NOTTINGHAM TOWN WALL: PARK ROW EXCAVATIONS 1964

By M. W. BARLEY

SUMMARY

The medieval town wall in Park Row was built, probably between 1267 and 1334, of a white sandstone. It was 7 ft. 3 in. thick, except for a length of about 160 ft. from Chapel Bar southwards, which was only 5 ft. thick, on a slightly different alignment and linked to the 7 ft. wall by a length of 11 ft. of wall at right angles. This 5 ft. wall had been robbed, late in its history, of its facing of dressed stone. The 7 ft. wall was cut into an existing bank, containing pottery of the 12th century, which must represent the first defences of the Norman borough. The ditch, which must have gone with the bank, produced little pottery earlier than the 15th century. The ditch was finally filled, shortly before 1800, with clean sand and clay from a tilery, so that Park Row could be developed for building.

The construction of the western section of inner ring road (Maid Marian Way) provided, as was anticipated, an opportunity to investigate the medieval town wall in Park Row. The new road will run into Park Row at an angle of 45 degrees, and so has necessitated the demolition of properties from Granby Street northwards (Fig. 1). With the co-operation of the City Engineer's Department, it has been possible to clear a length of about 120 ft. of the wall, as far north as what was Park Place. The position and extent of the excavations are shown in Fig. 2.

The length of town wall from Chapel Bar towards the Castle had been seen on two former occasions. The first was in 1925, when the building of the Nottingham District Cripples' Guild (on the corner of Park Row and Granby Street) was erected. The wall was there 7 ft. 3 in. thick and lay 33 ft. back from the frontage. In 1958, when the Corporation demolished properties on the south side of Chapel Bar, the wall was found below what is now No. 23, the most westerly of the new row of shops. The fragment preserved below the shop is only 5 ft. thick.[1] This discrepancy can now be explained, by a change of thickness and of alignment under Park Place (Fig. 2). The design for the inner ring road could not be modified at the stage

[1] *Transactions*, XXIX (1925), pp. 179-180; *Medieval Archaeology*, III (1959), pp. 290-292.

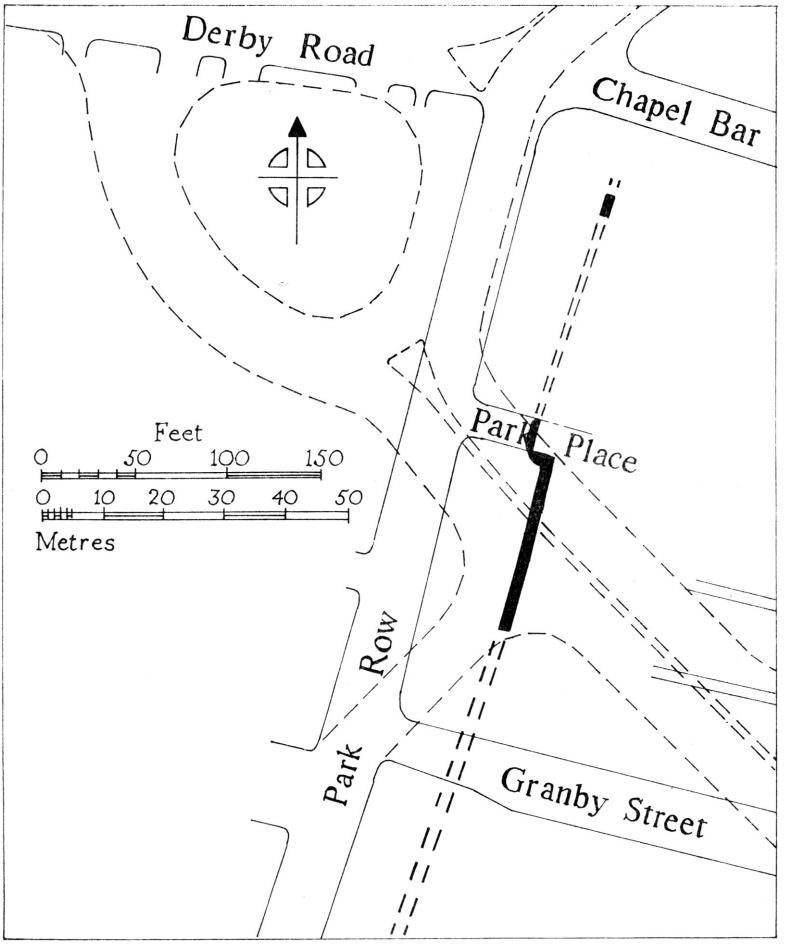

FIG. 1 Site plan of town wall in Park Row. Broken lines indicate new roads under construction in 1965

at which these discoveries were made. This length of wall, standing at its greatest 11 ft. high, and the length of town ditch in front of it have therefore been buried under the make-up for the new double carriageway. The wall is intact except in places where new sewers have been laid through its upper and lower courses.

THE BANK

From previous occasions when the town wall had been observed or excavated there is no recorded suggestion of any earlier system of defences. In the 1964 excavation behind the wall the stepped

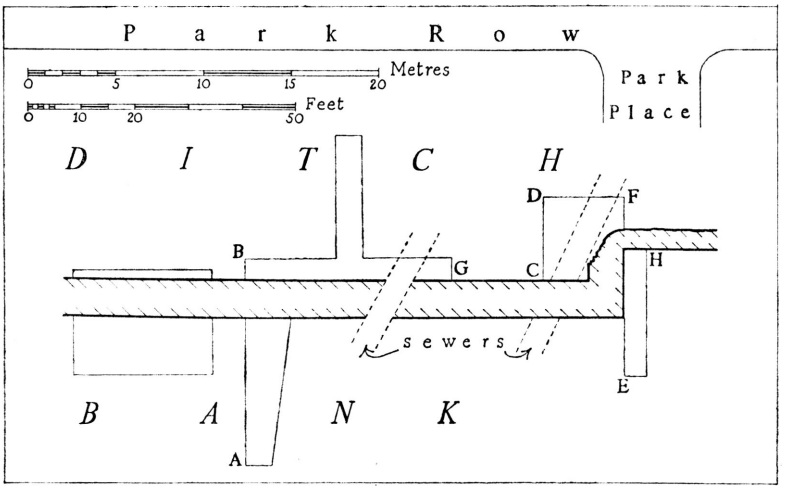

FIG. 2 Plan showing areas excavated and the positions of sections in Fig. 3

construction trenches for the wall could be observed (Plate 4a; Fig. 3, Section AB). These steps were cut, not into natural sand or sandstone, but into an existing bank composed of two layers of sand. the lower (6 in Section AB) slightly dirtier than the upper (2). From B northwards for 63 ft., the foundations had been carried down a further 4 ft. or more through natural sand to a hard sandstone. From B southwards, where the foundations were more shallow, about 2 ft. of the bank survived below the footings.

This length of bank produced enough pottery to suggest an early 12th century date for its construction. In the absence of stratified and dated groups from the city it would be unwise to suggest any earlier date for the original defences of the enlarged borough. The pottery consisted mainly of Stamford ware, two-thirds of it unglazed, and included two sherds of Torksey ware. There was also a group of sherds of a coarse ware with splashes of glaze which may represent the first stages of the pottery industry in Nottingham. These and the remaining find are described on pp. 62-4.

Behind the bank and overlying its tail was a further layer of sand reddened by the proportion of clay it contained. This may well represent a heightening of the bank at the time when the wall was built, though this could not be proved since the upper levels had disappeared. This layer contained one piece of glazed roof tile. It was not possible in the time available to carry the excavation further

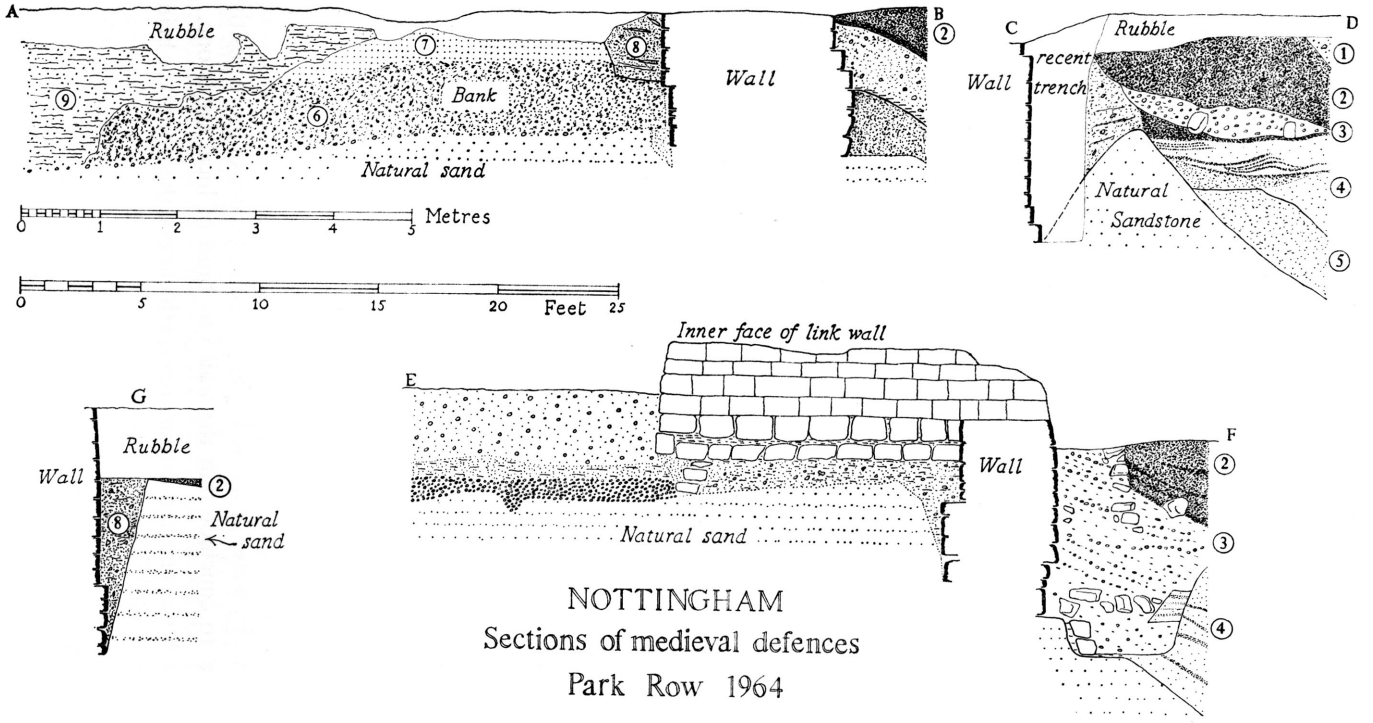

FIG. 3 Sections of town wall (see Fig. 2)

back within the area of the Norman borough. No trace of bank was seen behind the wall at E, but this is no ground for surprise, since the bank may have been cut away at intervals to provide access for loads of wall stone.

THE 7 FT. WALL

In all, a length of 95 ft. of the thicker wall was cleared, in March 1964. At the south end, the wall seems to have been removed for the building, which stood in the angle of Park Row and Granby Street. The direction altered by four degrees to the west from point B southward, and since the ground rises slightly to the south the level of the uppermost offset rises by nearly 7 in. in the 95 ft.

The wall in Park Row as so far known is constructed entirely of a white sandstone. This was identified by Messrs. Jackson, masons, of Bulwell, as white Hollington stone, from quarries in that village, which lies three miles west of Rocester, Staffordshire, and 32 miles due west of Nottingham.[1] They described it as characteristically capable of being reduced to grains of sand by hand pressure yet possessing very good weathering quality; it can be identified by the large pebbles, up to 2 in. in size, which it contains. They had found it used in Victorian buildings in Nottingham.

A visit to the quarries elicited the views from masons working there that specimens from Park Row were probably not Hollington, unless they were ' top rubbitch ', a very soft and pebbly stone, now thought too poor to use. Moreover, the Western Passage in the Castle Rock is cut through sandstone in which two strata at least are as coarse and pebbly as the wall stone, and one of the surviving fragments of medieval castle wall which can be glimpsed in this passage is built of the same stone. The sandstones of Nottinghamshire and east Staffordshire are both geologically Triassic and cannot be distinguished. There appears to be no evidence for the use of white Hollington in the middle ages except at Croxden Abbey, one mile north-east of the quarries. Although building stone was frequently carried as far as 32 miles, especially when some of the distance could be covered by water, it would be safer, in the absence of more positive evidence, to conclude that the wall was built of local sandstone.

The wall was coursed throughout its thickness, the front face being still in remarkably good condition (Plate 1). The back face, always hidden by a bank, was of only roughly dressed material. Lime

[1]See A. Clifton Taylor, *The Pattern of English Building* (1962), p. 134. A red sandstone, from quarries north of the village, was used for Coventry cathedral.

mortar was used only on the face, the rest of the masonry being bedded in red clay (Keuper Marl). At their greatest depth (between internal angle at D and point B) the foundations were carried down to a depth of 10 ft. 6 in. from the surviving top of the wall, to rest on hard sandstone. The lower courses of foundations were stepped up at intervals, but the principal change was at B, where the foundations were stepped up about 4 ft. Hence, from B southwards the surviving height of wall was no more than 6 ft. Since the alignment as well as the depth of foundation was changed at this point, the alterations represent either the work of two gangs or two distinct stages in the building programme.

Two types of construction trench for the wall could be observed. In front of the wall, between B and C, a nearly vertical-sided trench was dug (Plate 4a), its line being visible at G to a height of about 7 ft. above the bottom course. The same form of trench was observed behind the narrow wall at H. The upper levels between B and G, and the relation between the town ditch and the construction trench, had been destroyed in the mechanical clearance of the site. The filling of the trench was characteristically mottled, since it contained a mixture of local brown sand, red clay (mortar) and fragments of white sandstone. From B southwards excavation in front of the wall would have been unsafe while a derelict building stood (or hung) over this part of the site, but in the narrow section at that point the deposits infer a stepped trench, as at the rear, and the black silt of the latest filling of the ditch (see p. 58 below) came right up to the wall.

Behind the wall the construction trench was dug from B southwards in a series of steps, each about 2 ft. wide. From B to D, the rear side of the trench was vertical for its lower 5 ft., and only a few inches wider than the wall. It may be seen behind the right-hand ranging pole in Plate 00, while the next step can be seen in the left-hand baulk. The builders' methods were presumably influenced by the height of the Norman bank and by the amount of space between the ditch and the proposed line of the wall. About $3\frac{1}{2}$ tons of stone would have to be carried along the trench, or passed down into it, for every linear foot for the bottom 7 ft. of the 7 ft. wall.

Two sherds of pottery, both green-glazed, were found in the filling of the trench. They are insufficient to refine or to modify the date bracket 1267-1334 for the wall which murage grants indicate.

THE CHANGE OF ALIGNMENT AND THE 5 FT. WALL

When no more than the angle at B was visible, it was thought that here was an interval tower or bastion, of the kind discovered in Parliament Street at South Sherwood Street and at Clinton Street.[1] In the area available no trace of the other corner of a tower was discovered, and the new alignment corresponds reasonably well with the Chapel Bar fragment, about 115 ft. further north. The idea of a tower can therefore be discarded.

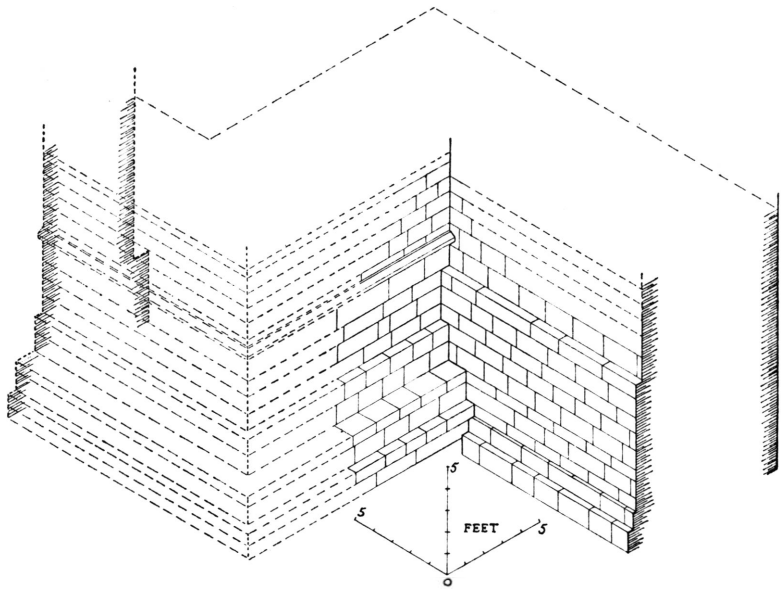

FIG. 4 Isometric view of town wall at F, showing changes of alignment and thickness

The piece of link wall between the two alignments was standing more than 3 ft. higher than the 7 ft. wall. The latter had been reduced to a height suitable for the cellars of the houses built on it in the 19th century, whereas under Park Place less demolition was necessary. The link wall, 7 ft. thick, was properly bonded with both the 7 ft. and the 5 ft. wall; its foundations went down 6 ft. 6 in. further at the front than at the rear. It had in front a chamfered plinth (Plate 3), one course higher than the offset on the 7 ft. wall,

[1] J. Shipman, *Notes on the Old Town Wall of Nottingham* (1899), pp. 44-45, and plan (p. 80).

and for this plinth the builders used a fine sandstone which has been identified as coming from the Coal Measures, the nearest outcrop being at Cossall.

The construction trench at the rear of the 5 ft. wall ran down at an angle of 50 degrees. In front, since the wall line thus advanced about 11 feet nearer the ditch, the lowest foundation courses were set in steps cut in the slope of the ditch, and went down 2 ft. 6 in. further than at the rear. The footings were then covered with brown sand piled against them round the external angle. This material was observed on plan at a level of 4 ft. below the top of the 7 ft. wall, but had been largely removed by the sewer trench.

The 5 ft. wall had been robbed of its facing course of dressed stone, and the robbing continued round the corner to within about 3 ft. of the face of the 7 ft. wall. The debris from this robbing spread at least 7 ft. south of the link wall, but the effect was best observed in the section (Fig. 3). The robbers had taken all but the two bottom courses of foundations. Afterwards their debris was thrown back against the robbed front of the wall, and the pile revetted with rejected wall stones. This revetment was carried round the corner to the south, to protect the footings from erosion by the water which flowed northwards along the ditch. The black silt of the later ditch filling then accumulated against the revetment (Fig. 3,EF,2).

The black silt over the robber trench filling contained a clay pipe bowl of Oswald's Type 3 (1630-60, with flat heel), and so cannot have taken place before the 17th century, and may have been late in it.[1] The purpose of the robbing can only be a matter of speculation. It was more or less discreet, since it only took away the face of an obtruding length of wall. Is it possible that the object was to obtain stone for the repair of the Chapel Bar?

The Ditch

When the excavation started a trench had already been cut, with a dragline, along the face of the wall. It was therefore possible to obtain only a discontinuous section of the ditch. The upper levels of the filling had been disturbed during demolition, which was still in progress alongside the excavation. It was not surprising that the side of the ditch section collapsed twice during the excavation, and after the second fall could not be cleared. The investigation of the lower levels of the ditch filling was not completed.

[1] *J. Brit. Arch. Ass.*, XXIII (1960), p. 50, fig. 21.

The wall in this section was 40 to 45 ft. back from the line of the modern kerb; the town ditch therefore underlies the buildings, the roadway itself being outside the line of the ditch, the bottom of which must have been about 25 ft. below the level of Park Row. The lowest level reached in the filling consisted of a soft grey clay, quite clean and containing no finds, and merging on the outer slope into clean yellow sand, and on the inner slope into reddish sand, but the natural sand was not reached at the bottom. Above the grey clay was a layer of tough black clay, clearly distinguishable from the strata above and below it, and traceable on the inner side as far as the very face of the wall.[1] No finds were made in the black clay. Above it the filling consisted of a very dirty silt thicker at the sides than at the bottom of the ditch. From this came finds ranging in date mainly from the 15th century to the end of the 17th century (see p. 64 below).

The ditch must therefore have been cleaned out a number of times. Water flowed in the ditch, at least on occasions, for the section near the protruding angle of the wall contained thin black seasonal deposits. Since the wall was overlooked by higher ground to the west, as well as sloping down from south to north, it is not surprising that the ditch served as a drain, though there is no documentary evidence of any stream in the neighbourhood.

When Park Row began to be developed for housing at the very end of the 18th century, the remaining hollow of the ditch was deliberately filled with clean yellow sand (layer 5) containing occasional lumps of red clay and fragments of tile. This material must have been obtained from the vicinity of a tile kiln. The map of the city prepared by Stretton, probably 1799-1800, shows intermittent building, and the change of name from Butt Dyke to Park Row, as it appears on Greenwood's map of 1826, indicates more systematic development and rising status[2]. The irregular line of the frontages between Park Place and Chapel Bar is explained by the fact that Stretton's map shows this length of the ditch occupied by the workhouse belonging to the parish of St. Nicholas. The houses which stood until 1924 on the site now occupied by the Cripples' Guild were approached across a sunken garden which must have been the medieval town ditch not filled in at that point.

[1]When the town ditch was observed in Parliament Street in 1897 it was described as filled with ' tough black silt '; Shipman, p. 8.

[2]*Place Names of Nottinghamshire* (Place Name Soc., 1940), p. 19. Stretton's map is in the Nottingham Central Library.

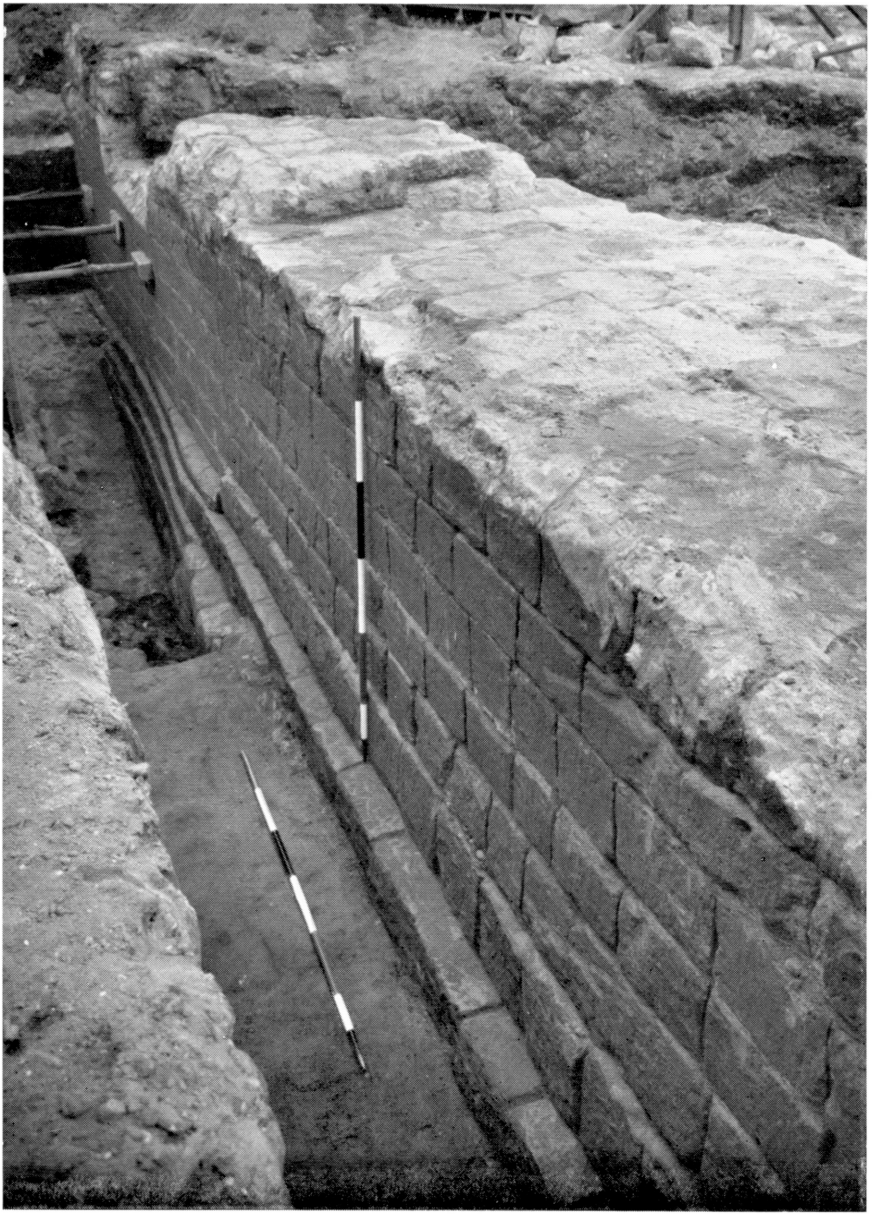

PLATE 1 View of wall looking east, showing front face

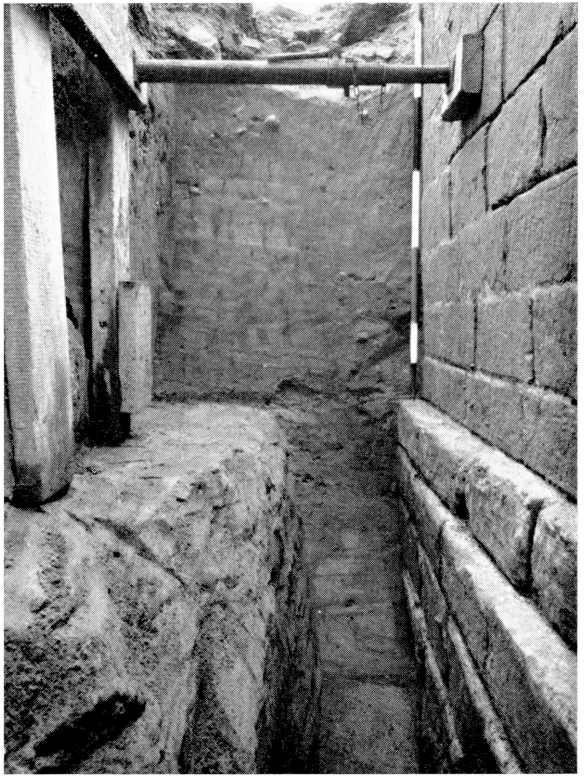

PLATE 2(*a*) Front face, showing construction trench

PLATE 2(*b*) Section of robber trench at F

PLATE 3 Front of wall at F, showing change of alignment and robbed face

PLATE 4(*a*) Rear of wall, showing change in depth of foundations at AB

PLATE 4(*b*) Rear of wall south of AB, showing stepped construction trenches

BUILDING MATERIALS

In Park Row a lime mortar was used for the facing courses of the wall and red clay for the remainder. The same practice was adopted in Parliament Street between Haughton Street and Clinton Street: ' mortar was used pretty freely in the front part of the wall all over, while red clay was more conspicuous in the interior and the rear part of the wall.'[1]

So much of the wall south of Chapel Bar as has been observed was built of white sandstone. The section found in Chapel Bar in 1958 can still be examined, by courtesy of Messrs. Johnstone. When the wall was exposed on the site of the Cripples' Guild in 1925, our then Secretary, Mr. Holland Walker, had a length of about 5 ft. removed and rebuilt in his garden at 15 Park Valley, Nottingham. His reconstructed wall is now no more than a pile of very weathered stone, but examination of a fragment confirms that it is the same sandstone.[2]

The only other material used in Park Row was a very fine-grained light grey sandstone, probably derived from the Coal Measures, of which the nearest outcrop occurs at Cossall. This was used for the chamfered plinth on the link wall and presumably continued round the corner to Chapel Bar.

For the materials used in Parliament Street we have to rely first on Shipman's observations. He refers to ' soft yellow Bunter sandstone ', with ' large blocks of Lower Keuper sandstone (Mapperley Hill stone) used occasionally ', and ' small flat pieces ' for levelling or packing.[3] The two plinths were composed of Lower Keuper sandstone[4]. Shipman noted that ' a small portion of the wall ' in Parliament Street had been re-erected in the grounds of Forest House, Mansfield Road, then the home of Mr. T. I. Birkin. This length now stands in the Castle grounds, and four specimens were taken from it in 1965. Three of them proved to be millstone grit, and it seems probable that this was used for the plinths, rather than, or as well as, the Lower Keuper sandstone reported by Shipman. The fourth specimen was Lower Bunter sandstone, as

[1]Shipman, pp. 3, 8.
[2]*Transactions*, XXIX (1925), p. 180.
[3]Shipman, pp. 3, 4, 8.
[4]*Ibid.*, p. 4.

noted by Shipman. He also states that Lower Keuper sandstone, available from Mapperley Hill, was used for the Postern Gate, and Bulwell stone on the south.

There is no need to review the evidence for the defences of the medieval town. The topographical analysis by William H. Stephenson and his father, which they made from 1870[1] onwards, has stood the test of time, though his speculation about a prehistoric origin for the defences round the Castle Rock cannot now be tested. The historical and archaeological evidence for the defences of the town were analysed equally soundly by Stapleton in 1912.[2] He saw that the Norman borough must have had a ditch and bank with a palisade before the stone wall began to be built, and excavation has now strengthened his conclusion. It still remains to use the spade to fill the gaps in the documents as Stapleton defined them: to locate and date the earthen defences east of Swine Bar (Heathcoat Street) and to discover at what point the work on a stone wall was abandoned; to fill the complete gap in the defences (the only problem not discussed by Stapleton) along the south side of the Norman borough, between the Castle and Drury Hill.

The study of Nottingham street names has provoked the suggestion that the pre-Conquest borough had stone walls. Warser Gate means ' buildings by the wall ', and there is also a reference in 1361 to *Walleonen Lane*, now Byard Lane. Both these are on the redundant length of pre-Conquest defences. No trace of stone wall has been found, and the evidence of other towns with a similar history would not lead us to expect stone defences before 1066. The Middle English *wall* of the street names and the Latin *murus* of the documents must in these contexts refer to an earthen rampart, as is the case at Norwich.[3]

---

[1]His map, published in the *Nottingham Daily Guardian* on 23rd July 1901, was used by Carl Stephenson in his *Borough and Town* (1933), p. 196. See also *Transactions*, XXII (1918), p. 51.

[2]*Transactions*, XVI, pp. 135-149. Stapleton's article is followed by W. Stephenson on the Defences of the pre-Conquest borough—' The Great Ditch ', pp. 151-154.

[3]*Place Names of Nottinghamshire*, pp. 15, 21, xli; *Transactions*, LXVII (1963), pp. 28-29; M. D. Davis, *Hebrew Deeds* of English Jews before 1290 (1888), pp. 284-285; J G Hurst and J. Golson, ' Excavations at . . . . . Norwich, 1951 and 1953 ', *Norfolk Archaeology*, XXXI (1955), p. 7.

THE POTTERY

By J. G. HURST

BANK BEHIND THE WALL, Layer 3

This group of pottery is of considerable interest as it comprises both Saxo-Norman Stamford ware and Early Medieval Splashed ware. This transitional phase, when both Late Saxon and Early Medieval types of pottery were existing side by side, is now recognised in many parts of the country.[1] The Nottingham Early Medieval wares are hard and sandy and are allied more closely with similar pottery in East Anglia than with the rougher wares in the Oxford region.[2]

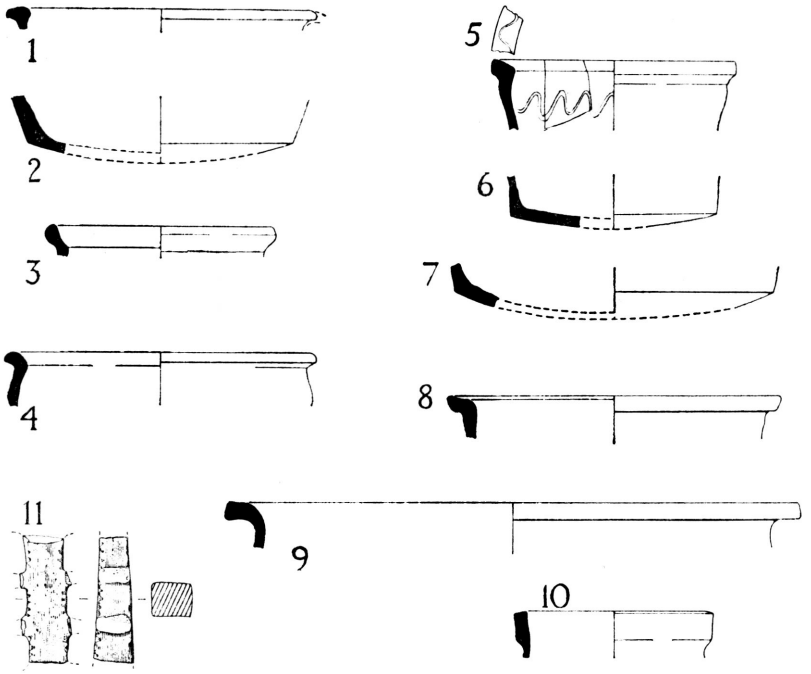

FIG. 5 Pottery from town wall excavation

[1]J. G. Hurst, ' The Kitchen Area of Northolt Manor Middlesex ', *Med. Archaeol.*, V (1961), pp. 259-263; J. G. Hurst, ' Excavations at Barn Road, Norwich 1954-5 ', *Norf. Archaeol.*, XXXIII, Pt. II (1963), pp. 155-156; M. Biddle, ' The Excavation of a motte and bailey castle at Therfield, Hertfordshire ', *J. Brit. Archaeol. Assoc.*, 3rd Ser., XXVII (1964), pp. 68-81.

[2]E. M. Jope, ' Late Saxon pits under Oxford Castle Mound: Excavations in 1952 ', *Oxoniensia*, XVII-XVIII (1952/53), pp. 83-97.

Splashed ware was first recognised in Nottingham at the excavation of the defences of the Pre-Conquest Borough in Bridlesmith Gate. Here Mr. R. H. Wildgoose found only Stamford ware in the ditch which was filled in during the second half of the 11th century.[1] Pits cut into the filling contained both Stamford ware and Splashed ware. This material presumably dates to the end of the 11th century and the start of the 12th century. Elsewhere early Medieval wares started earlier in the 11th century but this does not seem to have been the case at Nottingham.

In the present state of our knowledge it is not possible to date precisely the finds from the city bank in Park Row. In general terms a date during the first half of the 12th century may be suggested. The local wares are more developed than those of the late 11th century, from Bridlesmith Gate, also there is no developed or decorated Stamford ware which seems to have started by about 1150.[2] It is hoped that, as more stratified groups of this period are excavated in the Nottingham area, it will be possible to narrow the dates but all the types found seem to have had a long life.

Stamford Ware

Nineteen sherds were glazed, mainly pale yellow on a pinkish-buff ware. Two of the sherds were discoloured by burning and three had only spots of glaze.

Fig. 5, No. 1 Rim of a spouted pitcher with the broken-off stub of one of the three handles. Patch of glaze only on the rim.[3]

No. 2 Sagging base with external knife trimming and internal glaze. This sherd is unusually thick and, because of the internal glaze, is possibly from a bowl.

Thirty-seven sherds were unglazed. Thirty-one were off-white, five had a buff outer surface and 13 were blackened outside, presumably from cooking pots. The other six sherds were partly reduced grey sherds, two with pinkish-buff surfaces, one of them a sagging base.

[1] R. H. Wildgoose, ' The Defences of the Pre-Conquest ', *Trans. Thor. Soc.*, LXV (1961), pp. 19-26. The later pottery is not published.

[2] J. G. Hurst, ' Saxo-Norman pottery in East Anglia, Part III Stamford ware ', *Proc. Cambs. Antiq. Soc.*, LI (1957), pp. 37-57.

[3] *Cf. Med. Archaeol.*, III (1959), p. 40, Fig. 16, No. 1, for type.

Fig. 5, No. 3 Cooking pot with everted rim hollowed inside of typical form.[1]

No. 4 Rim of spouted pitcher or storage jar.[2]

Torksey Ware

Two sherds of typical hard grey sandy ware.[3]

Early Medieval Splashed Ware

Twenty-five sherds of hard brown and red wares with a considerable range of fabric from pimply gritty to smooth and sandy. Five sherds had characteristic splashes of brown glaze.

Fig. 5, No. 5 Neck of a jug, grey with brown surfaces and splashes of glaze, squared rim sloping inside, decoration of incised waves on the rim and inside the neck. This rim type, thickened outside and sloping inside, is intermediate between the normal type of Stamford spouted pitcher rim and the later 12th-century developed Stamford ware jugs.[4] Incised waves are known on the tops of Stamford ware bowls.[5] Similar decoration on the sides of vessels is typical of developed early medieval wares at Northolt, Middlesex,[6] Therfield, Hertfordshire, and South Mimms, Middlesex,[7] dating to the early or mid 12th century.

No. 6 Sagging base from the same jug or one similar.

No. 7 Sagging base from a cooking pot or bowl.

No. 8 Everted rim of a small straight-sided bowl.

No. 9 Everted rim of a large bowl. Splashes of glaze.

---

[1] *Cf. Med. Archaeol.*, III (1959), p. 40, Fig. 16, No. 6.

[2] *Cf.* G. C. Dunning, 'The Medieval Pottery', *ap.* K. M. Kenyon, *Excavations at the Jewry Wall Site, Leicester*, Res. Rept. Soc. Antiq., London, XV (1948), p. 225, Fig. 59, Nos. 5-6.

[3] M. W. Barley, 'The Medieval Borough of Torksey: Excavations 1960-2', *Ant. J.*, XLIV (1964), pp. 175-184.

[4] *Cf. Proc. Cambs. Antiq. Soc.*, LI (1957), p. 43, fig. 1, Nos. 1-3 and 6-8.

[5] *Ibid.*, p. 50, Fig. 3, No. 12.

[6] *Cf. Med. Archaeol.*, V (1961), pp. 261-263.

[7] *Cf. J. Brit. Archaeol. Assoc.*, 3rd Ser., XXVII (1964), p. 76 and Fig. 21, No. 19.

WALL CONSTRUCTION TRENCH, Layer 4

Fig. 5, No. 10 Jug neck, hard light grey gritty fabric with green glaze. Upright thickened rim sloping outside.

This, and another similar sherd, are typical of Nottingham glazed jugs of the period 1250-1350 so would therefore fit very well with the historical dating for the building of the wall but cannot be dated close enough to narrow down the period of construction.

RED CLAYEY SAND OVER BANK, Layer 1

A fragment of a red well-fired roof-tile with brown glaze was found. This type had a long life but could well fit in with the period during which the wall was constructed. It is not likely to be 12th century and it is most likely to be 14th century.

DARK SILT OF DITCH, Layer 6

Most of the sherds are characteristic of the 17th century, together with a number of residual medieval sherds. The date of the brown glazed red wares, black ware tygs and yellow glazed buff wares cannot be closely dated by the presence of the base of a sack bottle and a fragment of slip ware, suggests a date in the second half of the 17th century.

Fig. 5, No. 11 Amongst the residual late medieval material there was a fragment of roof cresting in hard red ware with a thick glossy brown glaze. It is not possible to reconstruct this in detail but it is from a complex open fret-work crest, a development from the normal Midland type of horned crest.[1]

CLEAN FILLING OF DITCH, Layer 5

A sherd of 18th-century Nottingham stoneware confirms that the final infilling of the ditch was at a later date.

ACKNOWLEDGMENTS

The author wishes to make the following acknowledgments. Dr. Patrick Strange shared with him the direction of the work, and Mr. A. MacCormick of the Castle Museum also assisted. A group

[1]E.g., *Trans. Leics. Arch. Soc.*, XXVIII (1952), p. 61, Fig. 3, No. Q; *Ibid.*, XXXV (1959), pp. 24 and 30, Fig. 17, S 1-3; and *Trans. Birm. Archaeol. Soc.*, LXXVI (1958), pp. 45 and 46, Fig. 6, No. 1.

of Nottingham undergraduates, led by Mr. W. Hudson, did much of the work on the angle of the wall, and this section was completed by a group from the Lowdham Grange Borstal Institution. Thanks are due to the Governor for this assistance. A grant from the Ministry of Public Building and Works covered the cost of transporting equipment and of removing overburden by machinery. Throughout the excavations, the City Engineer's Department of the Nottingham Corporation played an invaluable part, in making the site available, providing the labour force of six men for the longer section, and in carrying out the more complex surveying. Mr. J. G. Hurst has provided notes, and Mr. D. S. Neal drawings, of the pottery. The geological identifications were made by Dr. F. M. Taylor of the University Geological Department. Miss V. W. Walker, Archivist at the Nottingham Central Library, kindly made available references in unpublished documents to the medieval defences. To all of these grateful thanks are due for their essential contributions.