ART. XXIII.—Remarks and Memoranda as to the Subsoil, Debris, and Ancient Remains Discovered in cutting the Sewers in the City of Carlisle.\*

Communicated at Penrith, July 10th, 1879, by H. U. McKie, City Surveyor and Engineer.

A T the junction of the Castle Walk and the Bitts embankment a wall was found about one foot below the surface, and the excavation was continued about ten feet without getting to the bottom of it; at this depth the wall was three feet thick, and at the top two feet nine inches; the lower half of the wall was faced with chiselled ashlar, and the upper part was rubble.†

West Tower Street. The City wall runs at the north side of this street, and in cutting through it at the junction of West Tower Street with Corporation Road, we found some excellent mortar and grout, composed of lime and broken bricks or burnt clay, about the size of marbles; some paving tiles were found built in the wall: these, along with a specimen of the mortar, you have in the temporary museum. Popposite Cockburn's warehouse, a drain was found running through the wall.

Midway between Scotch Street and Peter Street a 4lb. cannon ball was found, and a shilling of George I., at eight feet below the present surface. A pavement was found running from Peter Street to Scotch Street, at five feet

below

<sup>\*</sup> This paper was first read on Friday, July 29th, 1859, on the occasion of the visit of the Archæological Institute to Carlisle. It is of too much importance to remain longer buried in the back files of local newspapers. R.S.F.

<sup>†</sup> This wall is probably the remains of some outworks to the original entrance to Carlisle Castle. Confer Transactions of this Society, Vol. II. pp. 56, 70-1. R.S.F.

<sup>‡</sup> Formed in the Fratry, Carlisle, during the visit of the Archæological Institute to Carlisle, 1859, and dispersed after the Meeting. The printed catalogue of its contents, with a preface by A. W. Franks, Charles Tucker, and Albert Way, is an admirable guide to the antiquities of this district. R.S.F.

below the present surface. The average depth of the soil and debris was eight feet, resting on strong red stoney clay.

At the junction of Rickergate, Scotch Street, and West and East Tower Streets, the sewer crossed the foundation of the ancient north gateway\* to the City, one foot six inches from its surface. The foundation walls were perfect,—four feet six inches high,—and were built on a very hard red stoney clay. At this point there were above the clay six feet of debris and stone.

At the junction of East Tower Street and Lowther Street the debris is from three to six feet deep. At one foot from the surface some foundations were found, which might have belonged to one of the towers at the angle of the old City wall.†

At the south side of Victoria Place the sewer crossed the foundation of what appeared to be a tower of the City wall, and immediately on the south side of this was a hollow filled with debris, bones, broken pots, &c. Several pieces of red glazed pottery were found here; a number of these you have in the temporary museum. At the south side of the hollow described there were about six feet of debris, resting on clay.‡

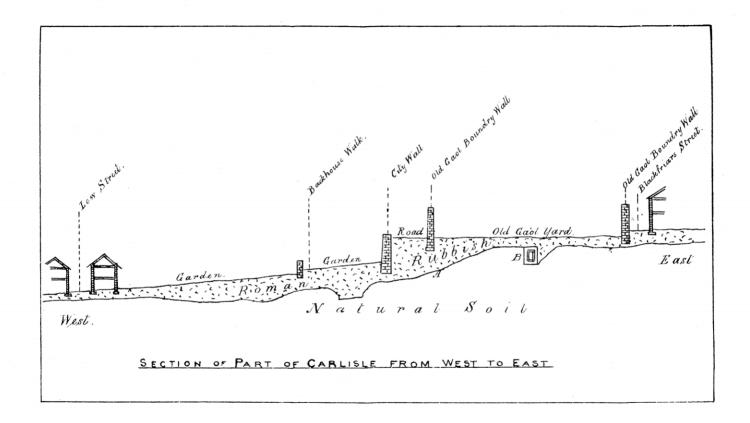
Opposite the Old Grapes Lane, in excavating for a manhole, the foundations of what appeared to be a buttress to the wall were found at a depth of four feet from the present surface. To the south of the Lane the debris

deepened

<sup>\*</sup> The Scotch Gate.

<sup>†</sup> Speed's map of 1610 shows a semicircular or horse-shoe tower at this angle, open at the gorge: so does G. Smith's map of Carlisle, 1746, and G. Smith's map of the Countries Adjacent to Carlisle, 1746. R.S.F.

<sup>‡</sup> Speed's Map of Carlisle, 1610, shows only one tower in the east curtain wall of Carlisle. G. Smith's Map of Carlisle, 1746, shows two. That there were two is proved by the foundations mentioned by Mr. McKie, but they might well have fallen into ruin, and not been rebuilt before 1745. I suspect that in 1745 they had both disappeared and thus left the east curtain wall the weakest side of Carlisle, as having no flanking fire, except from the tower at one end and the Citadel at the other. R.S.F.



deepened to from ten to twelve feet below the surface, resting on red clay.

Opposite Bank Street the sewer crossed the foundation of another of the wall towers—the east corner of the tower being an angle of thirty-three degrees. The walls were six feet thick, and at the east side of the sewer trench were seven feet apart, and at the west side thirteen feet inside.\* On the south side of the foundations there were six feet of stone, lime, &c., apparently the refuse from the wall.

In Finkle Street, opposite to Fisher Street, we found seven feet six inches of debris, resting on a fine strong red clay, free from stone. Opposite the School of Art, and close to Fisher Street, the debris runs to the depth of the sewer, nine feet six inches, and probably deeper. It would appear that the street, or at least some part of it, was formerly a ditch, for at fifty yards from the line of the houses, on the east side of Castle Street, was found what appeared to be a bridge of strong oak timber laid close together, having a breadth of nine feet nine inches.†

Castle Street. There is nothing but forced earth in the whole length of Castle Street. A great number of broken pots were found in excavating for a manhole opposite Paternoster Row, and opposite Messrs. Mounsey's office the foundation of a wide wall was found running east and west, at a depth of seven feet from the surface.

A number of unglazed pots were found between Paternoster Row and the bottom of Castle Street, consisting of tops of large and fragments of smaller vessels: a number of these you have in the temporary museum. In cutting the trench in this street an enormous quantity of bones was found; a boy picked up as many in one day as sold for four shillings, and soon had such a number of com-

petitors

<sup>\*</sup> See last note.—The plans there mentioned show these towers to have semi-circular and open in the gorge. No doubt they stood on semi-hexagonal foundations. R.S.F.

<sup>†</sup> This ditch is the ditch on the south side of Hadrian's Vallum.—See an article in this volume, ante p. 41; also, "Carlisle Castle," Transactions this Society, Vol. II., pp. 56, 58.

petitors in the business as rendered it a difficult matter to carry on the works.

Fisher Street. From the bottom of Fisher Street to Messrs. Dixon's offices, the debris was from two to seven feet thick, and from this point to the top of Fisher Street was, with one exception, the full depth of the excavation, viz., from nine to twelve feet. A little below the Butcher Market was found an oblong stone with four human figures worked in relief and otherwise ornamented; this was eight feet from the surface.\*

In Annetwell Street a pavement was found two feet six inches below the present surface, with seven feet of forced earth underneath it. The depth of deposit in this street is about five feet, resting on a bed of clay. A great number of Roman pots were found in this street,—between Castle Street and Blaylock's court: among them was a square tile, red and unglazed, about six inches square. It was marked across diagonally both ways, and had holes drilled at the intersections, in a similar manner to the board used in the game of "fox and geese." I am sorry to say it cannot now be found.

In Abbey Street and Paternoster Row the debris runs about the same depth as in Castle Street. Of the former there are no particulars, but in the latter was found something like a roadway paved, and having a mound of gravel on each side.†

In Bella Head's Lane we found nothing but forced earth and boulder stones, and on the whole this was the worst cutting in the City. It would appear to have been originally a ditch on very soft ground.‡

<sup>\*</sup> This Stone is now, 1879, in the Carlisle Museum, and is engraved in the Lapidarium Septentrionale, No. 491.

<sup>†</sup> To the north of Paternoster Row the forced earth is, in building operations of 1879, shown to be eleven to twelve feet deep. Cobble pavements occurred at about seven or eight feet deep, one of which was barrel-shaped in section. R.S.F.

<sup>‡</sup> This lane is the boundary of the property of the Priory of Carlisle, which may have been defined by a ditch. R.S.F.

In West Walls the greater part of the excavation was in forced earth, but I have no particulars.

In Scotch Street we came over an old drain, but did not meet with anything particular, though I have been told that in the cutting for the old drain a pavement was found about five feet below the surface, which would agree with the pavement found at the top of Rickergate.

In English Street, a little to the south of the Royal Hotel, was found a large piece of timber.

From the top of Botchergate to Mary Street a number of stones were found from half-a-ton to a ton in weight, which I was at first inclined to think belonged to a stone circle, but if they were, the circle must have been very large, as they deviated but slightly from a straight line.

In the Crescent the deposit is in some places as deep as the sewer, viz., eleven feet from the surface.

At the junction of St. Nicholas Street and Princess Street we found, at five feet six inches from the surface, what appeared to be an old barrel, but which may have been used as a well, and in this neighbourhood was found three urns with bones, the remains of which you have in the museum.

## APPENDIX.

BY THE EDITOR.

It is desirable here to record that the forced soil in the Castle of Carlisle, is eleven to twelve feet in depth near the Canteen, as proved in cutting the foundations. It is also about the same depth in the Inner Court, near the Keep. The soil is fat, black, and unctuous,—full of animal remains.

The following articles, found during the execution of the sewerage works in Carlisle, were exhibited in the temporary museum in 1859, and are now in the Carlisle Museum:—

"A

"A remarkable Greek medallion of Antoninus Pius, struck at Magnesia, in Ionia; Reverse, Ceres in a cardrawn by winged serpents. Large brass coin of Vespasian, with the reverse Judæa Capta: other coins. Portions of Samian ware with the following potter's marks:—GAURICVS.—VAREDVCATVS.—SENIIA. F.—TAVRICI F.—BRICCI. MA.—BRICCIVS.—SECVNDVS. F.—OF. VIR . .—PATERCLOS. FE.—REGALIS F.— . . . . ATI. OF. Urns, pottery of various kinds, fragments of amphoræ, water pipes of terra cotta, &c., a stone mortar and several querns, on of them of unusually large dimensions, diameter 29 inches."—Catalogue of the Archæological Museum formed at Carlisle during the Meeting of the Archæological Institute, 1859.

On the subject of Mr. McKie's paper, the following Articles give additional and recent information: - "On the remains of a Stockade recently found in Carlisle;" Transactions of this Society, Vol. III., p. 134., Vol IV., p. 91. "On the remains of a Mediæval Stockade, recently found in Carlisle;" Ibid., p. 41. For older discoveries, confer "Hutchinson's Cumberland," Vol. II., pp. 650, et seq; "Jefferson's Carlisle," pp. 322 et seq. The objects of antiquity collected from various places in Carlisle, particularly from the foundations of the Gaol, by the late Mr. C. Hodgson, are now at Morton, in the valuable collection of Mr. Ferguson, M.P. The following communication by Mr. C. Hodgson to the Archæologia Æliana, Vol. II., old series, p. 313, and the accompanying section, taken along the foundations of the north wall of the Gaol, are reproduced here on account of the valuable information they give in connection with Mr. McKie's subject. It is necessary to premise that the pitcher is now at Morton, in the collection of Mr. Ferguson, M.P. The best judges now pronounce it to be not Roman, but mediæval; its glaze, as described by Mr. Hodgson, proves that.

"Account of an ancient Pitcher found in digging the Foundations for the new Gaol at Carlisle. By Mr. C. Hodgson:—

"This pitcher was found in digging the foundations of the boundary wall at the New Gaol at Carlisle, in the Old Gaol yard, and on ground which issaid to have been formerly occupied by the Black Friars. It lay at the depth of about 15 feet below the surface, imbedded in black sludge intermixed with stones and other rubbish, and within a tank (at B, in tracing annexed) composed of square oak frames, covered on the outside with riven oak boards. This tank was about seven feet deep. Neither a saw nor a plane seemed to have been used in forming either the boards or framework of it.\* Behind the planks, it was stuffed all round with a light blue clay, which is very uncommonly found in the neighbourhood of Carlisle; the clay of that district being all of a red colour, and such as is usually met with in new red sand formations. Besides this Pitcher there was another of similar form and manufacture, but smaller, found with it. Several fragments of red earthen-ware, bearing ornaments in bas-relief, were found in the stratum of rubbish above the tank. One thing which I consider remarkable in this vessel is, its

<sup>\*</sup> For similar tanks, Transactions this Society. Vol. III. p. 136, IV. pp. 93, 94, being

being covered with a glaze, which I suppose is the vitrification of some earth, &c., with a metalic oxide, probably lime and oxide of lead. I believe it is not known where the clay with which the blue-bodied terra-cotta vessels of this kind are made, is found. If this vessel is Roman, I apprehend it was left by the very first settlers, in this country; which I infer from the very great quantity of Roman earthen-ware and other antiquities which were found all over the parts about the tank which had been dug into, and in a stratum of about 4 feet thick over the level part of the ground, 2 feet from the present surface, and over the brow inclining towards the river Caldew, from 12 to 27 feet thick, as in the annexed section. These discoveries were made in the course of digging the foundations of the new Gaol. Coins were found of Vespasian, Trajan, Antoninus Pius., &c., &c., and a great quantity of urns containing bones."