NORFOLK ARCHAEOLOGICAL UNIT

Report No. 793

An Archaeological Desk Top Assessment of Riverside to the North of West Boom Tower, Norwich

384N

Kenneth Penn January 2003

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Contents

Summary

- 1.0 Introduction
- 2.0 Geology and Topography
- 3.0 Archaeological and Historical Background
- 4.0 Methodology
- 5.0 Documentary Evidence
- 6.0 Pictorial Evidence
- 7.0 Archaeological Observations
- 8.0 The Site Today
- 9.0 Conclusions

Acknowledgements Bibliography

Figures

- Fig.2 Sanctuary Map 1541 (detail)
- Fig.3 T Cleer's Map 1696 (detail)
- Fig.4 F Blomefield's Map 1746 (detail)
- Fig.5 A Hochstetter's Map 1789 (detail)
- Fig.6 Millard and Manning's Map 1830 (detail)
- Fig.7 C Muskett's Map 1849 (detail)
- Fig.8 Ordnance Survey 25" Map 1885 (detail)
- Fig.9 Ordnance Survey 6" Map (detail)
- Fig.10 Boom Tower from South, early 19th century. NP 00002291
- Fig.11 Two Views of Boom Tower from South. Buston Collection, Bridewell Museum
- Fig.12 Boom Tower from South 1934. Plunkett
- Fig.13 Boom Tower from North 1940. Plunkett
- Fig.14 Boom Tower from North *c.*2000.J Gurney-Read.
- Fig.15 Boom Towers from North 1874. J J Cotman

Local Authority No.076759

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| Location: | Riverside north of West Boom Tower, Norwich |
|-----------|---|
| Grid Ref: | TG 2391 0771 |
| HER No.: | 384N |
| SAM No.: | Norfolk 10 |

Summary

A desk based assessment was undertaken on a short stretch of the riverside next to the western of two Boom Towers which refers to the medieval background and construction of the city walls, gates and towers, and to their subsequent history. The Boom Towers, like the rest of the walls, gradually fell out of serious use, becoming monuments in the landscape, valued for their picturesque character and historical interest. They are depicted on maps and recorded in pictures and photographs.

Reference is made to these sources. There is a possibility of early medieval evidence on the riverside, although the later history of the site includes brick-built riverside structures, swept away when the present Carrow Bridge was built in 1920, but recorded in pictures and photographs.

Archaeological deposits may have been limited since the inside of the walled circuit was deliberately kept open for access in the middle ages, but access to the wall and river could suggest evidence for waterfront structures may have survived.

1.0 Introduction

The site is a short stretch of riverbank between the southernmost point of the town defences where they meet the river (at the Boom Towers) and Carrow Bridge to the immediate north (built in 1920). The two Boom Towers are unique in English town defences, being the only example of a pair of towers placed on a river to prevent access to a town. This was done by the suspension of a chain or boom (perhaps of timber) across the river to control access by boat. These monuments were scheduled by English Heritage in their Industrial Monuments Protection Programme 1995 (subsumed within the scheduled ancient monument, Norfolk No 10).

This assessment was requested by Norwich City Council in advance of proposed riverside consolidation. This archaeological desktop assessment was undertaken in accordance with a Brief issued by Norfolk Landscape Archaeology (NLA Ref: ARJH 5.12.02) and a Method Statement prepared by the Norfolk Archaeological Unit (NAU Ref: MS/Eval/JB/1514).

The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, following the guidelines set out in *Planning and Policy Guidance 16 — Archaeology and Planning* (Department of the Environment 1990). The results will enable decisions to be made by the Local Planning Authority with regard to the treatment of any archaeological remains found.

No detailed fieldwork has been carried out in connection with this study, nor has reference been made to Listed Buildings information or other present planning constraints.

2.0 Geology and Topography

The city is entirely underlain by Chalk, covered by deposits of later material (Crag, Boulder Clay and glacial sands and gravels on the plateaux). The river has cut through these deposits to expose the Chalk in the valley sides. Within the valleys lie recent alluvial deposits, including the gravels of the First Terrace, on which the Boom Towers stand.

3.0 Archaeological and Historical Background

The focus of the Anglo-Saxon town was probably the marketplace at Tombland and the long north-to-south street (King Street-Magdalen Street) that joined the two parts of the town, north and south of the river. The town had a set of defences on both sides of the river, those on the south side probably passing just south of Mountergate, leaving the southern end of King Street outside the early defences. There appears to have been occupation along the whole of King Street at an early date, with several churches established along its length, even as far south as St Peter Southgate and St Olave's church. The early quays seem to have been on the river to the north and it was not until the medieval period that the main quays moved to this end of the river.

Although wharves were established along the King Street riverside in the middle ages, by 1200 Great Yarmouth had taken much of Norwich's maritime trade and these wharves soon fell into decline (Campbell 1975, 12). Frankestathe lay just to the north of the Boom Towers, probably just north of the present bridge, and dates from 1290 or before (Sandred and Lindstrom 1989, 8).

An excavation at Read's Flour Mill (Hutcheson 1998) some 100m upstream, produced evidence for activity there in the Late Saxon and early medieval periods, with riverside structures (although far south of the city centre and close to the limit of the medieval town).

The Coke Oven

About 1792 a coke oven was built within the West Boom Tower. Documentary evidence suggests that this 'cinder oven' was built *c*.1792 to produce coke for nearby maltings. It is a beehive coke oven, placed inside the circular tower, which then acted as the outer wall. The oven remained in use until the middle of the19th century or a little later (Day 1982). Day records the reasons why coke was used in the malting process, and the Rate Books demonstrate the presence of brewers and maltings on the site from the 1740s (the maltings were demolished in the early 20th century when the bridge was built).

Carrow Bridge

The first bridge over the river this far south was built in 1810 to the south of the Boom Towers (HER 842). This was replaced by the present bridge (HER 843) in 1923, on its present site just north of the towers, involving the demolition of buildings here (see below, photographs).

The 1904 and 1910 Surveys

In *The City Walls of Norwich* (1904), in which the condition of the walls were considered, it was noted of the West Boom Tower:

"On the north, south and east it remains to a height of about 20 feet, but in the west it has been demolished. Interior gutted. Access: private garden on the inside; a narrow path on the outside, much overgrown. Condition: fair" [NB: wrong cardinal points].

In his report for the City the City Engineer (Collins 1910) said of the West Boom Tower:

"a circular tower...Only the east half of the tower remains, which is about 20 feet high, about 16 feet internal diameter, and is in a ruined condition and roofless. The top of the wall is, however, cemented"

As shown on plan No 1, the remains of some 'cinder ovens' are built into the tower...' (Collins 1910, 16).

4.0 Methodology

A number of available sources provided general information on this short stretch of riverbank and Tower, although little of specific nature since this small plot was open ground held by the city for a very long time. The later history of the site, when it was built over, is well recorded in maps, which indicate the buildings on the site very clearly, and then by photographs, which show the changing condition of the Tower and the character and the clearance of the riverside buildings. Sources for maps and photographs are indicated below.

5.0 Documentary Evidence

The Enrolled Deeds for Norwich make reference to the 'way under the walls' from 1308 or 1309 with messuages to the north. However, the Deeds do not refer specifically to a 'way under the wall' at this point and it is possible that access from an alley to the north (as seen on maps) was arranged for access, with the face of the wall not entirely open. Whether any building stood on the waterfront here is also not recorded.

From 1294, the growing medieval town began to build its masonry walls, finished around 1343. Although a licence to enclose the town with a bank and ditch was granted in 1253, a murage grant for a masonry wall came in 1297, with other grants in the 1300s until the agreement in 1343 with Richard Spynke whereby he undertook to complete the walls (Hudson and Tingey 1910, 216, Kirkpatrick 1889 App. 3).

Blomefield (1806) records the agreement between Spynke and the city that involved his building of the Towers and the fixing of a windlass in the West Boom Tower (p.86-7). The West Boom Tower and wall here were battlemented (p.98).

The two boom towers were conceived as part of these defences from the first, both to act as a defence and to control tolls and trade by the use of a boom across the river between the two towers.

The wall was also provided with access along its length, on the inside: 'the way under the walls' of medieval deeds (Kirkpatrick 1889, 1; Hudson and Tingey 1910, 223). In 1343-4 William de Neatherd 'sold a piece of ground, part of his messuage within the walls of the city at Conesford Gates, adjoining to the said walls, in breadth from said walls 3 ½ feet, and in length from the gates to the river...' (Fitch 1861, 2). This may be part of the process of acquiring land for the way under the walls, although the Enrolled Deeds (above) are not helpful for the earlier period; perhaps only later was access gradually bought by the City..

The walls were in constant need of upkeep: the Assembly Books for 1420 refer to trees growing on the land of John Swanton near Conesford Gate 'to the injury of the walls and towers there' (cited in Meeres 1998, 43). A few decades later, in 1452, there were arrangements for the repair of walls etc, 'the tower in the meadows and the tower by the waterside' (Hudson and Tingey 1910, 313). The Boom Tower, walls and Conesford Gate were repaired in 1481 (Blomefield 1806,169).

In 1638 the walls between Conesford Gate and the water were ordered to be amended, and a few years later, in 1665, a committee was appointed to examine what right Isaac Wynn had to the passage from Conisford Gate to the tower within the walls (Fitch 1861, 3, 4).

The documentary evidence suggests that this area, South Conesford, mostly occupied by ecclesiastical interests, reflected in the enrolled deeds, with South Conesford having little in the way of manufacturing but a large proportion of ecclesiastical owners. Often, these interests owned quays and wharves, shifted from the riverside to the north (Priestley 1983, 21-2), although the southernmost, *Frankestathe*, probably lay just to the north of the present site (Campbell 1975, map).

6.0 Pictorial Evidence

Norwich has a good series of maps from the mid-16th century that chart the development of the city and its main historical features. Amongst its many monuments, the city wall, gates and towers are prominent and recognisably depicted. The maps show many of the changes that have befallen the walls since their building, especially the removal of the gates around 1800 and the absorption of the walls into the urban fabric as their defensive function disappeared.

The two Boom Towers have remained as significant monuments, but much altered and reduced over time. This is evident on maps and other pictorial evidence, such as paintings (often romanticised) and photographs. In particular, photographs are important in demonstrating the reduction of the two towers over the last century.

Maps

- 1541 Sanctuary map (Fig. 2): This unfinished map shows the walls, from the north, and depicts the West Boom Tower with a walkway, upper windows and some sort of superstructure. What may be 'the way under the walls' is depicted but may be merely schematic. The East Boom Tower is not shown.
- 1581 Hoefnagle: Hoefnagle's map shows this stretch of the walls from the west, with the gates and towers east of Ber Street obscured, with no West Tower indicated. The street appears as built up along its east side.
- 1696 T Cleer (Fig. 3): shows the wall and Boom Towers from the west. Cleer's map is too schematic to be of much interest, and merely shows 'Conesford Gate' and the two Boom Towers in side view, with no credible detail. It indicates a continuous row of buildings on the street, with plots running down to the riverside.

- 1727 Corbridge: Corbridge's map follows Cleer, with 'side views' but does show the towers as circular.
- 1746 Blomefield (Fig. 4): This map shows the two towers in side view, both as fully circular and crenellated, with a boom between them. The West Boom Tower is depicted from the south-east, showing the river bank on the north side. Here the riverside wall stood to a height of around 2m above the water level, and was surmounted by a brick wall, the west end of a building here.
- 1789 Hochstetter (Fig. 5): Hochstetter's map is the first of the accurate maps of Norwich, and now shows a true 'plan' view. The defences here are shown with two circular towers. Although the 'way under the walls' is partly built on, according to Hochstetter, the wall and riverside is still clear of buildings for some distance. [The coke oven is still to be built].
- 1830 Millard and Manning (Fig. 6): This map shows the new Carrow Bridge (1810) and the two circular Boom Towers. The inside face of the wall appears to be built up, except for a small access to the river.
- 1849 Muskett (Fig. 7): Muskett's map shows Carrow Bridge and the eastern tower (as square) but not the west Tower. Otherwise, it is much like Millard and Manning.
- 1876 Morant: Morant's map is very close to the OS map of 1885 in its date but appears to be less reliable in comparison.
- Ordnance Survey 1885 25" 1st Edition (Fig. 8): This map remains the basis for map regression exercises, and for a precise understanding of the two towers in the past. The western tower is shown with the coke oven, together with a small building on the river frontage. It is useful to compare Cotman's watercolour of 1874 (Fig. 15) with the OS map of 1885. Cotman shows the tower, possible steps and brick building.
- Succeeding OS maps show little change until 1928 (Fig. 9), when the new Carrow Bridge of 1920-23 is shown (much as the site is now), with the inside face of the wall cleared and Carrow Bridge Cottage in existence.

Photographs

Most photographs depict the more photogenic of the two towers, that is, the freestanding eastern tower, often known as Devil's Tower, but several early photographs do help to understand the changes around the tower. The main sources for these are: Norfolk Heritage Library, The Forum, National Monuments Record, Swindon, Bridewell Museum, NMAS, GAF Plunkett collection and the J Gurney-Read collection.

- NCC NP00002291 (Fig. 10). Early 19th century: this photograph shows the West Boom Tower and the waterfront immediately to the north. Next to the Boom Tower, the coke oven stands on the waterfront, with access to the river via a set of steps. This also appears to show the 'reinforcing' at the base of the tower, just above the water level. *www.library.norfolk.gov.uk*
- Buston Collection, Bridewell Museum, NMAS (Fig. 11). Two early photographs (pre-1920) shows the West Tower from the water, with the coke oven, steps and brick building (probably a malthouse) to the north. Fig 11b shows a wooden revetted waterfront in front of the buildings. This has now gone.

- Plunkett 1934 (Fig. 12): this photograph shows the Boom Tower from the river, some years after the construction of the new Carrow Bridge. It shows the wall of the coke oven, still remaining, but all else on the riverfront has now been removed, with gardens coming down to the water instead. *www. the-plunketts.freeserve.co.uk*
- Plunkett 1940 (Fig. 13): this photograph shows the tower and adjacent wall undergoing repair, and in the background, an air raid shelter. The structure appears to be in good order and clear of vegetation. The remains of the riverside wall, the east wall of the building that stood next to the river can be seen. *www. the-plunketts.freeserve.co.uk*
- J Gurney-Read (Fig. 14): this recent photograph shows the present state of the tower and gardens. The garden has grown and obscures the structure. Vegetation has colonised the top of the coke oven. Private collection

Other Pictorial Matter

- Bosworth Harcourt (NCM 1922.135.BH88:F) *View of the Boom Towers*. A of the East Tower but not the west, with little relevant detail.
- Unknown artist. 1810x1833. (1951.235.1190.B35). Shows the new bridge of 1810 from the south with the upper parts of the two Boom Towers at extreme right. Smoke is issuing from the top of the West Boom Tower. Little relevant detail is visible. Norwich Castle Museum, Art Dept. ART2203.
- J J Cotman. 1874. (1921.21.18) (Fig. 15). A watercolour showing the two Boom Towers from the north. Next to the West Boom Tower, on its north side, there appears to be a set of steps down to the river, below an arch. Then (on the proposed development site) there stands a large two-storey brick-built industrial building, resting on a stone or flint masonry base; this is what appears to still exist, in a much eroded state. The apparent floor level, judging from the height of the windows and the wooden steps, may be between 1m and 2m above the water level shown in the picture. Norwich Castle Museum Art Dept W004.

7.0 Archaeological Observations

Apart from the underwater survey (below), there have been no archaeological observations at this point in the town defences.

The recent work by the Nautical Archaeology Survey, Fort Cumberland, Portsmouth (2001) involved a survey of the towers underwater with geological cores across the river. The survey noted:

"A reinforcement at the base of the western tower, consisting of a concrete and timber 'skirt' surrounding the tower, apparently set on a base of concrete sandbags (an unrecorded construction)". [This is not evident on Cotman's watercolour of 1874].

The use of unworked flints below the waterline and visible flints and pointing in good condition. The report also noted a movement of 6" towards the river in the last 40 years (p.12).

The river at this point hugs the west side of the valley, with the valley side rising steeply from the bridge. Recent work to the east of the Boom Towers indicates that the river was braided with former low islands of gravel in the flood plain, to the east.

The river ran against the edge of the flood plain close to the Boom Tower (probably why it was built there). Geotechnical investigations indicate a thick deposit of soft grey-brown silty peat between 2.6m and 3.5m thick, over river gravels; the gravels lay at a little below 3.00m OD close to the East Boom Tower. This work, in a series of trenches, recorded a widespread peat sequence, up to 1.4m deep. Prehistoric activity on a sand bar in the flood plain was recorded (Adams 2002).

A watching brief at Riverside, on the east bank of the river, recorded peat deposits associated with a former channel of the River Wensum (Emery and Wiltshire 2000). Environmental analysis indicated an evolving prehistoric landscape, buried under the growing peat deposits in the Wensum floodplain.

At Read's Flour Mill some 100m to the north, excavation revealed terrace gravels over glacial chalk with recent accumulation of colluvium interleaved with post-medieval archaeological deposits (Hutcheson 1998).

Some little way further still to the north, at Cannon's Wharf, recent work has indicated a make-up on the river frontage of up to 3m above the archaeological deposits, although this was in a stretch with built-up quays above the river level (Shelley 1998).

As can be seen from earlier maps, The Jolly Maltsters public house stood on the corner of King Street and Carrow Road, behind Carrow Bridge House, whose west boundary seems to be a wall of the public house (HER 699). The ground surface drops from this former building into the garden of Carrow Bridge House, suggesting much landscaping to the natural slope here.

| Site 384 | City Wall, built c.1294-1343. The Boom Tower contains an 18th century coke oven (Day 1982). NB: the Black Tower and the tower to the east have arrow slits facing the city: this suggests there was originally no wall between them). Conisford Gate was blocked with earth during the Civil War (Kent 1988). |
|------------|---|
| Site 503 | Bronze Age spearhead. |
| Site 645 | Stone spindlewhorl |
| Site 699 | 251 King Street. Watching Brief at The Jolly Maltsters Public House. Walls recorded. |
| Site 842 | Carrow Bridge, to south of present Carrow Bridge and Boom Towers. Built 1810 |
| Site 843 | Carrow Bridge. Built 1920 to replace old Carrow Bridge to south (842) |
| Site 26131 | King Street Gate (Conisford Gate 1428). First mentioned between 1175 and 1186 (Liber Albus; Register of St Benet at Holme: NRS 1932). |
| | Repaired 1661, pulled down 1794. |
| Site 26411 | Air raid shelter. WWII, in Carrow Works, possibly dug into the town ditch. |

Information from the Norfolk Historic Environment Record (HER)

8.0 The Site Today

The site today is a private garden running down to the retaining wall at the river's edge in a series of small steps. Although this is now a retaining wall for the garden, with flint foundations below, it appears to be the base of the building shown in Cotman's watercolour (Fig. 15). The existence and condition of any archaeological deposits or structures is unknown; presumably, this stretch of riverside was kept open as part of the 'way under the walls' but may have had some revetment at the water's edge.

Subsequent use of the site, the construction of brick buildings may have removed any archaeological deposits or merely buried them in raising the surface level for these buildings. If so, the removal of the buildings around 1920 also involved truncation of these deposits down to the present (garden) level. It is possible that only the lower, earlier deposits survive, although their removal or damage is likely.

9.0 Conclusions

Any work on the river frontage should anticipate some evidence of early deposits or structures related to revetting of the riverbank, although there seems no reason to suggest a formal quayside.

Recommendations for future work based upon this report will be made by Norfolk Landscape Archaeology.

Acknowledgements

We are grateful to Philip Insley and Kate D'Este-Hoare for their help and access to reports on the City Walls. Thanks are due to staff at The Heritage Library, Norfolk and Norwich Archaeological Society, J Gurney-Read and G Plunkett for access to their photographs.

Colleagues who provided help include Andy Shelley and John Percival (NAU), John Renton at the Bridewell Museum, and Norma Watt at Norwich Castle Museum, Art Department. The Report was produced and illustrated by Maggie Foottit and edited by Alice Lyons.

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Figure 1. Site Location. Scale 1:5000



Figure 2. Sanctuary Map 1541 (detail). Not to scale



Figure 3. T Cleer's Map 1696 (detail). Not to scale



Figure 4. F Blomefield's Map 1746 (detail). Not to scale



Figure 5. A Hochstetter's Map 1789 (detail). Not to



Figure 6. Millard and Manning's Map 1830 (detail). Not to scale



Figure 7. C Muskett's Map 1849 (detail). Not to scale



Figure 8. Ordnance Survey 25" Map 1885 (detail). Not to scale



Figure 9. Ordnance Survey 6" Map 1928 (detail). Not to scale



Figure 10. Boom Tower from the South, early 19th century. NP 00002291



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Figure 11. Two Views of Boom Tower from South. Buston Collection, Bridewell Museum



Figure 12. Boom Tower from South 1934. Plunkett



Figure 13. Boom Tower from North 1940. Plunkett



Figure 14. Boom Tower from North c. 2000. J Gurney-Read



Figure 15. Boom Tower from North 1874. J J Cotman





















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