Archaeological recording on repair works at St. Catherine Lock, Godalming Navigation, Artington, Surrey

NGR: SU 99574770

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Summary statement

Repair work on St. Catherine's Lock, Artington, near Guildford, Surrey (NGR: SU 99574770) was carried out early in February 1998 by the National Trust. This lock is part of the Godalming Navigation, itself part of the River Wey Navigations, a National Trust property. This work required the lock to be drained down, giving an opportunity for archaeological recording of historic fabric normally submerged below water. This enabled any early features to be noted for future reference. The work was carried out by C K Currie for CKC Archaeology.

Archaeological recording at this lock suggested that the brickwork at both ends of the lock is early. The concrete walls, that comprise the main lock chamber, seem to have been converted from timber in 1909. Reference to brickwork in the lock structure in 1768 suggests that some of the brickwork may be very early in the lock's history. The south cill to the lock was found to be made of brick with slightly protruding stone blocks added in the central apex, and on the flanking sides. These may have been positioned to protect the brickwork from damage from large commercial barges.

The north cill still retains its wooden base, with a modern covering in concrete. It is not known if the timbers are originals or later replacements, but they probably give an indication of the design of the earliest cill.

It is recommended that the systematic recording of all the locks on the Navigation is continued in the manner adopted here as opportunities arise.

Archaeological recording on repair works at St. Catherine Lock, Godalming Navigation, Artington, Surrey (NGR: SU 99574770)

This report has been written based on the format suggested by the Institute of Field Archaeologists' *Standard and guidance for archaeological watching briefs* (Birmingham, 1994). The ordering of information follows the guidelines given in this document, although alterations may have been made to fit in with the particular requirements of the work.

1.0 Introduction

Repair work on St. Catherine's Lock, Artington, near Guildford, Surrey (NGR: SU 99574770) was carried out early in February 1998 by the National Trust. This lock is part of the Godalming Navigation, itself part of the River Wey Navigations, a National Trust property. This work required the lock to be drained down, giving an opportunity for archaeological recording of historic fabric normally submerged below water. This enabled any early features to be noted for future reference. The work was carried out by C K Currie for CKC Archaeology.

2.0 Historical background

St. Catherine's Lock is within the parish of Artington, about 2km south of Guildford, in a rural location. It takes its name from the nearby St. Catherine's Hill, on which stands the ruins of a medieval chapel dedicated to that saint. It was the second lock, moving upstream, on the Godalming Navigation. This artificial channel was constructed from 1760 to link Guildford with the market town of Godalming by river transport. In the 1650s a man-made navigation, the River Wey Navigation, had linked the River Thames with the town of Guildford, a distance of about 17 miles. The Godalming Navigation extended navigation on the Wey by a further four and a half miles. It utilised a mixture of natural channel with artificial cuttings. It had four locks on it at Millmead (Guildford), St. Catherine's, Unstead, and Catteshall. It is thought that the locks had been completed by 1764 (Currie 1996).

The Godalming Navigation declined in use over the later half of the 19th century, and was little used for commercial traffic after 1921. Commercial barges ceased visiting Godalming in the 1920s, and only outbreak of the Second World War helped maintain a minimal traffic into the 1940s. In 1968 the waterway was given to the National Trust, who maintain it mainly for the use of pleasure craft. St. Catherine's Lock has been much altered in the last 150 years. When filled with water, it appears to be a predominantly concrete structure with little early fabric surviving.

The Stevens family journals record repairs on St. Catherine's Lock in 1909. This states that:

'The work included the demolishing of the existing timbers forming the sides of the Lock & replacing the same with concrete walls... The bottom of the Lock & the

upper & lower aprons were not touched as they were built of bricks & were in a good state of preservation'

It might be suggested that parts of some of the Godalming Navigation locks may have always been in brick, but the sides were originally in timber. An order from the Commissioners dated July 1768 states that John Woods was to look at St. Catherine's Hill lock, and 'to make his report of what is wanted to repair the Brickwork' (GMR 142/1/1, p. 248). In 1809 it was reported that two new pairs of gates were required at St. Catherine's Lock (GMR 142/1/2, p. 158), and again in 1859, when in addition new sides and a bottom were required at a cost of £300 (GMR 142/1/3).

In 1891 new upper gates are put up, and the sides repaired. It is also recorded at this time that the bottom of the lock is of brick (GMR 129/111/1). Further repairs were carried out in 1923, 1932 and 1935 (GMR 137/12/40, p. 26).

The present fall of this lock is 3 feet (National Trust 1990, 24).

3.0 Strategy

The fabric of St. Catherine's Lock had not been previously recorded, and so it was not known what to expect. Initial impressions were that it was mainly a modern structure, with little early fabric surviving. It was proposed that a photographic record be made of the structure. Should any features of interest be identified, it was hoped that they could be examined in more detail. On arrival at the site, it was discovered that much of the south cill of the lock was made of apparently early material. A decision was made to make a measured drawing of this structure, as far as the restricted time allowed.

4.0 Results

The following observations were made about the general structure of the lock:

4.1 The sides of the lock chamber were faced in concrete. At the south end the first 1.7m inside (north of) the gate posts were in red brick. At the north end the first 1.45m inside (south of) the recess for the gate posts was also in red brick. The sides between (19.35m in length) were of concrete. The recesses for the gates at the north end (inside the lock chamber) were 2.85m. The total length of the lock chamber was 25.5m. The average width of the chamber was 4.7m. The lock chamber was not a perfect rectangle, as it had a slight bow in both of the 'straight' sides. The recesses for the south gates (outside the lock chamber) were of red brick, and 2.95m in length.

The floor of the lock chamber was in brick, with a crudely laid band of concrete about 0.2m wide along the full length of both sides at the join of the sides and the floor

4.2 The south end of the lock had brick plinths protruding 0.2m into the lock. These

plinths were 1.15m wide. The plinth on the west side had a small wooden feature set into a recess at its north corner. This recess began 0.95m below the present top of the lock structure, and was 1.37m up from the bottom of the lock. The recess was 0.4m high (extending to within 0.55m of the lock top), and 0.19m deep. It contained a piece of partly rotted wood, in the shape of an upside-down 'L'. The wood was approximately 0.3m high, and was set in a concrete or mortar base. None of the Navigation staff present could give a satisfactory explanation for its use.

4.3 The north cill still retained an eroded wood base. This had been worn back to the iron holding pins in places. This section seems to be of a relatively early date. Large wood beams over this base were in better condition, and seemed to date from the time when the north gates were last replaced in the 1970s. Beyond the wood beams, the upper surface of the cill was covered with concrete.

4.4 The south cill was a shallow V-shape made mainly of brick, with stone dressings. The rear (south side) of the cill, against which the gates rested, had been replaced with a concrete band, up to 0.4m wide. The bricks on the upper surface of the cill were laid upright, with their narrow edge uppermost. In section, it was clear that only the upper layer was laid in this manner. The rest of the cill was laid in the normal manner. Six courses of irregularly bonded brickwork were laid under the upper course. There may have been another course, but this was obscured beneath mud and water on the floor of the lock. The total height of the cill was 0.66m. It varied in width from 0.36m at the sides to 0.94m at the apex.

There were three large stones of roughly squarish proportions set into the outward edge of the cill. These were of an unidentified calcerous stone, being approximately 0.4m x 0.4m x 0.4m. All three stones projected slightly from the brick edge. This varied from 15mm to 45mm. Each stone had a hole set in its upper surface, approximately 70mm E-W x 50mm N-S x *c.* 60mm deep. The middle stone contained the remains of an iron bolt, but it could not be decided if this was an *in situ* feature. The stones were set one in the middle, with the other two approximately midway along the arms of the cill. The middle stone had a concave base. The western stone a lump knocked out of its east side, although it seemed that the stone had been set in the cill in this condition.

Behind the two stones set in the arms of the cill were two further stones. These were set inside the inner edge of the first mentioned stones. They had worn slots cut into them, less than 10mm deep. These slots were approximately 50mm wide and 0.2m long. The dimensions of the stones they were set in were: east side *c.* 0.18m x 0.18m; west side, 0.22m (N-S) x 0.15m (E-W). The latter was not rectangular, but had a notch cut out of its east side approximately 40mm x 100m, into which a part of a brick had been inserted.

5.0 Discussion

It is not known at what date the cills at St. Catherine's Lock were constructed in their

present form. The brick parts of the south cill are enigmatic. When the records state that the bottom was made of brick in 1891, does this mean the cill was brick as well? Furthermore, what part of the lock was meant when it was recorded that the brickwork was inspected in 1768? The latter reference seems to suggest that at least part of the lock was made of brick from the beginning. However, the statement that the timber sides were replaced in concrete in 1909 suggests that parts of the lock were built in wood.

It might seem from the existing fabric that the structure around the gates was made of brick, but the main part of the lock chamber was in timber until 1909. Brickwork extends into the chamber for the first 1.45m-1.7m at both ends, before being replaced by concrete. It is possible these were the brick 'aprons' considered to be in good repair in 1909. As the brickwork of the south cill is surrounded by this brickwork, it is possible it is contemporary, or, at least, an early conversion.

The timber cills at the north end of the lock might be taken to suggest that the southern end was not originally in brick. It would be difficult to prove this considering the large number of repairs that have occurred to the lock in its 238 year existence. Nevertheless, it seems to be reasonable to suggest that the brick and stone work of the southern cill is fairly early work. The curious use of stone can not be fully explained. The central stone probably acted as a reinforcement against damage to the cill from wide commercial barges. It was suggested by the staff on site that the flanking stones may have been decorative, although this was redundant under the water. That all the stones protruded slightly beyond the brickwork suggests that they all acted as protection from wide barges to the more vulnerable brick edges of the cill. Neither the author nor Navigation staff present had any explanation for the shallow slots cut into the stones behind the flanking stones. This was clearly deliberate, and must be associated with forgotten operating procedures in the early days of navigation.

The stones themselves were of a calcerous nature, being relatively soft. They were harder than normal chalk, but soft for a limestone, which is what they appear to have been. The stone looks similar to the much-weathered whitish stone used as ashlar dressing on St. Catherine's Chapel. It is therefore possible that they were robbed from this ruin, and brought the 800m or so to the lock.

The short wooden pile set in a recess in the brickwork near the SW end of the lock also appears to have been an early feature, although its purpose is not now known. Experienced Navigation staff present on site could not offer an explanation for its presence, and could not recall seeing such a feature on any other Wey locks.

6.0 Conclusions

Archaeological recording at this lock suggested that the brickwork at both ends of the lock is early. The concrete walls that comprise the main lock chamber seem to have been converted from timber in 1909. Reference to brickwork in the lock

structure in 1768 suggests that some of the brickwork may be very early in the lock's history. The south cill to the lock was found to be made of brick with slightly protruding stone blocks added in the central apex, and on the flanking sides. These may have been positioned to protect the brickwork from damage from large commercial barges.

The north cill still retains its wooden base, with a modern covering in concrete. It is not known if the timbers are originals or later replacements, but they probably give an indication of the design of the earliest cill.

7.0 Recommendations

This recording operation has demonstrated the value of recording the structure of individual locks when drained down. The use of what may be 'cushion' stones in the lock's south cill to protect the edges from damage from wide commercial barges had not been noticed on Navigation locks before. Now they have been recorded at St. Catherine's Lock, it will be interesting to note if any other locks retain this feature. A number of other features of undetermined use were also recorded. It is hoped that, as our knowledge of the detailed construction of the locks increases, explanations for these features will be forthcoming.

It is recommended that systematic recording of all the locks on the Navigation is continued in the manner adopted here, and at Coxes and Town Locks on the Wey Navigation (Currie 1997), as the opportunities arise.

8.0 Archive

The archive for this work has been deposited with the client. Copies of the report were lodged with the client (at Polesden Lacey and the Navigation Headquarters at Dapdune, Guildford), the Surrey County Sites and Monuments Record (SMR), the Surrey Archaeological Society, Castle Arch, Guildford, and the National Monuments Record (NMR) at Swindon, Wiltshire.

9.0 Acknowledgements

Sincere thanks are given to all those involved with this project. In particular, Vince Locatelli and his maintenance staff are thanked for the continuing friendly co-operation they extend to the author, and for the many useful suggestions they made during the recording.

10.0 References

10.1 Original sources

Guildford Muniment Room GMR 129/111/1; 1861-1893
Guildford Muniment Room GMR 137/12/40; 1906-1936

Guildford Muniment Room GMR 142/1/1-4; 1760-1900

10.2 Secondary sources

C K Currie, *A Historical and Archaeological Assessment of the Wey and Godalming Navigations and their Visual Envelopes*, unpublished report to the National Trust (Southern Region), 1996

C K Currie, *Archaeological recording during repairs to Coxes and Weybridge Locks on the Wey Navigation, Surrey*, unpublished report to the National Trust (Southern Region), 1997

Institute of Field Archaeologists, *Standard and guidance for archaeological watching briefs*, Birmingham, 1994

The National Trust, *River Wey Navigations. A guide to the Wey and Godalming Navigations*, London, 1990

Appendix: catalogue of photographs taken during recording

All the photographs listed below were taken in both colour print and slide transparency at the request of the client. They were deposited in the National Trust River Wey Navigations photographic archive kept at the Navigations' Headquarters, Dapdune Wharf, Wharf Lane, Guildford, Surrey (Tel. 01483-561389). The archive is publicly accessible by appointment with the Property Manager.

This film sequence is prefixed CKC98/1 to distinguish it from previous films taken by the author on the Navigations.

CKC98/1-1 Inside lock chamber showing south cill from N
CKC98/1-2 ditto
CKC98/1-3 Looking onto the south cill from the gates, from S
CKC98/1-4 ditto
CKC98/1-5 Looking down onto the south cill from NE
CKC98/1-6 ditto
CKC98/1-7 The south cill in relation to the gates from N (strong sun behind)
CKC98/1-8 ditto
CKC98/1-9 Timber in side of south lock wing from N
CKC98/1-10 ditto
CKC98/1-11 The lock chamber drained down from the S
CKC98/1-12 ditto
CKC98/1-13 The south cill and gates from the N in better light conditions
CKC98/1-14 ditto
CKC98/1-15 The north cill, showing possible early timber base from SE
CKC98/1-16 ditto
CKC98/1-17 The drained lock chamber from N
CKC98/1-18 ditto