## EXCAVATIONS AT TILBURY FORT, ESSEX SITE CODE: TF1 - 95.

# <u>TQ 6505 7527</u>

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## ABSTRACT.

The excavation revealed details of the internal arrangements of the Sutlers house, evidence for modifications to the building, and dump deposits dating from after the demolition of the building.

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### INTRODUCTION.

Newham Museum Service was commissioned to undertake excavations at Tilbury Fort in advance of the construction of an external staircase to the upper floor of the Water Gate. The foundation pads required for the staircase were to be of concrete set into the site of the Sutler's House, of which some walls are still visible.

Tilbury Fort was built as an artillery fort to guard the River Thames and the Tilbury-Gravesend crossing point. The fort as is extant today is one of, if not the, best preserved example of 17th century fortification, with many surviving structures and details from the 18th and 19th centuries also preserved, in Britain. The fort has, since 1984, been under the care of English Heritage for conservation and display as a national monument (Saunders, 1980,p.30). As such all works entailing ground disturbance require archaeological recording of the deposits to be disturbed. Previous work by Newham Museum Service (formerly Passmore Edwards Museum) between 1980 and 1991 (Beasley 1991; Moore 1990 and forthcoming; Sable 1991; Wilkinson 1983) has shown the enormous potential of the subsurface deposits and structures to shed light on the history of the fort structures and inhabitants and to pose many questions as well.

As these excavations formed part of our continuing archaeological work at fort the trenches were kept within the same continuous numerical system. The work was conducted between the 16th and the 23rd of February 1995 and was funded by English Heritage. It was negotiated and directed by Peter Moore for Newham Museum Service, and supervised by the author.

### HISTORICAL BACKGROUND.

The present fort is located at the important River Thames crossing point between Tilbury and Gravesend linking the counties of Essex and Kent (*Fig.1*). As such its defence was considered of importance during the medieval period, when temporary defences were erected (Saunders, 1960, p.152). Its status as a site of national importance led to the construction of the Blockhouse in 1539 (Saunders, 1960, p.154) for the use of artillery against attacking ships. The raid up the Rivers Thames and Medway by the Dutch in 1667 (Saunders, 1960,p.159) showed the ineffectual nature of the contemporay defences. The construction of a formidable bastioned artillery fort on a pentagon plan was begun in 1670 and can be said to have finished in 1685, though lesser works continued. While the form and many of the structures of the 17th century construction still survive, there are many 18th and 19th century structures and rebuilds also extant. The fort also seems to have been the site of a medieval hospital prior to the dissolution (Powell, 1988)

The site of the three trenches for the staircase lies within the outline of the Sutler's House *(Fig. 2).* The Sutler was an agent who sold food and provisions to the soldiers. Later between the late 18th and early 19th centuries this position is called the "tennant of the canteen" (WO 55 2589 Ordnance Land at Tilbury Fort) suggesting that this position now included some cooking. The position obviously had a monopoly in provision to the fort inhabitants (without them travelling that is) and had the right to grow vegetables on the land between the West Bastion and Inner Moat (WO 55 2589 Ordnance Land at Tilbury Fort), to hold keys to certain gates (W0 43 31 Surveyor Generals Office Records) and to have repairs and privy-emptying in the canteen carried out by the Ordnance Office (WO 55 765 Papers Relating to Fortifications in the Thames).

The Sutler's House was built between 1698 and 1715 as it does not appear on the 1698 plan of the Tilbury and Gravesend (Goagh Maps 8 Essex, Bodleian Library) but does on a 1715 map (Works 31/1211). It subsequently appears on all maps until 1911 (Gravesend Division, Chatham Subdistrict, Eastern Command, Tilbury Fort - Skeleton Record Plan, Sheet No.1). On a plan dating circa 1945-1953 (Ministry of Works 59/9) the Sutler's House is no longer shown suggesting that it may have been bombed and demolished during WWII.

The nature of the building is suggested on several plans and drawings. Two eighteenth century maps (Works 31/1210; Works 31/1205 dated 1735) are detailed enough to show internal divisions. They show the building located in the corner of and joined to the east side of the Water Gate and north face of the South Curtain Wall. The ground floor has two rooms, both spanning the length of the building, parrallel with the Curtain Wall, with the one against the Curtain Wall being narrower than the outer room. The outer room, which is connected to the other room by a doorway, has a doorway and four windows opening out onto the Parade Ground. At the east end of the building there is a yard with doors connecting it to the Parade Ground and both rooms of the building. A very small building in the corner of this yard and the Curtain Wall is probably a toilet.

The internal arrangements are not shown on the 1849 map (WO 78/744) but the yard at the east end has been reduced to half its size as sheds have taken all available space with the yard now containing the canteen cistern. A urinal had been added to the outer yard wall on the Parade Ground side. By 1911 the internal arrangements had changed with the larger outer room divided into two by a partition wall with these two new rooms marked as canteens for the men and for the Non Commissioned Officers. The inner narrower room is

also divided with the two parts called a cellar and a bar. The yard is surrounded by the outer urinal and three sheds.

A section of the Sutler's House ("Profiles of the Old and New Barracks, Sutlers House, Store House, Store Keepers House and the Powder House at Tilbury Fort", English Heritage Map Room, circa 18th century) shows a two storied building with a pitched roof over the ground floor; the roof is pierced with windows to create rooms below the roof. The 1911 map states that this roof is tiled.

### ARCHAEOLOGICAL METHODOLOGY.

Three trenches, designated Trenches 59, 60, and 61, were opened to excavate the area due to be disturbed by the concrete footings of the new staircase (Fig. 2). Two of these were  $2m \times 2m$ , and the third  $2m \times 0.4m$ . These were originally intended to be excavated to a maximum of 0.4m in depth, but, because of the loose nature of the fill, were extended to reach a stable surface for the footings, at c.0.5m. The trenches were hand-excavated using the single context planning method, and deposits were recorded on Newham Museum Service pro-forma sheets. Deposits were planned at a scale of 1:20, photographed, and main sections drawn for all three trenches at a scale of 1:10. At the end of the excavation the trenches were left open and unconsolidated as instructed.

### EXCAVATION SUMMARY.

Trench 59 was a 2m x 2m trench, located in the angle of the outer curtain wall and the eastern wall of the Water Gate. After removal of the pea gravel and sand (layers 5001 and 5002) of the current surfacing, a layer of dark grey sandy silt (layer 5003) was removed onto a layer of mortar (layer 5004). These were cut by a linear trench to the south (cut 5006). Underlying layer 5004, a layer of dark grey silt clay was revealed. This was removed onto a series of thin compacted sand layers (layers 5009, 5010, and 5016), cut by a posthole and a small pit (cuts 5020, 5022). These were removed onto a layer of loose gravel layer (layer 5023). This overlay a brick and stone floor (context 5025).

Trench 60 was a 2m. x 0.4m. trench to the east of Trench 59, against the southern Curtain Wall. After removing the pea gravel, sand, and sandy silt surfacing (layers 5011, 5012), a similar mortar layer (layer 5014) to that in Trench 59 was removed. This overlay a sandy silt layer (layer 5015), which was removed onto a series of thin compacted layers (layers 5018, 5026, 5027). This overlay a stone floor (context 5024).

Trench 61 was a 2m x 2m trench to the north of Trench 59, against the wall of the Water Gate. After removing the the surfacing gravel and sand (layers 5031, 5032) the concrete footing from the previous staircase was revealed (cut 5034). This cut a large circular (?) cut (cut 5036). This in turn cut a layer of mortar (layer 5038), a layer of crushed chalk (layer 5039) and a layer of dark grey sandy silt (layer 5040). These dump layers overlay a linear cut, and three walls (cut 5042, walls 5043, 5044, 5047). A brick dust and mortar layer (layer 5046) overlay a brick floor (context 5045) to the south of the trench.

### PHASE DISCUSSION.

#### Phase I: consists of groups 1g, 2d, 3f. (Fig. 3).

This represents the earliest phase on the site. It consists of brick floors in trenches 59 and 61, and a stone floor in Trench 60. Associated with the floors are two wall bases in Trench 58, and a sizeable foundation in Trench 61. It is thought that these structures represent the floors of the Sutlers house, and date to between 1698 and 1715.

#### Phase II: consists of groups 1d, 1e, 1f, 2c, 3e.(Fig. 4).

This phase relates to 18th century remodelling of the original structures in Phase I. In Trench 59 the interior dividing walls appear to have been removed and the floor raised with dumps of gravel, silty sands and crushed chalk. A post hole is cut into these levels, possibly as an additional support once the walls had been removed. It is possible they may have been replaced by wooden walls, as walls are shown in the plan of 1911, in the same position as the originals.

In Trench 61 the interior wall of Phase 1 has been replaced with two parallel walls running at right angles. It does not appear that the floor was built up in Trench 61, but as the brick floor in this trench is considerably higher, it may be that the floors in Trenches 59 and 60 were raised to the level of that in Trench 61.

There are no structural elements in Trench 60, but the floor levels correspond to those in Trench 58.

The finds from the phase are mostly undatable. Those that have been dated appear to have an 18th century date.

#### Phase III: consists of groups 1c, 2b, 3d.

These groups represent dumping in the interior of the building. It is probable that these represent dumping to raise the floors of the Sutlers House. The present ticket office, on the other side of the Water Gate, formerly the jail, has a raised ground floor level. The most likely explaination of this would be to protect against flooding, or against the general damp conditions prevelant in the area. It appears likely that this later flooring was removed as part of the demolition. The finds from the Phase suggest a 19th century date.

#### Phase IV: consists of group 3c.

The group in this phase represents disturbance to the layers of Phase III, in the form of a large pit in Trench 61. The phase post-dates the demolition of the building in the 20th century.

#### Phase V: consists of groups 1a, 1b, 2a, 3a, 3b.

This Phase represents 20th. century activity on the site. It includes the concrete footings for the previous staircase, and a linear cut against the curtain wall.

### **INTERPRETATION AND CONCLUSIONS.**

The trenches excavated indicate that the Sutler's House was a multi-roomed, split level building. The split levels may indicate that the cellar shown in 1911 was an original design. A full subterranean cellar would have flooded in this low marshy area, so a half cellar is most likely. The drop in floor levels would indicate that the half-cellar is at the back of the building. The lack of a proper floor surface in Trench 61 may be an indication that the front of the building had planked flooring.

The half-cellar appears to have been backfilled and the floors raised when the building was remodelled, probably during the 18th century, with the drop in floor levels being eliminated. Some of the interior walls were also remodelled, possibly being replaced by wooden beams, or wooden partition walls. This seems likely as plans from 1911 show walls in the same position.

The floors appear to have been built up again during the late 18th or early 19th centuries. This is in keeping with the raised floor level apparent in the former jail on the opposite side of the Water Gate. The dumping of material in the building may be a reaction to flooding in the Fort, or a response to the generally wet conditions prevelant in the area. There is no evidence of floors in this phase, and as there is no evidence of compacted earth floors, it is possible that the dumped material was covered by wooden floors. It is probable that any floors were removed during the demolition of the building during the early 20th. century. This demolition appears to have been fairly thorough as no evidence of the demolition is apparent in the stratigraphy.

Interpretation of the exact nature of the deposits is difficult as the size of the trenches prevents any fuller interpretation; the area excavated being too small to fully interpret the lay-out of the building.

### **BIBLIOGRAPHY**.

Beasley, M., 1991, "Excavations at Tilbury Fort, Essex, TF1-92. Summary of Watching Brief, TF2-91", unpublished report, Newham Museum Service

Moore, Peter, 1990, "Tilbury Fort (TF1-90) Trench 32", unpublished report, Newham Museum Service

Powell, W.R., 1988, "The Medieval Hospitals of South and West Tilbury and Henry VIII Forts." Essex Archaeology and History, Vol. 19.

Sabel, K.R., 1991, "Excavations at Tilbury Fort, TF2-90", unpublished report, Newham Museum Service

Saunders, A.D., 1960, "Tilbury Fort and the development of artillary fortification in the Thames Estuary", the Antiquaries Journal, Vol.XL, p.152-174

Saunders, A.D., 1980, "Tilbury Fort"

Wilkinson, Patricia, M., 1983, "Excavations at Tilbury Fort, Essex", Post-Medieval Archaeology, Vol.17, p.111-162

Also consulted: English Heritage Map Room and Public Record Office.

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# APPENDIX A.

# GROUP DISCUSSION.

<u>Group 1a.</u>

<u>010up 1u.</u>		
<ul><li>5001 layer; pea gravel</li><li>5002 layer; yellow sand</li></ul>		2.31m - 2.29m 2.31m - 2.27m
	5001 layer	
	5002 layer	
Layers of gravel and sand, forming	surfacing over the site. 20th.	century date.
Plan: C\S: B\W: Trench: 59 Phase: V	Section: 1	
Group 1b.		
<ul><li>5005 fill; mid grey sandy silt clay</li><li>5006 cut; linear, moderate change</li><li>moderate change to bottom</li></ul>	to straight sides,	2.19m 2.09m 2.19m - 2.09m
	5005 fill	
	5006 cut	
Linear cut with associated fill. 20th	a. century date.	
Plan: 5006 C\S: B\W: Trench: 59 Phase: V	Section:	
Group 1c.		
5003 layer; dark grey clayey sand 5004 layer; mid grey yellow mort 2.15m		2.27m - 2.20m 2.20m
5007 layer; mid grey sandy silt cla	ay 5003 layer   5004 layer 	2.14m - 2.00m

-

5007 layer

Three dumped make-up layers. 19th. century date.

Plan: 5003, 5004, 5007 Section: 1 C\S: 1.1-4 B\W: 1.1-4 Trench: 59 Phase: III

Group 1d.

5008	layer;	mid grey sandy silt with coal
5009	wood;	decayed wood
5010	layer;	mid grey sandy silt with mortar

2.00m - 1.98m 1.99m - 1.98m 1.98m - 1.91m



Two dumped floor layers with a small piece of decayed lath-work. 18th. century date.

Section: 1

Plan: 5008, 5009, 5010 C\S: 1.-617 B\W: 1.6-17 Trench: 59 Phase: II

Group 1e.

5019	fill; dark grey sandy silt		1.89m - 1.63m
5020	cut; circular, abrupt change top to sides,		1.89m - 1.63m
	sharp to concave bottom		
5021	fill; dark grey sandy clay silt		1.89m -
1.79m	1		
5022	cut; ovoid, moderate change top to sides,		1.89m - 1.79m
	gradual to concave base		
	5019 fill	5021	fill
	5020 cut	5022	cut

Two cuts with associated fills. Comprises one post hole and an amorphous cut. 18th. century date.

Plan: 5020, 5022 Section: --C/S:1.32-35; 2.1-4 B/W: 1.32-35; 2.1-4 Trench: 59 Phase: II <u>Group 1f.</u>

5016layer; white chalk1.94m - 1.89m5017layer; black, sand, ash and coal dust1.89m - 1.88m5023layer; mid red brown sand and gravel1.91m - 1.84m5028cut; linear, sharp change top to straight sides,<br/>sharp to flat bottom1.83m - 1.73m



Three layers and a cut. Comprises floor layers and gravel make-up filling the robber cut for a wall. 18th. century date.

Section: 1

Plan: 5016, 5017, 5025 C\S: 1.23-26 B\W: 1.23-26 Trench: 59 Phase: II

#### Group 1g.

5025structure: brick and flagstone floor1.79m------5029structure; brick wall1.84m------5030structure; brick wall1.90m------ $\boxed{\begin{bmatrix} & & & \\ & & &$ 

Two walls and a flagstone and brick floor. Probable 18th. century date.

Section: 1

Plan: 5025 C\S: 2.9-13 B\W: 2.9-13 Trench: 59 Phase: I

Group 2a.

5011 layer; pea gravel 5012 layer; yellow sand

2.34m - 2.34m

2.35m - 2.34m

5011 layer | 5012 layer

Layers of gravel and sand, forming surfacing over the site. 20th. century date.

Plan: -- Section: 2 C\S: --B\W: --Trench: 60 Phase: V

Group 2b.

layer; dark grey clayey sandy silt layer; light grey sandy silt with mortar	2.34m - 2.27m 2.27m - 2.18m
layer; grey sandy silt with mortar	2.28m - 2.02m
5013 layer	

5013 layer | 5014 layer | 5015 layer

Three make-up layers. 19th. century date.

Plan: -- Section: 2 C\S: --B/W: --Trench: 60 Phase: III Group 2c.

5018	layer; black silt and charcoal	2.02m - 1.95m
5026	layer; mid grey sandy silt with mortar	2.04m - 2.02m
5027	layer; mid brown sandy silt	1.97m - 1.90m

5026 layer 5018 layer 5027 layer

Section: --

Three layers forming a probable floor surface. 18th. century date.

Plan: --C\S: --B/W: --Trench: 60 Phase: II

Group 2d.

5024 layer; dark grey sandy silt with stone -----

5024 layer

Section: 2

Floor layer composed of fragments of stone set in beaten earth. 18th. century date.

Plan: 5024 C\S: 2.5-8 B\W: 2.5-8 Trench: 60 Phase: I

Group 3a.

5031 layer; pea gravel	2.34m - 2.32m
5032 layer; yellow sand	2.32m - 2.30m

5031 layer

16

n n n

1.92m-----

5032	layeı

Layers of gravel and sand, forming surfacing over the site. 20th. century date. Plan: -- Section: 3 C\S: --B\W: --Trench: 61 Phase: V

Group 3b.

5033 fill; concrete2.30m - 2.12m5034 cut; rectangular (?), abrupt change to straight sides,<br/>sharp to flat bottom2.30m - 2.12m

Section: 3

Concrete filled cut. Foundation base for previous stairway. 20th century date.

Plan: 5034 C\S: --B\W: --Trench: 61 Phase: V

Group 3c.

5036	cut; amorphous, moderate change to straight sides,	2.20m - 1.98m
	moderate to flat bottom	
5037	fill; mid grey sandy clay silt	2.20m - 1.98m

| 5037 fill | 5036 cut |

Section: 3

Amorphous cut with associated fill. Probable post-demolition backfill. 20th century date.

Plan: 5036 C\S: 2.14-17 B\W: 2.14-17 Trench: 62 Phase: IV

Group 3d.

5035 layer; yellow brown sand and mortar	2.31m	-
2.30m		
5038 layer; grey sandy silt with mortar	2.30m - 2.19m	
5039 layer, grey white crushed chalk	2.19m - 2.01m	
5040 layer; black sandy silt	2.01m	-
1.95m		

| 5035 layer | 5038 layer | 5039 layer | 5040 layer |

Section: 3

Four layers of post-demolition make-up. 20th century date.

Plan: --C\S: --B\W: --Trench: 61 Phase: III

Group 3e.

5041 fill; mid brown sandy clay silt	2.12m - 1.88m
5042 cut; linear, edges uncertain, bottom concave	2.12m -
1.88m	
5043 structure; brick wall	1.96m - 1.87m
5044 structure; brick wall	2.06m - 1.88m
5046 layer; light grey sand and mortar	1.94m



Linear cut, probably a robber trench, serving as a construction cut with two brick walls and associated fill, cutting a spread of probable demolition mortar. 18th century date.

Plan: 5042, 5043, 5044, 5046, C\S: 2.18-21 B\W: 2.18-21 Trench: 61 Phase: II	Section: 3		
1 hase. 11			
Group 3f.			
<ul><li>5045 structure; brick floor</li><li>5047 structure; brick wall</li></ul>			1.98m 2.30m
5045 structure		 5047	structure
Linear brick wall and brick floor. 18th. co	entury.		
DI 5045 5047			

Plan: 5045, 5047

Section: 3

C\S: 2.18-21 B\W: 2.18-21 Trench: 61 Phase: I