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Archaeological Works on the
Eastern Approach of the
Medway Tunnel:
A Re-assessment

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1.0. Introduction

1.1. The report

The aims of this report are threefold:

- a) To present the stratigraphic, artefactual and environmental data recovered during the Phase III archaeological works undertaken in the area of the Medway Tunnel casting basin and the proposed eastern approach road.
- b) To re-assess the archaeological potential of the Phase II excavation (Allen 1994) in the light of new evidence recovered during the Phase III works.
- c) To re-assess the viability of integrating the environmental and cultural archaeological evidence recovered from Phases I, II and III in the light of the new evidence with the aim of producing a single comprehensive report.

1.2. General background

The Phase III archaeological works followed and took place in the near vicinity of the Phase II excavation (Fig. 1). This in turn followed the Phase I test trenching and sampling programme. The ground on which the Phase II excavation took place was subsequently removed to make way for the proposed approach road. The Phase III works (a total of eight trenches) were sited along both sides of the deep cut left by this removal. The works commenced 13th January 1995 and were completed on 24th February 1995.

The project was commissioned by Kent County Council Heritage Conservation and was carried out jointly by Canterbury Archaeological Trust and the Geoarchaeological Services Facility of University College, London, in an area previously identified as being of high archaeological potential (see Barham 1993, Pine *et al.* 1994, Allen 1994).

1.3. The palaeo-cultural background

1.3.1. The prehistoric

A small number of worked flint flakes was collected from unstratified deposits in the east end of the casting basin during the Phase I evaluation. Subsequently a site containing three distinct and chronologically well-separated periods of human activity was identified and partly excavated in this area during the Phase I and Phase II works.

A substantial quantity of palaeo-cultural materials, principally purposely struck flints and pot sherds was found to be concentrated on part of the site provisionally identified by bore hole testing as the top of a cliff or headland (Barham 1993). Although now buried beneath alluvial clay silts this cliff probably once formed part of the ancient eastern flood bank of the River Medway, making it the counterpart of Frinsbury Cliff which is still exposed to the south-west on the other side of the present river.

two of these concentrations (52 and 62) provided dates of 3530 ± 60 BP and 3790 ± 50 BP respectively. Probably contemporary with the uppermost of these fire sites (Fig. 2, Trench 7, unit 52) was a 'V' profile gully (58), the secondary fill of which (56) contained much charcoal apparently derived from the adjacent fire site. The significance of this gully was uncertain but its charcoal-rich fill, its regular 'V' shaped profile and its termination 3 cm. from the edge of the fire site suggest an anthropic origin, and possibly a structural status, must be considered.

Similarly in Trench 5 two fire sites (62, 73) both comprising localized charcoal concentrations with apparently associated purposely struck flints and another gully-like feature (63) with charcoal-rich fill was exposed within the upper sandy silts.

In Trench 8 only a thin (4 cm) spread of sandy silts (10) overlay the Pleistocene gravels (16). A substantial quantity of purposely struck flints were recovered from this spread and again, as in Trenches 5 and 7, these flints appeared to be associated with a localized charcoal concentration (67) coupled with scorching of the surrounding sandy silts.

The features and artefacts described above provide strong evidence for sustained human activity on the clifftop during the early to mid Bronze Age. This evidence is perhaps of greater significance in that it derives from a total excavated area of only 9.50 m^2 . (the sandy silts were not excavated in Trench 6).

It should be noted here that no ceramic material was retrieved from the surface of these sandy silts wherever that surface was sealed by the discontinuous peat deposit (51) (Trenches 6, 7 and 8). Carbon samples taken from the base and upper surface of this peat supplied uncalibrated dates of 2460 ± 60 BP and 2600 ± 70 BP respectively. The peat probably resulted from the establishment of salt marsh flora or possibly driftwood accumulation within a shallow depression in the surface of the sandy silts where those sandy silts overlay the 1.30 m. deep gully (74). It may be assumed that sustained occupation in this particular area terminated in approximately 500 B.C. as conditions became increasingly marshy.

Continued occupation

The trenches to the south (1-4) exposed a stratigraphic sequence which conformed in essence with that exposed during the Phase II excavation. Here, with the exception of Trench 1, the surface of the post Pleistocene sandy silts rose substantially (by approximately 0.50 m.) and was not sealed by peat. This suggested that while localized salt marsh conditions prevailed at lower altitudes, here conditions remained sufficiently dry to permit continued occupation. This view was supported by a moderate quantity of potsherds (17 pieces) and struck flint flakes recovered from the surface of the sandy silts (10) in this area, predominantly from Trench 2.

Three of the potsherds, apparently of early Romano-British type, were small, highly abraded and of irregular alignment suggesting an intrusive status. They probably descended from the Belgic and Romano-British occupation layer exposed approximately 15 cm. above in Trenches 1, 2 and 3. The remainder (14), of Late Iron

Age type, were large, horizontally aligned, in crisp condition and mostly derived from the same vessels, factors consistent with *in situ* status. Here the sandy silts (10) were sealed by 0.15 m. thick band of alluvial clay silt (8) which also sealed the discontinuous peat (51) exposed 43 m. to the north. In the area of peat 51 the clay silts (designated here as 48, 49 and 50) were 0.48 m. thick.

The low organic content of these clay silts perhaps argues for a sudden and substantial rise in water levels preventing access by both humans and salt marsh flora.

In the upper part of the clay silts (48) two substantial localized charcoal spreads (45, 47) were exposed by Trench 6. These were probably the remains of camp fires or similar. The spreads overlapped and were partially separated by a 3 cm. lens of alluvial clay silt (46), suggesting resumed use of the same site following temporary inundation. The upper spread contained a small quantity (3) of medium and large pot sherds including a well-preserved rim sherd, the lower contained two large potsherds and a moderate quantity of small daub fragments. Radiocarbon testing supplied uncalibrated dates of 2170 \pm 60 BP for the upper spread (45) and 2150 \pm 50 for the lower (47).

These fire sites represent clear evidence of episodic, opportunistic occupation of the flood plain margin during the Late Iron Age. As only a 5 cm layer of alluvial clay silt (44) separated the upper fire site from an overlying peat deposit (Unit B, 59, 60, 61 in Trench 6) containing Belgic and Romano-British pot sherds it appears probable that human incursions onto the flood plain become possible during a period of incipient regression in water levels occurring in the early third or late second century B.C. A gradually increasing rate of regression apparently culminated in the formation of a salt marsh in the area early in the Romano-British period.

A complete horse skull in good condition and including intact dentition was recovered from the alluvial clay silts (48) immediately underlying the lower fire site. This is discussed elsewhere (see Pine forthcoming). The radiocarbon date from the lower fire site indicated that the skull came to rest in the clay silts during the third century B.C.

In Trench 1 a laminated peaty deposit (Unit B (15, 21, 22, 23, 24) was exposed between altitudes O.D. 93 m. and 1.41 m. where it overlay Pleistocene gravels (16) bearing only a thin (2 cm.) and patchy covering of sandy silt (10) probably because here the gravels sloped too steeply for the sandy silt to adhere.

Laminated peats of the same appearance as those exposed in Trench 1 were also exposed at similar altitudes (between O.D. 1.85 m. and 1.95 m.) in Trenches 3, 4 and 5-8 where they overlay the alluvial clay silts (8, 48, 49, 50) discussed previously. These clay silts were not present in Trench 1, presumably because, as with sandy silt 10, they could not adhere to the steeply sloping surface of the gravels in that area. On the flatter surface of the cliff top however, the laminated peats overlay a approximately 15 c. thick deposit of clay silt and occupied the same stratigraphic position as an expanse of rough flint metallings exposed in Trench 2.

The flint metallings corresponded in ceramic content (second and third century),

appearance and stratigraphic position to an extensive cobbled surface (45) exposed to the north during the Phase II works (see fig.2). Similarly Trench 3 revealed part of an east west aligned ditch (35) corresponding in stratigraphic position and ceramic content (first and early second century Romano-British) to a section of ditch exposed some 10 m. to the west during the Phase I works. The secondary fill of this ditch (as exposed in Trench 3) consisted of a approximately 50 cm. thick laminated peat (29, 32, 33, 34, 38, 39) containing second- and third-century ceramics. This was consistent with a slow and probably gradual falling of water levels allowing peat-forming salt marsh flora to encroach along the cut of the ditch during this period.

The Romano-British settlement remains and the contemporary continuous peat deposit (Unit B) were sealed by an approximately 0.30 m. thick band of alluvial clay silts (3 and 4) the lower part of which apparently contained little organic material. As in the case of clay silt (8/48, 49, 50) this suggested a sudden rise in water levels causing the abandonment of the occupied site and precluding substantial vegetal colonization. Increasingly higher concentrations of organic material within the upper 10 cm. of these clay silts (3) perhaps suggested a slight lowering of water levels. The upper surface of these clay silts was covered by a 3-15 cm. thick layer of wood chips and saw dust (2) indicating that relatively dry conditions prevailed at their time of deposition. This was probably as a result of the many ditches and dykes which early plans show to have intersected the marshy area immediately north of the shipwrights sheds of Chatham Royal Naval Dockyard prior to 1868.

An approximately 3 m. thick band of oil-contaminated clay silt overlay the woodchip layer. This was probably dumped as levelling following the construction of the sea wall in 1868 and in advance of the northward extension of the dockyard.

2.2 Statement of potential

2.2.1 Project objectives

Following the completion of the Phase I works a primary objective was to integrate the alluvial clay silt and continuous peat deposit sequence in the estuarine flood plain with the mixed alluvial clay silt, peat and artefact-bearing deposits exposed on the buried clifftop.

The former was considered to be principally of palaeo-environmental importance, the latter of mixed palaeo-environmental and palaeo-cultural importance.

If successful, the integration of data derived from the two sequences would make possible a partial but detailed description of developments within the estuarine environment related to changes in human settlement patterns over a very long period.

On the basis of the palaeo-environmental and cultural evidence collected during the Phase I and II works this objective was considered to be realisable only for the upper parts of the two sequences. Here the uppermost peat (Unit B) was identified by its ceramic content with evidence for Late Iron Age and Romano-British settlements exposed on the clifftop. The second continuous peat (Unit C) was located in relation

to a small ceramic assemblage recovered from feature cluster dated provisionally to the later Bronze Age.

Following the completion of the Phase III works it now appears feasible to extend the integration process to include the earlier Holocene and possibly Late Pleistocene deposits. The discovery within sealed deposits of residual early Devensian and Upper Palaeolithic flint tools during Phase III, and possible Mesolithic and later tools during Phase II may allow cross-referencing between those deposits and others, some radiocarbon dated, exposed lower down in the flood plain during Phase I.

In addition, a further integration of the data discussed above with the results of tests on the extensive sample collection compiled by GSF from three-dimensionally recorded sections is now possible. This will enable information relating to the mineral, preserved organic and micro-fossil content of sediments associated with multi-phase human occupation to be examined and the results used to explore the interrelation of man and the estuarine environment from the Late Pleistocene to the modern period in this part of the Lower Medway.

2.2.2 Potential of the stratigraphic data

In view of the great depth, extent and location of the deposits examined and sampled during the Medway Tunnel archaeological works the palaeo-environmental potential of the stratigraphic data was always rated as high. The discovery of man-made materials at intervals throughout those deposits, often in association with carbon 14 datable material has substantially increased that potential.

2.3 Recommendations

It is recommended that a detailed study of the stratification, ceramics and flintwork of the Medway Tunnel site be undertaken, the results to be integrated with the results of palaeo-environmental testing undertaken by GSF. The study should be directed towards the production of a single, comprehensive report setting out the evidence for long term human settlement patterns against a detailed description of environmental changes during the formation of the Medway estuary.

3.0 The prehistoric flints

3.1 The factual data

3.1.1 Quantity and location of the material

A total of 474 lithic artefacts were retrieved from all phases of the Medway Tunnel excavation programme. The 1993 evaluation (MT93) yielded 229 artefacts, the 1993 excavation (MTB93) yielded 181 artefacts and the 1995 excavation (MT95) yielded a total of 64 artefacts. This can be further summarised by context as follows:

Medway Tunnel 1993 (MT93)

Context No.	No. of artefacts	Context No.	No. of artefacts
u/s	16	16	1
Sec.2. A.	1	17	1
Sec.6. F.3.	10	25	1
Sec.6. 72.	1	42 F.2	3
Sec.6. 75 F.2.	1	43	168
Sec.8. 58 F.7.	2	43 F.2	9
4	2	43 F.3	10
14	2	91	1

Medway Tunnel B 1993 (MTB93)

Context No.	No. of artefacts	Context No.	No. of artefacts	Context No.	No. of artefacts	Context No.	No. of artefacts
u/s	4	F.67	1	F.130	1	F.202	1
2	1	F.68	1	F.133	1	F.203	1
5	2	F.69	1	F.136	1	F.205	1
6	7	F.70	1	F.137	1	F.206	1
11	1	F.72	1	F.138	1	F.207	1
12 F.1	1	F.73	1	F.140	1	F.208	1
12 F.2	1	F.74	1	F.141	1	F.209	1
12 F.7	1	F.88	1	F.142	1	F.210	1
12 F.8	1	F.90	1	F.143	1	F.211	2
12 F.11	1	F.91	1	F.146	1	F.213	1
12 F.12	1	F.92	1	F.147	1	F.215	1
12 F.26	1	F.93	1	F.148	1	F.217	1
12 F.29	1	F.94	1	F.149	1	F.218	1
12 F.30	1	F.95	1	F.150	1	F.220	1
12 F.31	1	F.97	1	F.151	1	F.221	1
12 F.71	1	F.98	1	F.152	1	F.223	1
27	1	F.99	1	F.154	1	F.224	1
28	3	F.100	1	F.158	1	F.226	1
31	2	F.101	1	F.160	1	F.227	1
36	8	F.102	1	F.161	1	F.229	3
37	1	F.103	2	F.162	1	F.232	1
46	2	F.104	1	F.164	1	F.234	1
48	1	F.105	1	F.166	1	F.238	1
91	1	F.106	1	F.167	1	F.239	1

F.5	1	F.107	1	F.168	1	F.240	1
F.13	1	F.108	1	F.169	1	F.241	1
F.17	1	F.110	1	F.171	1	F.242	1
F.19	1	F.112	1	F.172	1	F.244	1
F.20	1	F.113	1	F.178	1	F.245	1
F.21	1	F.114	1	F.179	1		
F.22	1	F.115	1	F.181	1		
F.23	1	F.116	1	F.183	1		
F.27	1	F.118	1	F.185	1		
F.40 Spit A	1	F.119	1	F.187	1		
F.43	1	F.120	1	F.189	1		
F.44	1	F.121	1	F.192	1		
F.45	1	F.123	1	F.193	2		
F.48	1	F.124	1	F.195	1		
F.54	1	F.126	1	F.197	1		
F.60	1	F.127	1	F.198	1		
F.65	1	F.128	1	F.200	1		
F.66	1	F.129	1	F.201	1		

Medway Tunnel 1995 (MT95)

Context No.	No. of artifacts.	Context No.	No. of artifacts.
Tr.1. 15	2	Tr.5. 65	1
Tr.2. 5	1	Tr.6. 51	1
Tr.2. 9	5	Tr.6. 64	1
Tr.2. 10	3	Tr.7. 10	8
Tr.4. 27	3	Tr.7. 28A	2
Tr.5. 10	7	Tr.7. 52	2
Tr.5. 28B	1	Tr.7. 54	10
Tr.5. 31	1	Tr.7. 56	2
Tr.5. 54	1	Tr.8. 54	10
Tr.5. 64	2	Tr.8. 67	1

All the lithic artifacts are individually bagged, labelled and marked. They are stored in museum approved boxes at the Canterbury Archaeological Trust store.

3.1.2 The state of the archive

All the artefacts have been individually examined and basically recorded on record sheets, designed specifically for this purpose. These sheets record basic data on the raw material used, the condition of the artefacts and their individual measurements and weights.

Each artefact has been entered into the site finds catalogue and has been issued with a Find Number for easy reference. All the lithic artefacts have been treated and recorded with the same procedures as those applied to small finds.

This archive exists in the form of the paper record sheets and is also stored on a computer disc.

There are no photographs or illustrations, as these will be forthcoming with the completed report.

3.2 Statement of potential

The following report represents the preliminary conclusions on the assessment of the lithics from the Medway Tunnel Project. Each phase is described separately beginning with Phase III, which contained the oldest prehistoric material recovered from the site. These initial conclusions are designed to address two questions. What can the lithics contribute to an understanding of the depositional environment; what behavioural implications does the data suggest, and can the flintwork be used to date specific horizons? These questions were examined by concentrating on the condition and appearance of the material, the character of the raw material involved, and what was being made at each stratigraphic level.

3.2.1 Phase III

Flintwork from this represents material recovered from eight trenches. Three stratigraphic units were common to all the trenches. Context 54 represents an interface and is interpreted as an occupation surface (T. Allen pers. comm.). Aggraded on to this was layer 10, a sand/silt loam. Developed on the top of 10 was context 9, also tentatively interpreted as an occupation surface (*ibid.*). The majority of the flintwork from III was recovered from these contexts.

Artefacts from below common 54/10/9

Beneath this group of common contexts, artefacts occurred in only two Trenches, 5 and 7. Sections indicate the following stratigraphic order for these contexts (from the lowest up):-

28A	
64	
28B	27 (undifferentiated equivalent of 28)
65	

Contexts 65 and 64 represent contact horizons:

A total of ten artefacts from these contexts were suitable for analysis (seven flakes, one blade, one biface, one long blade core). With so little material, dispersed between different contexts, it is difficult to draw any definite conclusions from the data. However, since these contexts contain the only typologically distinctive artefacts with a temporal significance from this phase, the data does provide information on the deposition of these sediments.

In Trench 5, 28B contains a patinated long blade core. In Trench 7, the stratigraphically higher 28A contains a frost pitted bout coupé biface. The former is conventionally dated to the end of the Upper Palaeolithic, while the latter dates to well

before the Devensian glacial maximum at c. 18,000 BP, and is popularly associated with the terminal Mousterian. This clearly implies that both of these artefacts are derived, and are not contemporary with the sediments that contain them. Furthermore, the long blade core shows extensive light blue patination; on the contact horizon (65) beneath 28B in Trench 5, was a mint condition blade in fresh black flint. Combined, these data suggests the sediments beneath the 54/10/9 complex are a result of successive inundations, incorporating sediments of differing ages.

Occupation surface context 54:

From this surface twenty-three flints were suitable for analysis, twenty-two from Trenches 7 and 8, and one piece from Trench 5. Although the quantity of material recovered was small, and therefore any conclusions can only be tentative, it was excavated from what is interpreted as a surface (T. Allen pers. comm.).

Condition analysis shows nearly equal numbers of unrolled and rolled flints (12 vs 11), with the majority of the rolled flint being only slightly so (10). This suggests that if the rolled material has been introduced onto the surface, it has not been transported any great distance.

Table 1 indicates five different flint types were present at the site as a whole, the ubiquitous type 1, and the more 'exotic' types 2-5. Examples of flint types 1-3 are present on this surface. It was noted that three of the five examples of flint type 3 were blades (two in Trench 7 and one in Trench 8), and in a slightly rolled condition. These were the only blades recovered from 54. Although slightly rolled, this may indicate an episode of blade production, possibly from a single nodule, somewhere in the vicinity of the 54 surface (Three blade core rejuvenation flakes, all slightly rolled, were recovered from 54 re-enforcing the presence of blade production near by.).

Twenty-two of the twenty-three flints from this horizon were recovered from Trenches 7 and 8. The combination of the presence of flint groups 2 and 3 in both trenches, the occurrence of three blades, all in the same flint type and condition in both trenches, and the consistent lack of condition/surface appearance groups 4 and 5 in Trenches 7 and 8, supports the interpretation of this context as continuous between the two trenches.

There were only two examples of retouch, both atypical and non- diagnostic. One was a possible piercer, and one a flake with localised nibbling retouch, possibly utilisation.

Two features were associated with context 54. An accumulation of charcoal (52), adjacent to a ditch or gully (56-58). In the upper fill of the latter were two flakes. Both were slightly rolled, and one showed evidence of patination. This is consistent with derivation from elsewhere in the context of a fill. The charcoal accumulation contained two unrolled flakes, both non- diagnostic and slightly fire damaged.

Layer 10:

Context 54 was sealed by a sandy silt layer, 10. Artefacts from 10 were distributed throughout the layer and were recovered in four trenches (2, 5, 7, 8) and recorded as contexts 10 and 67, 67 being a charcoal spread possibly associated with occupation

surface 54. Ten artefacts in total were suitable for analysis, but the paucity of material means any conclusions drawn must be viewed with caution. Seven of the artefacts were flakes, one was a blade, and two were flaked chunks, and most of the material was unrolled (7). There were no retouched pieces. Only two flint types were present in this unit, unusually flint type 3 outnumbered 1 (6 vs 4).

Bladework is attested to by the presence of a single blade and two unrolled blade core rejuvenation flakes. The high proportion of unrolled material suggests that the flintwork in 10 has not been derived from too far away. This is supported by the presence of two flaked pieces, which represent non-refitting portions of the same shattered core. It is possible that the material in 10 was derived off the underlying 54 surface.

Context 9:

Overlying 10 was a contact surface, 9, from which came six flakes and a core. The material was recovered in two trenches (2, 7). There were no examples of retouch. Each of the three flint types were present (a single example each of types 2 and 3). Section drawings for Phase III indicate that layer 10 is a relatively thin unit, never more than 20 cms thick (in 7), while elsewhere it varies between 5 (in 2) and 10 cms. It is possible that the flintwork from layer 9 is derived from 10 and 54.

Lithics from above 9:

The remaining material from Phase III represents the Romano- British levels. A single piece was suitable for analysis; a partially patinated non-diagnostic knapping fragment in a very rolled condition. This was recovered from the B peat unit in Trench 1.

3.2.2 Phase II

The majority of the lithics from this phase were recovered from the interface between layers 12 and 11. Of the remaining material, a single flint was suitable for analysis from 11. Above this, the flintwork is associated with Romano-British and higher, modern stratigraphic levels.

11/12 interface:

The flintwork was excavated in three spits. Examination of the data suggests that the material can not be considered as a single occupation surface. The material falls into two groups; spits 1 and 2, and spit 3. Primarily the reasons for this are two fold.

1. *Condition.* Table 2 gives the percentages for each of the combined condition/surface appearance groups for spits 1 and 2. It is clear that the proportions of occurrence are similar (although totals are small and the results should be treated cautiously). The totals for spit 3 show a marked difference. Only quantities are given since the total involved is so small. Despite the size of the sample the difference in pattern is apparent. Group 1 is larger than 2 (or 2 and 3 combined), and consequently the rolled category is much lower than in the other two spits. The predominance of unrolled material in all three spits suggests that if moved, the material has not been moved far, or subject to turbulent or destructive mechanisms of transport. The matt surface appearance of the material from spit 3 might imply no movement.

One criteria of *in situ* knapping is a high percentage of chips, fragments and shatter pieces, resulting from spontaneous breakage during knapping, in an unrolled condition. In Table 3 the data for these are presented. The data for spits 1 and 2 are similar, and the much smaller sample from 3 is not inconsistent with this.

2. *What was being knapped.* It is tentatively suggested that *in situ* blade manufacture occurred in the vicinity of 1 and 2. During the data collection stage, a subjective impression of the material from these spits suggested that the unrolled flakes were from the early stages of blade core preparation. This was based on the association between dorsal flake scar patterning and the presence of cortex. A number of flakes (whole and broken) showed cortex (Table 1 categories 2 and 3) in association with parallel removals for dorsal flake scar patterning. This is not inconsistent with the early stages of bringing a core to the point where blades can be detached.

Tentative support for this can be found in the analyzed data, although the totals are small. In spit 1, of nine unrolled and whole flakes for which DSP could be determined, seven of them had parallel flake scars, and six of these were partially cortical. In spit 2 of ten unrolled whole flakes for which DSP could be identified, eight had parallel scars, seven of these being partially cortical. In spit 3 the pattern was different. Of seven unrolled and whole flakes, only three showed parallel flake scars, two being cortical. Given the small totals involved, it is therefore cautiously suggested that the character of the *in situ* knapping on 3 was slightly different from the preceding spits.

Combined, these data support an *in situ* character for the flint work from spits 1-3, but, suggest a difference in the character and condition of spit 3.

Only one convincing retouch piece was identified. A medial portion of a small broken blade showed fine continuous retouch down one lateral edge. Since its surface appearance, and lack of patination do not resemble the Upper Palaeolithic blade core from phase III, it is considered to post-date this.

Romano-British levels:

Above the 11/12 interface, a single broken and non-diagnostic flake was recovered in 11. Above this the remaining flint work analyzed was from two separate ditch fills, and isolated contexts.

Stratigraphically, the lowest of the two ditches was that infilled by contexts 36 and 37. There were seven pieces in all from this ditch including five flakes and a blade. Their condition varied. This ditch and its fills appear to be a recutting of an earlier ditch. Stratigraphically earlier than the 36 37 ditch fills was context 46, the infill of a cut feature, which contained two unrolled flakes. Problematically, one is reminiscent of a gunflint.

The second, and higher ditch, was infilled by contexts 27 and 28. There were only four pieces from this ditch. The main item of interest was a blade, truncated by retouch, but patinated in an identical way to the long blade core. This may indicate an Upper Palaeolithic date, and confirms the derived character of the ditch fill.

Layer 6 overlies most of the excavated area and is equated with the top of the Romano-British levels. Six pieces were excavated from this unit in varying conditions.

Layer 6 overlies most of the excavated area and is equated with the top of the Romano-British levels. Six pieces were excavated from this unit in varying conditions. A single rolled blade, in a very rolled condition is consistent with a derived character for this sediment.

Isolated Romano-British contexts, and post-Romano-British contexts were excluded from the assessment for Phase II.

3.2.3. Phase I

The majority of the flintwork from Phase I was associated with the horizon represented by context 43. A smaller group of flints, considered contemporary were recovered from Trench 6 (contexts 72/73/75). Stratified above these were single flakes from peat units D and C, and 3 flints from the Romano-British levels (peat B). The remainder of the material was either unplaced or unstratified.

Context 43:

The archive catalogue indicates that lithics from context 43, Phase I, comprise the following - 43/41, 43/42, and two features 43/43 f2 and 43/44 f3. A further feature 42/f2 has been associated with 43. The lithics from context 43 are considered to represent material from a single horizon (T. Allen, pers comm).

Preliminary analysis of the results suggest that context 43/41 and 43/42 can be treated as a single unit. 157 pieces were analysed from 43/41 and 43/42 combined. The presence of unrolled (64.3%) and rolled (27.4%) material makes it unlikely that all of the material from 43 can be considered *in situ*, although the material that does show evidence of possible transport damage is only slightly rolled and has probably not come far. Context 43 is probably a palimpsest of material, a result of at least two phases of accumulation. The presence of a small number of flints with patination (7) is consistent with such an interpretation.

Flakes dominate the artefact sample (57.3%), with blades being the next most frequent category of artefact (23.6%); of the 37 blades recovered from 43, 24 were unrolled. There is some evidence to support blade/bladelet manufacture on or near the 43 surface.

Unrolled cores and core rejuvenation flakes were recovered, although the number is quite small. One core and a fragment of a core have had small blades/bladelets removed, the remaining cores appear to have been abandoned before reaching the stage where blades could be produced. One slightly rolled blade was crested.

Very few pieces could unequivocally be identified as retouched. There were no formal tools such as end scrapers, backed pieces or burins. A single unrolled example of microburin technique was identified.

Although flint type 1 dominates the sample, three of the other flint types are present on 43, a sample of sixteen pieces. Fifteen of these are unrolled, eleven occurring in condition/surface appearance group 1 (two others in group 2, the other unrolled category). It is tentatively suggested that these 'exotic' flint types were brought to 43, and flaked *in situ*. Although this sample was dominated by flakes, two blades were

also present.

Associated with 43 were three features which contained lithics. The highest of these was 42/f2. Two non-diagnostic flakes, in rolled condition, one of which was heavily patinated white, imply a derived provenance for this context. Both of the features directly associated with context 43 do not contain enough material to make anything other than general observations; 43/43 f2 has eight pieces, 43/44 f3 has six. Half of the material from the former is unrolled, and one piece is burnt. The remaining pieces are indeterminate. Feature F3 is similar. Of the total of six pieces, three are rolled, and one of these is a blade in a very rolled condition (rolling category 4). Another blade shows the same degree of rolling in addition to being patinated. This supports a derived context for this fill.

Any attempt to date the material from the 43 surface must, because of the paucity of the material, be highly speculative, and rely on a certain amount of negative and indirect evidence. The only diagnostic Upper Palaeolithic material from the site (see Phase III) is patinated a distinctive blue. The material on 43 is largely unpatinated, and in an unrolled condition. As a working framework, this could imply it post-dates the Palaeolithic. Microburin technique (in an unrolled condition) are not conventionally associated with the Neolithic, and suggest a Mesolithic age bracket for some of this material. However, the lithic data as a whole implies that 43 is a palimpsest of material, and undiagnostic pottery sherds are associated with this surface. In conclusion, while it is possible to suggest that some of the flintwork from 43 is Mesolithic, there is nothing to preclude *in situ* flintwork from later prehistoric periods being present as well. In an unrolled condition, and without temporally diagnostic forms, it would be impossible to distinguish this material.

Trench 6, contexts 72-75:

These data are stratigraphically equivalent to 43, and represent an extension of the same surface (T. Allen pers comm). Pieces 46 (1-8) were recovered from f3, a circular pit of 42 cm. diameter and 26 cm depth. They represent a homogenous group of five flakes, two cores and a lump of unflaked flint. All are in mint condition, and three of the flakes show signs of burning. A further find from this feature 54/f3, from the lower fill, was a blade also in an unrolled condition. One other unrolled and burnt flake (59/f3) was recorded from this feature. The remaining two flakes from this group of contexts were consistent with the palimpsest interpretation of 43; 52/75 f2 was a very rolled patinated flake, 53/72 was a slightly rolled flake.

The conclusions drawn for 43, apply to the section 6 extension.

Material from the peat horizons:

These flints occurred stratigraphically higher than 43. 66/91, from peat Unit D, represents a single unrolled piece possibly a blade. Pieces 50 (1-2)/58 f7, from the higher peat Unit C, represent one broken flake and one patinated chip, possibly inferring a derived provenance. These data are non-diagnostic.

Romano-British levels:

These data are 58 (1-2)/14 and 49/17, all from peat unit B in trench 4. 49 represents

a battered lump of flint, and 58 2 flakes. At least one of these, 58 (1), is almost certainly derived. Although unrolled, it is a burnt bi-polar flanc de nucleus, and as such inconsistent with a Romano-British date.

3.2.4 Statement of future potential

The above must be considered as a working framework only, subject to revision and refinement during the more detailed analysis phase. Preliminary goals for this would include the following:-

1. The material was studied on an individual piece by piece basis, rather than by spreading out groups of related material (which could not be done until the assessment data structured the assemblage as a whole). A priority of the analysis phase should be that more detailed assessments are made in reference to material which is spread out.
2. The current system of condition and surface appearance applied was developed for other sites from earlier periods. A major aim of the analysis would be fine tuning this to suit the Medway data more specifically. The strategy outlined in 1 would greatly enhance this.
3. A detailed technological analysis of the data to elicit information on knapping patterns in conjunction with a more detailed analysis of the cores and how they were knapped.
4. A programme of refitting to assess and support interpretations of *in situ* character, and technological analysis.
5. A detailed literature search to assess the broader context into which the Medway data can be fitted.

Spit No.	Group 1	Group 2	Group 3	Group 4
1	11 (20.4%)	28 (51.9%)	9 (16.7%)	4 (7.5%)
2	8 (18.6%)	22 (51.2%)	7 (16.3%)	4 (9.3%)
3	12	9	2	6

Table 2. Comparing condition/surface appearance groupings for spits on 11/12 interface, phase II. Percentages are calculated on individual spit totals; indeterminate totals have been omitted from the table.

The combination of surface appearance with condition suggested the following divisions.

Group 1. Unrolled with matt surface appearance.

Group 2. Unrolled with surface discolouration and a silky surface appearance.

Group 3. Rolled with matt or silky surface appearance.

Group 4. Patinated, burnt, or both.

Spit No.	Flake	Blade	Chips/Frags/Shatter	Other
1	29 (53.7%)	10 (18.5%)	15 (27.8%) 13 unrolled	0
2	22 (51.2%)	5 (11.6%)	14 (32.6%) 14 unrolled	2 (4.7%)
3	14	6	8 all unrolled	1

Table 3. Comparing quantities of knapping debris between spits for interface 11/12 phase II, in relation to their condition.

4. The prehistoric pottery

4.1 Overall site quantities and trends

4.1.1 Fabric trends

For assessment purposes the pottery was macroscopically sub-divided into fourteen different fabric groups; Fabric 1 embraced all flint-tempered sherds (irrespective of potential period or fabric ingredient range) with a recovered overall total of 569 sherds (weight: 5k.353gm). This broad fabric class can be further sub-divided (on the basis of macroscopically-observed variations in clay type and intentionally added tempering agents) into :

- Fabric 1A: Purely flint-tempered (257 sherds; weight 1k.880gm)
- Fabric 1B: Fine sandy with flint (23 sherds; weight 128gm)
- Fabric 1C: Mixed-temper: flint and grog (248 sherds; weight 2k.924gm)
- Fabric 1D: Very fine sandy (silty) with flint (9 sherds; weight 84gm)
- Fabric 1E: Mixed-temper: shell and flint (10 sherds; weight 174gm)
- Fabric 1F: Mixed-temper: flint, grog, and profuse organic (5 sherds; weight 43gm)
- Fabric 1G: Mixed-temper: Flint and organic (3 sherds; weight 8gm)
- Fabric 1H: Fairly coarse sandy (11 sherds; weight 104gm)
- Fabric 1I: Chalk-filled (3 sherds; weight 8gm)

Four of these fabric variations were recorded amongst the small pre-Late Iron Age assemblages from the base of the sequence; these fabrics are relatively free of accidentally or intentionally introduced inclusions and their variations reflect minor differences in the probably localised clay sources employed.

All fabric variations are present in the large Late Iron Age assemblage recovered. Allocation (per sherd) is based on the principal matrix type and/or tempering agents present and whilst this accurately reflects the main macroscopically observed trends, individual fabrics are not as pure as the itemised categories suggest with eg., some Fabric 1A examples fairly frequently containing additional sparse grog/unsorted clay pellet inclusions.

Collectively, the mixed-temper fabrics represent the main trend, with Fabric 1C the dominant type within it; singly, Fabric 1A is numerically dominant. To some extent the various sandy fabrics should again reflect local clay sources. However examples for Fabric 1B have been only superficially grouped on the basis of similar grain-sizes and a number of these contain visually obvious glauconitic sand (a relatively common ingredient in Medway area ceramics), being made with clays derived from local Greensand Beds along the northern edge of the Weald; this fabric group requires more detailed examination.

This range of fabrics and their quantity trends are fairly typical of mid-later first millennium B.C. regional trends and reflects essentially indigenous pre-'Belgic' ceramic traditions that continue as an undercurrent towards the end of the pre-Roman Iron Age, despite (as here) the frequent native adoption of 'Belgic'-style forms.

4.1.2 Assemblage condition

The overall assemblage sub-divides into the potential Late Bronze/Early Iron Age transition assemblage at the base of the sequence, and the Late Iron Age-Early Roman assemblage associated with the 'Belgic'-period structure, its two main phases of occupation and subsequent Roman activity post-dating its use.

The essentially fresh non-redeposited condition of the ?LBA/EIA material, lying on the top of the gravels at the base of the overlying sequence of peats and marine silts, should be stressed, and is discussed further in 4.1.3 below.

The main later assemblage is in generally poor condition; much of it is heavily abraded, its condition due to either poor preservation in acidic soil conditions or re-deposition during later, Roman, ?dump/levelling activities. The former particularly applies to material from contexts associated with the Phases I-II occupation of the 'Belgic' structure. A particular trend noted amongst the larger multi-period assemblages associated with activity-phases post-dating the 'Belgic' structure is for material of broadly Conquest-period date to be generally larger and fresher than later elements of specifically Romanising date; the latter are frequently small and heavily abraded and implies different post-depositional histories. The implications of any non-environmentally derived wear trends will be a key component in finalising any dating given to the Section 8 occupational sequence.

4.1.3 Assemblage chronology

The earlier prehistoric pottery:

Radiocarbon testing has already supplied an approximate date of c. 700 +/- 50 B.C. for the base of the sediment sequence exposed in Section 8 (Trench 7 Carbon Sample 6). This sequence overlies the probable LBA/EIA-type pottery recovered *in situ* at the base of this section. Though the full chronological range for the fabric and formal characteristics of this assemblage is not yet established regionally, they are unlikely to significantly pre-date c. 1000/900 B.C. The available mid-eastern Kent data indicates that elements within the present group are perfectly compatible with a c. 950/850-600 B.C. date range currently applied to a number of earlier first millennium B.C. assemblages.

A small assemblage of worn bodysherds recovered from lower down in the deposit sequence (Trench 6, Contexts 72-3,75) displayed fabric characteristics that without definitive formal/decorational aspects could be easily allocated to either the Neolithic or the Late Bronze Age Deverel-Rimbury ceramic traditions. However their stratigraphic position approximately 3 m. above Peat Unit E (Radiocarbon date 2760 +/- 70 B.C.) and 90 cm. below peats containing LIA and 'Belgic'-type ceramics strongly suggests the later date.

The later prehistoric pottery:

A radiocarbon date of c. 200 B.C. was obtained for samples taken from the upper alluvial silts probably co-equal with the upper parts of Contexts 8 Phase III and 11 Phase II. These immediately underlay the first phase of Late Iron Age occupation exposed in Section 8 Phase I. This provides a maximum unqualified lower end-date for the LIA and 'Belgic'-style pottery recovered from alluvial silt 11 and the construction

of the Phase I 'Belgic' structure.

The ceramics from Context 11 are all worn, whether of indigenous LIA or 'Belgic' type; their state may be in part due to environmental conditions, but could also indicate a fair timespan of occupational activity prior to the Phase I structure. If this was the case then the c. 200 B.C. date could (on the basis of the Bigberry evidence (Thompson 1983, 253-256) encompass the more specifically indigenous LIA ceramic types recovered from the excavation, including the flint-tempered jar rim from Context 11 itself, and just possibly the all-over 'rusticated' sherds and the curvilinear decorated fineware sherd. Though the latter are redeposited in earlier Roman contexts their presence tends to confirm the likelihood of pre-'Belgic' indigenous LIA activity.

The possibly trodden horizon represented by Context 52 (Phase II) contains Romanising ceramic types suggesting a specifically Conquest or immediately post-Conquest A.D. date; this provides an arguable upper limit of c. A.D. 50/60 for the preceding two phases of structural activity. Initially Phases I-II of the pre-Roman 'Belgic' structure and associated activity can be reasonably placed between c. 50 B.C.-A.D. 25/50.

4.2 Statement of potential

From the point-of-view of regional ceramic studies, the small assemblage from the base of the Section 6 sequence will not add anything new to the existing data-set. However, its presence is a crucial complement to the radiocarbon dating sequence and, coupled with this dating, may provide an approximate commencement-date for the formation of previously undated peat (Unit C).

Though relatively modest the ceramic assemblages from the LIA and pre-Roman 'Belgic' stratigraphic sequence are a crucial component, not only within the site's history, but also within the locale's history of re-occupation and usage during the first and second centuries B.C. This is particularly true for the 'Belgic' structural sequence exposed in Section 8 Phase I and the Phase II excavation. Apart from Farningham Hill in the Darent Valley (Philp 1984), the difficult evidence from Bigberry and to a lesser extent the pre-Roman 'Belgic' enclosure at Canterbury (Blockley *et al.* 1995, 585-632), very few 'Belgic'-period ceramic assemblages from specifically pre-Conquest A.D. have been published to date, within the region. Though the present pre-Roman assemblage is small, its components are stratigraphically secure and uncontaminated by intrusive elements. This makes the ceramic content of the 'Belgic' structure sequence regionally atypically pure, and the material warrants further research on this basis alone.

In respect of local and regional ceramic studies, apart from Farningham Hill (Couldrey 1984, 38-70) and elements within Thompson's general review of 'Belgic'-style pottery and the introductory sections of Pollard's synthesis of Kentish Roman pottery, very little material has been published to modern standards regarding pre-Conquest A.D. ceramic fabric and form trends from the Medway area, and of the above only Farningham Hill is directly site-sequence related. This again is sufficient reason for publication.

In addition, the site is at the topographic conjunction of 5 ceramic 'style-zones', most of which appear to exhibit significant variations in fabric types and, to a lesser extent,

forms, particularly within the less-standardised native pre- or Early Roman phases of the local potting traditions involved; the comments applied to the Roman pottery from this site are equally pertinent here. To date, this conjunction or ceramic 'interface' has not been seriously examined in detail, and though the stratified pre-Roman assemblage is modest and a potentially larger contemporary component from later contexts obscured by residuality problems, there is sufficient data to warrant published discussion of itemised fabric types and their determinable on-site trends, together with illustration of associated forms and decoration types, as a contribution towards future broader-based synthetic studies.

Further research into the material as indicted above would inevitably require a detailed examination of broader regional fabric and form trends and the compilation of a research oriented data base. However, it is already apparent that the overall LIA assemblage contains some elements that are of significance for wider regional studies and warrant publication at this stage. One particular aspect is the presence of at least three or more flint-tempered jars with horizontal panels of all-over 'rusticated'-style impressed decoration. Its dating is uncertain but its additional presence here on both Conquest-period sandy and 'Belgic'-style grogged wares, suggests that it has a pre-Conquest origin. As a decorative or finishing style it is rare in Canterbury in district; occurrences in the latter may be purely pre-Conquest A.D. (though this still needs verification. A related style with all-over lower-body finger-tipping certainly occurs in East Kent as far back as c. 400 B.C.; in north-eastern France this same style occurs c. 400-350 B.C. and later in essentially Mid Iron Age contexts. The internal Kentish linkage, whether continuous or re-introduced from France during the later Iron Age, is obvious. It is a rare decorative motif amongst traditional 'Belgic'-style grog-tempered assemblages reviewed by Isobel Thompson (*op. cit.*), with a few examples occurring on copies of imported butt-beakers of earlier first century A.D. date. These comments strongly suggest that the present material is indigenous and pre-'Belgic' in origin and may have earlier Early-Mid Iron Age roots in the region; its occurrence in some quantity here should reflect a localised sub-regional trend.

This 'rusticated'-type of decoration is highly distinctive and, in its present form, sufficiently different from regional earlier Iron Age examples to be used as a reliable chronological and topographic indicator; a pre-requisite for its publication will be a brief review of published and unpublished contemporary and earlier Iron Age regional assemblages, principally to estimate its likely topographic distribution and compare the latter with the ceramic fabric and formal 'style-zones' mentioned above. This survey should establish a further point, and that is whether this very distinctive trait occurs to any significant degree west of the Medway; for instance it does not occur in the large LIA-Early Roman assemblage from Farningham Hill. Does the latter instance reflect a genuine trend or just recovery bias? The significance of this point lies in the potential links, first with its earlier Iron Age occurrence within the region and second, via the latter, with north-eastern France. Its earlier Kentish occurrence appears to be confined to assemblages whose characteristics appear to be topographically limited to Kent north of the Weald and east of the Medway, essentially defining a discrete continentally-affected cultural 'province'. Does this 'province' have continuity throughout the rest of the Iron Age? Full assessment of this question is a research topic beyond the scope of the present project, but a preliminary step towards this can be usefully initiated via the current material.

4.3 Recommendations

On the basis of the above it is recommended that:

1. The small LBA/EIA assemblage be fully described and illustrated;
2. The pre-Conquest A.D. assemblages associated with Phases I-II of the 'Belgic'-period structure should be fully described and illustrated in conjunction with a comparative study of the pre-'Belgic' ceramics exposed during the Phase III works.
3. As a complement to the occupation associated with the above structure and in order to define the likely local chronological longevity of indigenous LIA and 'Belgic'-style ceramic traditions all flint-tempered and other 'Belgic'-style fabrics occurring in later contexts should be thoroughly assessed, described and selectively illustrated.
4. One important ingredient of the present assemblage is that it contains LIA fineware and decorative types that can be used as valuable chronological indicators. As a component of 3 above, these warrant additional treatment in the form of a brief review of comparable contemporary or earlier Iron Age material from regional assemblages, principally to signpost the likely topographic and cultural implications involved.

5.0 The Late Iron Age/'Belgic' and Romano-British pottery

5.1 The Factual Data

5.1.1 Quantity and location of the material

A note on the quantification of the 'Belgic' and Roman pottery in this assessment:
As a result of the varying availability of the pottery during the assessment phase, context sherd totals given below for MT93, phases I and II include flint-tempered prehistoric wares discussed above by Nigel Macpherson-Grant; sherd totals for MT95, phase III do not.

A total of c. 3770 'Belgic' and Roman sherds were identified.
The material is held in CAT storage.

5.1.2 State of the archive

This assessment document constitutes the principal record of the 'Belgic' and Roman pottery made to date. The initial handwritten notes on which this document is based include, in addition, a number of roughly sketched rim-profiles. For the purpose of assessment all the pottery was examined and divided, on the basis of a brief visual examination, into 15 basic fabric groups. In the case of the coarsewares these groups are based on the dominant inclusion/tempering agent visible in each sherd. The groups thus defined (see fabric list, below) were quantified by sherd count within each context. Any further work will result in refinement of certain fabric categories used in this assessment report, particularly fabrics 1, 2 and 7.

- Fabric 1. Flint-tempered wares (includes wares of mixed temper).
- Fabric 2. Grog-tempered wares.
- Fabric 3. Shell-tempered wares.
- Fabric 4. Oxidised sandywares.
- Fabric 5. Reduced sandywares.
- Fabric 6. 'Gritty' sandyware.
- Fabric 7. 'Silty'/untempered wares.
- Fabric 8. Glauconitic sandyware.
- Fabric 9. Reduced and oxidised fine 'Upchurch' ware.
- Fabric 10. Cream-buff fine flagonwares.
- Fabric 11. Amphorae.
- Fabric 12. Mortaria.
- Fabric 13. Samian.
- Fabric 14. Central Gaulish 'Rhenish' ware.
- Fabric 15. Nene-valley type colour-coated ware.

Dating for Phase I material

One rim-sherd from (2b) has been dated by NMG as c. 25 B.C.-A.D. 25 and many of the other flinted sherds may be of similar date, possibly extending to the mid-first century A.D. The shelly wares present in all contexts are unlikely to date earlier than the late first century B.C. or early first century and the peak period of occurrence is probably mid- to late first century for the smaller jar types identifiable here.

The corpus of material recovered from section 4, (15) (a small sample of 17 sherds) included the latest identifiable sherd, which was at least of mid-second century or later date. That material aside, the latest sherds are probably those in 'Upchurch' ware from (2a) which are not typologically sensitive, but which are probably c. A.D. 50 plus.

It is possible that the dating of all these contexts, with the exception of (15), may fall within an early/mid-late first century date range.

Pottery from MT 93 Phase II excavations

The pottery was examined using stratigraphic information provided by the excavator. It has been described below by context/context-grouping in a sequence that reflects the broad stratigraphic sequence, progressing from inferior to superior deposits.

(11) Alluvial clay:

The pottery was all hand-made and sherds were generally small and worn. No 'Romanizing' traits of fabric or form were noted. There was a notably high proportion of fabric 1, in an albeit small sample. Featured sherds, all in fabric 2, consisted of a fragment of a pedestal-foot jar, a bodysherd decorated with an acute burnished lattice and an upright, slightly thickened rim. A sherd (flake) designated as fabric 5 contains an ill-sorted mixture of organic and mineral inclusions in addition to quartz and may not have been deliberately sand-tempered.

Dating. ?late first century B.C. to early first century A.D. Might be earlier.

(74) (76) (78) (80) Post-holes associated with the first phase of the 'Belgic' hut:

The pottery was all hand-made. Sherds in fabric 1 were generally a little smaller and more worn than the others. All the vessels represented may have been jars. There were no rim-sherds. Most of the sherds in fabric 2 contained significant amounts of other mineral and organic inclusions and further study may alter the fabric designation of some sherds. One of these displayed a rough, open lattice-burnish.

Dating. A pre-conquest date for the pottery is suggested by the lack of 'romanized' fabrics or forms. Tighter dating is not allowed by such a small, poor quality sample.

(71) Trodden activity/occupation layer associated with the 'Belgic' hut:

All the pottery is hand-made. Fabric 2 includes two sherds of fine grogged ware, fired red on the surface, presumably representing a flagon or jug. This was the only sherd in this group to display any 'Romanizing' tendency. It is unlikely to be earlier than the early first century A.D., although the earliest dated examples in this country are late first century B.C. A fabric 2 sherd displays finger-tip incised decoration, which covers the sherd in close-set rows/columns. This type of decoration is also seen at this site in fabrics 1 and 8. Fabric 5 includes a small but relatively fresh, black-fired, glossily burnished sherd with drilled suspension hole, representing a cordoned jar or bowl. Dating: pre-conquest.

(72) (53) (69) (65) Post-holes associated with the second phase of the 'Belgic' hut:

All the pottery is hand-made. The single sherd of fabric 8 displays close-set fingernail-incised decoration. Of significant intrinsic interest from (53) is a group of fabric 1 sherds, containing abundant fine and medium quartz, which apparently represent an early native copy of a Gaulish barrel-beaker. The original form is likely to be late Augustan in date and copies most common in the first half of the first century A.D. This combination of fabric and form is, however, an extremely unusual one and it is possible that the vessel might rather be an atypical pedestal jar. Several sherds of the same vessel occur in (52).

Dating: this small sample is generally pre-conquest in character, perhaps very late first century B.C. to early first century A.D..

(91) Fill of eaves gully associated with 'Belgic' hut post-holes (72) (53) (69) (65):

All the pottery is hand-made. The group included an everted jar-rim in fabric 2 and a bead rim in fabric 3. The latter form/fabric combination was common from the late first century B.C. to the late first century A.D. The very high proportion of fabric 3 is accounted for by numerous small sherds of a single vessel.

Dating: it cannot be distinguished in date from material from the associated postholes. Pre-conquest, perhaps very late first century B.C. to early first century A.D.

(50) Occupation layer:

All the pottery is hand-made and mostly small and worn. The fabric 5 sherd is of distinctively 'Belgic' type.

Dating: pre-conquest.

(39) Ditch fill (ditch cut (40)):

All the pottery is hand-made. There are several relatively fresh sherds of an everted-rim cordoned bowl, of probable pre-conquest date, in fabric 2. The single sherd of fabric 8 may be from the same vessel as those in (52). Dating: pre-conquest.

(59) (61) (48) Post-holes:

All the pottery is hand-made. There are no rims, but it would appear that only closed forms are present. Fabric 7 sherds from (59) and (61) may be from the same vessel. (61) yielded several joining bodysherds of a large jar in fabric 3; one of these is certainly larger than sherds usually found in post-holes. Dating: the character of the pottery is consistent with that of the other material associated with the 'Belgic' hut, which appears to be entirely of native type; there is no evidence for the 'Romanization' of any sherds. Although it is difficult to assess any degree of residuality involved and, given the very small sample size it is impossible to preclude a later date for the *deposition* of this pottery, it is probably safe to assign it a pre-conquest date.

(52) ?lower part of trodden domestic layer (8):

This layer, possibly representing the lower part of (8) and sealing deposits relating to the 'Belgic' huts and associated features is the first we have considered to yield a little clearly post-conquest, wheel-thrown pottery: two sherds of a cordoned flagon in pink cream-slipped fabric 9. It also yielded the first convincing evidence for the deliberate use of sand as an added tempering agent (as opposed to the use of possibly naturally sandy, poorly prepared clay), although this is not conclusive evidence of post-conquest manufacture. Most of the sherds present, for instance a bead-rim jar in fabric 3, could in themselves be either pre- or post-conquest in date, but, on the basis of the very small proportion of 'Romanized' wares present, are not likely to post-date the conquest by much. One sherd of fabric 2 displayed a similar pattern of incised finger-nail decoration to that seen elsewhere (contexts (71) and (91)).

Probable vessel-links were noted in fabric 8 with context (39) and in fabric 1 with context (53).

Dating: probably very early post-conquest; ?Claudian or Claudio-Neronian.

(9) ?trodden domestic occupation:

A superficial appraisal suggests that perhaps only approximately 10% of the material (in fabrics 4, 5 and 9) displaying 'Romanized' traits of form and/or manufacture, need necessarily be post-conquest in date. None of this material is closely dateable. Much of the other pottery, such as a hand-made, lid-seated bead-rim jar in fabric 1 could be either pre- or post-conquest in date but is unlikely to post-date it by much. Other flinty wares included simple, internally thickened jar rims, bodysherds with horizontal 'combing' and one sherd of a large bead-rim storage jar of a type usually dated mid-first to second century. Cordoned and 'combed' bodysherds, everted jar rims and a cordoned, everted jar rim were present in fabric 2. A high degree of residuality, whilst it cannot be ruled out, is not suggested by observed patterns of wear; some of the fresher sherds are those which exhibit native characteristics of form and manufacture. Perhaps the freshest pieces are three large joining sherds (recently broken) of an

everted-rim hand-made jar decorated with two shoulder cordons and 'combing' in a mixed but principally grog-tempered fabric. An early post-conquest date is certainly suggested by the very high proportion of fabric 1 present and a conspicuously small amount of fabric 9.

Dating: probably very early post-conquest; ?Claudian or Claudio-Neronian.

(38) primary ditch fill (ditch cut (35)):

The only identifiable forms are the squared bead-rim of a jar in fabric 3 and cordoned upright and everted jar rims in fabric 2; none of these are intrinsically closely datable. Dating: although the sample size is small, the overall composition of the assemblage, in particular the absence of 'romanized' forms and the very small proportion of clearly post-conquest fabrics present (2 sherds of fabric 9) suggests a date early in the post-conquest period.

Perhaps pre-Flavian.

(34) (37) upper ditch fills (ditch cut (35)):

For the purposes of this assessment these deposits have been amalgamated. It has been suggested that (37) represents in-wash from deposit (9) and that (34) represents in-wash following abandonment.

The substantial assemblage from upper ditch fill (34) is very mixed in character, yielding examples of all the locally manufactured coarse and fineware pottery fabrics isolated on the site, but no imports.

Although the sample includes a much higher proportion, by sherd-count, of wheel-thrown, post-conquest 'Romanized' wares, fabrics 4 and 5, than any deposit considered so far, the proportion of fabric 5 is exaggerated by the presence of a large number of sherds of a single vessel, an upright-everted-rim jar with girth groove and shoulder grooves/cordons, probably dating to the second half of the first century A.D. Important negative dating evidence is provided by the absence of any pottery in the 'black-burnished' tradition which appears in this area in the early second century A.D. The composition of this group may be contrasted with that of an assemblage dated c. 110-160 A.D. from Rochester, which contains a majority of sandywares and something in excess of 23% black-burnished wares (Pollard 1981, 95-136).

To a similar, but lesser extent, many fabric 9 sherds *may* belong to a single carinated beaker of late first to early second century date. Identification of vessel-types is not easy - all of the sherds in this fabric are small (not uncommon for this ware) and heavily weathered, but recognized forms are consistent in date with the carinated beaker. A cross-join was noted in fabric 9 between contexts (34) and (38).

A large majority of the individual vessels present are in fabrics 1 and 2. Flint-tempering (fabric 1) may have gone out of use by the early Flavian period. A proportion of the grog-tempered wares would, on stylistic grounds, similarly not appear to much post-date the conquest.

Dating: regarded as a group, this assemblage might date to the years immediately post-dating the Roman conquest; earlier, perhaps, than c. A.D. 60-70. The latest identified pottery, however, may be only broadly dated to the late first to early second

century. Gauging the degree of residuality is difficult, but crucial. On the basis of the evidence from superior layers (45) etc., discussed below, which yielded only a small proportion of 'Romanized' sand-tempered pottery, an early date might be justified.

(45) ?cobbling; (8) levelling layer; (33) clayey loam/soil; (43) ?pit fill; (21) clay layer; (19) flints; (31) feature; (20) scorched clay soil; (27) ditch fill; (14) flint cobbling(?=30); (30) flint spread (?=14); (7) daub spread:

For the purposes of this assessment, the pottery from the remaining Roman features will be discussed broadly, as a group. Individual sample sizes are generally small and the material is in poor condition.

Much of the pottery from these features exhibits characteristics of form and fabric that do not long outlive the conquest and proportions of 'early' fabrics 1, 2 and 3 are still high. A Hoo-type flagon rim-fragment of Claudio-Neronian date and other sherds probably from the same vessel were recovered from context (33); a sherd of this vessel joined another in context (6). As with contexts (34) and (37), above, calculating the likely degree of residuality is difficult as chemical weathering of sherds tending to mask differences in wear patterns. Levelling layer (8), apparently well sealed by most of the other contexts in this group, yielded a well-developed rounded roll-rim from a pie-dish of probable black-burnished type. Due to the complete stripping of its surface finish, a close estimation of its date is not possible, but it should be mid-second century or later. This was the only *confirmed* sherd of black-burnished ware in a sample of 485 sherds (see my comments on a Rochester group dated c. 110-160 A.D., above); although some of the other sandyware sherds could be as late, or later, confirmation of this requires further analysis of the surviving worthwhile rim-profiles. There are no fine- or coarseware imports.

Dating: most of the pottery is likely to be pre-Flavian, or late first to early second century. A single sherd (8) is mid-second or later; a few other sherds *might* be as late.

(6) Clayey soil spread. ?levelling-up:

The pottery assemblage from layer (6) is clearly different in character to any sample so far considered, but is directly comparable with MT95 (15), Trench 1 (see below). Although there is a substantial residual component (significant amounts of fabrics 1, 2 and 3 and early fabric 9 types) there is a much higher percentage of fabrics 4 and 5, which include many BB2 or BB2-type vessels (grooved and plain dog-dishes and roll-rim pie-dishes). As these have, almost without exception, lost their surfaces, they are identifiable only by form rather than fabric. A number of everted and hooked jar rims were also noted. Most sherds are small and worn.

All fabrics present on the site are represented in this context. Imports include 16 sherds of central Gaulish samian of broadly second century date and 6 sherds of south Spanish Dr.20 olive-oil carrying amphorae. There are 2 joining rim-sherds of a small central Gaulish 'Rhenish' beaker which is paralleled by Nene-valley types of late second to third century date. This ware is generally dated late second century in this country; significant quantities were found in the early third century New Fresh Wharf waterfront group, in London). Among several mortaria fragments is the rim of a Kentish 'hammer-head' mortarium of probable late second to third century date, with

illegible stamp.

Initial assessment suggests that the assemblage contains no Roman pottery of distinctively mid-third century or later date (note 155 sherds of post-medieval wares). Dating: excluding the (?intrusive) post-medieval pottery, the latest pottery would appear to be possibly of late second to early third century date.

(5) Layer between soil (6) and clay (4); probably dumping/levelling:

General comments and dating as for (6).

(1) Late C19 horizon:

Dating: residual.

Pottery from MT 95 Phase III excavations

The pottery was examined using stratigraphic information provided by the excavator. The material from each of the trenches dug is described separately, below. Within each trench the material is listed in a sequence that reflects the broad stratigraphic sequence, progressing from inferior to superior deposits.

Pottery from Trench 1.

Trench 1 contained a single 'ceramic' context which yielded pottery of largely mid-second to mid-third century date. It is the only group which can confidently be considered comparable to MT93 (6).

(15) Peat deposit:

This is one of the latest datable groups of pottery from the Medway Tunnel excavations. It includes a 'hammerhead' mortarium rim of late second to early/mid-third century date, fragments of a Nene-valley type colour-coated, indented beaker of the late second century or later and a bead-and-flange sandyware dish of probable black-burnished type. Dishes of this sort are usually found in Kent in contexts of the mid-third century or later. These few sherds are the latest dateable types. The other pottery includes second century central Gaulish samian and quantities of BB2 and/or BB2-types. Positive identification of the latter is usually impossible due to weathering of sherd surfaces. Fabrics 1, 2, 3 and 7, which are particularly associated with late Iron Age and 'Belgic' deposits on the site are conspicuous by their almost complete absence, suggesting that this deposit might be associated with a distinct phase of later activity on the site. It might, as such, be contemporary with MT93 (6).

Dating: the latest pottery dates to the mid-third century or later. The balance of the group suggests that deposition largely or entirely ceased in the mid-third.

Pottery from Trench 2

Samples from LIA deposits in this trench ((8), (9) and (10)) all appear heavily contaminated by intrusive Roman material and provide very poor ceramic dating evidence. Upper levels (7), (6) and (5) contain very little pottery, but what there is,

particularly the presence of fully developed roll-rim BB2 or BB2-type pie-dishes, suggests mid-second century or later deposition. There is nothing that is *necessarily* of late second century or later date, but roll-rim pie-dishes did continue in use until at least the mid-third century.

(10) Sandy silt:

Sherds of fabric 6 may represent the same vessel as sherds in (8), Trench 2 and (15), Trench 1. The excavator is convinced that they are intrusive.

Dating: ?intrusive Roman material in an LIA or earlier context.

(9) Occupied surface:

This deposit has been stratigraphically determined to be LIA or earlier in date. It contains at least 3 sherds of Roman pottery (fabric 5). A proportion of the other grog-tempered and shell-tempered pottery may also be intrusive.

Dating: ?intrusive Roman material in an LIA or earlier context.

(8) Silt:

Although, on the basis of stratigraphic interpretation, this context is seen as being pre-conquest in date, it quite clearly contains an overwhelming proportion (at least c85%) of post-conquest pottery. The excavator remains confident that this material may be regarded as intrusive.

Dating: Intrusive Roman in an earlier context.

(19):

Includes a pie-dish rim.

Dating: mid-second century or later.

(7):

Includes a pie-dish rim and fragments of a south Spanish Dressel 20 amphora.

Dating: mid-second century or later.

(6):

Includes a pie-dish rim.

Dating: mid-second century or later.

(5):

Includes a pie-dish rim.

Dating: mid-second century or later.

(17):

Includes 2 pie-dish rims. A fabric 5 sherd joins another in (7), Trench 2.

Dating: mid-second century or later.

Pottery from Trench 3

Only a little pottery was recovered, which provided poor dating information.

(29) Peat deposit:

In addition to a tiny, rounded, surfaceless fragment of possible samian, this deposit yielded 11 sherds of reduced sandyware, mostly from a single vessel of uncertain date.

Dating: late first to fourth century.

Pottery from Trench 4

Only a little pottery was recovered, which provided poor dating information.

(25) Peat deposit:

All the sherds from this context were small and worn. No forms were identifiable: all that can be said is that the sandywares (fabrics 4 and 5) are clearly Romanized.

Dating: late first century or later.

(26):

Comments and dating as (25), above.

Pottery from Trench 5

Trench 5 yielded only a very small quantity of pottery, from (31).

(31) Peat deposit:

The pottery included a relatively high proportion (in a very small sample) of 'early' fabric types 2, 3 and 8. The rim of a bead-rim jar was noted in fabric 5. A bodysherd of a small closed vessel in fabric 8 displays traces of burnished/tooled lattice decoration. The later, Romanized pottery cannot be closely dated.

Dating: latest material is late first century or later.

Pottery from Trench 6

Useful deposits excavated in trench 6 include two radiocarbon dated hearth deposits located beneath later peats. These hearths have been dated to around the turn of the second century B.C. The sample of pottery available for study from these deposits is, unfortunately, very small (4 sherds), but it is interesting that the 3 sherds whose fabric has been identified are all shell-tempered and that flint-tempered wares are absent. Although shell-tempering is not unknown in Iron Age deposits, it is generally considered to be more characteristic of the late first century B.C. to first century A.D.

(47) Fire site:

An apparently reliable carbon-date of c. 220 B.C. has been established for this deposit,

accurate to plus or minus 30 years. The only classifiable sherd of pottery is an upright, flattened shell-tempered rim. Another fragment, possibly from a base, has been partially vitrified. The pottery is securely stratified.

Dating: c. 220 B.C.

(45) Trench 6. Fire site. Over fire site (47).

An apparently reliable carbon-date of c. 190 B.C. has been established for this deposit, accurate to plus or minus 30 years. The sherds from this deposit may represent a single vessel. The pottery is securely stratified.

Dating: c. 190 B.C.

(43) Peat deposit:

This context yielded little useful dating information and the dating of the upper peat layers must thus be found in other trenches. The pottery included 'Belgic'/early Roman and Roman wares. There is nothing that need post-date the second century. A cross-join was noted between a base sherd in fabric 5 and one in (u/s), trench 7.

Pottery from Trench 7

The pottery from Trench 7 was of poor quality. It ranges in date from LIA/'Belgic' to Roman. There is nothing that need necessarily post-date the second century. Although the sample size was very small, it may be significant that the only pottery that is necessarily of mid-second century or later date was recovered from (4), overlying the 'Roman' peat deposits. In fact, only in Trenches 1 and 2, lying closest to the 'cliff' face, was pottery of this date found in Roman levels.

(53) Peat deposit:

Dating: LIA/'Belgic'.

(43) Peat deposit:

Dating: late first century or later. Perhaps no later than second.

(4) Layer over peats:

This group includes the rim of a BB2 or BB2-type roll-rim pie-dish.

Dating: mid-second century or later.

5.1.3 Quality/condition of the material

Generally the physical condition of the pottery was poor. Chemical weathering had resulted in the severe degradation of the surfaces of many sherds. The problem affected sandywares particularly badly; a notably high proportion of 'oxidised' sandywares (fabric 4) among the later contexts is in part due (is perhaps largely due) to the stripping away of grey or black surfaces to reveal a brownish or reddish core. This has rendered the certain identification of burnished sandywares almost

impossible, although in many cases a tentative identification can be made on the basis of form.

5.2 Statement of potential

The character and significance of intrinsic and wider aspects of the late Iron Age indigenous wares (fabric 1, here) have been discussed at length elsewhere in this report by Nigel Macpherson-Grant.

Chronology of the 'Belgic' and Roman pottery.

Radiocarbon dating of Phase III, Trench 2 fire site deposits (45) and (47) provides a *terminus post-quem* for the 'Belgic' pottery recovered from alluvial clay (11) and for LIA occupation in the immediate area.

The period of 'Belgic' occupation on the site as indicated by the LIA hut Phases I and II would appear, on the basis of the initial assessment, to fall within a late first century B.C. to early/mid-first century A.D. (pre-conquest) date range. However, there is a possibility that this date range extends back further into the first century B.C. No clearly post-conquest pottery was found in layers associated with the hut. The scarcity and value of such deposits has been discussed by Nigel Macpherson-Grant, above.

That use of the huts may have ceased at roughly the time of the Roman conquest, but that occupation in the area continued, is suggested by the presence of small quantities of post-conquest material in layers sealing the hut phases.

Ceramic evidence for mid-second century or later activity was obtained from various deposits, including Phase III Trenches 1 and 2, (7), (15), (19) etc. The material from Phase I and III excavations may represent sporadic/episodic activity associated with fluctuations in estuarine water levels.

Occupation appears to have continued until at least the late second to early third century, when an episode of levelling/dumping, represented by Phase II, (6) appears to conclude Roman activity on the site. Pottery of similar date was recovered from a Phase III peat deposit (Trench 1, (15)) which presumably represents rubbish disposal. This deposit yielded the latest datable pottery from the site - the rim of a bead-and-flange sandyware bowl which is unlikely to be earlier than c. A.D. 220/230.

Ceramic 'style-zones' in Kent

That part of the north Medway valley in which this site is situated lies within the boundary margins of five overlapping ceramic 'style-zones' and/or production areas previously identified by ceramic workers:

- 1) An East Kent zone, characterized in the 'Belgic' and early Roman periods by the use of grog-tempered pottery of 'Aylesford-Swarling' type.
- 2) A West Kent zone, west of the Medway valley, characterized by the general absence of pottery of 'Aylesford-Swarling' type and the use of shell and sand and shell as ceramic tempering agents.

3) A central Medway valley zone, centred around Maidstone, which produced glauconitic sandywares in the first century B.C..

4) To the north-west, the area of the North Kent Thameside Roman pottery industry, also the location of limited pre-conquest production.

5) To the north-east, the area of the 'Upchurch' Roman pottery industry, also the location of pre-conquest production.

Products of all these industries and zones have been identified at this site, which thus offers an opportunity, in the context of a settlement assemblage, to quantify the pottery in use from these 'competing' sources at a single point of consumption. Of critical importance in this regard will be the accurate identification of fabrics and assignation of fabric-types to production areas. Certainly, reference should be made to material held in local museum collections and of the fabric reference collection compiled by Jason Monaghan and now in the possession of the Dartford and District Archaeological group.

Monaghan has noted, regarding pre-conquest Upchurch area production, that "there is only a limited amount of evidence relating to the late Iron Age in the area of interest.... what evidence there is suggests that production was low in volume and highly localized" (Monaghan 1987, 215). The pre-conquest development of the Kentish Thameside industries is similarly poorly understood; pottery production appears to have been sporadic (*ibid.*, 221).

Given the close proximity of the site to both these production areas, the well-defined pre-conquest levels clearly offer an opportunity to enhance our understanding of pottery production and use in the area in this period. Of particular interest is the occurrence on the site, in apparently securely stratified contexts (MT95, Phase III, (45) and (47)), dated to c. 200 B.C., of shell-tempered wares. Shell-tempered pottery is generally considered to be uncommon in Kent before the late first century B.C., occurring in earlier deposits in the presence of much larger quantities of flint-tempered wares. In these deposits it occurs in the absence of the latter.

Objectives of further study.

1. Dating of the various phases of occupation and the abandonment of the site.
2. Establishment of a fabric reference collection from the site.
3. Detailed quantified analysis and illustration of the immediately pre- and post-conquest Phase II ceramic assemblages associated with and succeeding the LIA hut, to enable the identification and characterization of changes in the pattern of ceramic consumption on the site in this period of cultural political and economic transition. The question of the dating of pre-conquest shell-tempered wares, at least in a local context, should be considered. This aspect of study will be undertaken in collaboration with Nigel Macpherson-Grant.
4. Presentation of the dating evidence for, and selective illustration of the material

from, later phases of occupation. The overwhelming bulk of the later Roman pottery was recovered from dumping/levelling layer (6), Phase II. It is very mixed and includes much residual material. A summary discussion based on the basic catalogue of the material should be sufficient.

5. Dating of the pottery from Phase I and III trenches and sections to facilitate interpretation of the nature and chronology of the fluctuations that appear to have taken place in local estuarine water levels.
6. To attempt to define the character/status of the settlement by establishing its ceramic 'signature' through quantified analysis of the ceramic assemblages. This will be achieved not by a specific study, but through discussion of data compiled for other purposes.

5.3 Recommendations

1. Compilation of basic computerized pottery catalogue/archive document. All material, per context, to be identified by fabric quantified by sherd-count and weight and labelled and bagged accordingly. Dating of contexts. Extraction of sherds for illustration from any deposits not to be subject to further analysis. Production of hard-copy. Day-visits to Rochester and Maidstone museums and the Dartford Archaeological group fabric reference collection will be necessary during this phase of work.
2. Compilation of fabric reference collection, extraction of samples and completion of documentation (written fabric descriptions etc.).
3. Typological analysis of pottery from pre-conquest and early post-conquest deposits. Quantification by sherd-count, weight and EVE's. Extraction of material for illustration. Refinement of context-dating, if necessary. Discussion.
4. Discussion of material from the later Roman levels. Extraction of selected material for illustration. Refinement of context-dating, if necessary.
5. Typological analysis of the material from Phase I and II sections and trenches. Extraction of selected material for illustration. Refinement of context-dating, if necessary. Discussion.
6. Specialist examination/dating of all samian.
7. Preparation of 'overview' discussion, placing the site in a broader local/regional context, with reference to previously published material.

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LOCATIONS OF ARCHAEOLOGICAL WORKS
FIG. 1

