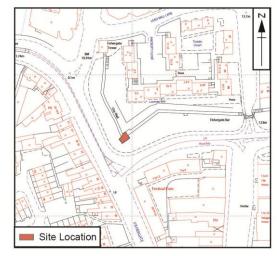


SITE	York City Walls Tower 39				
CLIENT NAME	City of York Council				
YAT PROJECT#	6051	YAT REPORT #	2018/66		
MUSEUM ACCESSION #	N/A	GRID REFERENCE	SE 60696 51258		
PLANNING REFERENCE #	N/A	AAI OPS NOTICE#	N/A		

INTRODUCTION

A watching brief on reinforcement works at one of the towers on York City Walls was undertaken by York Archaeological Trust on behalf of City of York Council between 25th April and 3rd May at York City Walls Tower 39, NGR SE 60696 51258 (Figure 1). The objective of the watching brief was to record any archaeological deposits or structures exposed by the ground works.



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Figure 1 Site Location

METHODOLOGY

The initial visit to the site was to record the central brick arch which had already been exposed by the contractors on site. This was done through photogrammetry, using a scaled sketch to locate and scale the photos. The photos were later inputted to software Agisoft to compile and create a 3D scaled image of the top of the tower, including the brick arch. A scaled photo was subsequently produced for this report.



Figure 2 3D model of tower and brick vault arch within Agisoft software

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The central brick arch exposed during the first phase of works required in-situ strengthening using a limecrete pour to reinforce the sides and top of the arch. To achieve this the top of the brick arch was fully exposed as well as the sides to the level of the springer, where possible. In addition the ends of the brick arch were revealed and the brick element of the chimney to the northeast was reduced and rebuilt.

Excavation of the mass fill was monitored to the southwest, southeast and round the northeast to the extent of the chimney. Once it was established the material was identical all around, and exposed elements understood, monitoring was ceased.

Recording was completed using a combination of notes and digital photography.

No finds were retained.

RESULTS

A scaled image of the main brick arch was produced and can be seen below.

The main brick arch was located centrally on the northeast side of the tower platform and measured 3.15m x 3.12m with bricks measuring 240mm x 110mm x 53mm, suggesting a date of 16th to late 18th century. At the northeast side of the platform the stone-built chimney included a brick built section at the top. The bricks were 220mm x 105mm x 44-50mm, and thus could be late medieval or early post medieval in date. The length and width indicates post medieval, but the thickness may indicate earlier. It also indicates that the structure pre-dates the main brick arch of the tower.

To the southwest the arch of the smaller room was made with bricks of the same dimensions as the chimney, again suggesting the structure was earlier than the main arch. Where exposed, the junction between the smaller vaulting and main section also indicated that the smaller section was earlier. The brickwork at the northeastern side was irregular and it appeared that individual bricks had been pulled out of the structure, most probably making space for the later main arch.

The mass filling over the arch/vault elements included large blocks over the earlier section. Finds from the mass fill over the arches, including transfer printed pottery, pan tile and wire reinforced glass, indicated that the material had been disturbed on more than one occasion in the past.

The stone elements of the original tower were not examined as only limited sections were exposed, and what was exposed was no different from the elements above the previous floor wall walkway levels.

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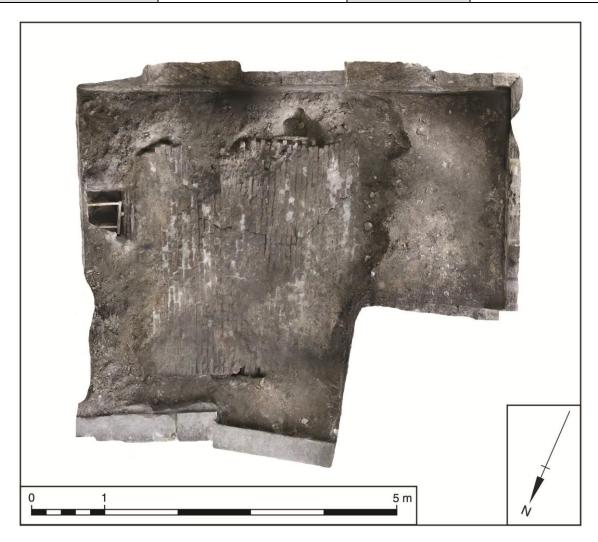


Figure 3 Scaled photo of the brick arched vault on top of Tower 39

CONCLUSIONS

Work during essential maintenance of Tower 39 has given the opportunity for a more detailed look into its construction. The main arch/vault, which was the structural cause for concern, appears to be later in date than the fireplace and arch/vault of the smaller room, constructed from bricks dating to between the 16th and late 18th century. The brick vaults were blocked up in the late 17th century, during a third phase of building after the civil war (RCHME 1972), and therefore must have been constructed sometime between the 16th and 17th centuries.

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REFERENCES

RCHME. 1972. An Inventory of the Historical Monuments in City of York, Volume 2, the Defences. p139-159

PLATES



Plate 1 Upper brick section of chimney

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Plate 2 Junction of small room brick vault, at the top of the plate, with the main brick vault arch at bottom of plate

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