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Leckhampton Moat

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LECKHAMPTON MOAT

by MAJOR J. G. N. CLIFT

THE summer of 1933 was exceptionally dry and as a consequence the moat at Leckhampton for the first time within the memory of man completely dried up.

The opportunity was taken to conduct a small excavation with a limited objective such as could only be done under the favourable circumstances at the time existing. As the matter was urgent I was asked by the Bristol and Gloucestershire Archaeological Society's Local Secretary for Cheltenham to take charge of the work. It is with much pleasure that I tender thanks to the Archdeacon of Cheltenham, the Ven. F. W. Sears, for the necessary permission to do the work; to Captain J. H. Trye for his invaluable help during the actual work of excavating; to Lt.-Col. J. D. Blyth and Mr R. C. H. Barnard for surveying the site and preparing the plans and photographs; and to the many voluntary helpers who handled pick and spade to such good purpose.

Thanks are also due to the Keeper of the Department of Zoology of the British Museum (Natural History) for identification of the animal bones; and to the Director of the Royal Botanic Gardens for similar services with regard to determining the source of the timber used in the construction of the bridge.

The site lies in the parish of Leckhampton, Gloucestershire, approximately 150 yards northwest of the parish church of St. Peter, latitude $51^{\circ} 52' 24''$ N, longitude $2^{\circ} 5' 5''$ W. O.S. Gloucestershire 25 in. 36.15; 6 in. 36 SE. It is the property of the incumbent of Leckhampton for the time being.

The structure falls within class F of the Earthworks Committee's classification, and consists of a simple

enclosure surrounded by a moat which normally contains water. Geologically the site is a yellowish gravelly sand overlying clay which is met with at a depth of approximately 6 feet.

The moat occupies a comparatively flat site and is roughly pentagonal in shape. The bearing of the major axis is approximately northwest and the minor axis northeast. The structure consists of an island with a flat surface much overgrown with nettles and brushwood, and partly planted with fruit trees. There is no trace of any rampart, mound or any defensive curtain wall to the island. The angles of the pentagon are somewhat rounded, presumably by denudation. The surrounding ditch follows approximately the shape of the island with the exception that the angles of the counterscarp are more acute, and owing to the fact that they are re-entrant, less denudation has taken place, consequently a considerable widening occurs at the angles. To the southwest there is a well marked counterscarp bank with a small berm on the interior side, while at the west corner are two depressions of approximately the same size and shape, which were probably fish-ponds.

The counterscarp bank continues along the northwest face of the site and is interrupted at the north corner where a cutting has at some time been made, either with the idea of draining the moat, or for the purpose of a cart ramp for the removal of the silt.

To the north there is a broad platform about 14 feet wide, with a scarp on the north side down to a stone wall, bounding the old road, which apparently continued towards the west. On the north and northeast sides of the pentagon there is no trace of a counterscarp bank, but to the southeast there are faint indications that such a bank has at some time been in existence.

To the northwest there is a wide level platform and from its appearance it may be conjectured that the



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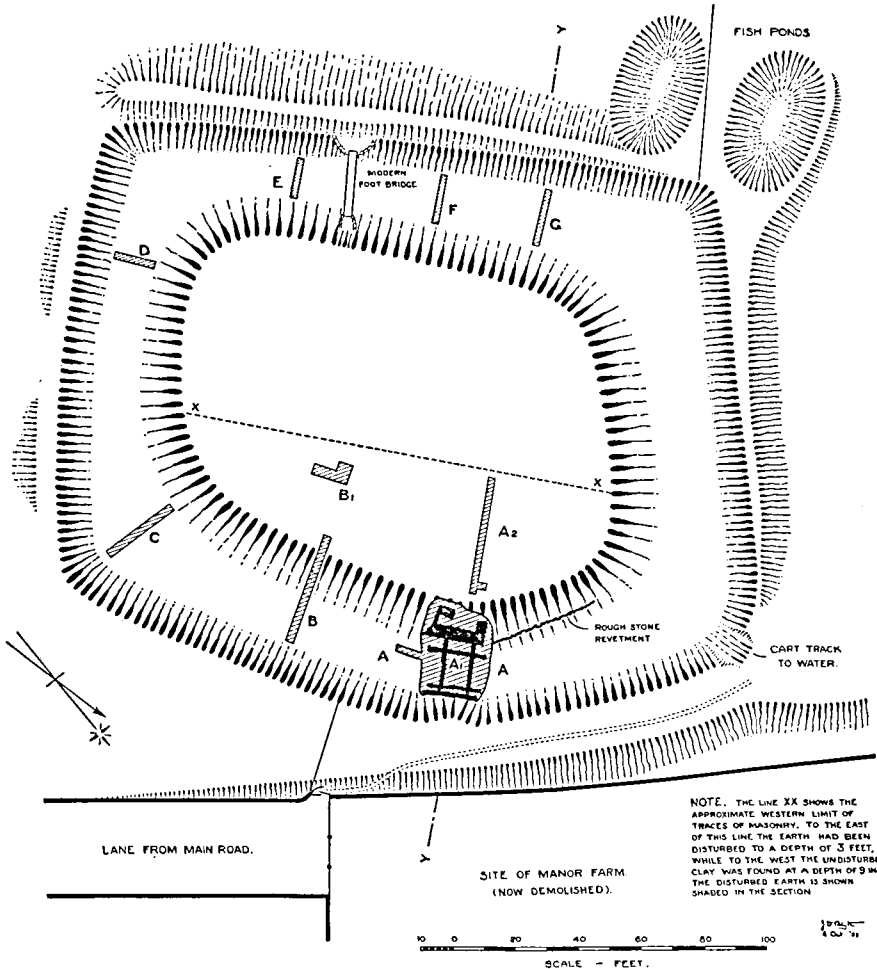


Fig. 1. General Plan of Moat

material excavated from the moat was spread over this area.

Further northwest still there are traces of fish-ponds. Towards the southeast the ground is somewhat uneven and it may be concluded that the remains of buildings are to be found underneath the surface. Probing with a crow-bar gives some indication of masonry foundations at various points. On the southwest side about 78 feet from the southeast angle, there is a modern foot-bridge which affords access to the island, while on the north angle of the pentagon there was a rough causeway in the moat, which appeared to indicate an earlier if not an original approach to the island.

The objects of the excavation were to determine :—

- (a) The position and construction of the bridge.
- (b) The purpose and construction of any buildings upon the island.
- (c) The approximate date of the structure and any buildings thereon and the occupation period.

The bottom of the ditch, being dry, was carefully examined and it was found that it appeared to be composed of silt overlying blue clay, except at one point, namely the north corner of the island, where there was what appeared to be a rough causeway about 15 feet wide, mainly composed of medium sized stones mostly roughly axe dressed. On the island side of the causeway was a rough dry stone wall or revetment which extended in a northwest direction for a distance of 45 feet. The first cut was started along the line AA and at a depth of about 2 feet a wooden cill was found at a point A1. This was partly overlaid by the rough dry stone wall, which however was built on top of the silt and filling which had accumulated above the wooden cill.

The trench was continued along the wooden cill in front of the rough stone wall, and two transverse cills were found. This trench AA was extended towards the

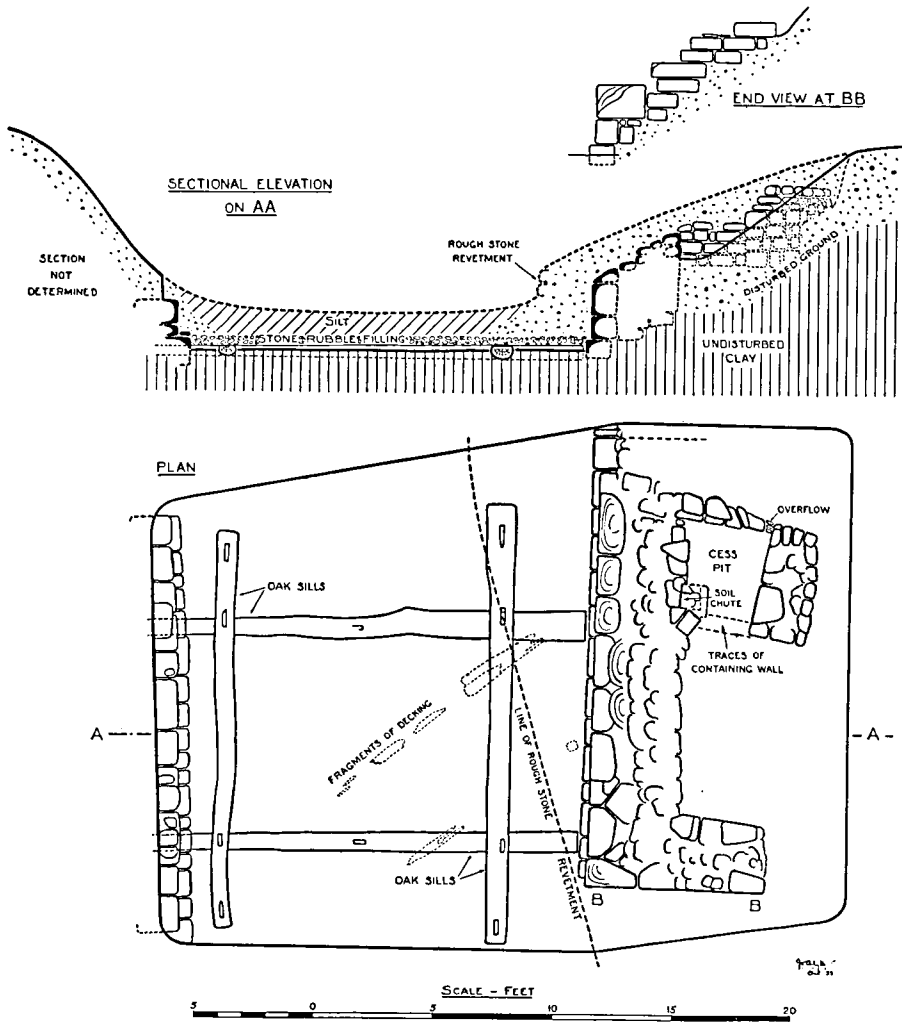


Fig. 2. Detail Plan and Section showing remains of Bridge and Abutments at A1 on General Plan

northeast, but no further trace of any woodwork was noted. It was then determined to clear away the dry walling above the cill on the island side, and a preliminary cut was put in towards the island and a well built abutment wall was found. Clearing proceeded and the abutment wall to the landward end of the bridge was found, together with the fourth cill.

The timbers of the cill consisted of four balks of oak roughly adze-dressed on their upper surface, and having the bark of the tree from which they were hewn still in evidence on their lower faces which were bedded in the blue clay of the bottom of the moat. On the island side the transverse timbers butted against the footings of the revetment wall, while on the land side they were carried under the wall for a distance of about 3 feet, and protected by cover stones. The longitudinal timbers were laid above the transverse timbers and there was a halved joint at the intersections. At these points in each case a mortice was found measuring about 8 inches by 2 inches by 3 inches deep, while at a distance of about 9 inches from the end of each longitudinal timber, there was another mortice to take the end of a strut and a fragment of the tenon of one of these struts was found in position at the northeast angle. Midway between the intersections on each of the transverse cills another mortice was found, presumably to take the stub tenon of an intermediate post.

Immediately overlying the cills in a diagonal direction were found some fragments of what appeared to have been the planking of the bridge, while above the west cill was found a piece of timber with a mortice hole in it which may have formed part of a hand rail. Towards the stone abutment were found some charred fragments of what appeared to be part of the planking of the bridge.

The dimensions of the timbers and the bridge cills were approximately :—

Transverse timbers—length, 19 feet 3 inches ; width, max. 1 foot 3 inches, min. 9 inches ; depth, max. 1 foot, min. 6 inches.

Longitudinal timbers—length, max. 18 feet 6 inches, min. 16 feet 9 inches ; width, max. 1 foot 3 inches, min. 9 inches ; depth, max. 1 foot, min. 6 inches.

Width of bridge between centres of mortice holes, 9 feet 6 inches.

Span of bridge between stone abutments, 17 feet 6 inches.

The abutment wall on the landward side was 17 feet 6 inches long, and consisted of a foundation course 1 foot 3 inches deep, and of 6 inches projection bedded in the blue clay ; above this were two courses of medium sized rough axed stones, measuring 5 inches and 1 foot respectively in depth ; apparently laid dry and backed with clay filling. Owing to the size of the trees growing above this abutment it was not possible to take a cut in behind it.

The island abutment consisted of a footing course 9 inches deep and of 2 inches projection with the remains of three courses of rough axed masonry above it. The blocks of stone were of considerable size, the largest measured 4 feet by 1 foot 6 inches by approximately 1 foot 2 inches thick. This abutment was stepped at the sides and bedded on the yellow clay which overlaid the blue clay of the moat and was backed by a core of rough stones set in clay to a width of 3 feet 9 inches. On the southeast side there had apparently been a wall about 1 foot 6 inches thick, finished on both sides with fine axe-dressed stones set in mortar, while at northwest there was a stone *in situ* dressed to an angle which had apparently formed the foundation of the jamb of the entrance. In the filling over the wooden cills another stone was found dressed to the same angle. No evidence

of any stone cill was however found which would give any clue to the height of the bridge.

On the southeast side at about a mean distance of 7 feet back from the face of the abutment wall there was found a short length of a well built wall of axe-dressed masonry worked chevron-wise, and in front of this there had at some later date been formed what was apparently a cesspit. This had been constructed by bonding into the main walls a piece of rough masonry and forming in one corner what was apparently a chute from an upper storey measuring about 9 inches by 12 inches. There was some indication of an overflow at the southeast corner and the filling to the pit was much discoloured. The bottom of the chamber was of clay and mortar and fragments of charred wood were found on the floor. A rough stone wall had been formed to the west but only the foundation course was in existence.

Trench A2 was continued toward the centre of the island and it was found that the soil was largely composed of broken building stones, stone roofing tiles and fragments of pottery to a depth of 2 to 3 feet. There was no stratification of the finds and the approximate limit of the disturbed soil is indicated by the line XX.

Towards the west there was what appeared to be a rough stone revetment and the surface of the scarp of the island was covered with debris composed of dressed building stones, stone tiles and fragments of earthenware tiles and pottery. One piece of moulded stone was found which can be dated approximately to the first half of the 13th century.

A trench across the moat and up the scarp was opened at B.

Here again the whole surface of the scarp was littered with broken building stones and fragments of stone and earthenware roof tiles, some pottery and bones. This trench was continued by a pit at B1, and indications were

noted that foundations had been grubbed up and filled in and soil deposited on the surface of the island. In the bottom of the pit some late 19th century pottery was found and this suggests an approximate date for the destruction of the foundations of about 1870-80.

Probing by means of a crow-bar gave indications that the limit of the destroyed buildings was that indicated by the line XX.

Trench C was opened at approximately 50 feet from trench B. The bottom consisted of silt mainly composed of decayed vegetable matter to a depth of 1 foot 9 inches overlying blue clay. Towards the counterscarp end of the trench was found an almost complete skeleton of a large dog which had been destroyed by shooting, the remains of a charge of buck shot being found in the bones of the skull when cleaning. Towards the island end of the trench was found an iron pitch fork in fairly good condition, probably of 18th century date. A small quantity of carbonized matter was also found at the same spot.

The section of trench D which was cut at a distance of 82 feet from C was approximately the same as described in C.

Trenches E, F, G, cut across the bottom of the ditch at the points marked showed the same section as the other trenches already described but produced no remains.

The material used in the construction of the masonry found during the excavation was mainly from the various beds of the Leckhampton quarries. There were, however, a few pieces of freestone found among the rubbish scattered over the scarp of the island.

A quantity of dressed stone was found in the course of the excavations, and the following methods of dressing were noted :—(1) rough axed, (2) fine axed, (3) broad chisel, (4) narrow chisel, (5) drag. The axed-dressing of

the stones of the short wall at the back of the island abutment chevron wise is worthy of note.

The quality of the workmanship was good and in only one case was it noted that stones had not been laid on their natural bed, namely some of the large stones in the abutment on the island side of the bridge. The stepped foundations of this abutment showed this particularly as they are bedded directly on clay without any offset courses, somewhat ignoring the usual practice when building on a treacherous material such as clay, but no evidence was observed of any settlement.

One piece of moulded stone was found among the debris covering the scarp of the island and this appeared to be a portion of a label moulding of the middle of the 13th century. Some fragments of shafting having an approximate diameter of 4 inches were also found.

Stone roofing tiles of the ordinary Cotswold type were fairly plentiful and were mostly found in the filling above the bridge cill and in the trench cut up the scarp of the island at B. They were all pierced with one hole of about $\frac{3}{8}$ inch diameter and had been attached to the battens with wooden pegs. The following sizes were noted, $10\frac{1}{4}$ inches wide by 11 inches, 7 inches by $9\frac{1}{2}$ inches, $6\frac{1}{2}$ inches by $9\frac{1}{4}$ inches and $5\frac{1}{2}$ inches by $8\frac{1}{4}$ inches.

A considerable number of fragments of earthenware ridge-tiles were unearthed but no example of the angular stone ridge-tile was found. The earliest examples were probably of the 14th century and were hand moulded, well burned and varied from $\frac{3}{8}$ inch to $\frac{1}{2}$ inch in thickness and from buff to light red in colour.

To the 15th century has been attributed the series of fragments of ridge-tiles showing traces of glaze. These tiles are of an average thickness of $\frac{1}{2}$ inch, are hard, well burned and vary in colour from pale buff to dark olive brown. They are of better fabric than the earlier tiles and have weathered well.

To the 16th century or later may be ascribed the tiles of slightly smoother texture and finer paste varying in colour from buff to light red and averaging $\frac{5}{8}$ inch in thickness.

The earliest of the plain tiles may belong to the 14th century and are hand moulded of fairly coarse fabric and vary in thickness from $\frac{3}{8}$ inch to $\frac{1}{2}$ inch, and in colour from pale buff to light red. To the 15th century probably belong the next series which are slightly finer in fabric and show signs of a light mottled glaze. They average $\frac{1}{2}$ inch in thickness and are slightly lighter in colour than the preceding examples and vary from light buff to pale light red.

To the 16th century and later belong the series showing a finer finish than those before described, averaging $\frac{3}{8}$ inch in thickness and of a more even colour of light red. It should be noted that in no case did we find any fragment which would indicate the method of fixing the tiles to the battens of the roof. There was no indication on any of the fragments of holes for pegging and no nibs were found.

It should be understood that the dating of these tiles is provisional only. The subject is a complicated one and although some progress has been made it seems clear that in many cases the date of a building has no relation to that of the roofing material.

One fragment of floor tile was found of a light red colour and about $1\frac{1}{8}$ inches thick of coarse fabric and not very well burned. Probable date 16th century.

Four fragments of glass were found which may be dated as of the 17th century. A piece of the base of a square bottle, two fragments of necks and one indeterminate piece. Pieces of 19th century glass and later also occurred.

The objects of iron found were not in particularly good

condition or of special importance. They comprised :—

11 nails, some found in association with the cill of bridge, and possibly dating from 14th to 17th century.

2 pieces hoop iron.

1 bolt with nut apparently rivetted on, found in association with bridge cill. It may therefore be of 14th century.

1 plough share probably 17th century.

1 pitchfork probably 18th century.

1 knife 19th century.

2 indeterminate fragments.

A considerable quantity of pottery was found but owing to the disturbed state of the site it had no value as furnishing any reliable evidence of the date of the structure. There was, however, one exception to this as a portion of a pot of 14th century date was found embedded in the clay immediately beneath the timber cill of the bridge. This is of some importance as it limits the earliest date of the bridge to the 14th century. The earliest pottery found on the site may be ascribed to the 12th century and consisted of portions of a rim and handle apparently belonging to a single vessel. Pottery of the 13th to 20th century also occurred but the fragments were very much broken and of no special interest beyond the fact that they gave some indication of an occupation extending from the 12th century.

Shells were not abundant. Three oyster shells and a few snail shells were found scattered among the masonry debris on the scarp.

Only one fragment of bone was found with any evidence of its having been worked upon. It was, however, impossible to identify its purpose. This was found in surface trenching on the island in continuation of the bridge trench.

A few of the fragments of the domestic animals' bones have been sawn or broken for the extraction of the marrow.

A list of the animals represented include roebuck, horse, pig, sheep, ox, dog, and bird. These latter were however too fragmentary to determine the species. The bones of the dog were found in the silt of the moat and it had been destroyed by a charge of buck shot.

The cill timbers of the bridge were of oak and with one exception all the fragments found in association with it were of the same wood. There were two pieces which may have been part of the decking of the bridge. Two other pieces, one of oak and one of ash showing mortice holes which may have been part of a hand rail, and a certain amount of charred wood, some of it possibly part of the bridge, were also found just above the cills.

The moated site represents a fairly strongly defended work. The ditch was apparently in very much its original condition but the island had been much disturbed by levelling and the grubbing up of the foundations of the buildings which had existed on the site. So far as could be ascertained these had been grubbed up and the material thrown down the scarp and a certain amount of new soil brought up to the site and dumped there. In the trenches and trial holes on the island itself this disturbance was very apparent and the pottery found there was so mixed that a spadeful of soil produced fragments ranging in date from 14th century to 19th century. The presence of a certain amount of 12th and 13th century pottery on the site may be taken as an indication of a probable occupation at that period. It has, however, no relation to the date of construction.

The finding of a moulded piece of stone of about the middle of the 13th century among the debris on the scarp, may point to the existence of a building here at that date, but on the other hand it is quite possible that this fragment may have been derived from the church at a late date.

It is, however, fortunate that when the construction of the bridge and its abutments is considered there is a

certain amount of reliable evidence. In the first place it is clear that the abutments and wooden cills are contemporary and it is also evident that so far as could be ascertained they formed the original entrance way to the island, and as 14th century pottery was found immediately beneath one of the cills lying in the blue clay, it is a safe presumption that the bridge was not older than the 14th century. In view of the fact that this pottery was found in contact with the timber cill and that the pieces recovered made up about one third of a pot it is perhaps not straining an inference too far to assume that the pot was in use at the date of the construction of the bridge. If this was the case it is possible to ascribe a 14th century date to the bridge and perhaps this date may be narrowed to the first half of the century.

If then this bridge was the original means of access to the island, it follows that the construction of the ditch must be ascribed to the same date, but it does not mean that a building of some sort may not have existed at an earlier date and have been put in a state of defence in the 14th century.

From an examination of the surrounding land it would appear that it had been occupied long prior to the construction of the moat but so far as this excavation is concerned nothing earlier than the 12th century was found.