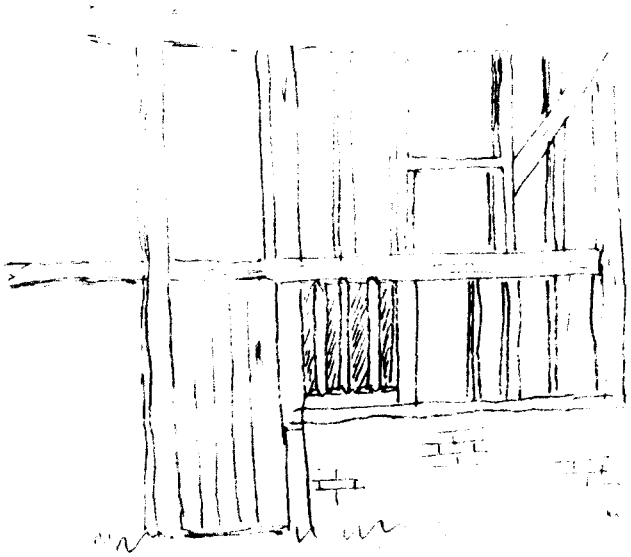
Woolverstone is situated on the south bank of the Orwell. The area bordered by the Stour on the south and the Orwell on the north and known as the Shotley Peninsular is covered with numerous crop mark sites, including ring ditches, enclosures, and a large causewayed camp located at Freston, approximately two miles from Woolverstone.

Many flint scrapers have been picked up at Chelmondiston by field walkers together with the odd barbed and tongued arrowhead.

Details of timber work in old cottages now pulled down at Stutton.



Mullion Window



Exposed Timber Frame

Hidden History

When a pair of old cottages in the centre of Stutton on the Shotley Peninsular were pulled down recently, the original timber frame was exposed as shown in the above sketch.

This part of the building had been covered with flat sheets of tin for at least 50 years and probably more.

The framework was carefully dismantled by the contractor for re-use in repairs to other timber framed buildings. Before it was dismantled I was able to take a quick photograph and investigate the interesting window to the right of the door. This window had been covered over by the tin sheets. It was fairly obvious that it was one of the original mullion windows with vertical bars of diamond section, tenoned into the upper and lower horizontals. There would have been no glass in this window, a wooden shutter sliding across internally would have given limited protection against the weather. This window suggests the original building dates to before the sixteenth century, and old records indicate a possible farmhouse on this site.

SAXON LOOM WEIGHTS AND ROMAN POTTERY FROM CHIGBOROUGH FARM, LITTLE TOTHAM.

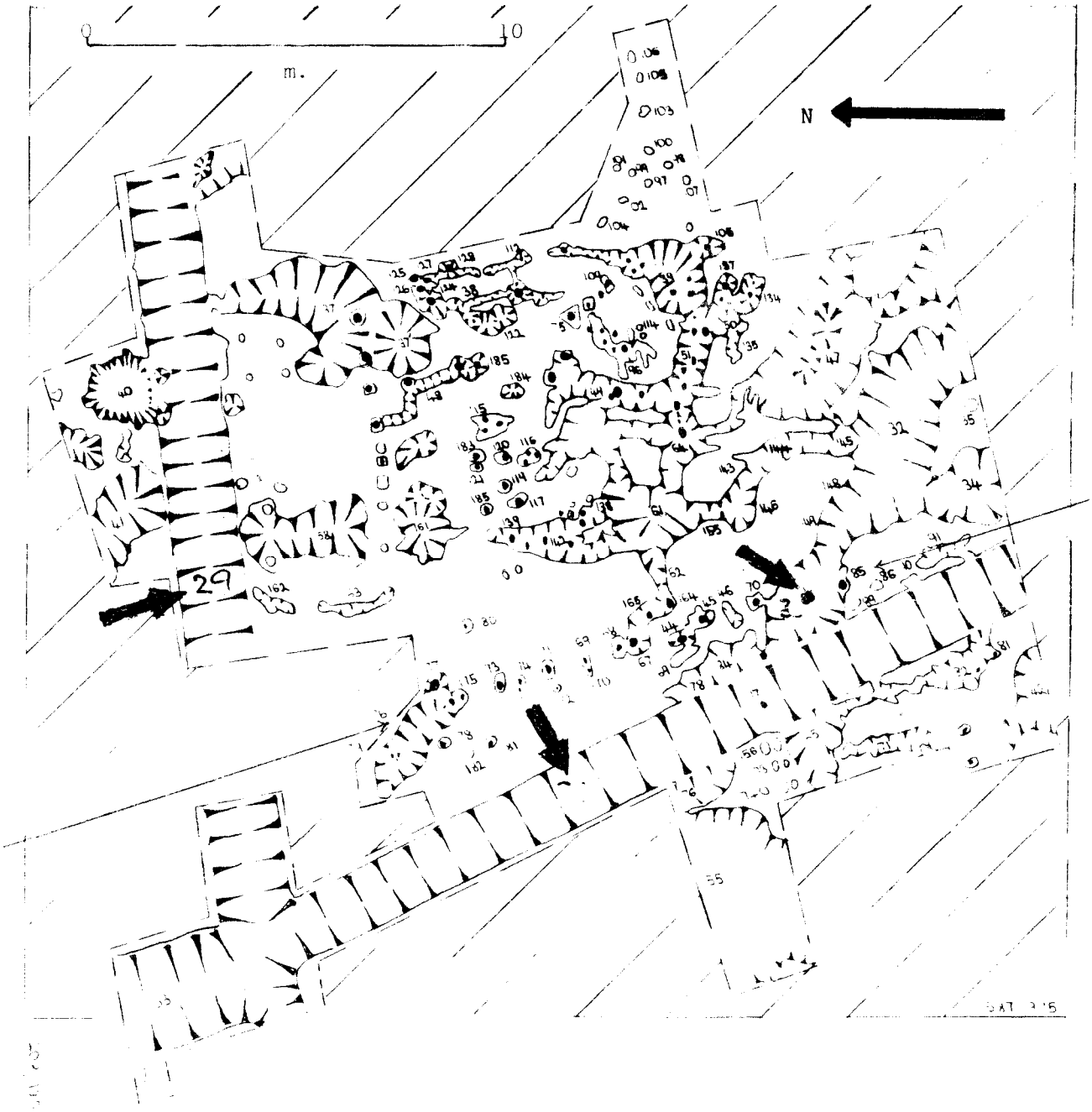
K.P. and P.C. Adkins

Introduction

This Report is a continuation of our article published in 1984 (1) entitled "A Neolithic Cooking Pit at Chigborough Farm, Little Totham". We now report finds of the Roman and Saxon periods from the same excavation, with particular reference to the discovery of a hoard of Saxon clay loom weights.

An open plan excavation of an area 25 x 25 metres was carried out in 1981/2 by P.C.A. on what was to prove to be an important multi-period site. For further background information, site location and plans see the previous article (1). Features from which the Roman and/or Saxon materials now described were recovered are indicated by arrows in Fig. 1. No reference to the other numbered feature in Fig. 1. is made in this Report.

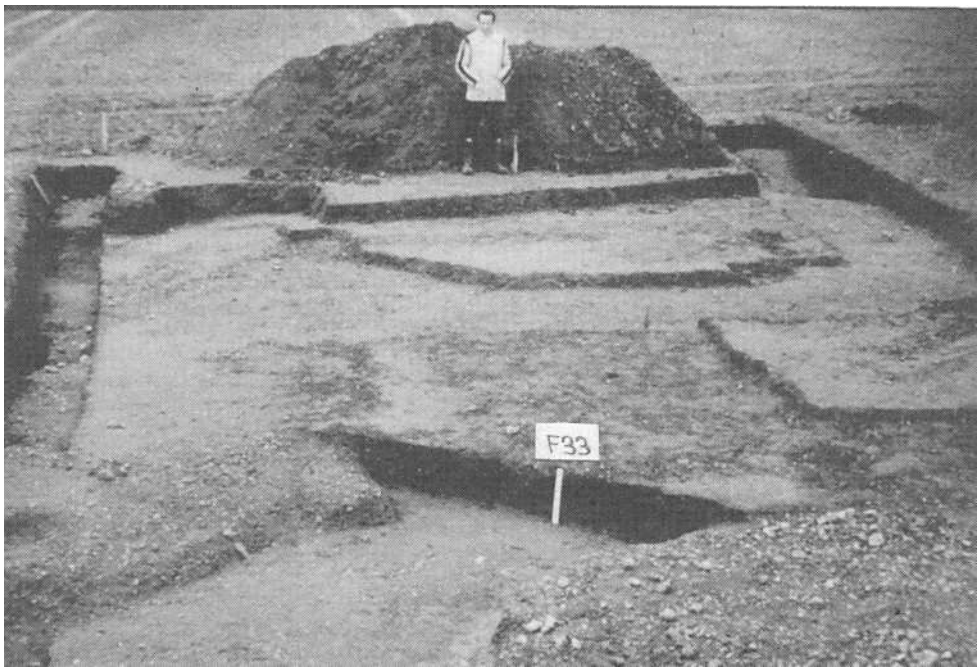
FIGURE 1.



Saxon Finds

Evidence for a timber framed building, probably of Saxon date, was found in the form of a row of seven postholes, typically 0.30 m. in diameter. Assuming that the posts represent one side of a rectangular building its length would have been approximately 11 metres, and its longest axis was orientated NWW. The postholes were relatively shallow (approximately 0.15 m. below plough soil interface) and contained mainly heavily burnt material in their upper levels. The width of the building was not established since time did not allow the excavation to be extended to recover the western 'wall'. In line with the row of postholes, equally spaced between the southernmost and penultimate postholes, was found a circular pit (approximately 0.34 m. in diameter) designated F 33. This feature was deeper than the postholes (approx. 0.45 m. below the ploughsoil interface) and had been cut into the sandy silt of an ancient stream bed (F 32) which traverses the site. (See Figs. 1 and 2).

FIGURE 2. Site 1. Cottage Field. 1981/2 (P.C. and K.P. Adkins)



A hoard of eight annular/ bun-shaped clay loom weights was recovered from the lower levels of this pit (see figs. 3 and 4). There appeared to be no pattern to the arrangement of the loom-weights within the pit and the fill was very clean and uniform in nature suggesting that the pit had not been left open for any length of time.

It is somewhat puzzling as to why the loom weights were deposited in a pit. It is unlikely that these artifacts were sufficiently valuable to warrant concealing them at times of threat. One explanation might be that the loom weights were buried as an offering to appease a God.

Unfortunately it appeared that the original floor level of the building encompassing F 33 had been eroded by modern ploughing. What may prove to be a second rectangular building is evident on cropmark photographs near the eastern boundary of Cottage Field. In this case the feature has dimensions of approximately 23 m. x 5 m. A trial section dug through the north end of the rectangle revealed a sunken floor (approximately 0.3 m. below the ploughsoil interface). No dateable finds were recovered from the section.

FIGURE 3. Saxon Loom weights from F32.

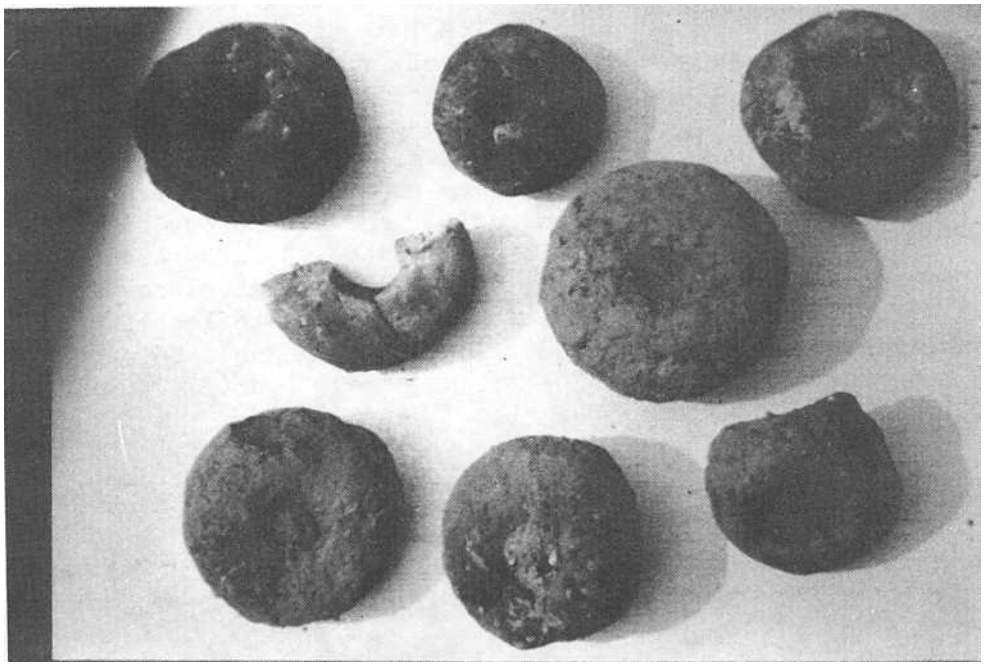


FIGURE 4. A section through F 32 showing positions of loom weights.

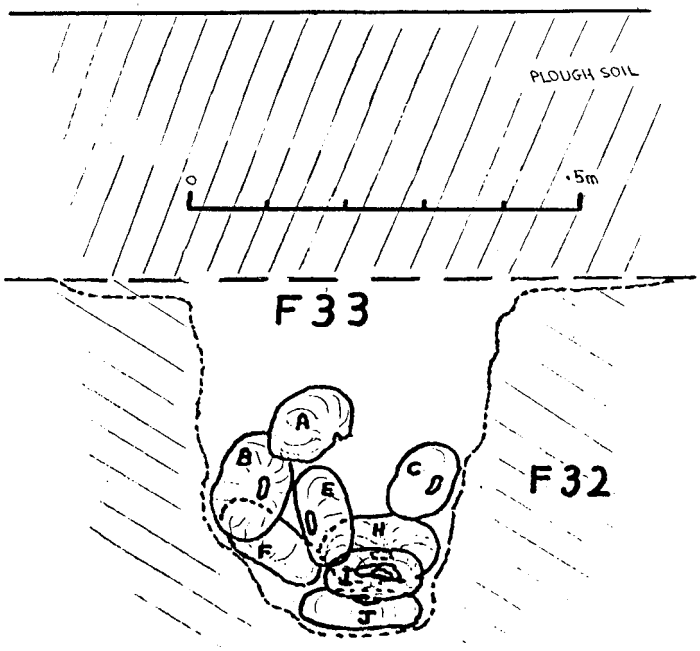
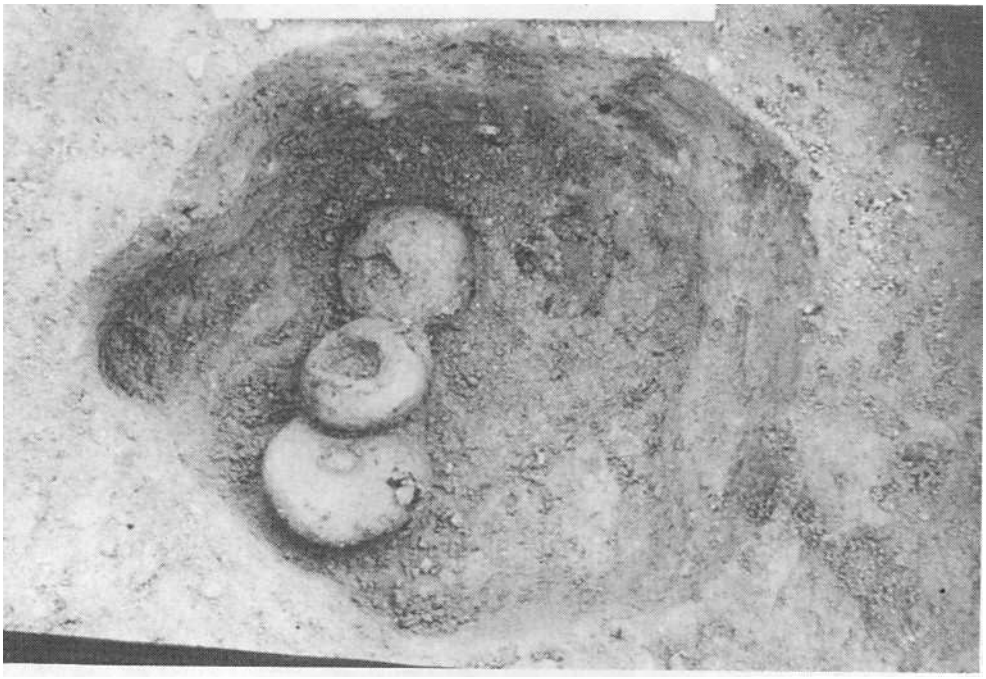


FIGURE 5. Loom weights in situ in F 32.



Four of the loom weights are described in a report by Sue Tyler (see below) and they are illustrated by Sue Holden, both of the County Archaeology Section in Figs. 6 and 7.

Roman Finds

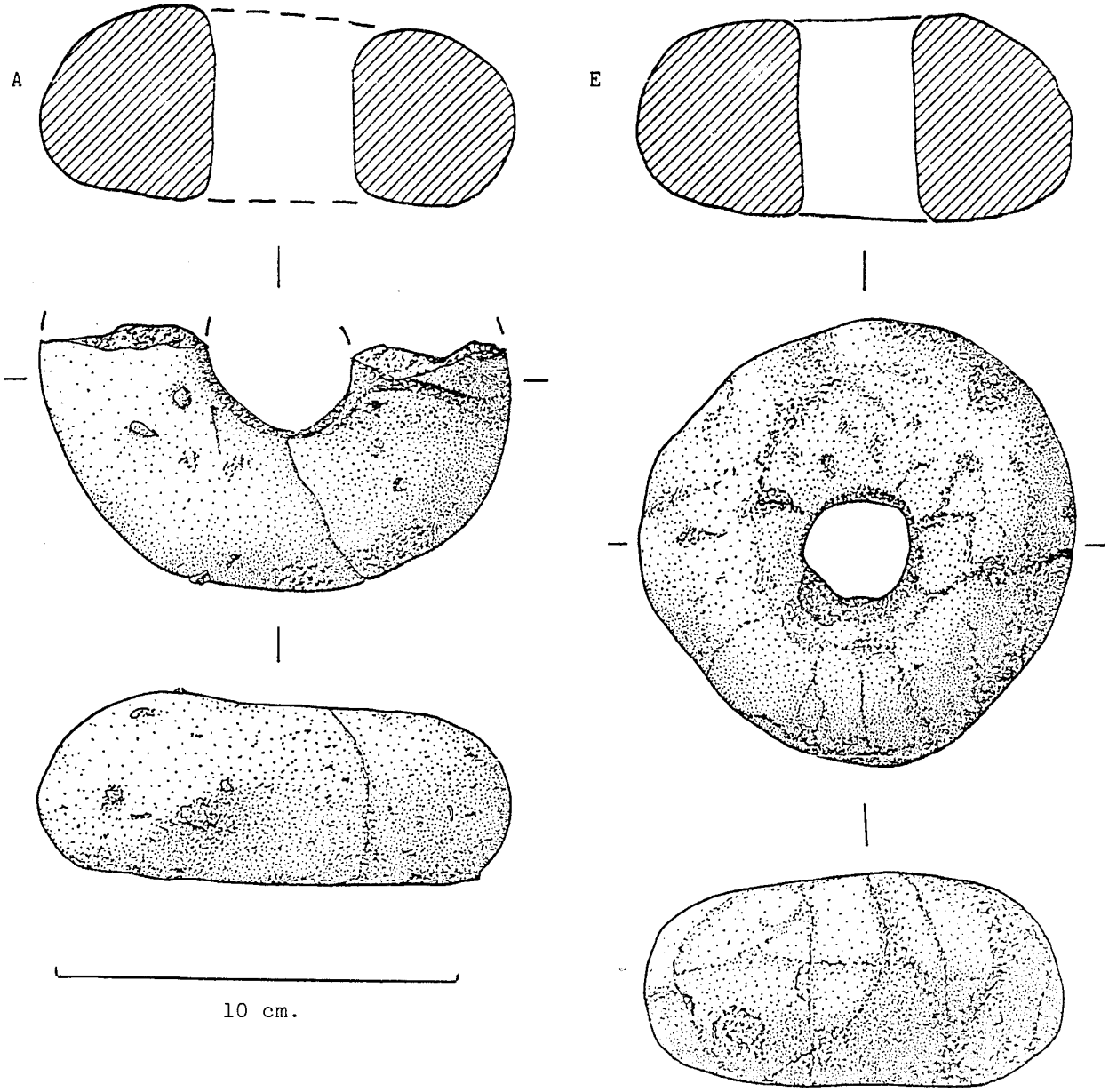
Two linear ditches (F 29 and F 31) intersect in the northwest quadrant of the open excavation area. F 29 is typically 1.1 m. wide and 0.35 m. deep (below ploughsoil interface). The ditch is 'V' shape in section and is thought to originate from the late Iron Age. It shows evidence of having been re-cut in the Roman period. Finds from F 29 include approximately one-third of a large storage jar (see Fig. 8.)

The second ditch F 31 appears to have been dug in the Roman period (probably 1st century) and is a shallow 'U' shape in section, with dimensions 1.2 m. wide x 0.25 m. deep (below ploughsoil interface). Roman finds were recovered from throughout its fill (see the reports on pages 54 and 55. The pottery included finewares, Samian, coarse-wares, amphorae and grog tempered storage jars.

Fragments of Roman tiles, including tegula and combed box-flue tiles, were also recovered. Material paralleled by that from the local red hills (salt extraction sites) was found in the Roman levels of the ditches. This included briquetage (illustrated in Fig. 9.) and lumps of pale green vitreous material (as yet unidentified).

(concluded on p.38)

FIGURE 6. Drawings of loom weights A and E.



All eight are of intermediate form (a hybrid form between annular and bun-shaped) which suggests a mid-Saxon date (about 7th to 9th century). Diameters vary from 85 - 130 mm. with heights from 42 - 50 mm. The fabric is fired clay with relatively course quartz and quartzite inclusions.

At least three of the weights bear signs of suspension grooves. A single piece of baked clay, possibly daub, was found with the loom weights.

FIGURE 7. Drawings of loom weights C and B.

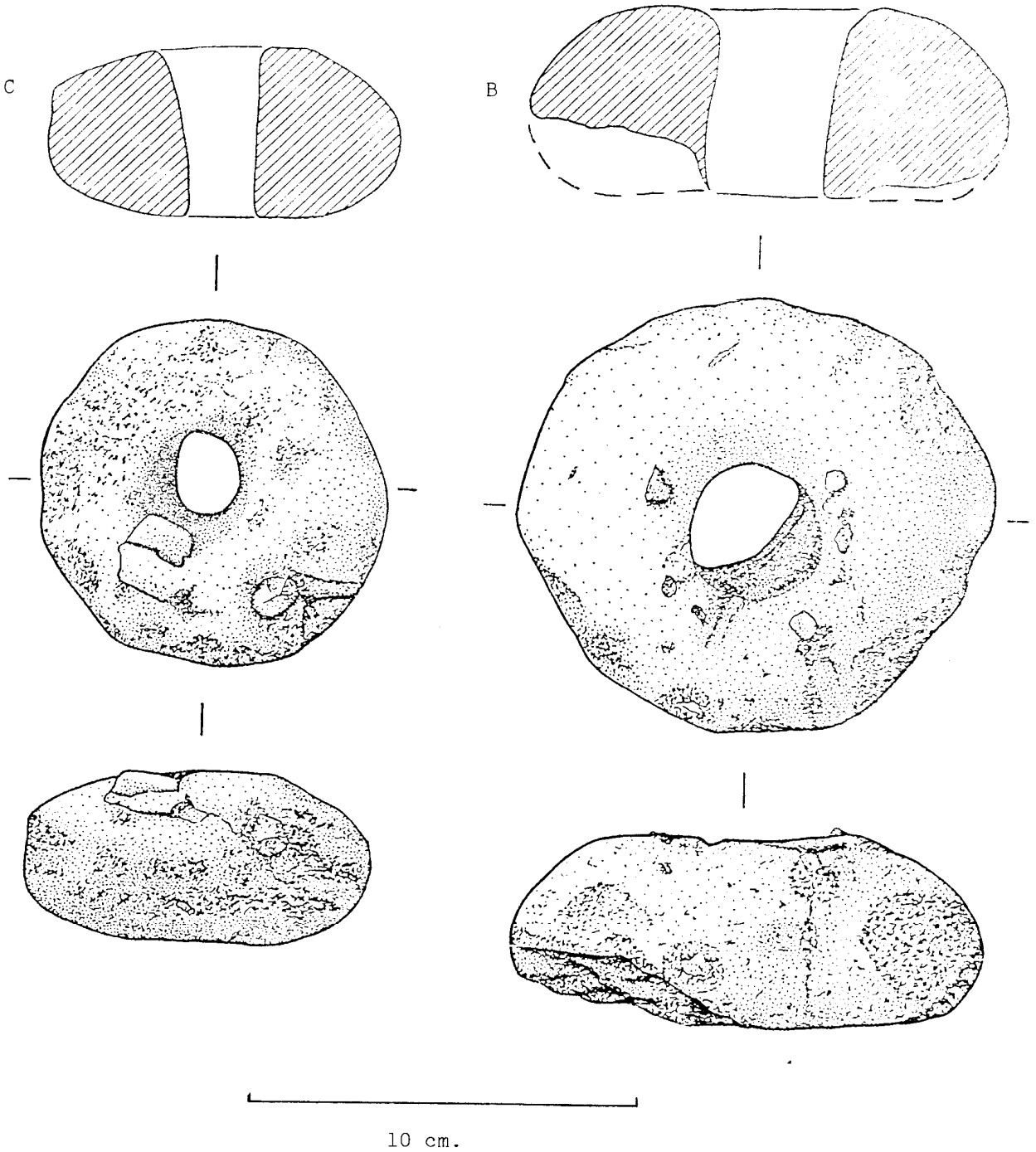


Figure 8.

Storage Jar from F29

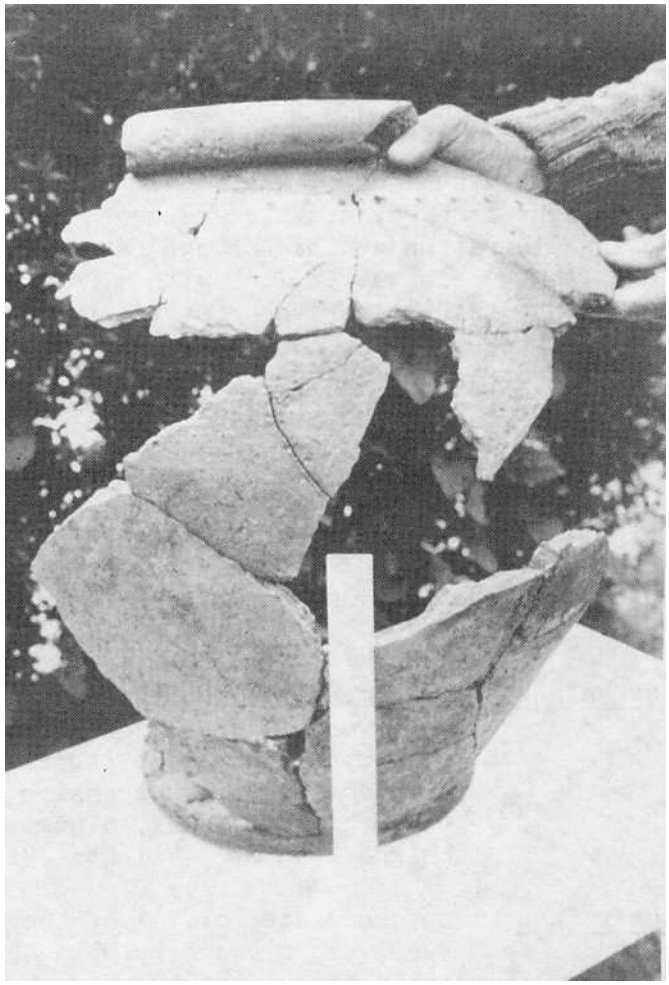
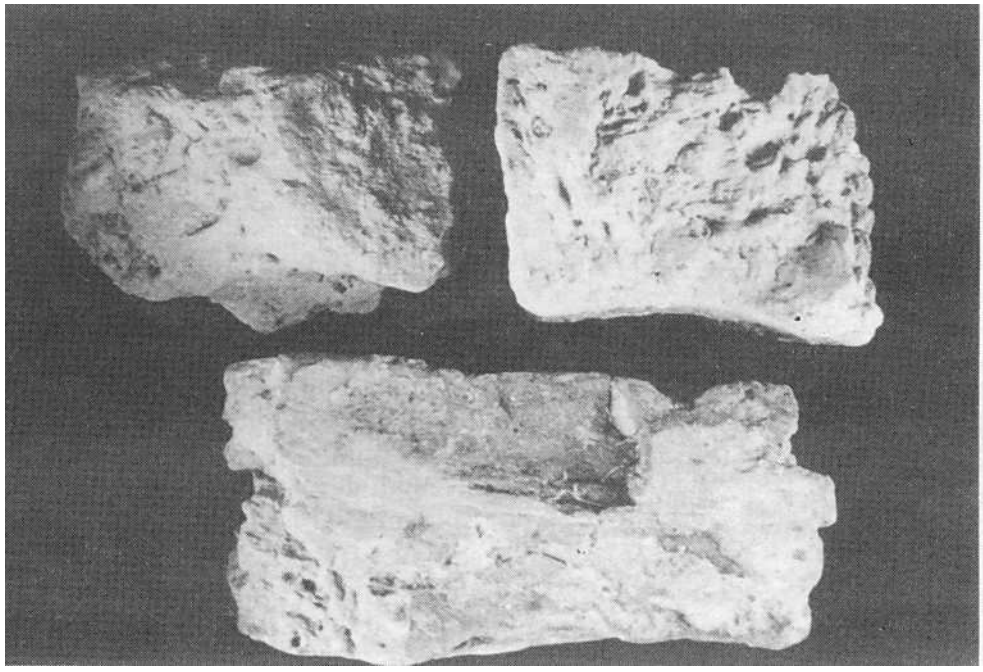


Figure 9. Briquetage from F31



Note on Loom weights from WS Site 1, Chigborough Farm

S. Tyler

A total of eight loom weights were recovered from a pit, feature F 33, during excavation at Chigborough Farm 1981-82, directed by P. Adkins. As the pit was in line with a row of postholes (info. from P. Adkins), this raises the possibility that the 'pit' was, in fact, a posthole and that the loom weights were used as packing around the post. The row of postholes is interpreted as representing one side of a building of middle Anglo-Saxon date.

Descriptions:

Of the eight loom weights submitted to the Archaeology Section, it has only been possible to draw and describe four; the others had not been cleaned as the excavator wishes to submit these for environmental analysis.

(A) Loom weight: intermediate; c. 50% of the loom weight survives; fired clay with occasional large quartzite inclusions (some greater than 10 mm. in diameter); a suspension groove is visible on both sides; max. diameter: 115 mm; max. height: 46 mm; weight: 329 g.

(B) Loom weight: intermediate; c. 75% of the loom weight survives, fired clay with quartz and quartzite inclusions (some greater than 10 mm. in diameter); max. diameter: 118 mm; max. height: 48 mm; weight: 555 g.

(C) Loom weight: bun-shaped or disc-lenticular; almost complete, slight damage to one surface; fired clay with quartz and quartzite inclusions, size varying from less than 1mm. to very large pebbles with diameters greater than 15 mm; very slight indication of a worn suspension groove; max. diameter: 86 mm; height: 42 mm; weight: 320 g.

(E) Loom weight: intermediate; fired clay with quartz and quartzite inclusions (some with a diameter greater than 5 mm.); worn suspension groove; max. diameter: 106 mm; max. Height: 50 mm; weight: 504 g.

The other four loom weights which were not examined in detail appear to be of intermediate or bun-shaped form, with sizes ranging from about 85 mm. to 130 mm. in diameter.

Discussion:

Loom weights can be divided into three types: (i) annular; (ii) bun-shaped or disc-lenticular, and (iii) intermediate between (i) and (ii). It has been argued (Dunning et al 1959, 23 - 25), that annular loom weights belong to the early Saxon period, intermediate loom weights to the middle Saxon period and bun-shaped to the later Saxon period. Annular is defined as having a central hole as wide or wider than the ring of clay around it, whilst loom weights with smaller central holes are either intermediate or bun-shaped. The early Saxon annular loom weights were made as rings or had their centres pushed out with the fingers to form a hole, whereas the later loom weights are discs which have been pierced with holes of varying sizes (Dunning et al 1959, 23 - 24).

On this classification, the Chigborough Farm loom weights belong to the intermediate and bun-shaped categories which suggests a middle Saxon date. The central holes in the Chigborough loom weights could well have been made with a wooden stock, as they appear too regular to have been made with a finger. The intermediate type is found in 7th and 8th century contexts throughout the country, including Caistor-by-Norwich, Norfolk, Whitby, Yorkshire and Yeavering, Northumberland (Dunning et al 1959, 25).

A 7th to 9th century date range is therefore postulated for the Chigborough Farm loom weights.

References:

Dunning G.C., Hurst J.G., Myres J.N.L. 1959 'Anglo-Saxon Pottery: a Symposium' in Medieval Archaeology Vol. III pp. 1 - 79.

Other object from F 33

Baked clay, possibly daub; amorphous piece of baked clay; weight: 53 g

N.B. This is not briquetage or Roman tile.

A brief description of Roman Pottery from three ditch features in Area 1. at Site 1., Chigborough Farm, Heybridge.

Note: The codes in brackets are feature/find codes.

Amphoras

Small sherds and fragments from a minimum of three vessels:

1. Handle fragment; sandy pink fabric with paler, cream coloured surface (F31 Z)
2. Plain body sherds (2); sandy pink fabrics (F31J)
3. Fragments in fabric as above, with a grey core (F31 AN, 1 fragment), (F31 Y, 2 fragments).

Fine Wares

1. Flanged rim sherds (2), from one vessel; (F38 A) and (F31 L), second half of the 2nd century or 3rd century A.D.
2. Colour-coated ware beaker base; orange fabric, darker surfaces (F30 N)
3. Abraded body sherd in oxidised ware with moderate, fine red inclusions, lacking surface finish (F31 X).

Miscellaneous Coarse Wares

1. Straight-sided dish rim sherds (2) (F31), and two joining (F31 E)
2. Bead-rimmed dish rim sherds (2) from one vessel with a carbonised deposit on the external surface (F30)
3. Flange-rimmed dish rim, mid 3rd to the end of the 4th century A.D. (F29 A)
4. Bead-rimmed jar sherds (13) (F31 H)
5. Grog-tempered large storage jar sherds derived from a minimum of 4 vessels:
   Beaded rim sherd (F31 AG)
   Very abraded beaded rim sherd (F31 AK)
   Base sherd in distinctive fabric with large grey grog inclusions up to 1 cm. in size (F31 AB)
   Stab-decorated shoulder sherds: three joining from one vessel (F31 M) and two joining from a second vessel (F31 M); one sherd (F31 AA) Plain body sherds: one (F31 AH) and one (F31 AE) both in fabric as base above.

6. Miscellaneous
   rims: jar rim sherd (F29 B); rim fragment (F30); abraded rim fragment (F31).
   bases: jar base sherd (F31); jar base sherd with carbonised deposit on the internal surface (F31 D); 9 joining jar base sherds (F31 F); dish base sherds (2) from two vessels (F31); dish base sherds (2) from one vessel (F31 A); dish or bowl base sherd with carbonised deposit on the external surface (F31 OP).
   plain: folded beaker sherd (F31 S); six sherds (F31); two sherds (F31 A); five sherds (F31 G).

It is hoped the above listed pottery can be examined

Tiles from F 31

Robin Turner

Ten fragments of Roman tile from this feature were examined.

F31 B	Tubulus (box tile) fragment
F31 C	Tegula
F31 0	Flat tile
F31 Q	Possible floor tile
F31 R	Tubulus - 5-toothed comb
F31 U	Tegula
F31 V	Possible floor tile
F31 W	Flat tile
F31 AD	Tubulus - 6+-toothed comb
F31 AF	Flat tile waster

The tiles could suggest, the presence of a substantial building in the vicinity, although such debris tends to travel quite long distances and can be dispersed by agricultural processes. Tubuli, or box-flue tiles, were used both in hypocaust systems and in vaulted roofs. None of the box tile combed patterns were identifiable. Tile wasters were commonly used in buildings and need not suggest proximity to a kiln.

(continued from p. 32)

General Summary

The Roman finds, and in particular the tubuli (box flue tiles), suggest the presence of a large Roman building in the vicinity of Site 1.

The Saxon finds reported above, together with a domestic Saxon site (2) at Tolleshunt d'Arcy (Site 8) and a very recent find of a Saxon iron working industry at Site 2 (approximately 1 km. north of Site 1) (3) suggest that a well organised population was thriving on the northern terrace of the Blackwater estuary during the early to mid Saxon period.

Acknowledgements

Grateful thanks are expressed to Mr. L.K. Sampson the farmer of Site 1 for granting permission for the excavation. To all concerned at Essex County Council Archaeology Section, in particular to Sue Tyler for reporting and Sue Holden for drawing the loom weights, to Catriona Turner for helpful discussions on the Roman pottery, and Robin Turner for reporting on the Roman tile.

References:

(1) C.A.G. Bulletin 1984 Vol. 27. 33-43
(2) C.A.G. Bulletin 1983 Vol. 26. 13-16.
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WEEKEND VISIT TO CAERLEON AND CAERWENT

20th - 22nd September, 1985

In what was something of an innovation for the Group 16 of us, together with 12 Friends of Colchester Archaeological Trust., went by coach to South Wales where we stayed two nights at Aberdare Hall, a University of Wales Hall of Residence in central Cardiff. Our chief object was to visit Caerleon, the military fortress of the II Augustan Legion which has parallels with Colchester, and the Roman civil town of Caerwent.

We left Colchester in sunshine, though previously we had had weeks of rain, at noon on the 20th September. Our coach driver, Taffy, appropriately a Welshman, is a trumpeter in the band of one regiment in Colchester who was working for the coach company during his leave. His driving and his care for us were exemplary.

Our first stop was Chepstow Castle on the bank of the River Wye where it stands at the end of a narrow spur running down to the river from the high ground. It has been recorded since Domesday and much of it still stands. Next we went straight to our accommodation and dinner at Cardiff.

On Saturday morning, sun still shining, we went to Caerleon where we visited the amphitheatre, the barracks and the new museum built over the recently excavated baths. Our morning guide was Mr. Peter Webster, tutor, Extramural Department of Archaeology, University College, Cardiff. After lunch we were met by our second guide, Mr. Robert Trett, Curator of Newport Museum and, in his student days once attached to Colchester and Essex Museum, who took us to Newport where much of the material excavated at Caerleon is to be seen.

We felt of some consequence having two professionals to guide us in one day and this feeling was reinforced when all 30 of us trooped on to the town square at Newport en route for the museum, to be greeted by the Celyn Colliery Band, just striking up as if to herald our arrival.

Following the Newport Museum visit we returned to Cardiff to the National Museum of Wales, but many people felt the need for tea rather than more culture, so only a small party got to the National Museum. However, we recovered after a good dinner and Mr. Webster, our morning guide, then gave us an excellent illustrated talk on Roman Wales

On Sunday morning, promptly at 9.00 a.m., we left Cardiff to visit the civil town of Caerwent. Here much of the town wall still stands as do many substantial remains within. We wandered round the walls looking out across the hills towards the known hill-fort sites as well as down onto the many obvious remains just below the pasture within the walls. On a quiet Sunday morning in the sunshine, the atmosphere was charged with a sense of the past and many of us felt ourselves transported back over the centuries. When we dragged ourselves away we drove on to the remains of the magnificent Cistercian Abbey of Tintern. We then took a scenic route via the Forest of Dean home.

We are all most grateful to Dennis Tripp for the excellent organisation and arrangements and to David Clarke who briefed us on the monuments we saw. Members of the outing asked when the next trip would take place! Such a trip could be arranged if it is what Group members would like and would support. So far, suggested venues are The Viking Exhibition at York, Vindolandia and Hadrian's Wall and Chedworth Roman villa in Gloucestershire and nearby churches for their fine stained glass in Oxfordshire.

Any views on whether such a trip would be welcome and well supported and suggestions for other venues are welcome.

Ideas to Dennis Tripp or Kath Evans please.

K.A.E.

MICHAEL ORGAN

Michael died on 25th November, 1985. Like Dick Farrands, who died earlier in the year, Michael was a Trinity House Pilot.

Michael first attended Colchester Archaeological Group to give a talk on Wind and Watermills in February 1983 and, from then on, he was with us regularly until his death.

As the owner of Ramsay Windmill, his interest in mills first developed when he was persuaded to allow a group of enthusiasts to restore his mill. He was an active member of the Suffolk Mills Group and, following the restoration of his own mill, he helped on a number of Suffolk mills.

He was a keen member of the Society for the Protection of Ancient Buildings - Wind and Water Section and of the International Molinological Society to whom he gave a talk on Military and Naval Mills at the Symposium held in Ghent in July 1985.

When the Essex Mill Group was proposed he was called upon to help get it started and the first Group meeting was at Ramsay Mill. He was to have given the first talk to the newly formed Group on 29th November, 1985.

From mills, Michael also developed an interest in industrial archaeology generally, and helped to found Suffolk Industrial Archaeology Society.

To all his interests Michael took great enthusiasm, he could arrange and organise things with speed and efficiency, and was always willing to help others.

The Group will greatly miss his expertise and his enthusiasm. We send our sincere condolences to his family and friends.

K.D. and K.A.E.

WINTER MEETINGS 1984/1985

RECENT EXCAVATIONS NEAR LONDON BRIDGE 22nd October, 1984
Mr. Milne (Assistant to Brian Hobley, Chief Urban Archaeologist, The Museum of London)

Until the development of container shipping the banks of the Thames in London were lined with warehouses supplied from barges and lighters . With containerisation the buildings soon became redundant and the sites were frequently available for excavations. London City, no longer a port, became almost entirely a financial centre.

Excavations showed that the first Roman shore line was 100 m. north of the present one and was at first lined with landing stages. In due course they were filled in to form quays. The timber used was massive and would require gangs of many men and cranes to move the great beams. This was shown by the extraordinarily well preserved timbers found by St. Magnus' Church. Until late in the Roman period only lap joints, made by parallel cuts with saws and then taking out the wood between with axes were used. In this way braced structures ensured a strong quay side facing the river. The associated buildings were not warehouses but transit sheds - much inferior to the dockside buildings at Ostia. Several Roman ships have been discovered, not very big; the Blackfriars ship - rather like the 19th century Thames barges in size and shape. The quay supported a trading area. The imports were mainly luxury goods such as wine and pottery, including Samian ware.

There was little level ground so the quays were gradually moved southward to win land from the River. By the latter part of the 3rd century the waterfront had advanced about 100 m. southwards.

The excavators found, near the corner of the wharf, a timber braced structure, probably one of a series of box constructions leading southwards and built to carry a Roman bridge. In the deepest part the bridge must have been carried on piles. Previously it had been supposed that the Roman London Bridge had been a masonry construction.

After the 3rd century there were no more developments and the port seems to have decayed, probably as land movements had reduced the tidal head so ships could no longer move up to the wharves. However, in Saxon times, matters had improved and new wharves appeared.

One stretch of wharf (late 12th - 13th century) was a braced structure faced with planks which had all been cut to size and numbered before erection. Many of the planks were re-used from ships and buildings. The construction of this type of wharf was very economical in both timber and labour. A further southerly movement of the water front in the middle ages was probably due to the need to accommodate larger ships.

THE HULLBRIDGE BASIN SURVEY 29th October, 1984
T.J. Wilkinson, B.A. Project Director, Essex County Council Planning Department, Archaeological Section.

The speaker's subject extended from the Hullbridge Basin to other places on the Essex coastline where former land surfaces can be studied in the intertidal zone, and follows on previous amateur research published in 1980.

Many sites which were above sea level in Mesolithic times are now available at low tide below considerable later deposits. These sites can be observed where the shore line is being eroded; a contrast to Greek sites now submerged and, owing to small tidal range, not seen at low tide.

An important site is on the north bank of the Crouch just west of Fen Creek. Here Mesolithic flints lie on London clay, covered with peat, then middle clay, then another peat layer. The slope of the deposits show that the former water course was north of the present one, and was a fresh water one. There are about 5,000 years of deposits on the Mesolithic site, the lower peat (about 2,000 B.C.) shows oak and alder. Mesolithic blades, cores etc. are shown during erosion. A similar land surface (on the south bank) near Hullbridge shows roots of large trees - the remains of a great forest which grew between an early sea transgression and later bigger transgressions, about 2,100 B.C.

On Blackwater sites near Mundon and Bradwell neolithic pottery surrounded by charcoal is found, but there is no submerged forest as by the Crouch. Beaker pottery is also found at Jaywick - coming out from well

covered deposits.

An important Bronze Age find at Bridgnorth Island between Burnham and South Woodham Ferrers was a timber jetty of worked planks on posts (or a marsh trackway) sealed by 2 m. of clay. This is about 1,000 B.C. (late Bronze Age) and a salt working site with briquetage and evaporation basin, (showing the place to look for Bronze Age salt works is below the clay). A hurdle structure found in the clay is about 700 - 800 B.C. (late Bronze Age or early Iron Age). Another important find was made in 1983 in the Canewdon area where a paddle was found under 12 m. of clay. This was late Bronze Age or early Iron Age.

In Mesolithic and Neolithic times the forested nature of the Hullbridge Basin made communication difficult but from Bronze Age to late Roman times the sea level rose and water travel was much easier. However, at the end of the Roman period and into the Saxon period shell ridges along the Dengie Hundred coast made it difficult for the tide to reach far up the Crouch so the upper estuary became a freshwater marsh. The Blackwater, not so affected, allowed Maldon to grow in importance - these changes were not due to sea level changes.

This shortening of the tidal part of the Crouch estuary also accounts for the concentration of salt working in late Roman times at the eastern end of the north bank of the river, as salt water was still available there.

SEXUAL THEMES IN GREEK AND ROMAN ART 5th November, 1984
C.M. Johns, M.A., F.S.A. Department of Prehistoric and Romano-British Antiquities, The British Museum.

The speaker stressed that sexual images were not viewed in antiquity as now and we should try to view them as much as possible in the way they formerly were seen. There had been unfortunate effects from the prudishness of 19th century and earlier (18th century) times when sexual "finds" had been suppressed and separated from their context. The finds at Pompeii and Herculaneum had, however, great effect but many finds had been regarded as indecent and publication made difficult by "delicacy" and museums sequestered artifacts of this kind. An interesting light is thrown by Sir. Wm. Hamilton's letter to Paine Knight on the ancient worship of the phallus. The speaker contrasted the tolerance for images of gladiatorial combats which were regarded as not likely to produce cruelty from the beholder.

Most material found is of a religious nature - related to the worship of gods and goddesses who needed to be fertile. At first these were female, later male. Some were acceptable to 18th and 19th century opinion as tender e.g. Gallo-Roman terracottas of a mother with two children. Juno, Roma, Hera, Demeter, Diana, all more or less had attributes favourable to fertility. A famous example is the multi-breasted Diana of Ephesus. Others were half animal, half human e.g. Pan, Sylvanus.

These gods and goddesses had malevolent as well as benevolent attributes so should not be offended. (Pans were male or female and are often found on sarcophagi). Priapus was the god of gardens and often depicted as a herm, i.e. a head and male organ. These herms were commonly used to mark boundaries too.

Mercury was sometimes shown in this aspect, perhaps with bells to emphasise his power, in this case they are called tintinnabula.

Carved phalli were displayed at street corners and many other places to ward off the evil eye and bring good luck. They are depicted as planted in the ground and being watered or anointed, or little gold emblems of them, for children to wear, have been found. Sometimes a phallus is shown with wings. Representations of female sex organs are much rarer - probably a male dominated society felt uneasy seeing them.

A smaller number of finds seem to be more erotic than religious, others are hard to classify. Greek bowls show (sometimes) satyrs, a "rough lot" as the bowls were used at all-male drinking parties. A bowl also shows men courting boys.

Sexual scenes on Roman pottery appear more tender than Greek e.g. a couple in bed with the dog curled up.

The study of the subject is difficult as written sources are biased by intention or chances of survival and many finds have been suppressed.

THE EARLY MESOLITHIC VIEWED FROM THE RUBBISH DUMP: EXCAVATIONS AT SEAMER CARR, NORTH YORKSHIRE 12th November, 1984
T. Schadla-Hall, M.A., A.M.A., Cert. Ed. Principal Keeper, Kingston upon Hull Museums and Art Galleries.

The study of the early Mesolithic is sadly neglected in this Country, partly because the feeling exists that excavations at Star Carr had revealed all that could be learnt on the subject. In that part of Yorkshire there are three clusters of sites: one on the moors, one in Holderness, and the third, which includes Star Carr, Seamer Carr and Flixton, is round the edge of a former lake, now covered with peat beds. Here, about 10,000 years ago, lived Mesolithic communities.

The County Council bought the land for rubbish disposal and, before work began, a palaeo-botanical survey revealed the ancient shore line before archaeological excavations began. Trenching showed that there had been occupation soon after the end of the last glacial period and a long series of 2 m. square pits dug round the "shore line" revealed a number of Mesolithic sites with various uses. In one place was a stone-lined hearth, in another a butchery site and elsewhere flint knapping had been carried on. Flint scrapers, blades, reed cutting tools and well preserved bones, (e.g. red deer, aurochs, and a surprisingly large jawbone of a horse) were found. These were all lying on a sandy layer, below which were very early flints including microliths showing fishing had been carried on. The flint artifacts were made from flint found near by and from Flamborough Head. Several small bladelets were found - five of which were still mounted in wood. An exciting part of the operation was when a machine cut trench was made through a very spongy area formerly covered in deep water and still so wet that the peat brought out was examined by squeezing. In Mesolithic times the lake at Seamer Carr was separated from the Star Carr lake by a bar. Finds along the River Herford show the latter lake had been much bigger than formerly supposed.

The speaker concluded by saying that there is no doubt that the Mesolithic population density had been much greater than previously thought, and the weather more congenial. A plentiful supply of game and fish had made it the "Serengeti of early times".

ICE AGE HUNTERS: THE EARLIER PREHISTORY OF HENGISTBURY HEAD 19th November, 1984
Nick Barton, Donald Baden Powell Quaternary Research Centre, Pitt Rivers Museum, Oxford.

The speaker described excavations of two sites on this headland which in early post-glacial times, looked over a tundra landscape with a river valley in the north and the "Solent River" in the then un-inundated Channel, stretching across to France.

The first one he described was an upper Palaeolithic one of about 10,500 B.C.; it is on the cliff edge and rapidly crumbling away. It occupied a shallow depression and had been partly excavated early this century and in 1950 and 1968 when it was thought that evidence of two stages of occupation were found. Nick Barton's dig was to extend the excavated area and seek evidence for dating.

Finds included burins, backed blades, (some tanged), abraded pieces of red ochre, points of a north German type, and scrapers. Some scrapers were found 6 m. from their parent core, so showing where they had been made. Blades of flint had been broken to provide corners which could make points. As the cores had come from 12 km. to the west the material had naturally been used economically. Experiments with newly made scrapers confirmed it was likely the scrapers excavated had been used for fleshing deer skins. The site lies on sand; a scatter of flint fragments was carefully planned and their movements studied. After some months the small fragments had "gone with the wind" Of the larger pieces those that fell flat remained and those on edge worked their way down, but pieces which were collected vertically can be re-assembled showing the site was all of one period.

Site 2 was Mesolithic, of a period when pine and birch had colonised the headland. Here, again, small cores could be reassembled. Three tool types were found, scrapers, small saws, and (preponderantly) microlith points - over 400 from a small area. The saws may have been used for cutting meat. A bow and arrow similar to Scandinavian ones of this period was used to shoot at a deer and was capable of penetrating right through it if it did not meet a bone. Those that met a bone had the flint point fractured in the same way as some of the broken points which had been excavated - suggesting this was how they had been used.

ROMAN TILE AND BRICK 26th November, 1984
Dr. A.G.N. Brodribb, M.A., F.S.A. Excavator of the Roman bath house at Beauport Park, near Battle.

Dr. Brodribb, writer of the first book on this subject, said few whole Roman tiles have survived in this Country, though at Herculaneum an intact roof can be seen. Greek tiles of stone were the earliest and in Sussex clay tiles copying tiles of Horsham stone have been found. The Roman tegula weighed about lb lbs. and the imbrex about half as much. The construction of the roof ridge is not altogether clear, some seem to have outsize imbrices, others may have had transverse imbrices to carry the rain to the tegulae. A very few tiles have been found with round holes to take a vent, perhaps an open one or surmounted by a chimney pot. One such tile has come from the Gilberd School site.

The bottom imbrices in continental countries were often plugged with antifixes bearing faces or designs but in this Country these are rare and probably only fitted on official buildings, and at their corners.

Rarely (e.g. Norton, Yorks.) chimneys are integrated with the ridge tiling. Louvred objects, which may possibly be chimney pots, are sometimes found (e.g. Beauport Park), and an unparalleled tegula-cum-imbrex was found at Wendens Ambo.

Tiles were used for other purposes than roofing - drains, tile tombs (rare in Britain), pilae in hypocausts, etc., and as bonding tiles. Tile sizes were based on the Roman linear foot - the pedalis being 1 ft. square - other sizes were the bipedalis, sesquipedalis (12 pedales), bessalis (3 pedales), imbrices were 1" shorter. These sizes varied in practice, however, because of the difficulty in making allowance for shrinkage in firing.

The bessalis was often used in making pilae for hypocausts. The piled tiles supported the four corners of large tiles which were then rendered over to make a level floor. When the supply of bessalis tiles failed, however, box tiles on end or other material was used to support the floor. Bonding tiles often had blobs on them to give a better grip.

Box tiles were combed to hold the plastering. Some were attractively ornamented by pictures from rollers and sometimes with pattern or occasionally with words drawn with a comb. Instances of graffiti are also found. The cavity wall is sometimes strengthened by using tegulae with deep flanges, or spacers - (cotton reel shape).

The edges of tegulae from military or naval sites sometimes have "tally marks" in Roman figures.

Finally, the speaker described "oddities" e.g. triangular bonding tiles (as at Pevensey) which provided a regular bonding line to the outside of the wall, tiles which had been dipped in paint etc. It is important that excavators in future give much more attention to Roman brick and tile than has been given in the past.

ENGLISH STAINED GLASS 3rd December, 1984
D.M. Archer, M.A., F.S.A., Deputy Keeper, Department of Ceramics, Victoria and Albert Museum.

The earliest window glass known in Europe was that used in the late Roman empire in the form of framed square slabs, imitating the thin alabaster used previously, but the earliest coloured glass is of Byzantine origin. From Byzantium the craft spread over Europe, the earliest English use being at Monkwearmouth. The colouring was obtained by using metal (or metallic salts).

Modern methods closely resemble early mediaeval ones. Then, the design was drawn on a white painted table, the lead joints marked in black. The coloured glass pieces were then cut to size by rubbing at the edges. Details were drawn on the glass in black enamel and fired in a low temperature kiln to fix them. Lead strips (canes) with an 'H' cross section were used to join the design together. In large windows iron stanchions, (ferramenta), strengthened the glass.

Fine early examples of stained glass are found in northern France - e.g. St. Denis, Chartres, Notre Dame, and in Germany at Augsberg. Glass was imported from France into England at this time but the making of the windows e.g. at Canterbury - was done on the spot, at first by monks, later by laymen. The early ones at Canterbury were finished by 1184, earlier than Chartres. Like St. Denis, they have a strong presence with large figures, (in the upper windows). The rather later, lower ones, not interrupted by stanchions or mullions, have large areas with a carpet-like background and a series of medallions; showing "Types" and "Antitypes".

The Cistercians developed "grisaille" - pattern of greying colour, with smallish figures on white glass. (The "Five Sisters" at York). As the panels grew taller they were subdivided with grisaille bands and bore pictures of donors and heraldic subjects. The speaker referred to good 14th century windows e.g. 1317 Eton Bishop, (Hereford), Wells Cathedral, Gloucester (1360), Winchester, New College, Oxford. A favourite subject was the Tree of Jesse, and narrative subjects (e.g. Westminster).

Later still, is St. Mary's Chapel, Warwick (1447) - splendid detail and the east window at Margaretting, where the design goes-over the mullions. Some of the finest glass is at Fairford. The shape of late 15th century windows imposed a burden on artists.

With the Reformation, craftsmen had to turn for work to public buildings or to heraldic subjects in churches, though there was a revival in Laud's time of religious topics (Messing, the 1620s).

In the 18th century stained glass gave way to painting on glass, often copying prints etc. e.g. New College, Oxford, - a nativity from a Reynolds design (unsuccessful, but with fine details).

The Gothic Revival brought a return to older methods and this led to the Morris workshop's achievements and the Arts and Crafts and Art Nouveau styles.

The lecturer finished with a brief description of stained glass down to the Piper achievement at Coventry Cathedral.

THE MINOANS 10th December, 1984
D.T-D. Clarke. M.A., F.S.A., F.M.A., F.R.N.S.

Crete, halfway between the Aegean and Egypt, is a long rocky island. Most of the Minoan palace sites are along the north side. Sir Arthur Evans, the first major excavator, acquired the site of Knossos at the beginning of this century and revealed (and restored in part), much of the palace in "digs" lasting over decades.

Minoan civilisation lasted a relatively short time, to its destruction by the great eruption at Thera about 1450 B.C.

Knossos is on a hill, adjacent are ruins of a town and port with a population of about 100,000. It consisted of a central court surrounded by many rooms and stores, a masterpiece of architecture with its pillared colonnades and well designed light wells. Perhaps the Minoans had a good navy, as there is little defensive work. The building is of limestone blocks strengthened with timber baulks; below are well thought out drains.

The great hall is approached by a dramatic flight of steps - the great glory of Knossos, on the east side. The Royal guardroom is decorated with frescoes of shields. Outside, the north entrance is what may be a customs hall.

Many rooms are frescoed, especially the Queen's room (which had a loo). It is not clear how the rooms were heated, perhaps the palace was only occupied by the royal family on state occasions. Some store places were lined with lead, perhaps to hold treasure.

Frescoes of bulls and other depictions suggest a connection with the Minotaur legend. Statuettes of goddesses or priestesses holding serpents suggest other religious beliefs, and a sarcophagus shows people seeming to make offerings to a cult figure or possibly a recently dead person.

Mr. Clarke showed slides of the actual frescoes which were the origin of the "restorations" now in the palace. He thinks they are rather fragmentary to give overmuch confidence in the validity of some of the "restorations". He wonders about the possibility of the bull leaping rituals, though he showed a slide of the British Museum figurine which supports the theory. Bull leaping is not paralleled elsewhere in the world.

He also thinks some depictions of rituals may show human sacrifice instead of the usual interpretation of an idealized religion.

A narrow street leads to the sea. There were shops on both sides, it is sometimes described as a processional way.

Malia has a similar though smaller palace, with double-axe carvings. Here, the Queen's room was lined with marble. Some of the construction was of clay blocks. (cf. Roman Colchester!) On the south coast Phaestos, where the Minoan A inscription on a disc was found, is also a small palace. Minoan pottery, some with naturalistic decoration is of very high quality.

THE ANGLO-SAXON CHURCH OF BARTON ON HUMBER. 28th January, 1985
Dr. Warwick Rodwell, M.A., D.Phil., Architectural Historian.

St. Peter's Church, declared redundant in 1970, as it is near the large mediaeval St. Mary's, and in the same parish, is now in the care of the Department of the Environment who have mounted a series of excavations lasting several years. As seen at present, it has a Saxon tower with a later Norman storey. At the west of the tower is an annex, sub-rectangular in plan, now found to be a baptistry. The church is in a roughly circular banked enclosure likely to be the boundary of a monastery founded by St. Chad. To the south-west is the site of a rich pagan 6-8th century cemetery with imported bowls etc. (at that time Barton was a royal estate). The town grew up in the enclosure and the church probably started as a market chapel and is important archaeologically, as early in 19th century Thomas Rickman pointed out that the tower must be Anglo-Saxon as it has a Norman addition, so proving that Anglo-Saxon buildings have survived.

Dr. Rodwell's excavations in the church revealed the oldest feature of the site to be an Anglo-Saxon cemetery with closely packed graves from which the remains had been removed to "cleanse" the site for the first church, a three-cell structure. The tower base was the nave and there was a square chancel. The west baptistry still remains. In the mid-11th century the chancel was demolished and a longer one built with an eastern apse and a nave. Early in the 12th century there was a further extension of the nave and a fresh apsed chancel built. Successively the south and north walls gave way to aisles. In time these aisles were, in turn, removed and wider ones erected and the apsed chancel gave way to a larger rectangular one.

Under the first altar were (unusually) two graves. Other finds were a bread oven, a shrine base, and a small freestanding tower.

In Norman times there had been 8 burials in the porch - two being priests. The bodies had been weighed down by stones. 2,800 skeletons deposited over a period of 1,000 years have been recovered from the site. The earliest had no coffins, but coffins were used later and, as some of the ground is waterlogged, many have survived - some of Scandinavian type with woven bases. Hazel wands, up to coffin length, were put in some (a pagan survival). Wooden coffins were held together with dowels and provide a great source of information on early carpentry methods. The bones are being studied at Bristol University.

An exhaustive study of the stonework and mortar of the walls has produced specimens of beams used at various periods and also intimate information of the constructional methods of builders from Anglo-Saxon times onwards, including evidence that the Anglo-Saxon church most likely had a spire.

St. Peter's should be seen in conjunction with St. Mary's as architectural features are, in some cases, shared - or partly shared - showing that substantial masonry features have been removed from one to the other.

MEDIAEVAL COLCHESTER. 4th February, 1985
Dr. G.H. Martin, M.A., D.Phil., F.R. Hist.S., F.S.A. Keeper of Public Records, Public Record Office, London.

Dr. Martin began by looking back from the present day, through the centuries, at the changes which had taken place in Colchester until he came to the early 16th century when the town was dominated by large monastic buildings - St. John's Abbey, the Augustinian Priory, Greyfriars, "Crutched Friars" - to be displaced by the large houses in the 17th century of wealthy laymen.

The speaker then began to follow the town's history from Saxon days. These newcomers - not really "English" i.e. not Angles, were, for a long time, obdurately pagan. As in the Iron Age, the Colchester area extended to the ramparts at Lexden, and did so until recently. Within the town walls the Saxon urban life developed eventually, though much of the area was cultivated during the 4th, 5th and 6th centuries. Probably Christianity impinged on the town in the 7th century but there is little archaeological evidence. Between 597 A.D. and the late 8th century the town revived considerably, and after Danish occupation was retaken by Saxons, and Edward the Elder repaired the walls.

Some of the churches have pre-Norman origins - St. Peter's, (it was well endowed), St. Runwald's, St. Botolph, St. Nicholas and All Saints (All Hallows - an early foundation), Holy Trinity. By 1066 Colchester was an agrarian shell with an urban core. It had a mint - a matter where the King kept a firm hand - and was part of the fabric of society. Some town houses belonged to "Lords of Manors" outside the town.

Much may be learnt from Domesday Book. Norfolk, Suffolk and Essex are recorded in Little Domesday and, unlike the other counties which are described in Great Domesday, the findings of the King's commissioners are not condensed for these three counties.

Colchester was the largest settlement in Essex and the Colchester entry begins with Greenstead, where the owner also had an estate in Lexden.

Then follow over 200 burgesses who paid taxes to the King - there is no such detailed list for other towns. This is followed by other owners. It is probable that this detailed list was already in existence and was just handed over.

By Domesday the Castle was already here but, as there is no account of clearances to make room for it, it seems that the site must have been in the public domain since the time of Claudius.

At the time of the early Saxon settlement, Essex seems to have been a congery of tiny kingdoms (e.g. Vange, or Fen Gan) and the anomalous position of Lexden, in Colchester instead of Lexden Hundred, is due to this fragmentation.

Under the Normans, a trusted friend of William ran the town and its castle. This man was Eudo the Dapifer. He founded the well endowed St. John's Abbey (Benedictine) whose abbot sat in the house of Peers.

The earlier St. Botolph's Priory, concerned by the rise of this newcomer, refounded itself as a House of Augustinian Canons and became part of the "establishment". Their land was a mass of little patches showing they had been endowed by many burgesses.

St. Mary's, with 4 acres in the town and more land to the south, was the Soke of the Bishop of London who may well have founded the forerunner of the Grammar School, by the church. Other town churches of this period are St. James, St. Leonard's at the Hythe, St. Mary Magdalene (leper church between town and harbour) and also, beyond the Wall - Berechurch - a chapel of Holy Trinity parish.

The demolition last century of the Old Moot Hall produced high quality Romanesque carvings, (now lost). The 11th and 12th centuries showed Colchester at its greatest relative importance - partly due to its strategic position.

THE NORMANS AS BUILDERS. 11th February, 1985
Professor C.N.L. Brooke, M.A., F.B.A., F.S.A. Vice President, Faculty of History, West Road, Cambridge.

This lecture was confined to Norman churches and cathedrals - from tiny "box churches" to huge cathedrals. The fashion for great churches was brought over from France and nowhere in Europe was there such a concentration of big church building as here, in the 11th and 12th centuries when all the Anglo-Saxon cathedrals were replaced; e.g. the small Elmham one by the great Norwich one.

The resources for the work were here. The Normans had won a relatively prosperous land and the mainly agricultural population provided labour when there was little seasonal farm work to do. Economically a good deal was gained by this activity - the vast movement of stone etc. stimulated improvements in trade facilities, as the pilgrimages of the age encouraged travel and trade. Politically, the effect of this unparalleled church building was to impress the English with the authority and organising power of the Normans.

At Durham the choir is of 1090s and the nave of 1130s. It replaced Chester-le-Street as the resting place of the relics of St. Cuthbert and is set in a site of great natural beauty; it provided respect and protection for the relics. Spiral ornament and great arches are truly Romanesque as they show Roman influence - though the slightly pointed vaults foreshadow the Gothic. As at Castle Acre, some ornamentation is of interlaced arches. Ely shows similarities but has a flat ceiling - here the triforium arches are nearly as tall as the arcade.

In the 1070s Lanfranc's cathedral at Canterbury (not so big as Ely) was conventionally Norman. The tombs of Saxon saints, not much esteemed by Normans, no longer dominated the cathedral. The rebuilt San

Clemente at Rome gives a good idea of the 12th century idea of a 4th century basilica and Lanfranc's building was much like San Clemente. No longer surviving screens separated laity from clergy. There was an absence of ornament. Later Archbishops had more sympathy with Saxon saints and their shrines and gave them more prominence. Soon after the death of Thomas a Becket a fire gave the opportunity for great extensions. The east end was rebuilt as Trinity Chapel and an impressive shrine raised for St. Thomas' head. Stone, paint and glass were used to honour the martyr.

Winchester, the largest English Norman cathedral, housed the shrine of St. Swithin. Later Gothic extension to the east of the shrine accommodated pilgrims. Strangely a screen was built to separate the saint from the clergy. The later Romanesque work was well ornamented though, apart from the wonderful Tournai marble font, little remains.

After discussing several other buildings and making comparisons with some continental buildings, Professor Brooke raised the question as to why Norman naves were so huge. He considers it likely that they were intended to accommodate large gatherings of lay folk from the diocese at special festivals, especially Pentecost, as was done in France and Italy - in the latter case in open air enclosures. Here, however, the dioceses were much more extensive and difficulty of reaching the cathedrals made these gatherings much less popular and so the naves were more rarely used to capacity.

19th CENTURY CAST IRON WORK IN AND ANOUND COLCHESTER. 18th February, 1985
E.J. Russell.

The high quality cast iron work which was a feature of the 19th century street scene is rapidly becoming eroded by changes in taste which regard it as old fashioned and sweep it away. This is in addition to the great loss during the war, when many tons were collected to help the war effort under a Defence Regulation of 1942 and the Planning Department cannot act to conserve it if the building of which it forms part is not listed, so efforts should be directed to record it by photographs, casts and rubbings. Mr. Russell has appealed to the owners in many cases - sometimes successfully - to recognise the importance of this feature when re-developing property.

The most important of the several Colchester foundries was off the High Street and founded by Joseph Wallis, a founder of the Essex Insurance Company in 1792. No doubt this firm supplied the fine pillars of the colonnade of the Insurance Company office, (1819). Each pillar stands on a lead gasket over a brickwork base. The capitals were cast separately. Wallis was succeeded by his son, John Wallis Jnr. - then John Catchpool and Son, Catchpool and Thompson, Catchpool, Stannard and Stanford and, finally, 1885 - 1920, Stanford and Company.

The names of these firms (and others in the town) were cast on their products usually. Sometimes the names of the ironmongers who supplied some of the products were cast. The finest iron work was the production of Royal Arms for churches and public buildings (e.g. the Customs House). These seem to have been provided unpainted and were painted by the purchasers. They can be seen in the Town Hall, All Saints, Christ Church (from St. Mary's), Castle Museum (ex St. Nicholas), Dovercourt, Fordham, Great Tey, Mistley, Mount Bures, Nayland, Rowhedge, Wrabness and West Bergholt, as well as further afield.

It is not possible here to record the many specimens referred to by Mr. Russell. They ranged from street nameplates to fuse boxes, borough arms, foliated tie-places, lamp standards, wall lamp brackets (especially Chapel Street Chapel), bay window supports, lintels, window sills, bollards, etc. Massive castings can be seen under the north bridge and in industrial buildings such as East Hill Brewery and Marriage's Mill. The fine gates of the now replaced 1844 Town Hall, now in West Stockwell Street, are well worthy of notice.

Mr. Russell has located a vast number of pieces of locally made ironwork in the town and close by, including 604 lamp standards. He is very anxious to receive information, especially photographs, of specimens in out-of-the-way places in the town so he can make the record more complete.

THE ANGLO-SAXONS AS ARTISTS. 25th February, 1985
Mrs. Joan R. Clarke, M.A., F.S.A., A.M.A.

The Anglo-Saxons - including Jutes, Friesians, etc. - coming as they did from the fringe of the Roman Empire, had not only Germanic art traditions but also display some evidence of classical and Celtic influences. Probably the earliest Anglo-Saxon settlers may have entered Roman service as echoed in the story of Hengist and Horsa and this agrees with some military equipment found at the early Anglo-Saxon site of Mucking.

They had adopted chip-carving techniques which gave a faceted pattern (found on the early Anglo-Saxon Equal Arm Brooches). Decorations showed animal life in a loose style which gradually changed to covering the surface with fragments of animals, notably fragments of beaked birds with eye and crest.

As the early Saxons built no lasting buildings, find spots are mainly cemeteries. After the earliest interments appear cast square-headed brooches, found singly in graves and, apparently, used to secure cloaks. A fine specimen now in Southend Museum (from Paglesham) is typically completely covered with decoration. In the 7th century, towards the end of the pagan period, a ribbon style of decoration emerged. The finest specimen (from Sutton Hoo) is of gold and weighs 14 oz. It is 5" long.

In Kent and East Anglia, polychrome jewellery decorated with garnets in a high standard of workmanship is found. The less elaborate pieces were cast in one piece but the more elaborate ones in two. This is cloisonne work with garnets in gold wire enclosures, and often had filigree edges. The finest example so far known is the Kingston brooch (now in Liverpool Museum), and is of the very highest workmanship; even the back is remarkable.

It is thought that the garnets came originally from India or Ceylon and some of the motifs used seem to come from Turkey, some from Scandinavia.

Besides brooches, another noteworthy product of the jeweller was a series of hanging bowls, probably meant to hang from tripods, and starting in the Iron Age and continuing in Northumberland until the 8th century. The fine ornament includes enamelling. Gold and silver used by the craftsmen were probably loot from the Empire and the cloisonne work seems to derive from Egypt and the eastern Mediterranean. At Sutton Hoo alone were 4,000 cut garnets.

The Saxon artistic tradition continued long after the acceptance of Christianity and was applied to religious objects e.g. sculptured crosses with their "inhabited vines", and Alfred's Jewel. Locally, an 11th century strap end shows Anglo-Saxon elements.

THE VOLUNTEER MOVEMENT IN ESSEX. 1797 - 1908. 4th March, 1985
A.C. Wright, A.M.A., Curator of Southend-on-Sea Museum.

The movement began during fears of a French invasion by Napoleon's forces. Though the regular army was not well regarded by the English public at that time, and the ill-disciplined militia feared and disliked, the local volunteers were popular. They recruited from a wide range of society, even people of modest means often joined with financial assistance raised to help pay for their showy uniforms. They were exempt from the ballot for recruiting the militia and their numbers at one time reached 400,000. The French attempts to land in South Wales and at Bantry Bay (1796) and the mutiny at the Nore, encouraged recruitment. The volunteers were no "Dad's Army" and their presence helped to reconcile the general public to the military sphere.

The natural defences of Essex were good - a coast of shoals and shallows fronting a marshy littoral, with the Southend and Clacton stretches the only ones suitable for landings. The St. Osyth, Clacton, Harwich, stretch was strengthened by building Martello Towers. These were of doubtful utility and the chain was never completed. Floating batteries manned by volunteers (Sea Fencibles) were set up on the Blackwater area, although not in the Thames. The officers had smart uniforms with S.F. on and, the buttons, fouled anchors. Other ranks wore ad hoc dress. By 1801 3% of Essex volunteered and the Board of Ordnance, unable to supply muskets, offered pikes. English muskets were the preferred weapons, some of the 1,000 corps bought their own arms; the supply of ammunition was severely limited and allowances due to the corps were often delayed for years.

The volunteers were stood-down at the Peace of Amiens but reformed more or less spontaneously when hostilities re-opened. Then a thorough-going programme of "burnt earth" and evacuation of the civil population and the construction of two "Star Forts" (Galleywood and Chelmsford) was achieved. Scanty signs of these earthworks still exist. Refugees from coastal areas, and military personnel, more than doubled the population of Chelmsford - to the profit of local tradesmen etc.

An interesting point is that Lord Petre, as a recusant, was not allowed to raise a corps, but was keen enough to do so in the name of his steward.

The Boer War, in which volunteers went to South Africa, brought the volunteers closer to the regular forces; though their dependants did not get financial allowances. However, a reorganisation of the system saw the volunteers transformed into a reserve army in 1908 as part of the military establishment. During World War I the Essex Yeomanry lost more than their original strength.

Mr. Wright showed a large number of fascinating slides of the very varied uniforms adopted by volunteer units, and pointed out their interesting features.

HISTORIC BUILDINGS AND THEIR CONTENTS IN THE CARE OF THE NATIONAL TRUST

11th March, 1985
M.D. Drury, Historic Buildings Secretary, The National Trust.

Octavia Hill and the other National Trust founders in 1895 did not envisage the Trust becoming involved in caring for stately homes and their contents but were concerned with protecting the countryside and making it accessible to the general public for, at that time, country houses belonged mainly to those who could well afford to look after them.

Then Ernest Cook (a great beneficiary of the Trust) bought Montacute and handed it to the Society for the Protection of Ancient Buildings who put the fabric in order and handed it to the Trust. It had practically no contents and though it was furnished by loans from the Victoria and Albert Museum and elsewhere, it was still depressing to visit. Finally, it was adopted as a sort of out-station by the National Portrait Gallery.

This had been a great gamble for the Trust which learnt the lesson that admission charges could never pay the costs of upkeep and the need for endowment when taking over a big house, and the importance of retaining furnishings.

The new National Trust Act of 1934 facilitated the Trust holding big houses and estates. Lord Lothian who had helped in the passing of the Act, left Blickling with its contents - including the great library - to the National Trust who kept it tenanted until about 1970. The speaker then gave accounts of several other stately homes owned by the Trust, including the following: Polesden Lacy, left by Mrs. Greville, with contents, to be a museum. It exhibits the Edwardian taste. The rich and powerful of the early 20th century visited and their photographs of themselves, given to Mrs. Greville, now provide an exhibition in the smoking room.

Knowle - most "romantic" of all these houses soon acquired an aura of antiquity, partly because furniture and tapestry once adorning royal mansions of the Stuart kings found its way there via the Sackville house in Whitehall, and was preserved for its associations with royalty. Nowhere in Europe can such early tapestry etc. be found in one house, e.g. 5 out of about 25 cross-framed chairs of state.
Petworth has invoices for all its Chippendale furnishings including a bed with original material, so providing a way of checking the authenticity of doubtful "Chippendale" pieces.
Nostell - a 1735 Robert Adam house - also has Chippendale archives. It was unfortunate in having had a serious fire but, with co-operation from a sympathetic insurance company, has been authentically restored.
Stourhead is a great repository of the younger Chippendale's work.
Uppark in West Sussex has a most interesting history and is also remarkable as being the great house H.G. Wells describes in Tono Bungay, (his mother worked there). The furnishings are the undisturbed ones of Sir Matthew and his son Sir Harry - the latter being first a friend of the Prince Regent until they fell out.
Small Hythe - the Wealden Hall type house of Ellen Terry - is, because of its associations with her, a very interesting house inspite of its comparatively modest size.

Mr. Drury concluded with some account of Cole Abbey and the recently acquired Calke Abbey.

This set of informal notes is produced as an 'aide ' memoire'. The reports have not been seen by the lecturers.

COLCHESTER ARCHAEOLOGICAL GROUP WINTER MEETINGS 1985/1986

In the Lecture Room, Colchester Castle at 7.30 p.m. - Non-members welcome

1985

October 14th — Annual General Meeting, followed by a talk on aerial photography, in the North East Essex peninsula by David Grayston.

October 21st — THE ANGLO-SAXON CEMETERY AT SPONG HILL, NORFOLK. Catherine Hills, B.A., Ph.D., F.S.A., Department of Archaeology, Downing Street, Cambridge.

October 28th — AERIAL ARCHAEOLOGY IN THE WELSH MARCHES. Chris Musson, B.Arch., Clwyd-Powys Archaeological Trust.

November 4th — CONTRASTS: THE ROMAN VILLAS AT CHEDWORTH AND WINTERTON. Roger Goodburn, B.Sc., F.S.A., Institute of Archaeology, Oxford.

November 11th — PHOTOGRAPHY ON THE 1982/84 EXPEDITION TO QASAR IBRIM. Tony Bonner, Colchester Archaeological Group.

November 18th — THE HISTORY OF ENGINEERING IN COLCHESTER. Andrew Phillips, B.A., Dip.Ed., Colchester Institute.

November 25th — MILAN, CAPITAL OF THE ROMAN EMPIRE AND OTHER ROMAN TOWNS IN ITALY. David Andrews, B.A., Ph.D., County Archaeological Section, Chelmsford.

December 2nd — A TOUR OF HISTORIC HARWICH. Robin Looser, Harwich Society.

December 9th — Christmas Party at the Minories.

1986

January 20th — SCIENCE IN ARCHAEOLOGY. John Evans, Director of Chemistry, North East London Polytechnic.

January 27th — DOMESDAY BOOK: THE UNWANTED BEQUEST. A.C. Wright, A.M.A. Curator, Southend Museum.

February 3rd — HADDENHAM, CAMBRIDGESHIRE. Chris Evans, Department of Archaeology, Downing Street, Cambridge.

February 10th — RECENT ARCHAEOLOGICAL SURVEY WORK IN SOUTH EAST SUFFOLK. J. Newman, Suffolk Archaeological Unit.

February 17th — CRICKLEY HILL, AN OUTSTANDING PREHISTORIC SITE IN GLOUCESTERSHIRE. P.W. Dixon, M.A., D.Phil., F.S.A. Department of Classical and Archaeological Studies, University, Nottingham.

February 24th — 16th and 17th CENTURY DOMESTIC WALL PAINTINGS IN ESSEX. Mrs. M. Carrick, Kelvedon.

March 3rd — JAYWICK, THE STORY OF AN UNOFFICIAL TOWN . Colin Ward, Kersey Uplands.

March 10th — CENTURIATION FOR COLCHESTER: A HYPOTHESIS. Tony Symes, Leicestershire.

March 17th — Group Activities.

THE TWENTY SEVENTH ANNUAL GENERAL MEETING OF THE COLCHESTER ARCHAEOLOGICAL GROUP HELD ON MONDAY 14th OCTOBER, 1985 AT 7.30 p.m.

1. APOLOGIES FOR ABSENCE

Apologies were received from Mr. D. T-D. Clarke and Mr. M.R. Organ. In the absence of Mr. Clarke, the Chair was taken by the Vice Chairman, Mr. A. Doncaster. Approximately 40 persons were in attendance.

Before commencing the business, the Chairman paid tribute to the memory of Mr. Dick Farrands, who had died during the year.

2. MINUTES OF THE LAST ANNUAL GENERAL MEETING

The Minutes of the meeting held on 15th October, 1984, which had been circulated before the meeting, were confirmed and signed. There were no matters arising to be dealt with.

3. TREASURER'S REPORT

The Treasurer circulated an income and expenditure account for the year ended 30th September 1985, showing a surplus of £6.86 for the year, compared with a deficit of £6.83 for the previous year. His Statement of Affairs at 30th September 1985 showed net assets of £257.62, representing:

Accumulated Fund	117.62
Publication Reserve	140.00
	£257.62

The accounts and Treasurer's oral report were adopted.

4. EDITOR'S REPORT

Mrs. Kath Evans mentioned that the 1984 edition of the Bulletin had been very successful, largely because the there had been more contributors than usual. She warmly thanked Mrs. Jenny Knowles for improving the quality of the appearance by producing the Bulletin on her electronic typewriter. Mrs. Evans called for contributions to the 1985 edition, which should be ready in February 1986.

5. RED HILLS BOOKLET

Mr. Mark Davies reported that, under the monitorship of the Group's sub-committee, good progress had been made and that, although much remained to be done, the booklet is now within striking distance of completion in the next few months.

Mr. Dennis Tripp, as Treasurer of the Kay de Brisay Memorial Fund, reported that, at the date of the meeting, the net assets stood at £885.33, representing:

Donations	836.50	
Bank Interest	214.67	
	1,051.17	
Less Expenses:		
Drawings for the booklet		141.00
Other		24.84
	165.84	
	885.33	

6. ELECTION OF OFFICERS

(1) The Acting Chairman explained that Mr. David Clarke's three-year term of office as Chairman had come to an end. It was the proposal of the committee that, as an acknowledgement of his invaluable contribution to all aspects of the Group's activities, he should be elected as President, for a term which would initially be five years. The proposal was seconded and agreed.

(2) It was proposed by the committee that Mr. A.B. Doncaster, Vice Chairman, should be elected as Chairman. The proposal was seconded and agreed.

(3) It was also proposed by the committee that Mr. Vic Scott, a member of the committee, should be elected as Vice Chairman. The proposal was seconded and agreed.

(4) The undermentioned existing officers were prepared to continue in their respective offices and were accordingly confirmed therein:

Treasurer	Mr. James Fawn
Secretary	Mr. Dennis Tripp
Editor	Mrs. Kath Evans
Meetings Secretary	Mrs. Ida McMaster
Outings Secretary	Mrs. Nan Gibson
Librarian	Miss Mary Dale

(5) Three committee members retire by rotation and a fourth replacement is required as a result of Mr. Vic Scott's election as Vice Chairman. It was proposed, seconded and agreed that three of the vacancies should be filled as follows:

Mr. Mark Davies
Mr. Jeff Greenwood
Mrs. Sue Wade

As a result of a request for a fourth nomination from the floor, Mr. Ken Cobbett kindly offered his services. His appointment was proposed, seconded and agreed.

The Chairman expressed his thanks to the retiring committee members for all their work:

Mrs. Kath Evans
Mr. David Grayston
Mr. Rupert Knowles

7. APPOINTMENT OF REPRESENTATIVES TO OTHER ORGANISATIONS

(1) With one exception, the existing representatives were prepared to continue their representation. Mr. Tony Bonner had asked to be relieved of representation on the Colchester Ranges Conservation Group. The Secretary was not able, at the meeting, to suggest a replacement but he undertook to contact someone who would certainly be suitable and might well be willing.

(2) The Chairman thanked all the representatives and drew the attention of the meeting to the fact that the reports of the representatives had been posted on the notice-board.

8. GROUP ACTIVITIES

(1) Mrs. Kath Evans summarised the activities which had been undertaken during the year.

(2) As regards future activities, a show of hands indicated:

Those interested in digging		14
Those interested in field-walking		20
(weekends only	..	6/8)

Mr. Mark Davies outlined some of the indoor work that needs to be done at the Museum.

(3) As a result of further enquiry of those present; it was found that 12 members were generally interested in a repeat weekend outing similar to the one to Caerleon in 1985. Only 3 or 4 were interested in a Kent weekend in conjunction with the Friends of the Colchester Archaeological Trust.

9. 1986 SUMMER PROGRAMME The Chairman asked members to let him or the Secretary have their suggestions for suitable outings.

10. ANY OTHER BUSINESS The Chairman and Secretary drew members' attention to a number of forthcoming events.

DATE OF NEXT MEETING
Monday 13th October, 1986 at 7.30 p.m. in the Castle Lecture Room.