## V

## OTFORD & DISTRICT HISTORICAL SOCIETY.

## INTERIM REPORT UPON EXCAVATION AT BECKET'S WELL

### for years 1951 and 1952.

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#### (A) LOCATION:

Situated in Parish of Otford, Kent, east of remains of Archiepiscopal Palace. National Grid reference 51/529591. The spring issues from the ground from below the Lower Chalk at approximately the point where the Upper Gault emerges. Similar springs issue at Moat Cottage, Colet's Well and New Barn Cottage all in the same parish.

#### (B) RECORDED HISTORY:

granted to Archbishop Wulfred by King of Mercia conveying lands east of the Darent one boundary being defined as "on the south the hollow well or spring (se hole welle).....The hollow well may be the deep sunk and now deep-walled spring, perhaps sacred, later and to-day known as Becket's Well close to Otford "Palace." (Arch.Cant. Vol. XLIII. p 121 E.G.Box Notes on the History of Saxon Otford.)

Dr. Gordon Ward, F.S.A, doesnot support the identification of "se hole welle" with Becket's Well, but suggests it was a spring at Childsbridge.

(Arch. Cant. Vol. XLI. p 9 "The making of the Great Park at

Otford.")

Mich. 19 Henry VI to Mich. 20. Henry VI.

"To a carpenter for making 2 gutters to bring water from the pool of the garden and the moote, and for working on and laying another gutter beyond the water course and coming from the fountain ("fons") of St. Thomas to the old garden; 12d.

"To a carpenter for covering a gutter with timber and cresting it:

"To 2 masons for 3 days placing and laying and working anew the stone wall of the fountain of St. Thomas broken for the pipe of the water conduit there; 3s.

"To 5 labourers for 10 days digging the soil between the said fountain and the moote to lay in the leaden pipe of the said conduit; (Hesketh transcript of Lambeth MSS No.868)

C 1540. Survey of the Manor of Otford. This contains a reference to "divers springs and the head thereof ", but it is doubtful if this refers to Becket's Well or other springs.

(The survey is given in full in Ward Note Books, Otford, No.2, f. 4 et segg. and most of it is printed in D.G. Elder's

"Otford Past and Present". pp 3 - 6. Both these give the date 1547, but there is enough evidence to assign the date 1540)

- Lambarde writes in "A Perambulation of Kent":
  "It was long since fancied ... that while Thomas
  Becket lay at the olde house at Otford ... and sawe that it
  wanted a fit spring to water it, that he strake his staffe
  into the drie ground(in a place thereof now called Sainct
  Thomas Well) and that immediately the same water appeared,
  which running plentifully, serveth the offices of the new house
  till this present day.".
- "The conduyte house or well conteyning in lenght XXXVI foote and in breadith XIX fote to be taken downe and newe sett upp will coste XXX (pounds) The Pypes conveyinge the water from thence to th' offyces and small Sestrens (Cisterns) to be amended will coste XIII (pounds)."

  (From Survey made in 1573 for Sir Henry Sydney when he applied to Q.Elizabeth for the Palace. Arch.Cant. Vol.XXXI p.18.)
- Harris -History of Kent p 229/230, repeats the legent and says, "and which is indeed still a good Spring, being a shallow Well built of Stone and about Twenty foot square..."
- 1778. Hasted merely repeats the Becket legend.
- Gentleman's Magazine 1820 part 1, pp. 489 491: "... rises a spring formed into a bath about 20 feet long.
  Here the invalided devotee bathed, transferring the invigorating power of the water to the merit of its patron saint, Thomas of Canterbury, for this is "Becket's Well"... The stream flows from its head through the outer court of the palace, formerly supplying the offices with water collected in capacious cisterns, in the same manner as may be seen at this day in the ancient and curious kitchen at Hever Castle in this county..."
- 1885. (circa) Dr. John Hunt, Vicar of Otford, writes in "Old Otford", after repeating the legend about Becket:- "It is an oblong about twenty feet long and ten feet wide. Antiquaries conjecture it to have been a Roman bath, and as pieces of Roman tiles are found in the adjoining field, it is held for certain that Otford was a Roman settlement.... The Saint is said to have used the well as a bath...."

- \*\*Relly's Directory, 1887 Extract:
  "There is a spring of water in the castle grounds which flows into a chamber upwards of 30 feet in length by about fifteen in breadth, known as St. Thomas A'Becket's well; this thamber has been thoroughy restored and the surrounding ground tastefully laid out by Richard Russell Esq; (Mr Richard Russell, farmer, lived at Castle Farm and owned the Well.)
- Kelly's Directory 1895:

  "This chamber has been thoroughly restored and the surrounding ground tastefully laid out by Mr. Harry Wellband Esq.. (Mr Wellband was a later occupier of Castle Farm. This reference is suspriously similar to the preceeding extract.)
- Hesketh, Major C. writes in "Otford" after repeating the legent The spot became known as the well of St. Thomas. Really a Roman bath, and which can be seen between the railway station and the church. Its water was inevitably reported medicinal, a superstition that lingered on even to 1820, when a cure of rheumatism was alleged. Nothing is heard of this now."

  Dorothy Gardiner in Companion into Kent (1934) qhotes Hesketh without mentioning his name, "in schdarly opinion this is no other than a Roman bath." When she remarks that there does not seem to be anything Roman about the masonry he replies, "No more there isin't, the little round building upon Otford Mount was made of hewn stone from the bath. That sportsman old Dicky Russell, Castle Farm, Carried it away."
- whites that it is no well but a bath. He says it was covered with a roof and perhaps the few beams removed in 1930 or so were the last remains of the conduit house (see 1573 above). He consludes "It has often been called a Roman well, and there is good reason to hold that there was a Roman villa in the vicinity. It is certainly one of the most remarkable relics of this district and well worth putting into proper repair and of scheduling as an ancient monument. Also, it merits proper description by an expert on masonry and ancient water supplies it may well prove to be unique."
- Arch.Cant. Vol XLVII p 236/7 Sevenoaks K.A.S. Branch report confirming it is a fresh water tank adjoining part being a laundry or bathing place.
- Arch. Cant. Vol. XLVIII p 233/4 Continuing the above K.A.S. investigation reports "Seems no doubt that stone enclosure adjoining Becket's Well was refashioned in Tudor times."

#### (C) HISTORICAL SUMMARY:

- Well itself is without reasonable foundation; the tradition is hostile to such an origin. But it is possible, and not yet disproved, that the springhead may have been used in Roman times as a water supply for the presumed Roman building hearby, which latter is evidenced by a strong field scatter of Roman brick and tile.
- (2) Evidence is against identifying a spring mentioned in Saxon times (821/2) with Becket's Well.
- By tradition the spring originated in the 12th century in the time of Archbishop Becket (1162/1170) whose name has since been associated with it. The tradition is narrated by Lambarde in 1570.
- Well is an entry in Otford Ministers' Accounts, 1440-1.

  Note the following data:-
  - (a) The name: "fons Sancti Thomae", probably in English "St. Thomas's Well".
  - (b) The well already had one stone wall. It probably had four, because if there were no wall on one side the conduit would presumably have been laid there, without the necessity of breaking and repairing a wall.
  - (c) The Archbishop was Chichele 1414-1443.
    (d) This is the only certain date we have of repairs to the well.
  - Alterations or repairs were apparently made in the Tudor period (evidence of west wall of lower chamber). It is at present impossible to date them with certainty, but it is reasonable to assume they took place when the Palace was undergoing repair or alteration. We know that rebuilding and alterations took place in:- c 1510 c 1520 (Archbishop Warham) and substantial repairs were made in 1541 1547 (Henry VIII)
  - (6) The Palace became increasingly dilapidated through the rest of the Tudor period, 1547-1603. By 1573 it was estimated that £30 would repair "the conduit house or well". The use of the term "Conduit house" implies a roofed building. The dimensions were then stated to be 36 feet by 19 feet.

- Some repairs in the period 1603 to 1887 seem (7) likely, but we have no historical evidence of any until Russell's time.
- (8) The site was much disturbed in the late 19th century: -
  - (a) Russell used it as a quarry for the Fox Hunting Tower on the Mount.

(b) Russell "laid out" the grounds around it.

- (c) Wellband may have done the same. (d) Hop-anchors were sunk around it.
- The Well had a roof over it as late as the present century but according to residents then living in the vicinity this was merely a flat wooden covering supported by beams placed horizontally across the Well walls and was of modern construction -probably Russell.
- (10)Chemical analysis of the Well water declares it to be good drinking water with no special medicinal properties. (See App. C)

#### PART 2. THE EXCAVATIONS.

#### (a) INITIATION AND PROGRESS OF WORK:

The excavations were undertaken by the Society by permission of the owner, Mr.E.D.McDowell, M.I.Struct.E, whose expert advice was also available. The policy as regards planning the excavation and its procedure was devised by Lt.Col.G.W.Meates, FSA. in consultation with the Joint Directors, Messrs. F.R.J.Pateman and F.E.Harrison.

In the spring of 1951 the site was rapidly becoming overgrown, the walls were in danger of collapse and the Well floor was completely silted over and covered with fallen masonry and rubbish.

Work began under the immediate direction of Messrs. F.R.J.Pateman and F.E.Harrisson and was carried out exclusively on Sunday mornings.

The following members took part in the digging:-

Brown. E. H.
Budd. Dr.F.E.
Burn. C.W.
Clarke. R.D.
Diblee. D.L.

Harrisson. F.E.
Houghton. DR. B.J.
Ivens. P.R.
Pateman. F.R.J.
Runting. E.G.J.
Tompkins. L.E.

Assistance was also given by Messrs:

Davidge. K.C.

Mc Dowall. A.

Mc Dowall. E.D.

Mc Dowall. J.

Reynolds. E.A.

Reynolds. K.

Reynolds. K.

Runting. B.

#### The Excavations. (cont) (a) Initiation and progress of work:

1951. May:

Photographs taken on 25th. Work of clearance of vegation and silt

commenced on 27th.

Upper Chamber cleared. July: Trench No. 1A started.

Surrounding ground cleared and levelled to top

of upperChamber Walls.

Exploratory trenches No. IIIA, IIIB, IVA and Va made.

Trench No.IIA commenced.

August - November work mainly confined to Trenches No.1A & IIA.

Season ended.

Restarted, removed winter's debris. Trench No. 1952. April:

lA developed.

May:

Work continued on 1A and 11A restarted. Work on 1A and 11A continued. In addition Trench 1VA restarted. June: Julys August: Grench 1A completed and 1B started. Trenches 11A and 1VA continued.

Season ended at beginning of this month. Octs

#### (b) DESCRIPTION OF BECKET'S WELL.

#### (i) Abbreviations used in text:

Well Chamber:

North Wall.

East Wall.

South Wall.

W/S

W/S

West Wall.

W/W or Sluice Wall.

#### Outer Walls surrounding Well Chamber:

North. Sw/N. Sw/S.

East. SW/E. (not yet located)

West Wall. LC/W
South Wall. LC/N.
North Wall. LC/N.

East Wall. LC/E. - this refers only to the short wall joining LC/N to W/N.

Trenches numbered with Roman numerals as on Plan: T.

Datum points numbered with ordinary numbers as on Plan: DP.

#### (ii) WELL CHAMBER:

Dimensions: W/N 35' long 26" thick.

W/S.35° 16"

W/E 13' 26"

W/W 11'6" 48" approx.

Walls W/N and W/E are bonded together.

Walls W/N and W/S are probably bonded.

Walls W/E and W/S do not appear to be bonded.

East Wall: This has two arched openings faced with stone 16" wide and 12½" high in an Early English style through which Spring water flows. These inlets are not equally spaced; the southern is 2'10" from W/S and the northern 4'4" from W/N and carries the greater volume of water which appears to come from a northerly direction behind W/E.

#### North and South Walls:

These are small inlets under these walls permitting spring water to flow into the Well. Most of the water comes from the south and the largest of these inlets

THE EXCAVATIONS (CONT)
(b) Description of Becket's Well.

#### North and South Walls (cont)

is 6" wide and 10" high in W/S. The varying flow is indicated by the quantity of silt which collects around the inlets.

or source has not yet been established. There are certain features about their construction which may be of importance, for example there is a straight course in the stones in W/N at a height of 5'2" which can be traced at the north end of W/E and appears again in W/S at a height of 5' from the Well floor. Both W/N and W/E have larger stones at the bottom of the walls and smaller stones at higher levels but W/S has courses of small stones below the larger. The upper part of W/N, above the straight course referred to, contains stones like iron -stone, quite different from the prevailing ragstone. Behind W/S 3. in T IVA brick has been found.

This is made of Chalk blocks but a passage has been worm through them from the northern inlet in W/E to the middle of W/W at a point 21" north of the Sluice. This passage has been repaired in places with brick. In the northeast corner there is a quadrant of stone which eppears to have some connection with a stone edge running eppears to have some connection with a stone edge running west under W/N and broadening into a ledge 22" wide at W/W. The floor under the Sluice has been repaired with brock.

#### WELL CHAMBER SURROUND WALLS:

These have not yet been fully examined or excavated. SW/N appears in T IIIA and IIIB and has been located also in line with W/E. It appears to be a foundation of varying width up to 2' and 18" in depth, built of irregular shaped stone set in mortar. SW/S is similar and appears in T IVA and again in T.VA. These two walls seem to be parallel but whereas SW/N is 13' to 14' north of W/N there is only about 5' between SW/S and W/S. SW/E has not yet been located; its existence is only presumed.

TRENCH IVA.: (see section at Appendix A)

This was dug between W/S and SW/S about 10' to 18' east of the Sluice Wall. It disclosed the following:-

Wall No.1. Sited at the bottom of the trench it is probably built on the extended floor of the Well. It appears to be the remains of an earlier wall dismantled down as far as the first stones above water level. It is backed by rammed chalk blocks as found behind the north end of the Sluice Wall. The North face of Wall I is about 4' south of W/S (north face) and is very roughly parallel to it.

#### Trench IVA. (cont)

Above Wall 1 are the remains of a second wall inclining at an angle inward towards the present W/S. Its base apparently rests on chalk filling above the 2' space between Wall 1 and the present W/S. with which it is not aligned being directed slightly more towards the north west. It has a good face on the south side, now exposed, which Mr. Mc Dowall thinks bears indications of having beenbuilt "overhand". Its northern face cannot be seen properly as W/S is built against it and partly rests upon it.

The backing for Wall 2 is a mixture of chalk blocks, pieces of ragstone and other filling. Above the chalk blocks are mixed earths with broken pieces of ragstone, tiles, fragments of Wealden glass, broken sherds and plaster without any clear stratifiction. This filling extends up to the base of SW/S and is indicated by fillings Nos. 2 and 3 in the Section shown in Appendix A but it is far from clear if there is any real distinction between these fillings. On this filling are layers of flints and above them top soil.

This is the present W/S. In the filling behind it and against the remains of what appears to be another piece of Wall 2, have been found part of a clay pipe and the base of a wine bottle dating about the end of the 17th century (finds No. IV/A/11 and 15 in Appendix B 3) both at a depth of about 6' from the top of W/S.

#### (iii) LOWER CHAMBER:

Inside Dimensions: LC/N 23' long 18" thick.

LC/S 18' " 24" " (average)

LC/W 31' " 18" "

LC/E. 15' " 14" "

Walls LC/W and LC/S are bonded together.

Wall LC/E is not bonded at either end.

This extends below ground level about ten inches. It appears to have no connection with SW/N which is still only partially excavated. It is built without mortar and appears to be recent and of poor quality.

#### (iii) LOWER CHAMBER: -

This does not extend below ground level its base being level with the top of W/N. It lies at right angles to LC/N and there is little doubt it is of recent origin.

This appears to be old. It is built of ragstone bonded with mortar. The exit for the stream runs through it and seems to have been altered at some time. The outlet is formed by heavy stone blocks placed irregularly, above them are Tudor bricks as though repairing the arch when the stones were placed in position. This wall is parallel with the west face of the Sluice Wall. It also forms a right angle with LC/S but not with LC/N.

This has a foundation below ground level of about 16". It is similar in character to SW/S but it does not join that wall neither is it in line with it for its direction is slightly more south east. On its north side it has a ledge which suggests a lodging for floor joists.

Apparently owing to the steep slope down to the stream on this side of the Chamber the wall's foundations have slipped and split.

In the angle of LC/W and LC/S are some small tiles, believed to be Tudor and forming a ledge for which there is no explanation yet.

The stream emerging from the Sluice runs over a few largeflat paving stones and loose shingle between steeply shelving banks for a distance of 20' and leaves the Well site through the outlet in LC/W. On either side of this channel are signs of some constructional work, in particular a brick ledge on each side which seems to have some connection with the brick repair in LC/W but this has yet to be investigated.

TRENCH 1A. (See section in Appendix A)

The excavation of this trench has revealed the north end of the Sluice Wall. It is built of large hewn ragstone blocks and backed on the east with chalk.

The natural sub-soil rises steeply from under the wall in a northerly direction but not so steeply towards the west. Everything above this is filling. The lower part of the filling is gault clay with very few "finds". Above the gault is a mixture of soils which with one exception contain an assortment of "finds", Roman fragments of tile, Tudor ware, 19th century china, hop-wire, a King Edward VII farthing and 14th century tile fragments - all scattered indiscriminately through the filling.

The exception is beyond the northern end of the sluice wall where nothing later than Tudor was found. In particular a Nuremburg Token, dated 1530 by British Museum, (See Appendix B) wedged on its edge between two positioned stones 20" below D.P. 1A and 33" north, and a Seigburg pot, (16th century) 15" below the same point and 50" north. It is safe to conclude the wall is not later than 16th century.

It should be noted that the three Layers numbered II, III and IIIA on the Section of this Trench appearing in Appendix A are all very similar. It is doubtful if much distinction should be drawn between them and it was often impossible to distinguish between them on the site.

#### TRENCH IIA.

This trench has revealed the south end of the Sluice Wall which, like its northern counterpart, is built of large ragstone blocks with the same characteristics. It has also been dated by finding another Nuremburg Token in a position very similar to the first, i.e. 7'2" South, 2'9" east, and 2'7" above D.P. IIB, wedged against a positioned stone. The rest of the finds include a Roman fragment (2'2" below D.P.IIB), Wealden glass fragments, 16th century stoneware fragments, nails, plaster, brick and tile fragments, teeth and bones (animal) most of which have not been dated.

In the lower section of the clay and parallel with LC/S were irregular masses of \*hardcore' forming an indeterminate shape just south of the South Buttress.

Like the filling in Trench IA the bulk consists of heavy gault clay with few "finds". Both fillings would seem to have been made at the same time but that on the south side of the stream appears to have suffered less disturbance than on the north where hop-anchor digging was comparatively recent. No finds definitely located in the clay have been dated.

This Wall divides the Well Chamber from the Lower Chamber. Its eastern face is parallel with W/E and is 12' long to the corner at the steps. The western side is 22' long and is parallel with LC/W. It is 4' wide at the northern end and 5' at the southern end. In T.IA where the bottom of the wall is displayed it is 6' high excluding the steps at DP. IA.

As indicated the north and south ends of the Wall seem of the same date, workmanship and material and the finds give the same period. The middle of the Wall has been exposed to the elements and the destructive effects of vegetation. Despite its appearance there seems no reason for giving it a different period although there are indications in it of possible repair or alteration.

On the west side are two "buttresses" each approximately 3' square and 5' apart. They are built of similar stone but are not bonded into the Sluice Wall. On the west side of the southern "buttress" below water level a small post hole was found holding the point of the stake (see Find No. II/A/II Appendix B.2)

At the southern end of the Sluice Wall and leading down into the Well Chamber are six stone steps, 3' 6" wide at the top and 3' at the bottom. The bottom step protrudes into the Well beyond the face of W/S. The rise of the top step is not exactly parallel with the east face of W/W. The wall W/S is curved round to accommodate these steps and ends in a squared faced stone only a few inches away from SW/S - probably the best worked stone on the site.

The grooves for the sluice are placed on the east side of the Sluice Wall and the channel runs not quite at right angles through the wall to emerge between the "buttresses", one foot from the southern and three feet from the northern "buttress".

Stones have been set at some time to form rough steps to give easy access from ground level at each end down to the top of the Wall. If ever the top was level and made good with faced stone it is no longer so except at the ends which were buried prior to this excavation.

#### (a) Notes concerning the measurements in the 1573 Survey:-

The measurements mentioned in 1573 of "The conduyte house or well conteyning in length XXXVI foote and in breadith XIX fote ..." are the only old measurements at present known. The question arises, do they bear any relation to the present plan of the site? The answer is not conslusive on the facts now known but there are points of interest and significance.

- If these measurements were taken of a well below ground level they would presumably be taken inside the walls. If they related to a "house" above ground level they might be expected to measure the outside of the building.
- 2. The present inside length of W/N is approximately 35'.
- 3. The present inside length of W/E is 13' and of W/W 12'.
- 4. If W/E is made to have an outside length of 19' so that its middle point is midway between the two inlets then the northern point of the wall will still lie within a few inches of its present position. The southern point will extend the wall some 30" and the wall does show some such extension although excavation must be done to see how far.
- As regards W/W, a measurement of 9½' from the outside face of the squared stone above the Steps reaches exactly to the centre of the sluice outlet. A further 9½' to the north reaches the top step at the north end of the Sluice Wall but this point is in line with the middle of W/N and seems to have no particular significance.

The evidence supplied by the two Nuremburg Tokens undoubtedly confirms that W/W was standing in 1573.

that the squared stone at the top of the Steps has sides which are not quite parallel to W/S, they incline very slightly to the northeast. They are in fact directly in line with the extended south end of W/E mentioned in No.4. above. If a wall of two feet in thickness ever joined these points there is no present evidence of it; the length of W/S 1 so far exposed does not seem to have done so and there is insufficient information at present about the alignment of W/S 2.

#### (a) Notes concerning the measurements in the 1573 Survey: -

7. If W/S 2 originally stood approximately in its present position between W/S 1 and 3 it would give an overall width to the Well of about 19°. This would be an outside measurement which presumes a building above ground. However, until the course, and particularly the foundation, of W/S 2 has been traced this possibility cannot be confirmed.

The most that can be said at this stage, therefore, is that at the time of the Survey of 1573:-

W/W on the evidence of the Tokens, was standing.

W/E andW/N were most probably there, they are bonded together.

W/S 2 is a possibility which would appear to give the necessary width and imply a well with a building above it. (b)

#### CONCLUSIONS.

The paucity of finds in clearly defined layer series, caused by the frequent disturbance of the site, especially in recent times, has rendered the interpretation of the evidence very difficult. The following tentative conclusions, however, are advanced as a preliminary hypothesis:-

Period 1. 12th-13th Centuries.

Likely: Walls W/E and W/S 1.

Possible: WallW/N.

More doubtful: Wall W/W.although a west wall was probably there. The Becket tradition with the Early English type arches suggests this was the earliest work, which is to be expected at the spring head itself.

Note that W/E is parallel with the east face of W/W. The exact alignment of W/SI has not been established but it may be parallel with W/N. The main doubt about W/N arises from the ledge under it which has not been accounted for, neither has an explanation been given for the worn passage in the floor of the Well.

Period II. 15th Century.

Certain: W/W repaired, new watercourse from Well laid, lead pipes from Well laid.

Likely: SW/N and SW/S built, Well roofed over.

Doubtful: W/S 2 and LC/W and LC/S.

There appears to be no archaeological evidence for items marked "certain". The two walls SW appear to be parallel and similar in type but why are they at different distances from the Well? If they carried a roof it was a wide span and there is no evidence of post supports around the Well. Was the roof carried on the Well walls?

W/S 2 is most obscure. It has no apparent foundation and at sometime it cearly collapsed. Its original position and course have yet to be determined. As brick insertions in LC/W suggest period III, it is assumed that this wall was originally built at least in the previous period. LC/S is bonded to it and appears of similar construction. LC/S is also similar to SW/S but is neither joined nor aligned to it. They may have been built at the same time but the purpose of the Lower Chamber is not clear.

#### GENERAL CONCLUSIONS.

#### Conclusions (cont)\_

Period III Early Tudor, 1510 to 1547.

Almost certain: LC/W brick repairs over outlet.

Possible: W/W, sluice and "buttresses".

There were extensive additions and rebuilding of Palace by Warham (c 1510 - 20) and repairs by Henry VIII (1541-7). Dilapidations occurred in the last half of the century. Hence the well work is assigned to period stated.

A possible solution to the problem of the sluice and the "buttresses" has been advanced by Mr.Mc Dowall. He suggests that the Sluice Wall was built as a dam which permitted the water to flow over it on to a small water-wheel suspended between the two "buttresses". This wheel is presumed to have turned a bucket chain to fill a cistern in a chamber above. Drinking water was thus provided for the Palace, conveyed by the "Pypes" to the "small sestrens" - perhaps the big cistern was above the Lower Chamber. Mr.Mc Dowall has calculated that the top of the present Sluice Wall is six feet above the floor in Castle House kitchen. The L/C cistern might have been six or ten feet higher to give a fall of 12 to 16 feet at the Palace.

Could the comparatively small flow from the Well have been enough to provide the necessary lift for the bucket chain? Mr.Mc Dowall thinks it could if the wheel and buckets were small but by running continuously they could probably keep all the cisterns sufficiently supplied.

The overflow from the water wheel was the flushing supply for the conduits under the Palace and discharged into the Moat.

This theory explains the use of the so called "Buttresses" and why the sluice is set to one side in the sluice wall. The ledge on the South Surround Wall provided the seatings for the floor joists but something similar has yet to be found on the north.

It has not yet been ascertained if comparable arrangements for supplying water exist at other palaces such as Hampton Court. There is as yet no evidence for such a theory, in particular no stones have been found bearing evidence of carrying a wheel spindle.

#### GENERAL CONCLUSIONS.

#### Conclusions (cont)

#### Period III. (cont)

It has also been suggested that the "buttresses" were built to strengthen W/W because of the weight of the superstructure, or because of the weight of the head of water retained in the Well.

Comparison has been drawn with St. Winefred's Well at Holywell, where such buttresses are shown in an 18th century print. It should, however, be noted that the Holywell building looks much larger than Beckets Well could have been. However, the presence of Wealden glass in the finds suggests a building with windows and in the 15th = 16th centuries this often meant buttresses.

#### Period IV. 17th - 18th Centuries.

Possible: W/S 3. Steps adjusted to fit new wall.
Although there is no positive documentary evidence to support repairs in this period it seems likely that some repairs were necessary between 1603 and 1880. It is suggested that W/S 1 or 2 collapsed and having to be rebuilt it was fould easiest to do this north of W/S 1 or 2.

Indirect documentary evidence (1573 Survey - Well width 19') is in favour of the building of W/S 3 later than 1573. Apparently no repairs had been done before 1603.

Archaeological evidence supporting the building of W/S 3 about 1700 or later is provided by the finds of clay pipe and wine jar base at a low level in the filling on the south side of W/S.3.

Period V. 19th Century.

Possible: LC/E and LC/N.

This work could be attributed to Mr. Richard Russell.

#### ACKNOWLEDGMENTS.

The Society desires to acknowledge gratefully its indebtedness to many helpers who have made the investigation at Becket's Well possible.

In particular the co-operation, assistance and advice of the owner, Mr.E.D.Mc Dowall, M.I.Struct.E., has been invaluable and so also has the archaeological experience and knowledge given by Lt.Col.G.W.Meates, F.S.A.

The report on the Well water was kindly undertaken by Dr.J.H. Oliver, Ph. D., Mr. Lionel E. Tompkins, F.R.I.C.S. made the survey and produced the plan of the site, Mr. H.J.Mann, B.A. took the photographs and produced the prints.

To the Curator of Maidstone Museum,
Mr. L.R.A. Grover, F.S.A. and his assistant, Mr. Alan Warhurst, B.A.,
grateful acknowledgment is made for their help in identifying
and dating many of the finds and also to Mr. C.W.Burn for
his reproduction of the Nuremburg Token.

The typing of this report was kindly undertaken by Miss L.B. Green and the kindness of Mrs. Mc Dowall who refreshed the workers on the site each Sunday morning with tea is remembered with gratitude.

Signed:

F.R.J.Pateman.

R.D. Clarke.

F.E. Harrisson.

#### APPENDICES.

- A. Plan of Site.

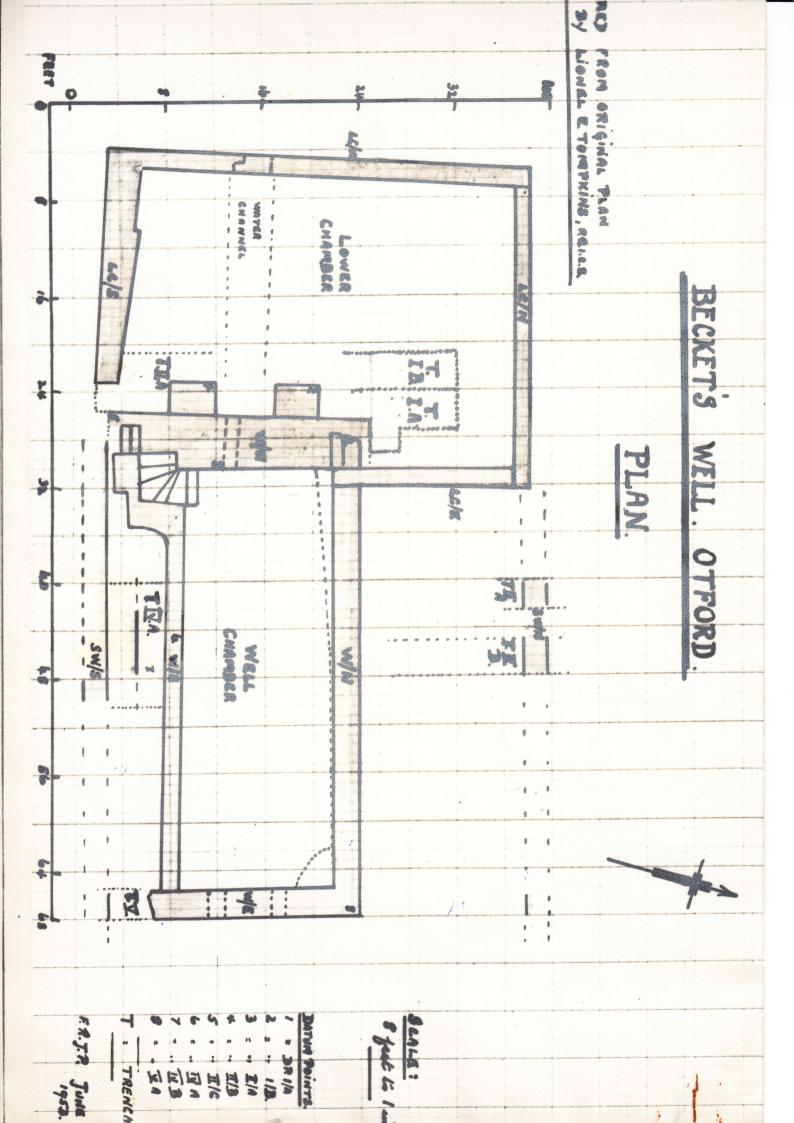
  Section of Trench IVA.

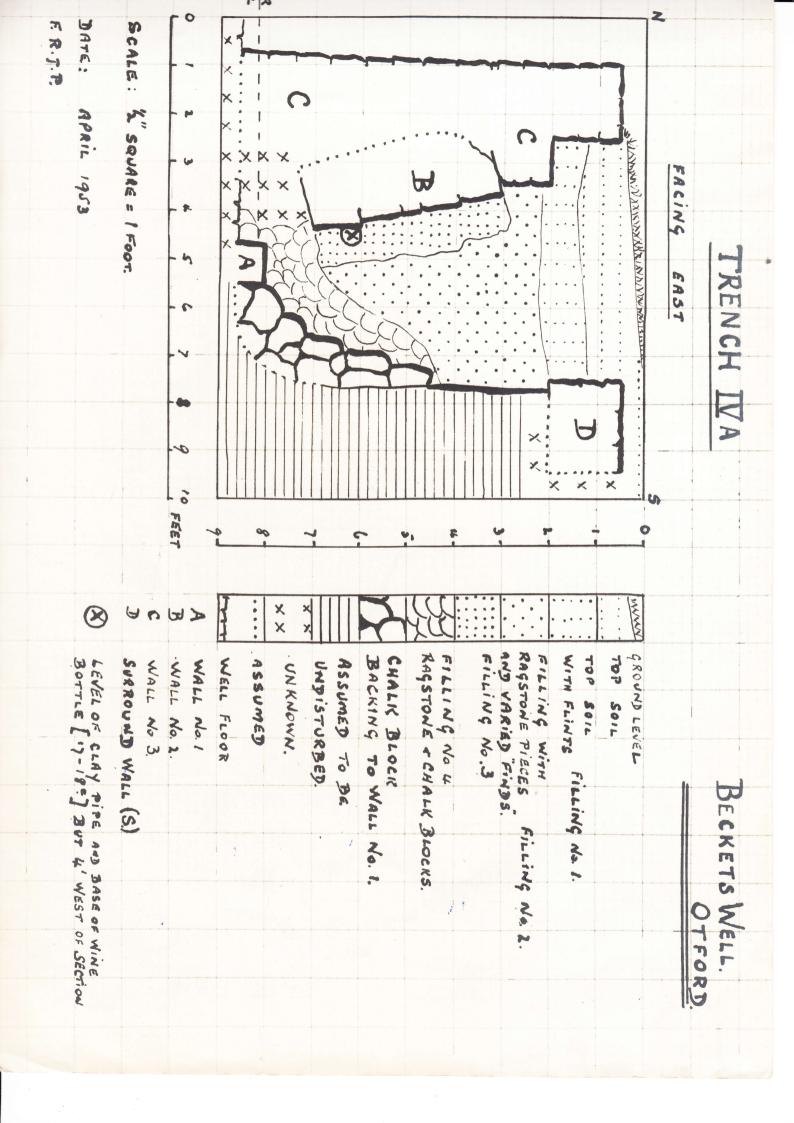
  Section of Trench I A.
- B. Lists of "Finds" in Trenches 1, II and IV.
- C. Report on Well Water with Analysis.

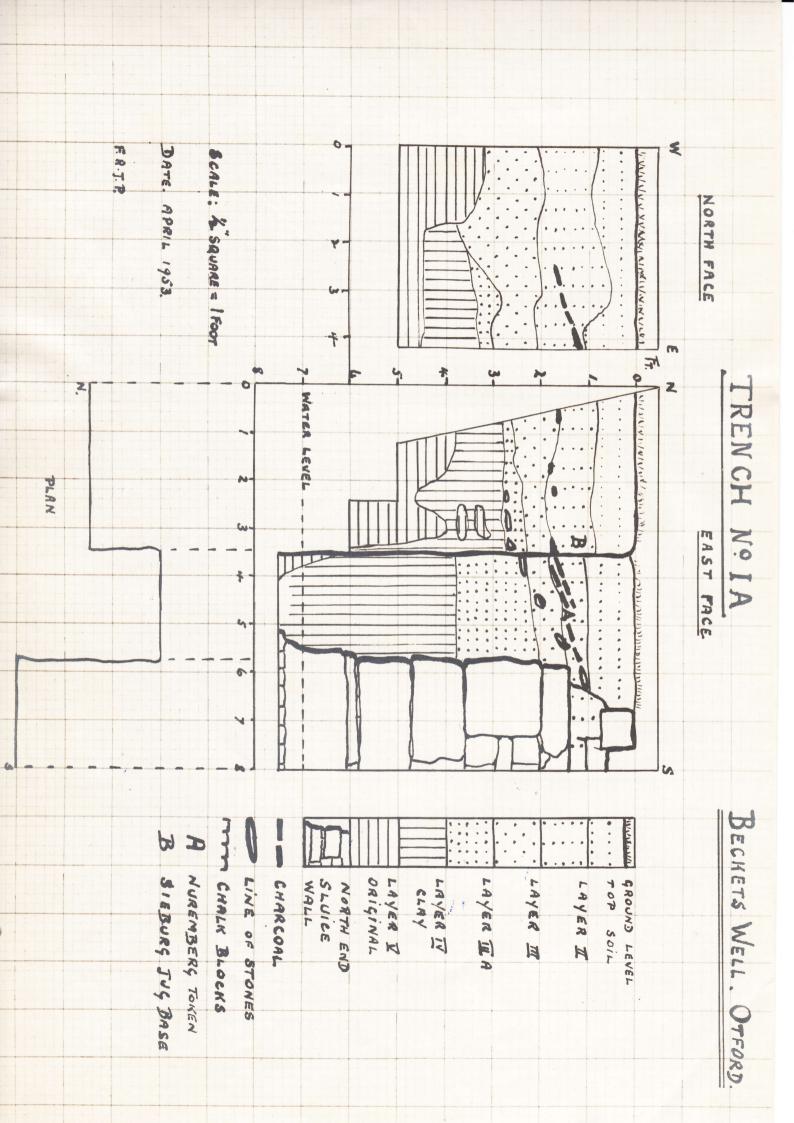
#### EXTRACT

#### St. Thomas a Becket's Well, Otford, Kent.

- (1) The present structures are <u>not</u> Roman, but a Koman tile found there suggests that there were Roman buildings (not necessarily a well-house) near the site.
- (2) The West Wall of the Western Enclosure appears to be early 16th century, from the type of brickwork it contains.
- (3) If this brickwork is a repair, the rest of the structure must be substantially older, but there are certainly also repairs, and alterations in stone, of comparatively recent date.
- (4) A mediaeval date for the enclosure and canalization is extremely probable because, (a) it is likely to be coeval with the Palace adjoining, (b) the masonry apart from late alteration, is generally consistent with this, and (c) the 'dedication' to St. Thomas of Canterbury who was "in disgrace" after the Reformation makes it pretty certain that a well existed there in the Middle Ages.







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# THE TANK THE 1.7.51.

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	Turonbe g Token	4/11/2		200
**	Orecn glazed Tile fragments	The state of the s	Loyote 2 and 3.	
- 東	Noofing Tile fragment			*
*	vart base of leasn		8	52
2	Orange brown glazed square	2/8/12	90	
	* Educate VII forthis	2/8/2	ASSESSED NOT SELECTION OF SELEC	
**	Sichurg dug, nock & handle	* 5/3	900	33
卷		1/2/3	90	5
27.4.52.	Carbonized stick	2/2/4.	2.3" belon Der Les	•
22.50	Seven ply Hop Sire	5/6/1	do in angle bet, Derela Derelas	Coro
	Chine . modern. pale blue	10/6	do	
	Brown eartherwere plate frag. 1/4/7.	5/11/70	4.6" B. 216" B. 216" Delow D.F. L.A.	
	Nomen flanged tile tagula		5'10. 2' 10. 3' below Der L.A.	
蒙	Tile free, orange fauric	**	5.6 . L. Lolow D. L. L.	0270
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Tie free orts.		6 2 1 2 2 3 below Delices	
22.6.50	Sleburg Jug Base.	1/1/19	4.2" IL 15" Delon D. P. L.A.	2007
13.7.5%	Tile fragments & piece of 1/4/12.		4. N. 2. E. 2.4" DOLOW D. L. L. B.	
27.7.52.	Tile fregments & Iron Weil	1/4/13	In water and clay at foot of wall below $D_\bullet$ . I.A. (8.M. = Exitiah Museum. M. = Maidstone Museum.	

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## F. Co. 23. 7. 51.

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Brick & tile. Trage. Bodern	Plaster Prega	Tile Tag.	& 2 Trags. Ned Carthenware with Brown glaze.
	12/2		T/A
	3. E 2.6 S 6 Delow D.F. IIB	3.6 % 1.9 % to 2.6 % 9 below D.F. IIB	Not recorded (layer 2 77)
	undated.		16c H

· N \$ 100 m brown golt glaze. Grey otonemore fragut. with rags. tooth probably ox

572

100 m

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11/1/4. TEVAVA COL WW 27 30

(4' S from D.F. LIB) to made in. 13's Low tellow D.F. IB. part of irreg. foundation 18" to 2" 

0

4 2" S. 219"E. 2" Delow D. P. IIB.

aurouhors token

3 32115.

with green decoration

frag. salmon coloured ware Tio. Ross. Spinst Conc.

GLOSS

TI/1/6.

7.2" S. 2'9"E. 2'7" above D.P. II/B. (Similar level to I/N I other nuremberg Token.) 8'S 3'4" E. 2'2" below D.F.II.B.

520 3 Trags. Tenlion glass.

11/1/7.

17.70 0

Case of Sasin.

enito olestos.

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- EXEIN

11/1/8 (12)

0.00

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Tile Trace.

II/V8. (1 to9) Top layer 1" S. D.P.II.B. II/NO (II) 000

Dove grey stonewere fragunt. II/A/8 (13)

thandled howl fragments (2) LL/V8 (14)

Oyster shell, animal bone, ironil/ 1/8/15to17) ditto

collar & bronze ball.

153

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	Mix D. (2)(Cont) Grench IIA.		
		TA TO	CONTINUES OF FOSTITON & DATE OF FOSTITON
37	Plate & Fin fragment.		273 18707 10 5 1 2 3 1 3 1 3
<b>N</b>	Tile fragmt & ferrdginous		Top Layer 10. S. 1. bolow D.P. III. (cf. LL/1/8.)
70	point of stake (7)	27/2/11	
N	Large Trick Trage	11/4/12.	4.4" S. 21E 18" Lelon D.P. II.B.
N	Various stones.	11/1/13.	2. 6. below D.P. II.C.
73	pottery samian were prob.	11/4/14.	ditto.
50	Frag. Glazed stonesars.	11/1/15.	Oltro
50 50	Street City Streets	11/A/17.	2º 10° to 5'8" W. 2º to 5'3" S. Level with to 9" below D.P. II.B. 3º to 6' S. 5'6" E. of D.P. II.D. 5'1" to 5'5" below Ledge of S.W. (S). This wall is now down.
20	Trugs, portony, trugs (minute)  Anger (Mains and Mains)	STANTE.	3 to 311 welow ledge of S. a. (S).
22	Purse bur. Perhaps top of Bone frage.	II/N/19.	Si to 65% Si or B. or D. P. II. B. Depth

500

Tate Modic va or Tudor? My Undated.

			3. Started 29.7.52.		
8					2
in a	glazo.	I///I	12.3 % 3.5" S. 6" below D.P. IV A.		3
•	Tile 4" square, green brown	W/N/2.		0	3
51.	decoration & brown glaze.	IV/N/3.	Alongside Tank wall (S) 48" below X.F. IVA.	140	1
200	Frags Stoneware.	IV/N/4.1105.	In 111116 between wells.	5	1
	THE TILE.	00010			
	The Planter.	Ca O			
5%	Iron Bolt (2)	TW/N/S.	Tapper filling, 4 - 5 below D.F. IVA.		
4.5	708. 200 210.	14/1/6.	FORCE FILLS 7 DOLON D. IN.A.		
\$20	Glass fragments. Toolden.	14/2/7. 1.	Fillig 4 Delow D.F. IV.A.	Moorob.	3
4	Shard. frag. Brown glaze.	N	alte co		
	Glass. Trace. Toolden.	10/4/8.1.	FILIDS 5 DOLON D.P. IV.A.		5
2 9 g	Lead Window lighting, in				
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3	77080 1110.	8	0248		H
5%	Forregious nail & oyster si	910212 110118	So above tenk floor level.	0	
8	Clay Pipe, initialled.	11/1/11.	1 & 2' above it.		>

N'

TOU. STONEWAY.

200 Bottom of Time Bottle.

0,000

6'6" %. 2'6" below D.F. W.B. Middle of trench.

IVWI3.

17/1/12.

Citto.

In filling bet. walls 2 & 3, 3\*2" (Mr Grover .circa.1700)

10-17 0 2700 Ondo tod.

17 · 150