

Survey of intertidal remains adjacent to  
scheduled ancient monument 1013832  
Tudor Blockhouse  
East Mersea, Essex

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## A CITIZAN survey intertidal remains adjacent to scheduled monument 1013082 -Tudor Blockhouse at Cudmore Grove, Mersea Island, Essex

### *Abstract*

*In 2003, several exposed timber features were surveyed on the foreshore to the south of scheduled ancient monument 1013832 – Tudor Blockhouse. Since then, up to 1m of sediment has been eroded from the foreshore, revealing several additional features including a large timber structure to the east (possibly a fortified harbour wall), sections of fence and possible further structural elements of the fort itself. A single radiocarbon date on a sample of in situ structural wattle from the large timber feature dated to A.D. 1540, contemporary with the initial construction of the fort. A smaller timber feature was exposed on the foreshore to the southwest of the ramparts consisting of large timber (likely oak) base plates and piles. All features are actively eroding, with small scale collapses of the scheduled earthworks in 2021. The designation currently only covers the earthwork ramparts, and it is argued here that the designation should be extended to include the extensive timber remains now exposed on the foreshore.*

*The survey and report of Point Clear would not have been possible without the generosity, dedication, knowledge, and enthusiasm of the Mersea Island CITIZAN volunteer team. A heartfelt thanks to Mark and Jane Dixon, James Pullen, Carol Wyatt, Alan Williams and Geoff Lunn for making every trip to the foreshore a joy.*

## 1. Introduction

The Blockhouse site was first surveyed in 2002 – 3 by Heppell *et al.* (2003) and sponsored by English Heritage. The project comprised a survey of earthwork ramparts and several timber features visible on the foreshore, exposed as a result of coastal erosion in the early 2000's. Significant timber alignments were observed directly to the south of the ramparts and were identified as the remains of a quay that once served the fort. The loose sediments covering the foreshore at that time also contained numerous faggots of brushwood packed between the timber piles and several large, worked oak planks that formed the baseplates of presumed associated foreshore structures including a possible beacon.

Of the remains identified in 2002, only the timber alignments were present in September 2021 during rapid re-survey of the site. The timber alignments were in a heavily eroded condition. The resurvey did identify several substantial timber features on the foreshore to the east of the fort's earthworks. The feature was not visible in 2002/3 indicating substantial foreshore erosion in the intervening 15 years with the loss of up to 1m of sediment necessary to expose the timber feature that now dominates the foreshore. A single radiocarbon date of AD. 1540 was obtained during the production of an episode of Channel 4's Britain at Low Tide. It was taken from the freshly exposed wattle work woven into the uprights of the feature, making it contemporary with the initial construction of the fort.

The September rapid re-survey was conducted by CITIZAN volunteers and staff. It was produced using Leica Zeno Mobile and a GG04 antenna RTK survey kit. The aerial survey was conducted using a DJI Mavic II and the orthomosaic produced using Agisoft Photoscan.

## 2. Background

The foreshore to the south of Mersea Island has been subject to significant coastal erosion since the early 20<sup>th</sup> century, with parts of the foreshore losing up to 1.5m of saltmarsh and sediment by the late 1950's (Frost 1979). Such dramatic loss is the main reason why so many archaeological features are now exposed on the great expanse of mudflats (*c.8km<sup>2</sup>*) revealed at low tide and stretching from Mersea Stone in the east all the way to the Monkey beach at the SW tip of Mersea Island.

CITIZAN were alerted to the remains at the Blockhouse site in 2016 by project volunteers. An initial rapid survey was undertaken to plan the exposed upright timbers. However, further work on the site was not undertaken until 2020 as priority fell to other, more fragile and rapidly eroding sites on the Mersea foreshore. Given its relative proximity to the mean high-water line (MHW) the site is the most easily accessible of all those on Mersea's foreshore, making continued monitoring and observation straightforward.

Between 2016 and 2020 the foreshore remained relatively stable with little erosion causing change to the observed timber structures. In September 2021 the level of the foreshore began to drop as sediments were scoured away. This resulted in the extensive exposure of wattle work around linear feature 101 (see section 3), evidence of a basket behind the seaward facing side of the feature and a new feature (104) exposed to the southwest of the earthworks.

## 3. Description of the features

The principle remains observed fall into four categories and are grouped thus; 1) two linear timber features with exposed wattles 2) a section of timber fence 3) a large, exposed timber and supporting uprights 4) earthwork ramparts of the fort. See Plan 1 for location of features.

### 1. Linear features

*Feature 101:* A 20m long alignment of roundwood uprights average *c. 150mm* in diameter all set at a raking angle *c.110* degrees to the north towards feature 102. Species unclear and not yet sampled for identification. Presumably Hazel wattle work is evident around 90% of the feature and continues to a depth of at least 150mm (evidenced by a small archaeological intervention). The arrangement creates a shallow V shape and consists of two seaward faces abutted by a series of uniformly set perpendicular rows of posts creating pens or braces reinforcing the seaward faces. The uprights vary in height measuring between *c.60mm* on the upper limit of the foreshore and up to 1m in height at the southernmost extent. The exposed wattle is well preserved, varies in diameter between 30 – 60mm with many cut ends bearing tool marks. It is however fragile and susceptible to erosion. The remains of a basket were observed within the superstructure (fig 4). A single radiocarbon date from a wattle sample returned a date of *c.1540AD* and was obtained in 2018 as part of a story for the Britain at Low Tide television programme.



*Figure 1. Feature 101 facing towards the beach. Note two 'faces' to the alignment on the left of the image*



*Figure 2. Feature 101 wattles clearly woven into the superstructure with toolmarks visible*

Feature 102: Similar in form to 101, but an altogether more sparsely arranged construction. 38m long arrangement of uprights, smaller in diameter and more widely spaced with less precision than feature 101. There is very limited evidence of wattles woven into the structure, although more could survive belowground. Uprights are set at raking angles pointing southwards towards feature 101. The feature appears to continue north-westwards below the modern shingle beach.



*Figure 3. Feature 102 looking eastwards towards the beach showing second face in upper left of image*



*Figure 4. Feature 102 looking seaward from freshly exposed uprights on beach. Note feature 101 to upper right of image*

## 2. Timber fence

*Feature 103:* Remains of a likely fence structure comprising a large, square section oak upright with mortice hole into which a roughly worked crossbeam sits. Thin planks (staves?) are pegged overlapping into the crossbeam and continue below the surface, presumably creating a solid timber fence. The eroded remains of a second large upright are visible and extend the alignment to the NE, but no evidence of crossbeam was found. An alignment of roundwood posts c.60mm diameter was

recorded to the NE of the main feature. Although they bear no obvious resemblance in style or form to the proposed fence, their position suggests they may be contemporary, marking the edge of a field perhaps.



*Figure 5. Feature 103 timber fence. Note overlapping staves pegged to crossbeam*

### **3. Exposed timber set into the foreshore**

*Feature 104:* A large timber beam set horizontally on the foreshore measuring 2.4 x 0.3 x 0.15m, possibly oak or elm, and likely in situ. It extends due south from the apex of the fort ramparts. Small roundwood uprights are evidence set against both faces of the beam. Large elm beams were recorded during the 2003 survey due east of the ramparts (now gone) and were of similar form (Damian Goodburn pers comm). The feature extends below the modern shingle beach towards the fort where there is possibly a high level of preservation of structural remains.



*Figure 6. Feature 105 facing due north - a large timber beam in situ with the blockhouse ramparts behind*

#### **4. Some comments on the state of the earthwork ramparts**

Since CITIZAN's initial visit in 2016 the easternmost extent of the ramparts has become completely exposed to the high tides, with waves now regularly washing against the earthworks. Their composition is clearly visible in section although no evidence of the proposed gabions within them has been observed by CITIZAN volunteers. On extremely high tides seawater crests over the grassy topside of the eastern apex, totally submerging the exposed face. The short to medium term outlook for this section of the site is not good, with the exposed inner fill of the ramparts susceptible to wave action. Collapse of the seaward facing exposure has already begun and further loss is assured and likely imminent. Figure 10 illustrates the changing shape of the structure as observed in aerial photography from 1955 and 2021. The 1955 image shows the site well protected by established saltmarsh and a creek system, with the high-water line well to the east. Since then, over 50m of coastline has eroded away in the vicinity of the site. The shape of the remains has been altered significantly by the loss of saltmarsh and exposure to the elements.



*Figure 7. Eastern extent of ramparts looking south. Note the strandline marked by seaweed now cuts through the structure*



*Figure 8. Detail of collapse of eastern tip of the fort ramparts. Image facing south*



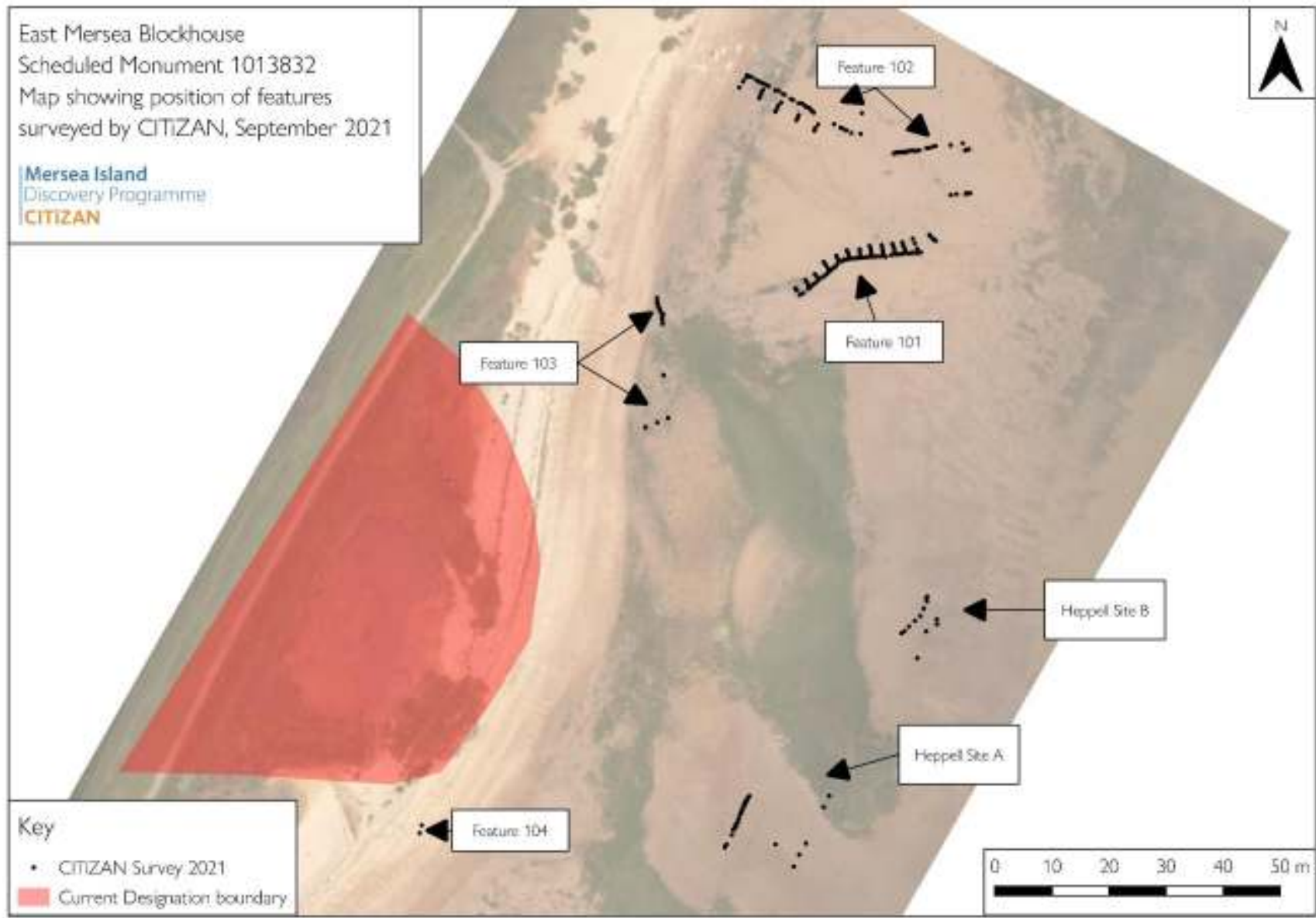
## 4. Interpretation of features

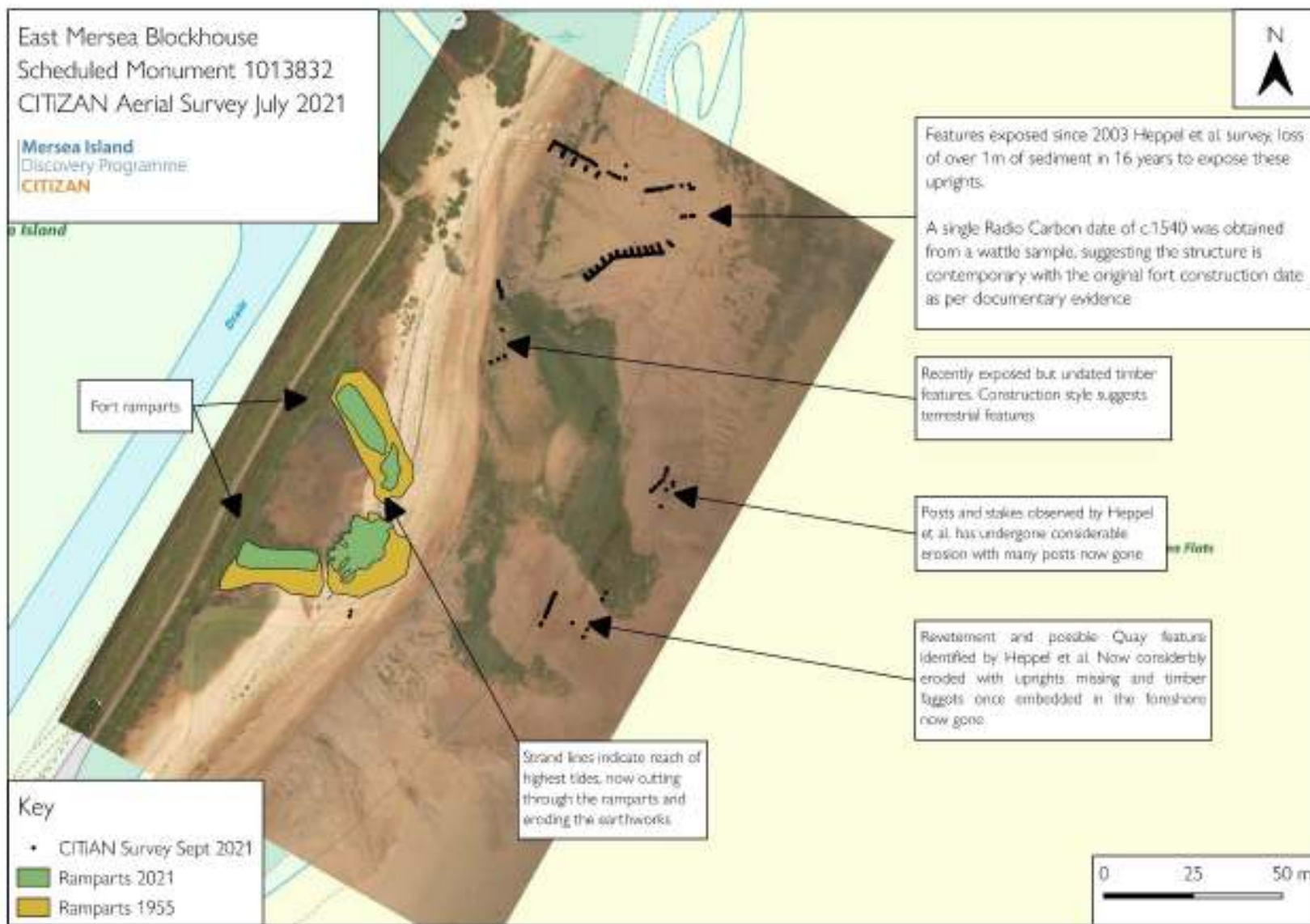
Based on survey and select interventions, features 101 and 102 may be the remains of a fortified harbour wall built to support the original Tudor fort. Their arrangement and the raking angles of the uprights imply they were built to either retain gabions or earthen fill, creating a working platform in the space between features 101 and 102, or to resist the pressure of the waves. The presence of basketry supports the idea of gabions being used to strengthen the core of feature 101.

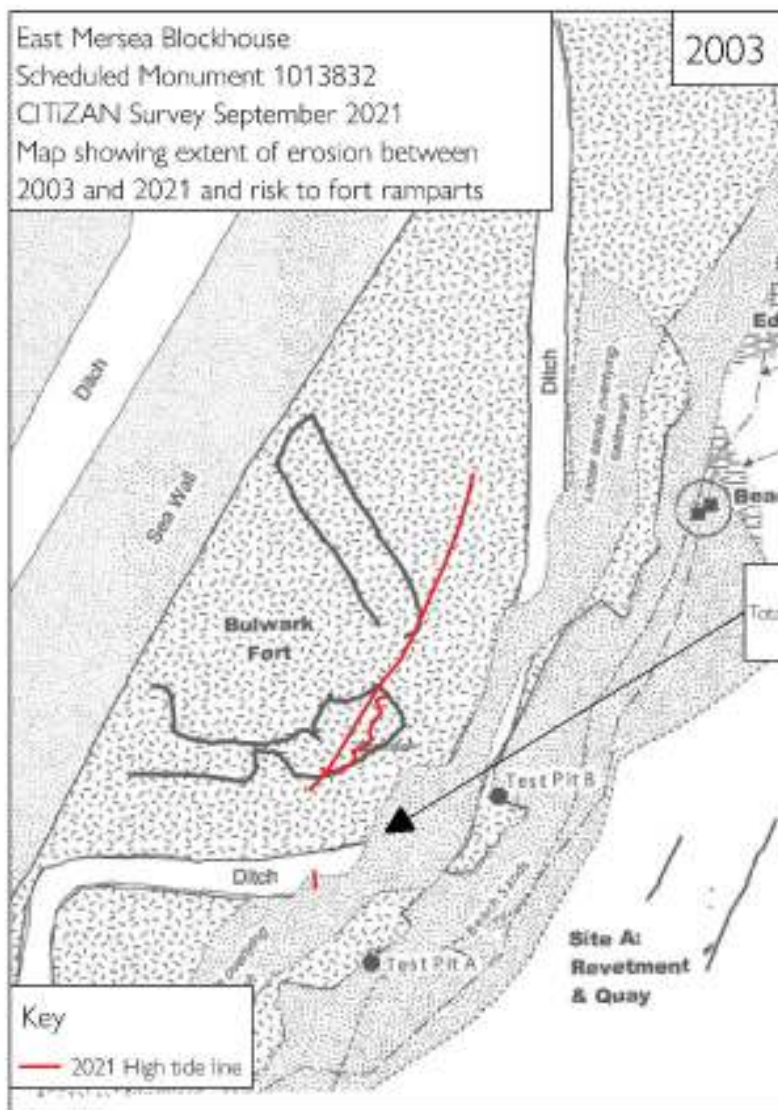
Historical sources indicate two periods of use for the fort, the first as a defence against the Spanish Armada around 1540, the second as a garrison during the Second Civil War nearly 100 years later. It is possible that the remains exposed on the foreshore predate the earthworks found higher up the beach, with potentially two phases of construction now simultaneously exposed. If feature 101 and 102 are contemporary and share a maritime function (harbour wall for example) they would likely serve to highlight the shape of Mersea's coastline at that point and have implications for relative sea level datums for the contemporary period.

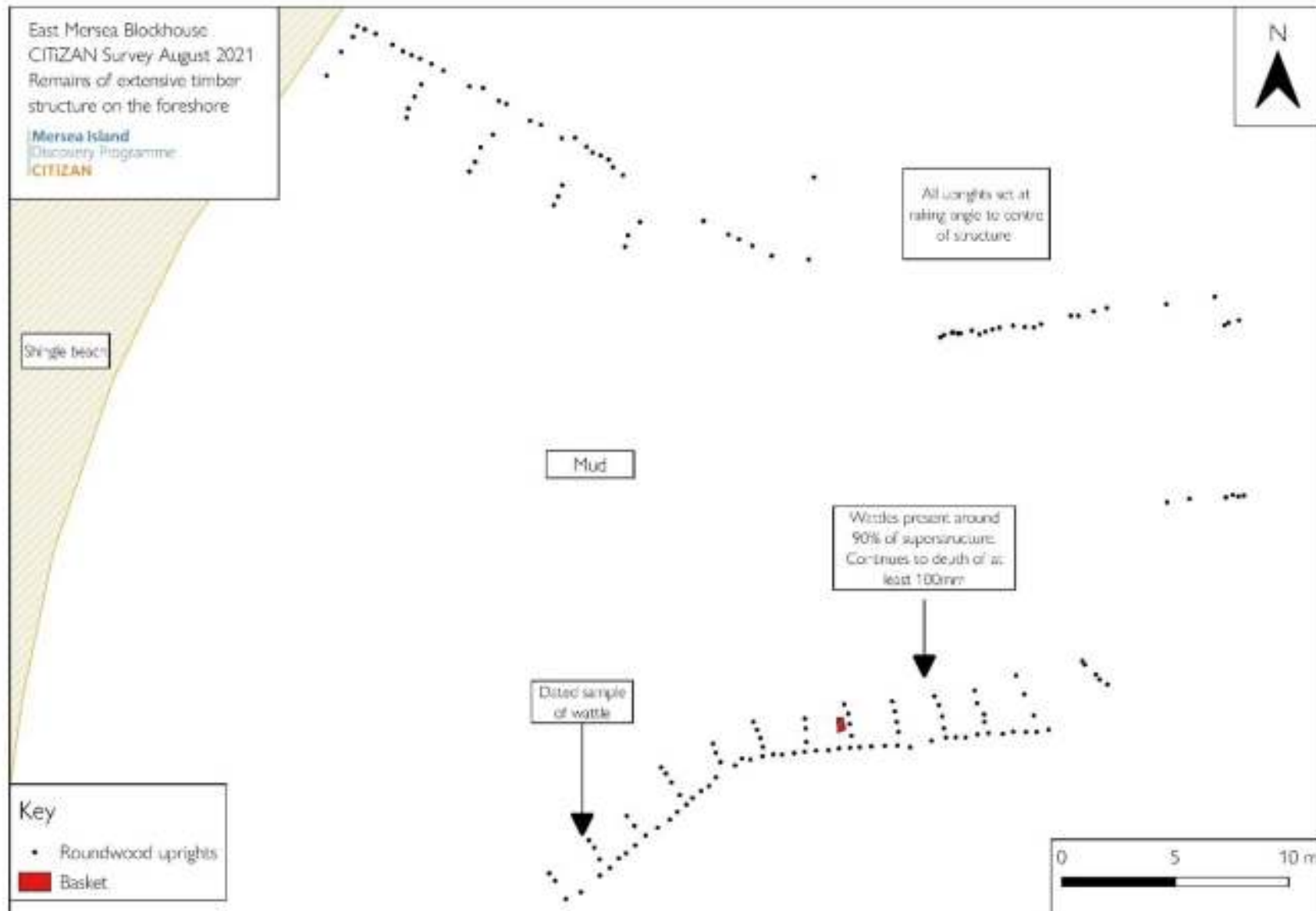
## 5. Recommendations for further fieldwork

The foreshore appears to have become more dynamic over the last year, with sediments offering less protection during the summer months for partially exposed features. This suggests the site is at increasing risk of loss. Dating of the exposed timber features require urgent attention given the likelihood they relate to the earliest phase of the forts construction and therefore should be included within the scheduled monuments boundary.











## 6. References

Heppell, E. M. et al. 2010 *A Henrican Fort and its associated structures: archaeological investigations in Cudmore Grove Country Park, East Mersea 2002 - 03*