An Archaeological Evaluation in advance of the excavation of a new service trench at Foxton Inclined Plane, Leicestershire (SP 69230 89590, Centre).

by

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Summary			2
1.	Introduction		2
2.	Aims and Methodology		3
3.	Results		3
4.	Conclusion		8
5.	References		10
7.	Archive & Publication		10
		Figures	
Figure	e 1	Site Location	3
Figure	e 2	North West Facing Section of Test Pit 1	4
Figure	e 3	North West Facing Section of Test Pit 2	11
Figure	e 4	North West Facing Section of Test Pit 3	12
Figure	e 5	Test Pit Location Plan	13

An Archaeological Evaluation by Test Pits In Advance of the Excavation of a New Service Trench at Foxton Lock, Leicestershire (SP 4469230 289590, Centre).

Summary

University of Leicester Archaeological Services were commissioned by British Waterways to undertake an archaeological evaluation by test pit of the Lower Basin Wall. Scheduled Monument Consent had been given for the excavation of a new service trench behind the basin wall of the bottom lock.

Very little is known of the construction of the wall, it was hoped that the test pits would provide an indication of the method of construction and allow the development of a suitable mitigation strategy if require for the excavation of the service trench.

The test pits confirmed the construction technique and suggests that the excavation of the service trench is unlikely to encounter any structural elements associated with the basin wall although the offsetting of the trench away from the face of the wall would help minimise fragmentation of the structure.

1. Introduction

University of Leicester Archaeological Services were commissioned by British Waterways to undertake an archaeological evaluation through test pits in advance of the excavation of new service trenches along the western wall of Foxton Bottom Lock, Leicestershire (SP 4469230 289590, Centre). The proposed works include the installation of services (power, water and telephone) in trenches behind the eastern and western walls of the bottom basin, and the installation of nine service bollards within the basin area. The site is within a Scheduled Ancient Monument (Monument Number 30248). Scheduled Monument Consent has been requested by British Waterways and in view of this consent has been granted for the excavation of the test pits under archaeological supervision.

2. Aims and Methodology

The aim of the archaeological work, as defined by the Department for Culture, Media and Sport requirement for evaluation was to "assess the potential impact of the

services ducts on buried deposits and structures". If identified archaeologically significant deposits were to be hand cleaned and recorded and a sufficient sample excavated to establish the effect of the proposed work upon them.. Further archaeological recording would be undertaken if required in the light of the results of this programme.

The project involved the monitoring of seven machine excavated test pits along the proposed line of the service trench. Each test pit was to be least 600mm wide and up to 900mm deep. However, after consultation with on site contractors, Morrison Construction Services Ltd and British Waterways it was decided that Health & Safety concerns prevented the full implementation of the agreed design specification (ULAS Specification 06/914). In mitigation only three test pits were hand excavated by Morrison Construction Services Ltd under archaeological supervision along the eastern basin wall. The depth of the test pits were to be determined by the archaeologist on site.



Figure 1 Site location Scale 1:50000 Licence number AL 10002186.

3. Results

3.1 Test Pit 1

Test Pit 1 was excavated approximately eleven metres south east of the bridge. Within this area the original granite capping stones were still *in situ*; approximately 200mm of accumulated topsoil was hand excavated under archaeological supervision until a horizon of well compacted burnt shale or clay (002) was exposed. This was probably the original surface for the towpath; below approximately 250mm of (002) a horizon of grey puddle clay (003) was encountered. This is the same material as observed within the basin; excavation continued for a further 1000mm and it was decided that no further information would be attained and excavation was called off. Immediately behind the basin wall, there was a deposit of loose concrete, in all likelihood this had been tipped into the void behind the basin wall after construction as a "dry mix". This was not disturbed during the excavation of the test pit in order to preserve the integrity of the basin wall.

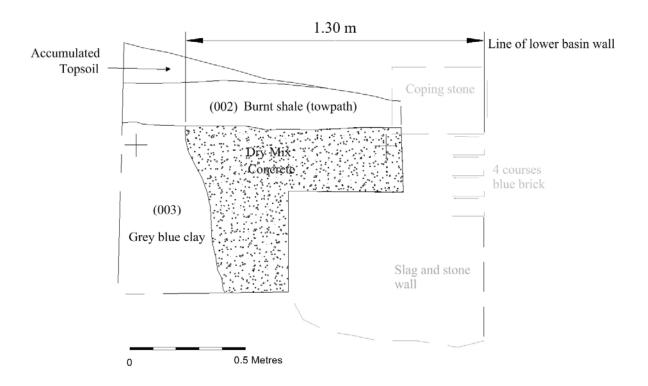


Figure 2 North West Facing Section of Test Pit 1 (in black observed, in grey postulated).

3.2 Test Pit 2

Test Pit 2 was excavated approximately twenty metres south east of test pit 1. By this point the original granite capping stones had been lost and replaced with a concrete slab. The uncovered stratigraphy was identical to that observed within test pit 1.

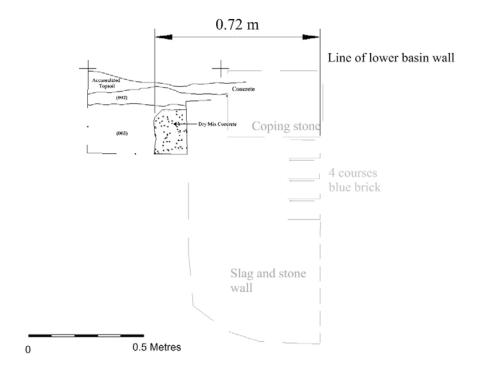


Figure 3 North West Facing Section of Test Pit 2 (in black observed, in grey postulated).

3.3 Test Pit 3

Test Pit 3 was excavated approximately twenty five metres south east of test pit 2. By this point there was no capping what so ever to the basin wall, the towpath sloped steeply left to right, towards the basin wall. Again the exposed stratigraphy was the same as observed in the two previous test pits.

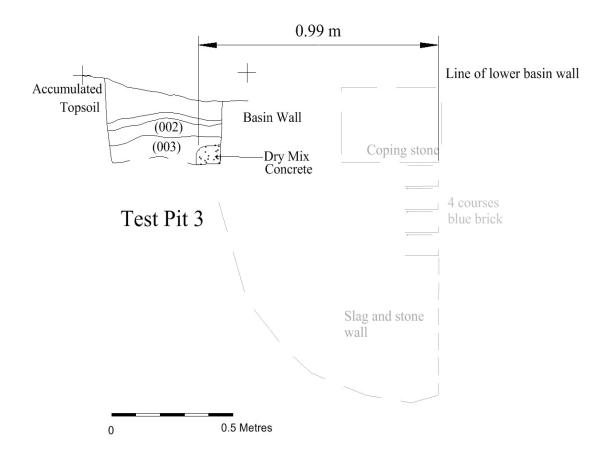


Figure 4 North West Facing Section of Test Pit 3 (in black observed, in grey postulated)

4 Conclusion

The exposed stratigraphy was uniform throughout the three test pits. No evidence of metal work, tying the basin wall to the clay was uncovered. The following interpretation is suggested for the construction sequence. The original ground was reduced to a level/surface deemed suitable by the engineer, the whole cut then being lined with puddle clay. The basin walls were then constructed and any voids behind filled with the dry mix concrete.

It is possible that the original engineers believed that water pressure alone would be sufficient to keep the wall in place. The material used appears to have been sourced mainly by cost; the walls themselves are built off blast slag, probably sourced from the nearby iron works of Northamptonshire at possibly only transport cost. The heated shale is another common industrial by product and is frequently seen as a bedding material from tram tracks. The only real cost was the blue brick and granite capping stones.

It is unlikely that during the excavation of the service trench that any structural element relating to the basin wall will be encountered.

Given the fragmentary nature of the wall and the varying thickness of wall indicated by the test pits, off-setting the service trench from the face of the basin wall by some 1.30 to 1.40m should ensure that the trench is excavated through redeposited clays rather than dry mix concrete or the wall itself.

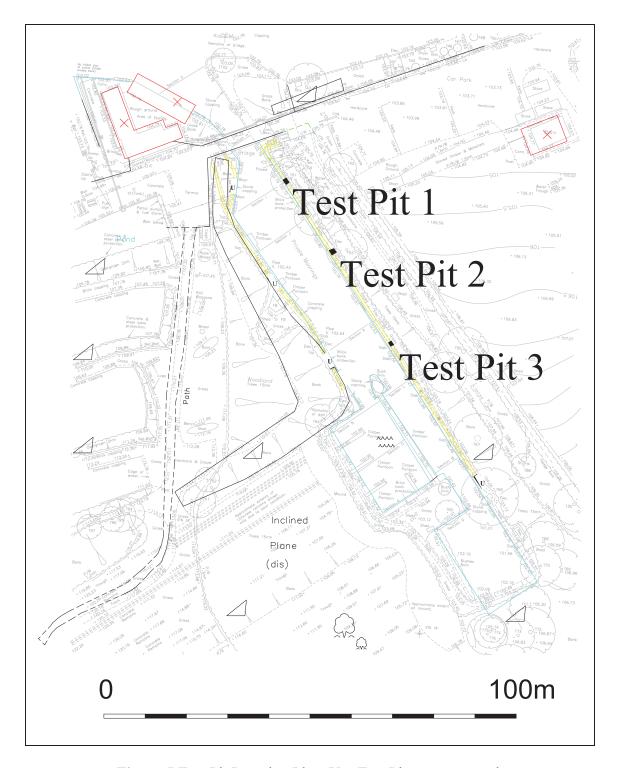


Figure 5 Test Pit Location Plan. U = Test Pit not excavated.



Colour Photo 1 North West Facing Section of Trench 1. The burnt shale or clay is probably original towpath material. The rubble wall is to the right, and the dry-mix can be seen in the exposed section.

5. References

Beamish, M. 2006. Design Specification for Archaeological Evaluation of Bottom Basin Walls by Test Pit. ULAS Specification 06/914

Foxton Inclined Plane Trust Ltd. 1985. Foxton Locks and Inclined Plane: A Detailed History. Leicestershire County Council

Gardner, P., and Foden, F., 1978, *Foxton: Locks and Barge Lift*. Leicestershire County Council

Richards, G. 2002, Forge & Monument, Codnor, Archaeological Evaluation Report. Trent & Peak Archaeological Unit.

6. Archive and Publication

The site archive consists of

1 A2 permatrace sheet containing trench locations and plans & sections of trench 1
18 A4 Trench Recording Sheets
Black and white negatives with contact sheets
1x CD of Digital Colour Images and A4 contact sheet
1A4 Photo Index Sheet

The archive will be held at Leicestershire County Council, under accession number X.A82.2006

A version of the summary (above) will be published in *Transactions of Leicestershire Archaeological and Historical Society* in due course.