NOTES

1. *Evidence for Prehistoric Habitation in Fields adjacent to the Northern Edge of the Tarn at Ehenside*

By J. CHERRY and P. J. CHERRY

In April 1984 we were informed by the County Archaeological Officer, Mr. T. Clare, that a number of fields had been ploughed to the north of Gibb Tarn. The ploughed ground was in close proximity to the site of the Ehenside Neolithic settlement and had not been ploughed during the period of our earlier field-walking in the area.[1]

The Annual General Meeting of the Society was to be held in Whitehaven in the afternoon of the seventh of April, so we decided to combine our attendance at the meeting with a search of the fields in the morning. On our arrival at Ehenside we realized that we would not be able to make as thorough a search as we would have liked, since the area under plough extended over at least fifty acres. Most of the fields had only recently been ploughed, so that the conditions for search were far from ideal. However, we were able to identify six separate small scatters of flint and we have shown where these were situated relative to the position of the Neolithic settlement, as defined by a cross on the O.S. sheet, NY 00. All artefacts listed are of flint unless otherwise stated, and the term "struck" indicates that we consider the artefact to be man made.

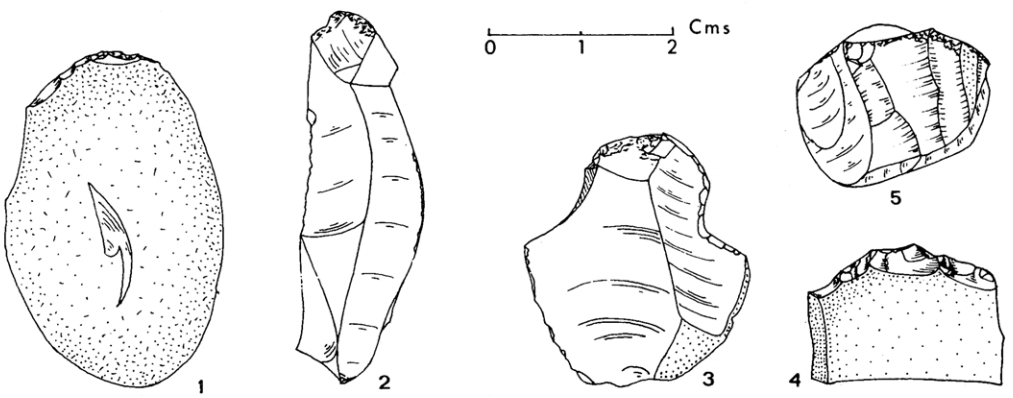


FIG 1. – Flint artefacts from Ehenside.

Site 1 map reference: 3001 5072

Two flakes and and three struck pebbles together with a flake of maximum dimension 2.2 centimetres which has been snapped from a much bigger flake and which has a small amount of blunting along one edge bordering the break; a sub-triangular flake with cortex on its dorsal surface and retouch along one edge which has not completely penetrated the cortex; a fragment of struck black chert and a thick flake of the same material with secondary retouch along one acutely angled edge.

Site 2 Map reference: 3004 5073

Twelve flakes and struck fragments of honey coloured pebble flint, all unpatinated with the

exception of a broken pebble which is heavily patinated across one face from which a flake has been detached; two heat damaged flakes; the bulbar end of a patinated blade of triangular cross-section, eighteen millimetres by twenty-three millimetres by five millimetres; a flake of hard black chert and a small flake of unpolished volcanic tuff.

Site 3 Map reference: 2999 5071

Three waste flakes; a small side scraper with hard, smooth cortex on its dorsal surface, Fig. 1, 4; a bipolar flake with a pronounced dorsal ridge, utilized along its longest edge and with a worked notch on the opposite side at the bulbar end and some retouch on one edge of the ventral surface, Fig. 1, 3. All the artefacts from here were of a dense, opaque, pale yellow flint.

Site 4 Map reference: 3002 5073

Four struck pieces of pebble flint; a heat damaged flake and a heavily patinated blade with signs of heavy use on both edges with a distinct band of gloss across the ventral surface at the distal end and slight edge gloss along one side, Fig. 1, 2.

Site 5 Map reference: 3001 5073

Two waste flakes of grey flint together with a fragment of a blade of similar material, heavily utilized along one edge, and a honey coloured flake finely blunted along one straight edge.

Site 6 Map reference: 3001 5076

One flake; a crude end-scraper made from a pebble of grey flint, Fig. 1, 1; a fragment of heat damaged flint, which from its shape and thickness, must have been broken from a much bigger artefact; a small core with two striking platforms at right-angles, patinated over most of its surface except for one face which exhibits narrow blade scars, Fig 1, 5; the unpatinated area possibly indicates that this face lay for a considerable time in contact with the ground, after being discarded by the user.

Discussion

Although the field in which Gibb Tarn is situated has not been ploughed for many years, we have now searched the adjacent fields, to the west of the Braystones to Egremont road, around three sides of the Tarn field, without finding anything which could be said with any certainty to have arisen as a result of the Neolithic occupation around the Tarn.

Most of the flints that we have found can be identified as arising from the use of local flint pebbles and are typical of the coastal Bronze Age industries, post dating the Neolithic settlement by hundreds of years. There are a few exceptions, including the small bladelet core from Site 6 and the heavily patinated blade from Site 4, which are pre-Bronze Age in character, and may be compared with similar artefacts from the Cumbrian coastal sites, associated with Neolithic/Late Mesolithic habitation debris.

Reference

[1] J. & P. J. Cherry, "Prehistoric habitation sites in West Cumbria: Part II, The Nethertown and Seascale Areas.", CW2, lxxxiv, 1.

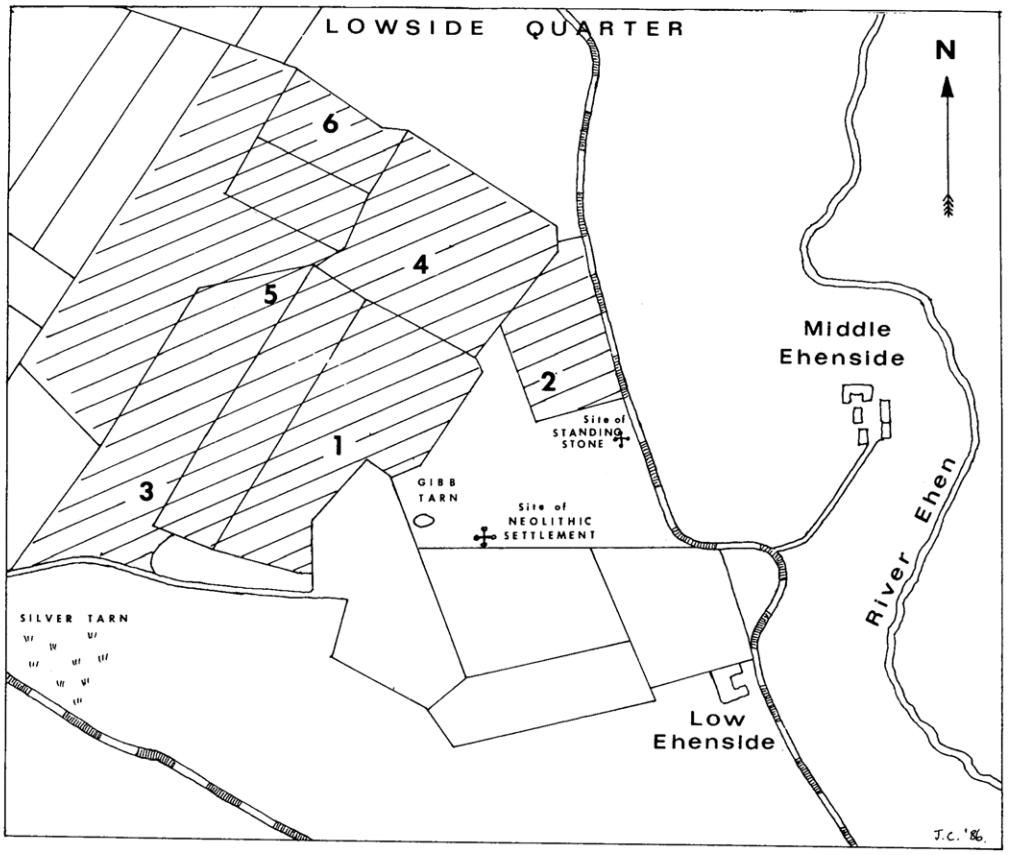


FIG 2 – Sketch map showing the fields searched and their position relative the Ehenside Neolithic Settlement.

Acknowledgements

We are grateful to the local farmers for permitting us to walk on their land and to Mr T. Clare for drawing our attention to the fact that the fields had been ploughed.

2. *Flint Artefact found at NY 1398 0245*

By J. CHERRY

The artefact is a plano-convex knife in grey flint with white inclusions, in the form of an elongated triangle with a broken point, worked along both of its longer edges. One edge is steeply retouched with some resolved flaking, while the opposite edge is straighter and more finely trimmed. The fracture at the pointed end is not recent.

The knife was picked up in the middle of a peaty path about 1500 metres east of the Mecklin Park cairn[1] at a height of about 300 metres. Artefacts made from similar flint were found in the cairn associated with Food Vessel pottery.

A similar knife was found near the village of Shap[2] and it is interesting to note that many artefacts of grey flint with white inclusions have been found in late Neolithic/Early Bronze Age

Scale 1 : 1

contexts on or about the 300 metre contour on the limestone uplands near Orton[3]. The knife was found by Mr Hawkes of Westbury, Wells, Somerset and is at present held in County Hall, Kendal. (S.M.R. No. 6155).

References

[1] CW2, lxxxv, 11
[2] CWAAS Research Series, Vol. 11.
[3] CW2, lxxxiv, 19 and CW2, lxxxv, 18

3. *Field-walking at Levens*

By J. and P. J. CHERRY

During the Spring of 1984 it was noted by Miss C. Fell that a field was ploughed, at the top of Levens Brow, north of Lawrence House, in which is the remains of a prehistoric embanked circle (SMR No. 2504). It was thought that there might be other evidence of prehistoric activity in the vicinity and we agreed to search the field for artefacts. Our efforts were hindered by the stony nature of the field, but we were nevertheless able to find a polished stone axe, Fig. 1, 1, and four patinated flints, including a small scraper, Fig. 1, 2, and two flakes with secondary retouch, Fig. 1, 3 and 4. The only unworked piece has a modern fracture along one edge revealing translucent grey flint beneath the patina. All the finds were made in the northern half of the field, between twenty-five and fifty metres from the embanked circle.

Note on a polished stone axe found north of Lawrence House, Levens, at c.SD 498859

By C. I. FELL

This damaged, polished stone axe is of Cumbrian type as defined by T. G. Manby[1] and falls within his classification B3b, which is equivalent Variant A of his earlier paper in these *Transactions*,[2] the sides being rounded rather than facetted.

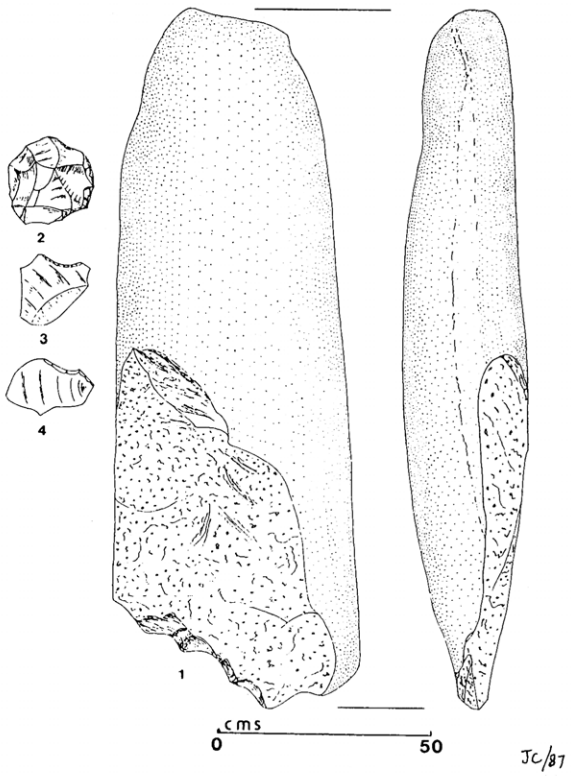


FIG 1 – Artefacts from Lawrence House, Levens.

The cutting edge and a large area of both faces of the blade, and also one face of the butt, have been roughly shattered in such a way that the fine grained nature of the rock was difficult to determine without petrological examination in thin section. This has showed it to be Group VI.

The damage may have occurred when the axe lay in this agricultural ground and not when in active use in antiquity. The surviving polished surfaces are very finely finished, one face being dark greenish in colour, the other stained more brown.

The present maximum length is 162 mm, with a width near the cutting edge of 57 mm and of 26 mm near the butt. The greatest thickness is 30 mm. Present weight 12½ ozs (354 grams).

The finds are to be deposited at Levens Hall and are recorded under Sites and Monuments Record No. 4315.

References

[1] T. G. Manby in *Stone Axe Studies*. C. B. A. Research Report No. 23 (1979) 65-81.
[2] CW2, lxv, 9 and Fig. 3, 1.

Acknowledgements

We would like to thank Clare Fell for bringing the ploughed field to our attention, and for her note on the axe. We are also grateful to Vin Davis for carrying out the petrological examination, and to Mrs A. Bagot for her interest and co-operation.

4. *Observations in the Roman Vicus at Bowness-on-Solway*

By IAN CARUANA and ALAN JAMES

Observation during construction work in 1984 to modernize a house and barn (at NY 22446279) in Bowness village east of the fort showed over one metre of Roman deposits overlying a buried soil. The property concerned lies east of Askew Cottage. The modification of the house caused no damage to archaeological layers. Refurbishment of the rear of the barn resulted in a deep trench being cut north of the north wall and subsequent landscaping of the back garden. The section of the trench was drawn and pottery recovered.

Roman layers lay at a depth of about 0.40m below the modern garden surface. They comprised mainly of spreads of clay and also a substantial burnt deposit. The drawn section (not published) lay some distance to the south-east of Rampart Head but the archaeological layers dipped down from north to south as though they related to it. Several sherds of Roman pottery were recovered but nothing to date the individual layers.

The importance of this observation lies in the evidence it supplies of substantial *vicus* settlement east of the fort.

Acknowledgements

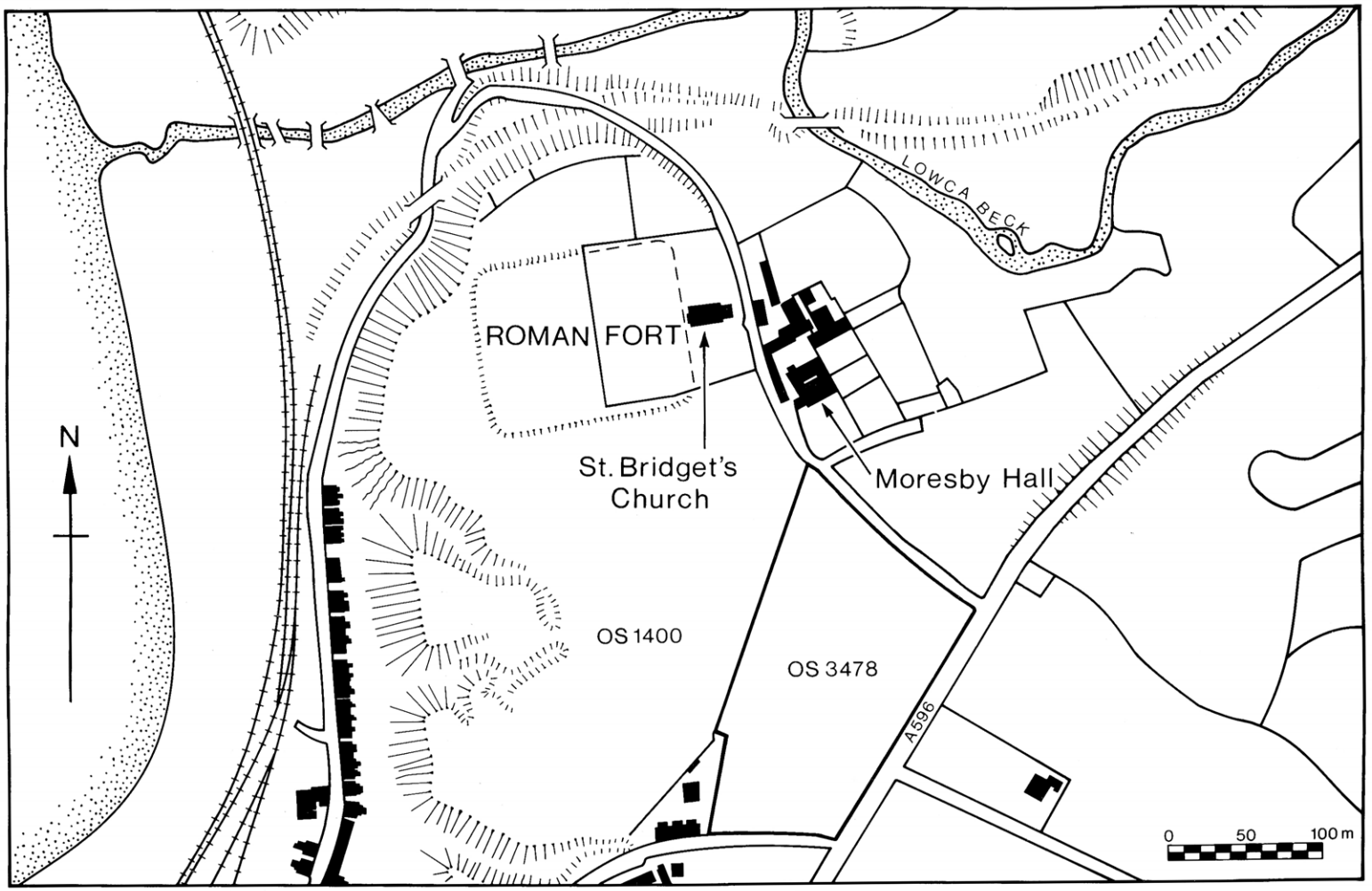
We are grateful to Mrs Dodds for permission to draw the exposed section; to Professor G. D. B. Jones for drawing the work to our attention; and to Paul Austen who also visited the site. The section drawing and pottery have been deposited in Carlisle Museum.

5 *A Watching-brief South-east of Moresby Fort, 1980.*

By JULIAN BENNETT, DAVID BARTLETT and TONY HOLMES

The Roman fort at Moresby has not been subjected to any extensive excavation in modern times, although the site has been known of since the 17th century. A comprehensive study and historiography of the site by Eric Birley has been published in an earlier volume of these *Transactions*,[1] while shorter notes and observations have subsequently appeared,[2] these adding little to the original account. Briefly, the fort, 3.5 ha in area, occupies the summit of a plateau overlooking the sea to the west and the Lowca Beck to the north (Fig 1). A building stone of the *Legio XX Valeria Victrix* (RIB 801) indicates work on the site under Hadrian,[3] and the site is generally accepted as a Hadrianic foundation. Inscriptions attest the presence of two quingenarian equitate units, the *II Lingonum* (RIB 798 and 800) and the *II Thracum* (RIB 797, 803 and 804): the second of these was still stationed at the site in the later fourth century, if Moresby is to be identified with the *Gabrosentum* of the *Notitia Dignitatum*.[4] Extra-mural buildings are recorded south and east of the fort,[5] but trial excavations in 1951 failed to locate any structures to the north.[6] Roman tombstones have been found to the east and south-east,[7] while an inhumation cemetery of unknown date is recorded beneath Moresby Hall.[8]

In 1980, it was proposed to drain the low-lying field south-east of the fort (Fig 1: OS parcel 3478, NGR SY 983 208), an area scheduled as an ancient monument. In view of the possibility that the area might contain extra-mural structures associated with the fort, this and the adjacent field to the west (OS parcel 1400) were geophysically prospected with a plessey fluxgate gradiometer. The results of this survey were inconclusive,[9] and permission for the drainage work was granted on condition that this was undertaken by the Inspectorate of Ancient Monuments and continuously monitored by the authors, on behalf of the Central Excavation Unit. Some 27 trenches were dug,



Roman Fort at Moresby. Location plan.

revealing very little archaeological evidence of Roman date, and therefore only a summary of the results is offered here, the full archive and discussion being deposited, along with the finds, in the Whitehaven Museum, a copy of the archive being retained by the National Monuments Record and the Central Excavation Unit. We are grateful to Ian Stuart, of the Inspectorate of Ancient Monuments, for arranging the project; to David Haddon-Reece and Andrew David, of the Ancient Monuments Laboratory for their geophysical work; and to Philip Magrath, of the Central Excavation Unit, for the published plan.

Eight features with exclusively Roman material in their fill were recorded, three being hollows (Contexts 83, 131 and 265), three being segments of U-shaped gullies (57, 59 and 62), and two being segments of V-sectioned ditches (69 and 152). In the main, only single sherds were represented, clearly stray losses rather than rubbish deposits, and examination of these, and the Roman material from the post-Roman features, revealed them to be exclusively of second and third century date: a surprising feature of the collection, however, was that Samian sherds represented almost 50% of the total, and about 40% of the vessels identified. The only other identifiable Roman find was a clay spindle-whorl.

Other features located during the watching-brief were of 18th century or later date, only two sherds of medieval pottery being recovered from the entire field. Two of the post-medieval features deserve mention. The first of these was a water-trough set into a dry-stone wall at the northernmost corner of, and entrance to, the field, the second being a metalled trackway that ran along the west edge of the field: this could be traced to the north, fronting Moresby Hall, where it survives as a metalled track, and it clearly represents the original road line before the present A 596 was constructed.

The 1980 watching brief, therefore, confirmed the indications of the geophysical survey in that the field OS 3478 contained no major features of archaeological importance. In so far as specifically Roman remains are concerned, the drainage trenches revealed no evidence for any masonry structures, or for occupation on any significant scale, or for the presumed cemeteries that should exist in the vicinity of the fort. The few Roman features that were recorded are most probably to be associated with limited occupation and activity on the very edges of any *vicus* that formerly existed.

References

[1] Birley, E., "The Roman Fort at Moresby", CW2, xlviii, 42-72. Other than sculptured material and inscriptions, the only material known from the site comprises two cooking pots in Whitehaven Museum (Acc No's 1 and 3:1974), and a Dr 37 and flagon neck in Carlisle Tullie House Museum (Acc No's 3-1947, 1 and 2).

[2] Birley, E., "The Roman Fort at Moresby: a postscript", CW2, xlix, 218-19; Birley, E. *Research on Hadrian's Wall* (1961), 224-6; Daniels, C. M. (ed), *Handbook to the Roman Wall* (13th ed, 1978), 281-3.

[3] Bennett, J., "Hadrian and the Title *Pater Patriae*", *Britannia*, xv, 234-5.

[4] Rivet, A. L. F. and Smith, C. *The Place Names of Roman Britain* (1971), 364-5.

[5] Birley, *op cit*, n. (1), 48-9 and 71.

[6] Swinbank, B., "A Trial Excavation at Moresby", CW2, li, 176-7.

[7] RIB 804 and *Journ. Roman Stud*, liii, 160.

[8] Birley, *op cit*, n. 1, 52.

[9] Haddon-Reece, D., *Ancient Monuments Laboratory Report, Geophysics G 11/79*. A copy of this report is deposited with the original records in Whitehaven Museum.

6. *A metal statuette from the "Hadrian's Wall area".*

By R. BROWNSWORD, E. E. H. PITT and C. RICHARDSON.

In July 1980, a "bronze" statuette of Classical form (Plate I) was brought into Carlisle Museum for identification by a Mr. S. O'Brien, who was working in the Gilsland area at the time. The inquirer stated that he had found the object while operating a metal-detector "near Hadrian's Wall" in the area of Crag Lough, near Housesteads, although subsequent attempts to either locate or visit the precise findspot proved unsuccessful.

The statuette is mounted on a circular base (diam. 45mm) with an overall height of 136mm. The figure's left arm is broken off below the shoulder level, and the surface is covered with a blue-green patination. The overall impression is of a powerful muscular figure with the weight borne chiefly on the right leg and the head turned proudly to the left. There is a strap running diagonally across the back from the left shoulder (Plate II) and the right hand is closed round an object which is indistinct but appears to be a pouch or wallet when viewed from the rear.

Initial research was directed towards the location of suitable Roman parallels and various expert opinions were sought on the authenticity of the figure. Dr David Smith and Prof. Jocelyn Toynbee examined photographs taken from different angles, and both commented on the rather coarse and unclassical nature of the features and the hairstyle, which did not conform to any normal Roman coiffure, although both agreed on the sophisticated nature of the body and stance. Colin Richardson expressed himself unhappy with the metal section exposed at the arm-break which appeared to have traces of solder adhering, and with the colour and texture of the surface patination which had an artificial appearance. Suspicion was growing that the object was not of any great antiquity and this was borne out by its remarkable resemblance to the bronze statue of Michelangelo's *David*![1] As Hibbard remarks "The figure Michelangelo carved stands in a pose hallowed by Greco-Roman statuary – neither walking nor still, it is a version of the *contrapposto* pose that had become the norm for standing male statues in the later fifth century B.C. . . . The torso of the *David* represents Michelangelo's version of a Hellenistic athlete. . . .".[2]

In order to find possible support for the view that the figure was of fairly recent manufacture, the statuette was submitted for metallurgical examination and analysis.

Visual examination

The object was examined using low-power binocular microscopy after preliminary visual examination. It had been filed on the base and here had a golden colour but elsewhere it had a blue-green patina.

The casting had a poor general standard of finishing and had been made in a mould of at least two parts, probably of sand. This was evident from parting lines running down the legs and from excess metal with coarse-grained finish between the thighs. These facts alone throw doubt on the authenticity of the object since the *cire perdue* process would have been used in classical times for such a fine piece. This would have left no parting line and baked clay, even if it had become detached from between the thighs (a most unlikely event), would have had a much finer grained fracture, reproduced in the excess metal when cast. At other places, such as the feet and hands, the clarity of detail was poor.

The surface patina did not appear to be the hard, adherent layer expected from nearly two millenia exposure to the atmosphere, nor to have the encrusted appearance of an object buried for that time. However, it was not possible to investigate the nature of the surface layer without detracting from its appearance and this point was not pursued.

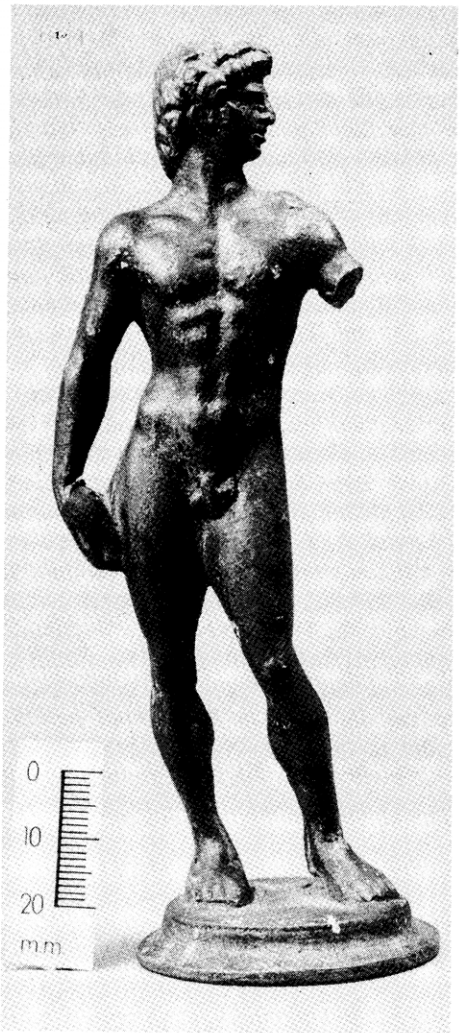


PLATE I. – Statuette from Hadrian's Wall area. Front view.

PLATE II. – Statuette from Hadrian's Wall area. Rear view.

Photo: G. Pawle, Carlisle Museum & Art Gallery.

Analysis

Since the object had already been filed to expose clean metal, it was possible to remove a further small amount of metal for analysis without significant additional damage occurring. The sample was mounted on thin mylar film and subjected to X-ray flourescence analysis using a suitable brass standard, with the following results:

	Copper %	*Zinc* %	*Tin* %	*Lead* %
Base sample	62.7	33.2	0.9	2.2

Discussion

The results of the visual examination showed that the *cire perdue* process was not used and so the object was most unlikely to have been produced in classical times. The standard of finishing was inferior to that expected from metal-workers of the period.

The zinc content of the brass was remarkable. Brass was well-known in Roman times but had to be made by cementation using copper and calamine, since zinc as a distinct metal was not available in Europe until the sixteenth century. Brasses produced from calamine could not contain more than 30% zinc for thermodynamic reasons, as has been demonstrated by Werner;[3] Craddock[4] believes 28% zinc to be a reasonable practical limit for Roman calamine brass. Since the statuette contained 33.2% zinc, the object could not have been produced before the late eighteenth century when zinc metal became available for brass production by the modern method.

Conclusion

The statuette is believed to be of relatively recent manufacture and not a classical object. The time and place of production can only be speculated upon, but there is every likelihood that the statuette was originally produced as a "tourist souvenir" some time in the last quarter of the second millenium A.D. It may well have been manufactured by a local craftsman to meet the demand for Classical objects during the "Grand Tour" period. As noted earlier, the closest parallel on stylistic grounds would appear to be the *David* figure, thus supporting the results of the metallurgical analysis.

The object was returned to the inquirer and its present whereabouts are unknown.

Acknowledgements

The writers are indebted to a number of individuals for their assistance, especially Prof. J. M. C. Toynbee, Dr D. J. Smith, Mr K. Lowes, Mr I. Caruana and Mr T. Padley.

References

[1] See especially H. Hibbard, "*Michelangelo*" (Penguin, 1978), 51-61, Figs. 24, 25, 28; C. Seymour, "*Michelangelo's David: A Search for Identity*" (Pittsburgh, 1967); W. Boeck, *Michelangelo's Bronze – David und die Pulszky-Statuette in Louvre*, (Mitteilungen des Kunsthistorischen Instituts in Florenz, VIII, 1959).

[2] H. Hibbard, *op. cit.* (1978), 56.

[3] O. Werner, "Uber das Vorkommen von Zink und Messing in Altertum und im Mittelalter", *Erzmetall*, 23 (1970), 259-69.

[4] P. T. Craddock, "The Composition of the Copper Alloys of the Greek, Etruscan and Roman Cultures: 3. The Origins and Early Use of Brass", *Journ. Arch. Science*, 5 (1978), 1-16.

7. *A "hut" below Carrock Fell hillfort*

By COLIN RICHARDSON

During routine cataloguing of the glass negative collection in Carlisle Museum, the writer came across a negative and print entitled "Stone cist excavated by Dr Mabel Barker of Caldbeck in 1933, at Lynewath Farm at the foot of Carrock Fell" (Negative Acc. No. 1-1934.17). The site is almost certainly the feature excavated and described by Mabel Barker as "a saucer-shaped depression near the Black Beck where it approaches Linewath Farm. This proved to be a 'hut', or at least a sunk pit with a comparatively long and wide entrance passage . . . . No implements or bones were found whereby it could be dated . . ." (CW2, xxxiv, 110-12, Fig. 3). The floor of

the "hut" contained a considerable quantity and depth of charcoal, including burnt stones and charcoal-stained clay. It was obvious from the Museum negative that the feature was not a "hut" or a "cist", but was the result of relatively recent industrial activity (Plate).

A "hut" below Carrock Fell hillfort.
Carlisle Museum & Art Gallery Archive.

The photographic evidence was shown to Mr M. Davies-Shiel, who readily identified the structure as the remains of a potash kiln. The site has now been located (NY 3554 3425) by Mr Davies-Shiel, and the immediate area mapped and photographed. These initial field-survey results have revealed the presence of numerous other industrial remains in the neighbourhood, in addition to the more well-known Prehistoric hut-circles and small cairns. I am grateful to Mr Davies-Shiel for his assistance in identifying and visiting the site.

8. *Three querns from Aglionby*

By IAN CARUANA

The three querns reported here were found at various points in Aglionby and drawn to the writer's attention during the autumn of 1983.

1. Beehive quern in medium-coarse grained red sandstone. Diameter 340mm. Height 180mm Hopper has max. dia. of 140mm and is 90mm deep. The feeder pipe is 20mm in diameter. In the side is a handle hole 90mm deep. Complete except for a modern chip off the base.

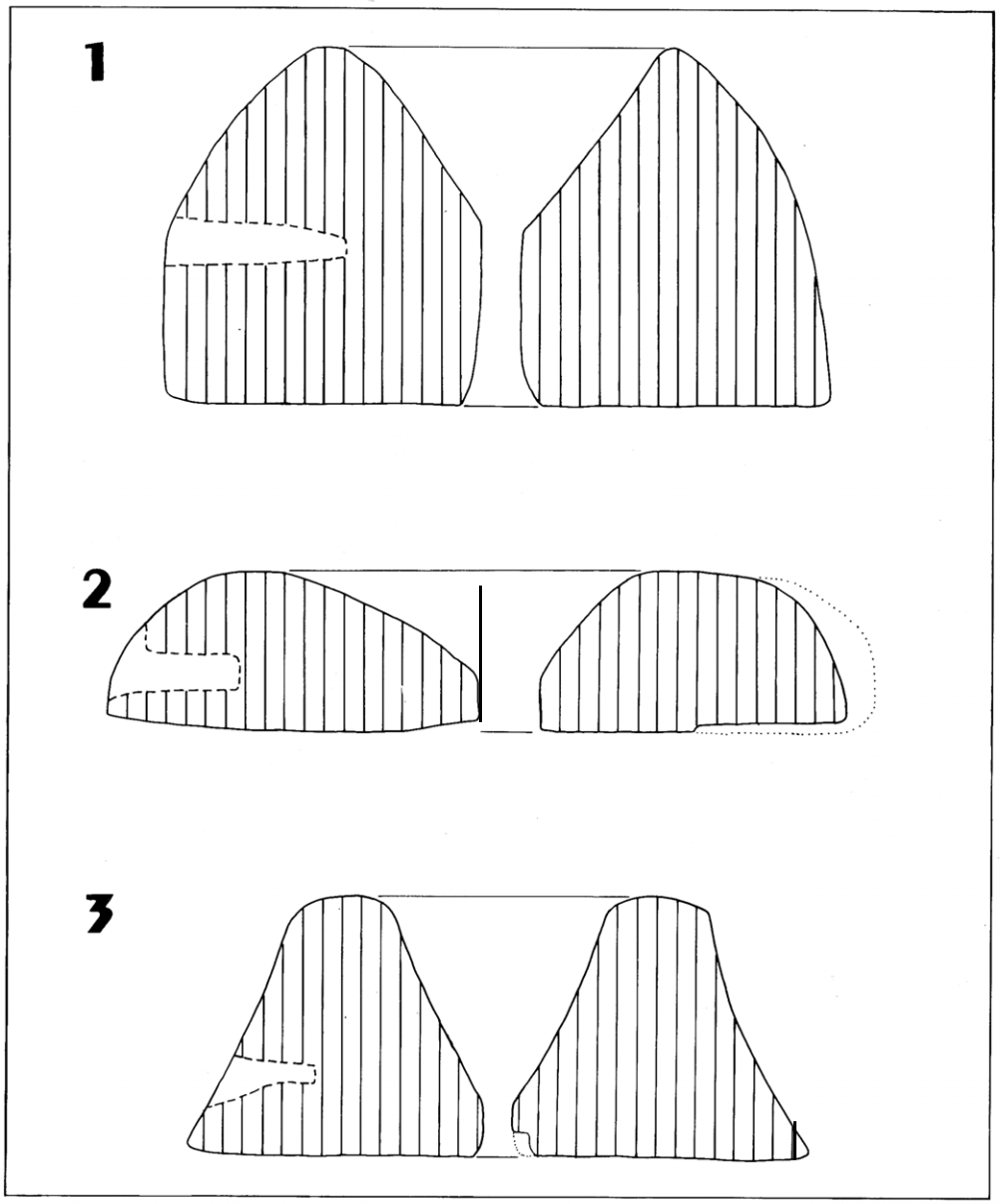
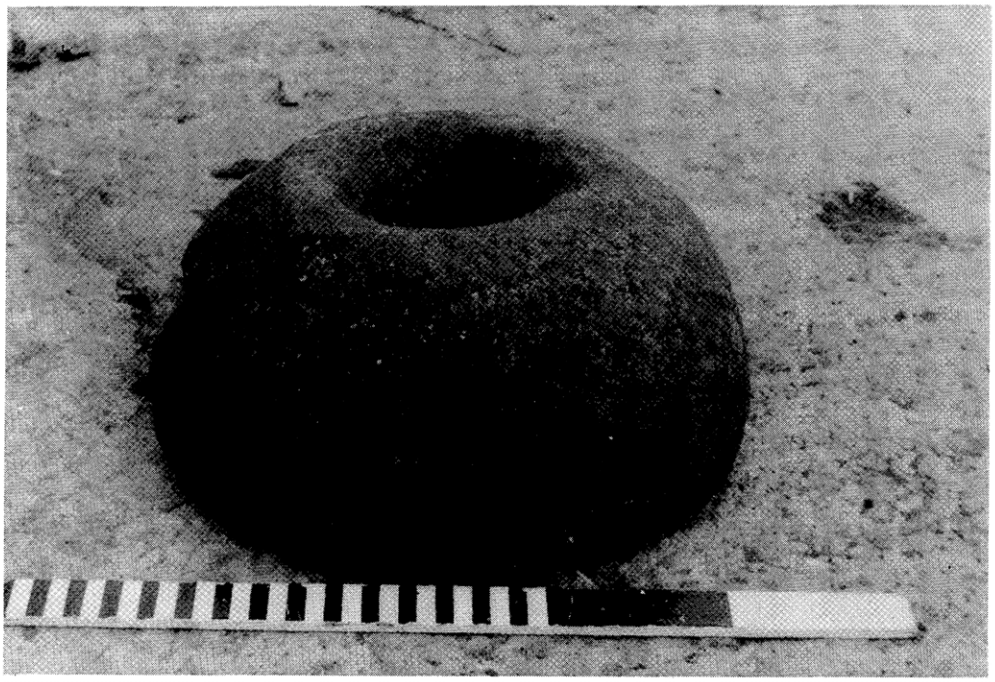


FIG – Profiles of the Querns ($\frac{1}{4}$)

The quern was found by Mr Joseph Fell of Wheelbarrow Hall in the foundations of a wind pump on his land at NY 434566 and removed to the yard of the farmhouse. Mr Fell informs me that the pump was built with bricks of the Lonsdale Brick Co. which functioned from the late nineteenth century. The quern was presumably ploughed up from a Romano-British site not far distant from the position of the pump.

The quern has been donated by Mr Fell to Carlisle Museum (Acc 196-1983)



Quern 1 (Scale 50cm).

2. Upper stone of coarse red sandstone with flat profile. Diameter 380-390mm. Height 80mm. The hopper has a diameter of *c.*180mm narrowing to a feeder pipe of 35mm dia. On the side is a handle hole 50-60mm long with a cross-section 20mm high and 25mm wide.

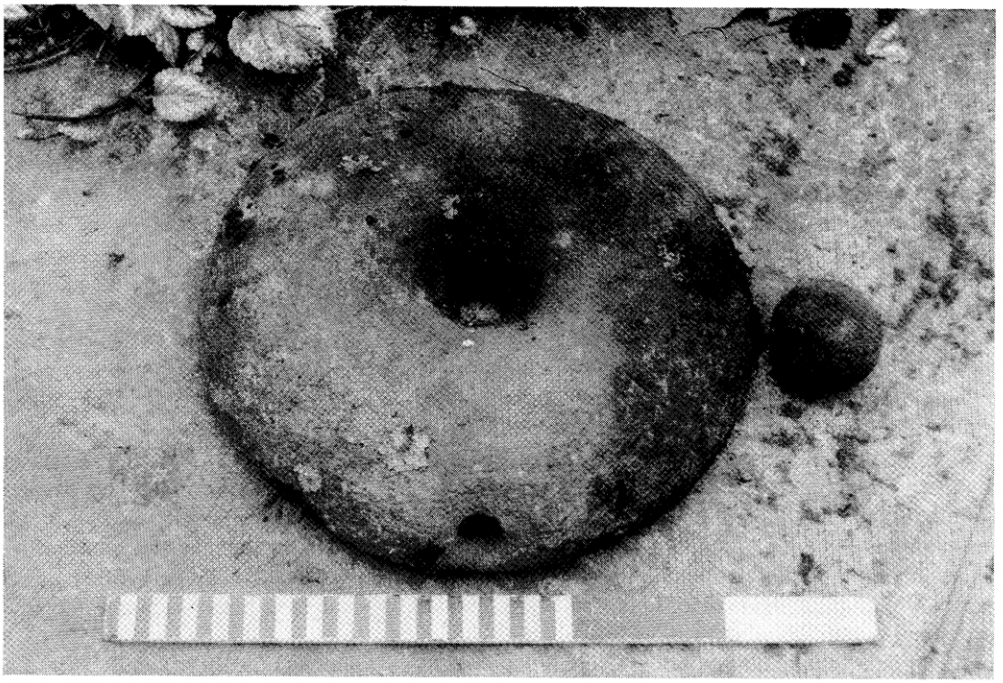
The stone is complete but has suffered in various ways. A flake has fallen away along the bedding plane on the bottom. The hopper has been worn differentially to create a profile of varying shape. There has also been considerable wear on the side of the quern opposite the handle resulting in the loss of 15-20mm from the radius of the stone.

With the stone is a stone ball 80mm in diameter resting in the hopper.

3. Upper stone of unusual profile in coarse red sandstone. Diameter 320mm. Height 130mm. The hopper has a maximum diameter of 100mm diminishing to 20mm at the feeder pipe. On the side is a handle hole 50mm long and 50-60mm wide. This hole is 10mm deep with a height of 25mm at the outside. There is a second broken handle hole at 90 degrees from the intact one.

Querns 2 & 3 are in the possession of Mrs Errington and remain in her back garden at NY 439562. The provenance of the querns is unknown but presumably came locally from the Rosehill area.

There is little doubt that No. 1 is an ancient stone from its shape. No. 2 would also be at home in the Roman period. However, it is difficult to be sure that No. 3 is ancient. There is evidence for hand-milling in Cumbria as late as the nineteenth century (CW1, xv, 256-7) and in view of this it might be unwise to assign it to the ancient world.



Quern 2 (Scale 50cm).

Quern 3 (Scale 50cm).

9. *Kiln at 21 Abbey Vale, St. Bees, Cumbria*

By JOHN TODD

Preparations for a patio in the garden of 21, Abbey Vale, St. Bees, revealed an unexpected circular structure which was investigated by volunteers in April 1983.

The site was a hillside sloping down towards the south-south-east, close to the Scalebarrow road from Abbey Farm to Rottington (Grid Reference NX 96751230). The natural soil was a dark brown loam, overlying horizontal beds of sandstone close beneath the surface. Before the Abbey Vale Estate was developed there was no record of any building in this field, which was part of Abbey Farm and, in the middle ages, part of the demesne lands of St. Bees Priory. The name of the field, High Flattes, gave no clue to any unusual activity.[1]

The filling was removed from the centre of the structure with spade and trowel. The structure itself was not dismantled, since it was to be kept as a garden feature, and no digging was possible outside the circle, or round the entrance on the downhill side, or in the entrance passage where concrete steps were constructed soon after the discovery.

The dry wall of rough sandstone blocks enclosed a roughly circular pit about 2.7 metres in diameter. To the west and north, the wall was up to a metre high, with a maximum of six courses of stone. Elsewhere, only the foundation course remained. On the downhill side, the stones ran outwards from the circle to make a splayed entrance. The outward end of this had been cut by ploughing or other disturbance. The floor of the pit was the natural sandstone bedrock, with rubble filling up the depressions in it. The floor and walls were in places blackened, and in places burnt bright red. The walls were cracked with heat.

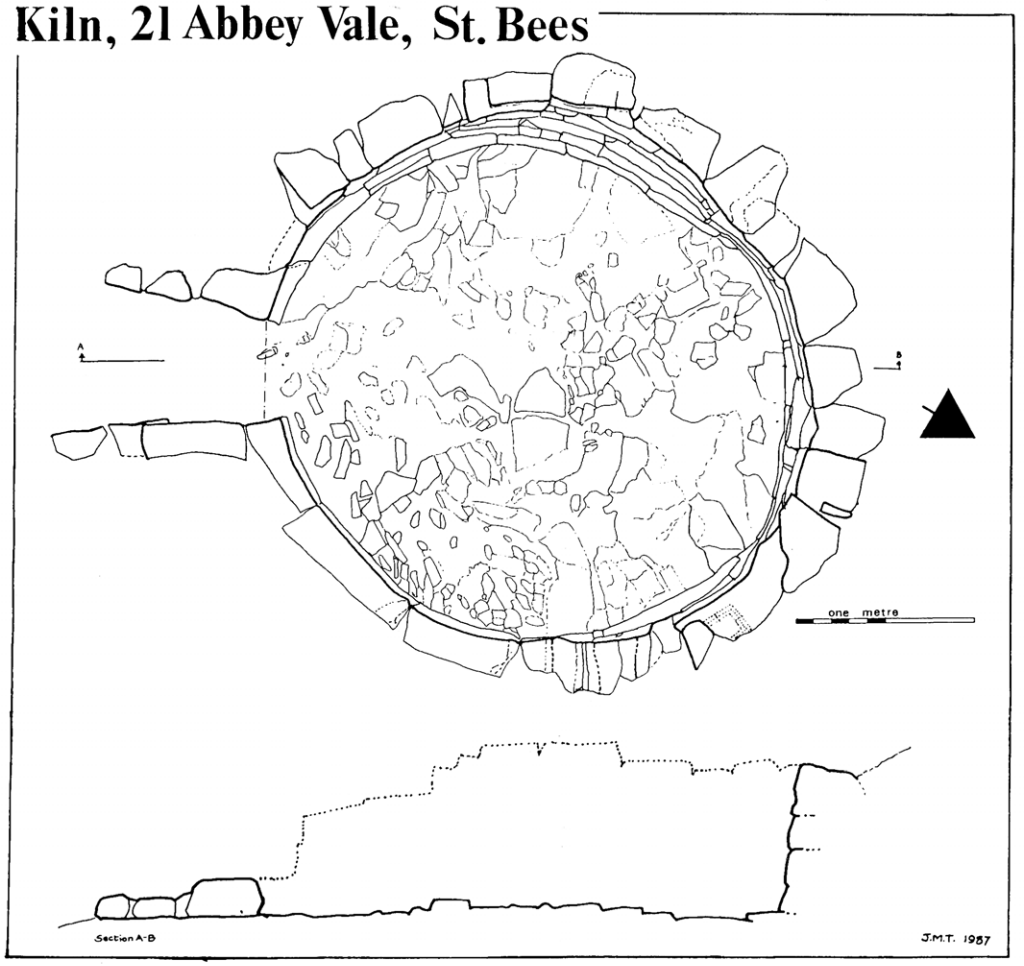
A board for the game of "nine men's morris" was found scratched on the upper surface of a stone which had been built into the wall, not in the topmost course – i.e. the board could only have been used before the wall was finished.

The pit had been filled with earth and fire-marked stones, presumably from the partly-demolished walls. Absence of stratification indicated that demolition had been rapid and deliberate, rather than the work of time. The filling contained seven sherds of green-glazed pottery.

The structure was evidently a kiln which had been built into the slope of the hill. There was no trace of slag or a clay lining. Examination of scrapings of burnt material in the laboratories of Albright and Wilson Ltd. at Whitehaven yielded no clues as to what had been fired there. Metal and pottery can be ruled out. Structures of this type in the Lake District have been classed as potash pits, producing potash from burnt bracken as an ingredient of soap.[2] Similar structures in the region of the Roman Wall and elsewhere in the British Isles have been described as corn-drying kilns.[3] One was recently excavated at Collfryn, Llansantffraid Deuddwr, Powys, and was proved to contain grain residues: carbon-dating of charcoal in it indicated a date in the fifteenth century.[4] Much nearer, at Ewanrigg by Maryport, Dr R. H. Bewley in 1985 found a similar kiln containing grains of wheat, barley and a high proportion of oats, with radiocarbon dates ranging from the seventh to the eleventh centuries A.D.[5] It seems highly probable that the St. Bees kiln, situated in the relatively fertile coastal strip, was for corn-drying.

The burning and cracking of the stone, however, indicates that quite high temperatures had been obtained, and raises questions as to how the corn was prevented from charring. There was no evidence of any platform on which the corn would have been placed to dry, nor of supports for one. An account of corn-drying in Wales in the early nineteenth century shows that kilns could take the form of very simple pits out in the fields, spanned by one or two beams or planks, which supported a platform of sticks on which was laid straw.[6] If the St. Bees kiln was of similar construction, a gust of wind and a moment's inattention could have produced a conflagration.

The medieval pottery in the abandonment layer suggests, but does not prove, that the kiln was in use in the middle ages. Abandonment could, however, have been later, since the pottery might have lain in the soil for some time before being pushed into the pit. The game board scratched on



FIG

to the stone does not help with dating either, since nine men's morris has been played from Roman times to the present day. The board has no diagonals, and Teresa McLean has suggested, but without citing authorities, that diagonals were introduced about 1400.[7]

Acknowledgments

Thanks are due to the owners of the land, Mr and Mrs D. Brownrigg, who willingly consented to the delay in their building plans, helped with the digging, and conserved the structure with a minimum of alteration. Mr Tom Clare, Cumbria County Council Archaeologist, supervised the start of the digging and gave valuable advice, as did Miss Camilla Hampshire (now Mrs Critchlow) of Whitehaven Museum. Mr Douglas Sim, Miss Elizabeth Jopling (now Mrs Sim), Miss Carol Palmer, Mrs Mary Todd, Mrs Jacky Walker, a contingent from St. Bees school and several others all helped, and I am grateful to them all.

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[1] Cumbria Record Office, Carlisle, MSS D/Lons/W/Plans (1694), D/Lons/W/Surveys (1804).

[2] M. Davies-Shiel, "Potash Pits in Lakeland – an initial report", CW2, lxxi 290-1; "A little-known Late Mediaeval Industry, Part I. The making of potash for soap in Lakeland", CW2, lxxii, 85-111; ". . . Part II: the Ash Burners", CW2, lxxiv, 33-64.

[3] Sir Lindsay Scott, "Corn-drying kilns", *Antiquity*, XXV (1951) 196-208; H. G. Ramm, R. W. McDowall and E. Mercer, *Shielings and Bastles* (London, 1970), 44-6; Brenda Swinbank, "Excavations in High House Paddock, Cumberland", CW2, lii, 46-54.

[4] William Britnell, "A 15th-century corn-drying kiln from Collfryn, Llansantffraid Deuddwr, Powys", *Medieval Archaeology*, XXVIII (1984), 190-4.

[5] Robert H. Bewley, "Ewanrigg bronze age cremation cemetery, Cumbria", *Antiquity*, lx (1986), 225-6 and pl. XXXIIa; 'The Ewanrigg Structure', *Antiquity* lxi (1987), 9; "Ewanrigg", *Current Archaeology*, no. 103, 230-3.

[6] F. S. Price, *History of Llansawel* (1898), cited in Britnell, *art. cit.*, 193.

[7] Teresa McLean, *The English at Play in the Middle Ages* (Windsor Forest, n.d. c. 1984), 109. Two boards, both without diagonals, and one without the connecting lines in the middle of the sides of the square, were found at Furness Abbey in 1926, and described by Paul V. Kelly, "A Bridge of Monastic Date and other finds at Furness Abbey", CW2, xxvi, 267-9.

10. *Tom Smith's Stone*

By JEREMY GODWIN, M.A.

Three and a half miles north of Hartside Café, along a ridgepath following a boundary-dyke, is Tom Smith's Stone. It is set on a low rise, in the west angle of the meeting of the east-west fence and the north-south one, forming a Y-junction, a few inches west of the latter, a couple of feet south of the former, at grid reference NY 653465. It is a stone post standing 3′ 8″ above the surface, 12″ square at base; it does not taper. Its final two inches are the height of its top, which has a flat central area two inches square, the corners of it being about five inches from the corners of the vertical post itself. The post is of local stone, grey-lichened; each face is incised with a capital letter, thus: "A" (south-east side), "C" (south-west), "K" (north-west), "W" (north-east); the sure signs of a boundary stone at the junction, here, of four parish boundaries, two in Cumberland, two in Northumberland. "A" is for "Alston"; "C", for "Croglin"; "K", for "Knarsdale"; "W", for "Whitley" (in full, "Kirkhaugh & Whitley"). The letters "A" and "W" are 1½ inches below the top of the post; the letters "C" and "K" are one inch below it. "A" and "W" are four inches wide, two inches high; the arms of "A" are three inches long. "C" and "K" are three inches high, two inches wide. Incised on the base of the top, south-west slope, are the capital letters "J M", total width three inches, height 1½ inches. Incised at the foot of the south-east face is a bench-mark. The Stone is no longer vertical, but leans slightly towards the south-east. It is set in good firm ground, above the peat hags around and south of Woldgill Tarn; and in fine weather commands excellent views.[1]

The earliest date that I have found for the Stone is 1741, as "Tom Smith's Stone".[2] Nicolson & Burn give a bounder of Alston Moor (alas, undated by them) which Hutchinson, Hodgson and Jefferson repeat *verbatim* without further comment; it comes to "Tom Smith's Stone, at which the boundaries of the earl of Egremont, Queen's College, in Oxford, and Greenwich Hospital in Cumberland, and of Knaresdale and Kirkhaugh in Northumberland all do meet."; a bounder of Kirkhaugh dated 1258 comes "up to Wulfgill" (i.e. Woldgill) but has no mention of any boundary stone there.[3] On Armstrong's map of Northumberland (1769) the Stone is marked as "Smith's Stone" and shown as a stone pillar just within the Northumberland border; and Hodskinson & Donald (1774) also show it there thus, as "Smith Stone".[4] The boundary perambulation of the Manor of Kirkhaugh & Whitley, otherwise Whitlaw, on Wednesday 22 June 1825 went ". . . and

from thence to Smith's Stone. . . ."; though the Alston Moor bounders of 1665 and 1683 copied in the Walton MSS 5 omit the Stone.[5] However, manor boundaries did vary from time to time: one purpose of the walks was to define them anew.

As for Tom Smith, the only suggestion so far seen is that of T. H. B. Graham, who describes Croglin parish's boundary ". . . until it meets the county boundary, at a desolate spot, called in the perambulations 'Tom Smith's Stone', where a person of that name is said to have committed suicide. Here stands a square stone, four feet high . . .". The spot is unnecessarily remote for self-murder, but it is possible that a suicide was buried here: crossroads, or astride parish boundaries, were often chosen for burying such. However, even for this the spot seems needlessly distant. Possibly Tom Smith was the parish clerk or similar local leader who caused this post to be set up as a purpose-built boundary-mark for all four parishes; but there is a better candidate, more worthy of this fine stone with its large letters. Nicolson & Burn's bounder mentions the Queen's College, Oxford, as one of the landowners abutting on the Stone's site: and Thomas Smith, M.A., D.D.(Oxon.) was of that College. Born in 1614, he was made Prebendary of Carlisle 1660-61, Prebendary of Durham (the diocese for Alston and Northumberland) 1661-84, Dean of Carlisle 1671-84, and Bishop of Carlisle 1684-1702, when he died. A notable local benefactor, he built the registry office just inside Prior Slee's gateway (Carlisle) in 1699; built a "market house or cloister" (predecessor of today's) at Appleby, partly-paid-for by Dr Barlow, ex-Provost of Queen's and then Bishop of Lincoln; joined Dr Barlow, Randal Sanderson (Fellow of Queen's), and another, in a gift of £700 to their old school (Appleby Grammar School) to improve the staffing; and gave his Cathedral's old organ to Appleby Corporation in 1684 for use in St. Lawrence's Church there.[6] He is surely a strong candidate for seeing this stone set up, lettered, and paid-for. He had been dead for thirty-nine years (if so) before its first written mention in 1741, when "Tom" might be an affectionate local diminutive, given him, and it, in gratitude.

Notes & References

[1] Visible details and measurements noted by me there on 17 October 1986: the fences just here are of smooth wire.

[2] English Place-Name Society, *The Place-Names of Cumberland*, Part I (1950), 179.

[3] Nicolson & Burn, II, 438-9; Hutchinson, I, 215 n.; the Rev. John Hodgson, *A History of Northumberland*, Part II, Vol. III (1840), 24; Samuel Jefferson, *Leath Ward* (1840), 110 n. Whellan omits the Stone. Hodgson, *o.c.*, 58, has the English translation of the 1258 bounder of Kirkhaugh; he gives no bounder for Knaresdale. Woldgill Tarn is "Woogill Tarn" in N and B, II, 439.

[4] Andrew Armstrong, *Map of Northumberland* (1769) (copy in CRO, Carlisle, reference D/Lons); T. Hodskinson & T. Donald, *Map of Cumberland* (1774). One and a quarter miles north-west of Tom Smith's Stone is Farlam Currick, so-called on the Ordnance Survey's first edition 6" Cumberland Sheet XXXIII (1859-67), likewise in Croglin on west, Northumberland on east, and nowhere near Farlam parish. The name may be a corruption of "Fair Law Currick": Armstrong's map (1769) marks "Fair Law" here, and a "Fair House" in Knarsdale down below. T. Kitchin's *Map of Northumberland* (1750), omits both Stone and Currick, but is on a fairly small scale (copy in CRO, Carlisle, DX/373).

[5] CRO, Carlisle, D/Wal/5; the 1825 Walk's details are on paper watermarked 1845.

[6] C. R. Hudleston, R. S. Boumphrey and J. Hughes, *Cumberland Families & Heraldry* (1978), 313; Martin W. Holdgate, *A History of Appleby* (1970 edition), 52; Hutchinson, II, 633; CW2, xx, 35.

11. *Excavations at Carlisle Cathedral*

By M. R. McCarthy

In 1985 small scale excavations were undertaken by J. A. Dacre for Carlisle Archaeological Unit at Carlisle Cathedral as part of a wider programme of structural assessment carried out by the Dean and Chapter. The purpose of the excavations was limited to providing information about the characteristics and depth of the foundations of the nave and choir in a manner consistent with minimizing damage to the archaeological deposits. The work was funded by English Heritage with help from the Dean and Chapter. We are grateful to the Very Reverend J. H. Churchill, Dean of Carlisle Cathedral, Mr N. Phillips, Surveyor Emeritus, Mr Ray Nichol, Surveyor to the Cathedral and Dr David Fraser, English Heritage, for their advice and encouragement.

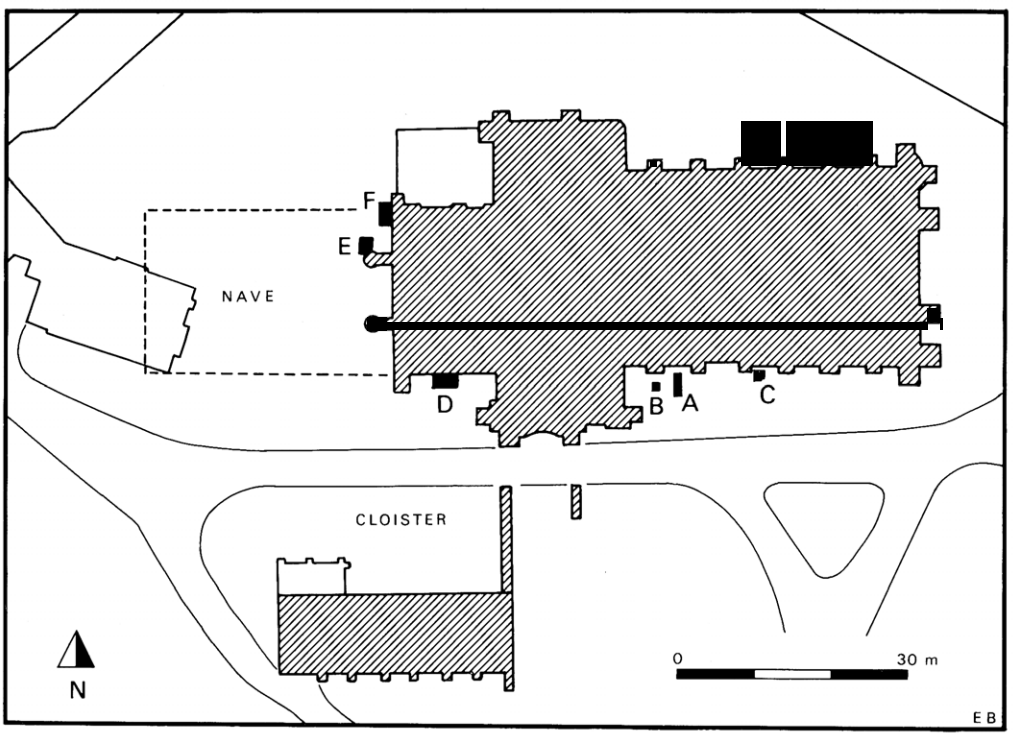

FIG – Carlisle Cathedral: Location of Trenches.

Six small trenches were excavated, three located against the external face of the south wall of the choir (A-C), one against the outside face of the south wall of the nave (D) and two immediately adjacent to the existing west wall (E-F) in what is now part of the graveyard. The most significant archaeological results were obtained in the trenches abutting the nave walls. Roman levels were tentatively identified in a number of places but because they lay beyond the limits of the excavation the remains were left undisturbed. Roman coins, pottery and tile were recovered as residual items in later layers. Overlying some of the Roman features "dark-earth" deposits were recognized though in most cases the excavations were too limited in size to allow for a more precise definition. On the evidence available, however, it seems likely that the accumulation represents more than one phase of land use. In trench F these "dark-earth" levels were cut by the foundations of the

nave and included at least one burial which was also cut by the foundations of the north wall. The bones from this grave were submitted to Harwell for a radiocarbon determination. The bones have been dated to ad 750 ± 70 (1200 ± 70 bp; HAR 7046). It is possible that this grave is part of a cemetery and, because of its date, may be that associated with the monastery founded by St. Cuthbert in AD 685. Further work, however, is required in order to both confirm the presence of a cemetery and to provide more dates.

The foundations of the nave were examined at three points, the south wall, the north wall and the footings for the north arcade. In all three cases the foundations included sandstone, some of which was pitched instead of being laid horizontally. The external face of the south wall (D) incorporated both sandstone blocks, large mortar fragments and some *opus signinum* arranged in two counter-pitched courses. The nave arcade rests on a continuous sleeper wall, part of which was exposed. This foundation is estimated to have been up to 2.2m wide and is at least 1.45m deep below the floor levels. The foundation was overlaid by a mortar bedding for a stone or tiled floor.

A number of graves and collections of disarticulated human bones were recovered. In many cases the disarticulated remains were left *in situ* and wherever possible graves were also left undisturbed. Most of the burials, including one in a fine stone-lined grave, were clearly contemporary with the Priory church or the post medieval period. One or two were in an ambiguous relationship with the foundations and may ante-date the Priory.

Overlying the Priory floor is an accumulation nearly 1m deep consisting largely of building debris and other rubble doubtless associated with the collapse and demolition of the nave and reconstruction work carried out by Christian in the mid-nineteenth century. The building materials included a number of architectural fragments notably several with red painted lines imitating joints in stone work. The source of this is doubtless the Norman nave arcade but the source of the materials used in the twelfth century foundations is likely to be either Roman or Anglo-Saxon buildings in the vicinity.

12 *Kirklinton Church*

By Ian Caruana and Alan James

The departure of the present rector of St. Cuthbert's, Kirklinton is to be the occasion for the sale of the rectory. Until now there has been a private access from the rectory garden into the churchyard with steps fashioned out of old gravestones and other architectural stonework from the church. At the request of our member, Mrs E. R. Watt, and Mr John Harmison, members of the P.C.C. and with the consent of the incumbent Mr Leatherbarrow, the authors dismantled the steps and removed the stones into the churchyard and the church porch.

In order to establish their provenance it can be recorded that the following have been recovered:

1. A fragment of a medieval gravestone with part of the steps of a Calvary Cross (Plate).
2. Half of a capital in Norman style, presumably from the nave arcade. This piece matches those built into the church tower. Two complete examples set on reconstructed columns adorn the start of the path next to the house but are too heavy to remove without mechanical aids.
3. A slightly damaged column base which is also matched by one in the church tower.
4. A gravestone with the inscription HERE LIES JANE | TAYLOR OF WHAMTO | WN WHO DIED DEC | 15 1719 AG[ED] 60. The epitaph is given in full here because the stone has flaked and no doubt, in time, the fragile flakes which were recovered will be lost.
5. The gravestone in two pieces of John and Jane Boustead which gave a *terminus post quem* for the construction of the gateway of 1842. It seems probable though that the steps and gateway post-date the church restoration of 1845.

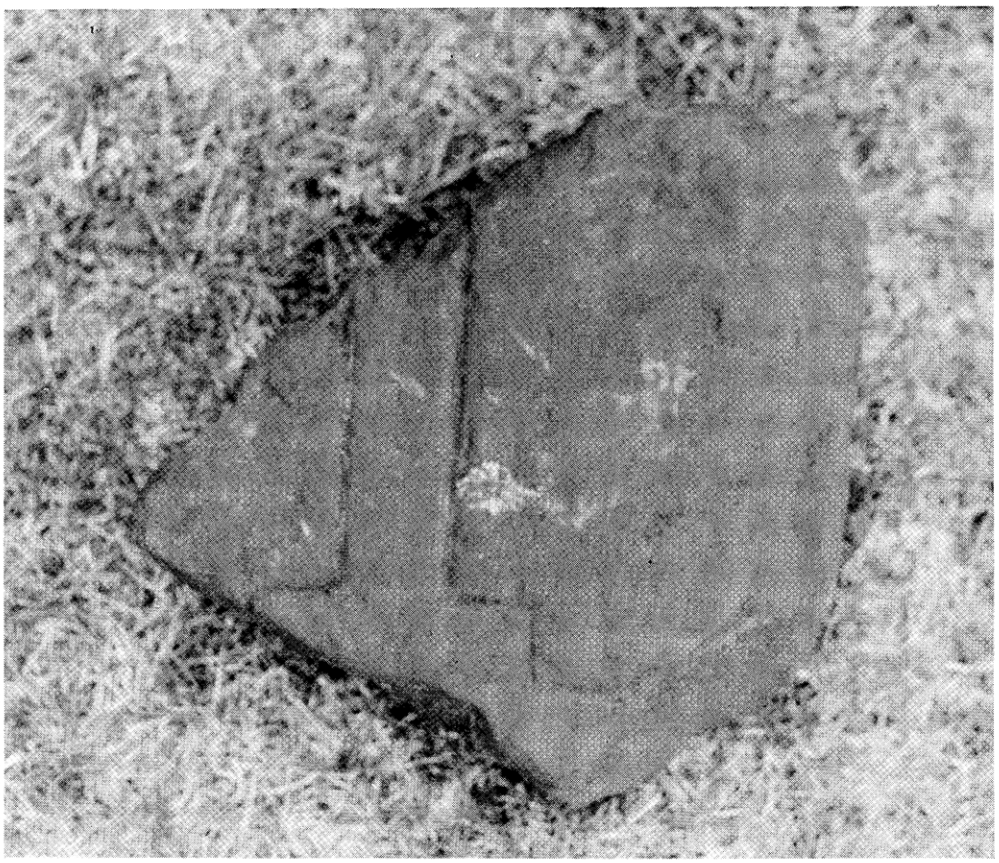

PLATE – Kirklington Church: medieval gravestone fragment (No. 1).

13. *Cumbria in 1773*
By JEREMY BLACK

An interesting, though brief account, of a trip through Cumbria in 1773 can be found in the Drake held in the Buckinghamshire Record Office in Aylesbury. The letter was sent by John Drake to his father William Drake. John Drake was on a tour to Scotland and Ireland, and he sent the letter from Carlisle on 3 August 1773. The full reference is D/DR/8/5/2.

Carlisle Aug 3 1773

"From Manchester we travelled thro' Westmoreland, for about 15 or 20 miles over a country conception mountainous and barren, and lay at a village called Shapp consisting only of three or four houses nigh to Sir James Lowthers, by whose Park we travelled, but not within sight of the mansion, which we were informed was not at all worth seeing, the old habitation being formerly burnt down and the present made out of the offices, and reached this place by dinnertime yesterday, the situation of which is very pleasing, being situated upon a hill with the river Eden running at the bottom; there is nothing at all worthy of notice here except the castle (which was taken and retaken by the Rebels three or four times), from the walls of which you have a very fine view to the Northumberland hills and the country round about; the Cathedral is very small but neat."

14. *Whirligig from Low Dovecote, Walton, Brampton*

By Sue Kirby

Carlisle Museum has recently been given a whirligig (or wind toy) found in the eaves of a barn at Walton. It is crudely carved from a plank of wood, probably beech. Its face is turned slightly to one side and it has a pointed hat. Two articulated arms, bound on their upper sections with steel wire, are fixed to the shoulders with iron rods. One is fashioned in the form of a paddle or round bat, the other in the form of an oar or cricket bat. Both turn simultaneously over the figure's head. It has two legs with a small hole at the base of each but no feet. There is a further hole on the back of the figure, a wooden plug through its chest just underneath the arms, and a hole at the base of its torso. It is 24 cm high and its arms are 20 cm and 19.5 cm long respectively.

Whirligigs are toys set up outdoors so that the paddle-like arms are whirled around by the wind. Most were designed to revolve freely to face the wind. The hole at the base of the torso of this example was probably for a metal pinion to make this possible. According to Lipman and Winchester,[1] large whirligigs mounted on rods were used as vanes to indicate both wind direction and velocity guaged by the speed of the revolving arms. Perhaps small examples such as this one were children's playthings. It has been suggested that they were "Sunday toys" used in households where the Sabbath was strictly observed and play, if permitted at all, restricted to quiet toys.[2]

Although a good number of American examples have found their way into both public and private collections in the United States, whirligigs surviving in this country are extremely rare. Perhaps the determining factor has been the effect of the British climate as confirmed by Thomas Hardy in The Trumpet Major (1880):

> "In the large stubbard-tree at the corner of the (mill-house) garden was erected a pole of larch-fir, which the miller had bought with others at a sale of small timber in Damer's Wood one Christmas week. It rose from the upper boughs of the tree to about the height of a fisherman's mast, and on top was a vane in the form of a sailor with his arms stretched out. When the sun shone upon this figure it could be seen that the greater part of his countenance was gone, and the paint washed from his body so far as to reveal that he had been a soldier in red before he became a sailor in blue. The image had, in fact, been John, one of our coming characters, and was then turned into Robert, another of them. This revolving piece of statuary could not, however, be relied on as a vane, owing to the neighbouring hill, which formed variable currents in the wind."[3]

A pair of very similar whirligigs (a soldier and sailor) are recorded in a photograph of Clovelly taken in about 1900. It may be that Hardy was inspired by these very examples. They no longer survive except in the photograph. There is an example in the Pinto Collection at Birmingham Museum but there is some doubt as to whether it is in fact a wind toy (one of its arms is fixed) and its provenance is unknown. It could be that the whirligig in Carlisle Museum's collection is the only surviving securely provenanced English example.

There is very little known about the makers of whirligigs. It is likely that they were farmers and artisans. Untrained as carvers, they worked for their own pleasure or on a semi-professional basis for neighbours and friends. Judging by surviving American examples military figures were very popular. The carving is often of high quality with realistic detail and painted colour providing a reliable guide to dating. An example is the representation of an officer from the War of 1812 in the collection of Mr Stewart Gregory.[4]

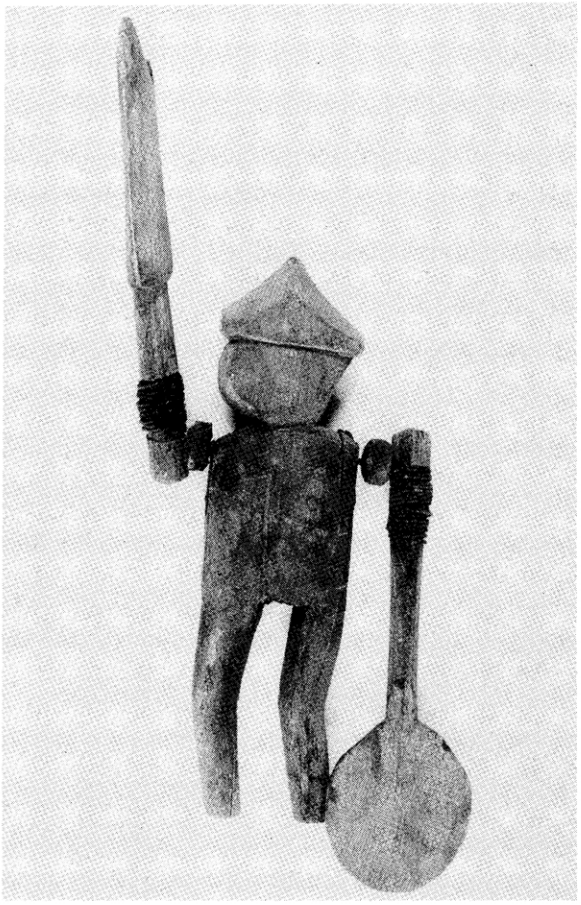

PLATE – Whirligig or wind toy from Walton given by Lynn Watling.
Carlisle Museum 40-1986.

Somewhat closer to the Carlisle Museum acquisition is the foot high "Sailor Jack" dated to the eighteenth century and listed in the Index of American Design at the National Gallery of Art, Washington D.C.[5] Like the Walton example it is a symbol of a human figure rather than an accurate portrayal.

References

[1] Lipman, J. and Winchester, A. *The Flowering of American Folk Art* (Viking Press N.Y. 1974).
[2] Lipman, J. and Winchester, A. *op. cit.*
[3] Thomas Hardy, *The Trumpet Major*, Chapter II (Macmillan paperback 1962) quoted in Ayres, James, *The Art of the People in Britain and America*, catalogue to the exhibition held at the Corner House Arts Centre, (Manchester, 1985).
[4] Cited in Fitzgerald, Ken, *Weathervanes and Whirligigs* (Clarkson N. Potter Inc. N.Y. 1967).
[5] Cited in Christensen, E. O. *Early American Wood Carving* (1952).

Acknowledgements:

I should like to thank James Ayres, Judith Elsdon, Richard de Peyer and Mark Suggitt for help with the preparation of this paper and Joan Johnson for typing it.

15. *A pair of sealed green glass wine bottles in Penrith Museum*

By EDGAR BOLTON

The bottles (accession number 1986.18) are a survival from the former Penrith Museum. No accompanying documentation has been traced. They are the only eighteenth-century glass vessels in this museum and rank amongst the best post-medieval vessels in the county as a whole. As they are identically sealed, comparison of the two raises points of interest.

This note is taken from a more detailed description and discussion (Bolton unpublished) lodged with other records in the museum archive.

I would like to thank Catherine Goss, fomerly Curator of Penrith Museum, for her assistance, and also Ian Caruana (Carlisle Archaeological Unit), Andrew King (Winchester City Museums), Sue Kirby (fomerly of Carlisle Museum) and Tim Padley (Carlisle Archaeological Unit) for their help in various aspects of this work.

Discussion

Glass "wine" bottles were used as containers for a range of beverages and were used particularly for storage (Morgan n.d., 18; Hume 1961, 103, n. 71; Ruggles-Brise 1949, 20; Little 1904, 214).

The evolution of the shape of the glass wine bottle has been understood in outline for a long time (e.g. Price 1910; Leeds 1914; 1946). There is even an early essay (Little 1904) based on material from the county. Most recent study relies heavily on the work of Hume (especially 1961; 1970, 60-71).

The Penrith bottles are rather more squat than the majority of bottles of their date, but can be broadly paralleled throughout the second half-18th century and early 19th century (e.g. Hume 1970, figs 12-13). The situation is clearly complex, and attempts, such as Robertson (1975), to date bottles by morphological indices must be used with caution.

The capacities of bottles of this date are scattered over a broad range (Moody 1966, fig. 4). The Penrith bottles (estimated maxima 1297 and 1330 ml) are clearly well over a quart, but fall short of the two-quart ("pottle") size when compared with any of the three eighteenth-century liquid measures (the Ale Gallon, the Wine Gallon and the "reputed quart". See Moody (1960) for a discussion of the origins of these). It was recognized, for example in the Bill submitted by the Member for Cork in 1802 (Moody 1960, 60), that capacities often fell short of the stated size, so it is possible to imagine the Penrith bottles as an under-size pottle based on the "reputed quart".

The bottles have been produced by blowing a cylinder in an open, one-piece mould. This is the simplest type of mould, evidence for the use of which exists on many wine bottles of this date, but is rarely commented upon. This is unhelpful, as it has fuelled the simplistic notion that until the appearance of the Ricketts mould (patented 1822) all bottles were entirely "handmade".

The difference in the capacities of the two bottles shows that even if they had been produced with the same mould, variation can arise from differences in the size of the initial gather, the position of the blowpipe above the mould and the extent of inflation (See Schuler 1959a; 1959b for discussion of glass-working techniques). Further deviation arises from the continued practice of finishing the bases by hand (see below). The addition of a pair of movable shoulder moulds, perfected in 1802 by Charles Chubsee of Stourbridge (Morgan n.d., 20-1) and incorporated into Ricketts' (1822) patent together with a mould-part to shape the basal kick, overcame these problems and led to the first proper standardization of bottle shapes and sizes.

A variety of tools were used to indent the bases and sometimes these leave characteristic impressions (Jones 1971, 63-8). The impressions on the Penrith bottles are difficult to interpret, but some sort of blunt-ended, circular tool seems the most likely. Apart from the change in capacity, the effect of pushing in the base, which produces an outward bulge of the lower body,

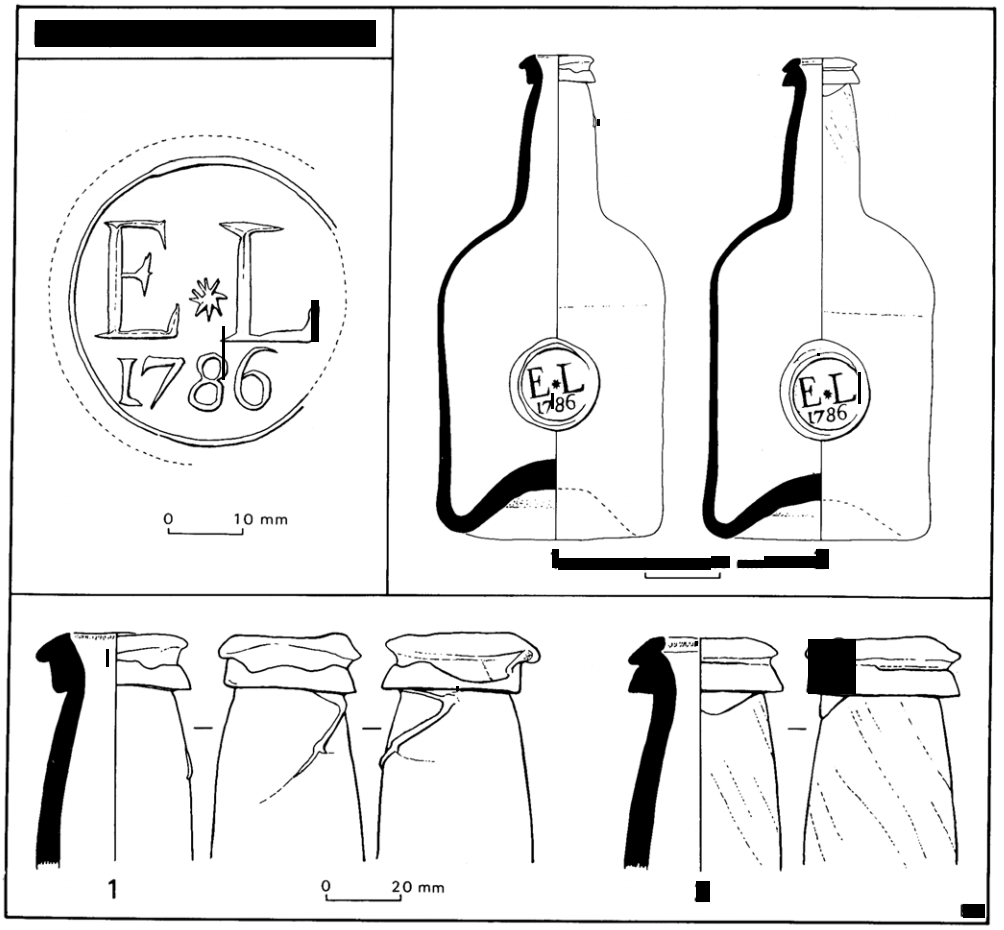

FIG 1 – Green glass wine bottles: Overall form, scale 1:4; details of neck finish, scale 1:2; composite drawing of seal impression, scale 1:1.

is to form a base-ring. The Penrith bottles have been formed carelessly and both are so uneven that they rock, (1) is much more pronounced in this.

Empontilling techniques are discussed by Toulouse (1968a; 1968b) and Jones (1971). The Penrith bottles show signs of deliberately reduced adhesion, a method, common on English bottles of this date, that has been referred to as "sanded pontil" (Jones 1971, 68-9). The Penrith bottles show slightly different manifestations of this technique: in the case of (1) there is clear evidence for dusting with grit-sized particles, in spite of which the wad has adhered moderately well in places. Perversely, (2) shows less evidence of dusting and slightly lower adhesion. It is possible that lower adhesion can also be achieved by allowing the temperature of the wad to drop.

Hume (1974, fig. 87) illustrates some dated examples of neck-finish. Clearly the ability to give a date to isolated fragments of wine bottles would be very useful for archaeological excavations, where the recovery of complete bottles is uncommon. The apparent difference in neck finish of the two Penrith bottles is an important illustration of the problems to be overcome. Had the two tops been recovered in a fragmentary state it would have been easy to conclude they were different types.

The difference in the *quantity* of glass trailed on to form the string-rim contributes to the difference in the appearance of the two neck-finishes. Allowing for this, the neck finishes can be seen to be similar, although rather less care has been taken to shape the string-rim of (1). It is interesting to note that the workmanship on (1) appears not to have been considered to be so sloppy as to cause the bottle to be rejected.

Bottles were sealed to indicate ownership, and the practice moved rapidly from simple identification of property to a statement of social standing. Ruggles-Brise (1949) identifies a great many seals and these show the variety of tavern owners, vintners, institutions and private individuals, noble and aspiring, who felt the need to mark bottles in this way.

The seal matrix was engraved on a circular, metal die. The fact that fine-detail of the die surface is preserved indicates that the seal was stamped when the applied glass was very hot, and it follows that the bottle itself must still have been quite hot (e.g. very soon after withdrawal from the mould) to avoid thermal shock.

I have not traced any other occurrences of this seal impression. Ruggles-Brise (1949, 122-3) lists two occurrences of the same initials (a) E.L. 1808 and (b) E.L. 1812. The first of these (Winchester City Museums accession number 951) has been misread by Ruggles-Brise and is actually I.L. 1808 (and is Truro 1976, no. 285). The second is probably not related, although still within a notional lifespan. Hume (1961, 115, no. 27) records the initials E.L. (not identified) on a seal found at Brookshire Plantation, near West Point, Virginia, but the date is probably late 17th century. Another "EL" on a seal, namely EDW.LOMBE ESQUIRE 1736 (Ruggles-Brise 1949, 120) died in 1738.

The stylistic similarity of the Penrith seal to one (A T 1785) on an octagonal bottle (Ruggles-Brise 1949, 144, pl. 2) is sufficiently strong as to suggest the same die-cutter (it does not follow that the same bottle-house was involved). Another similar seal (R T 1799) was recovered in excavations at Clifton Hall, near Penrith (Fairclough 1980, fig. 8 no. 9).

The eight-armed star may be a corruption of the heraldic *mullet*, a five-pointed star representing a spur. A variety of emblems are used to denote rank (e.g. Earl's coronet, Bishop's mitre) but in this case the star is likely to be simply decorative. It is possible that presence of an eight-armed star on the seals of early Piermont Water bottles, which were current in Britain in the period *c.*1720-70 (Hume 1970, 61) may have influenced British styles.

The dates on seals are fundamental to the typological dating of unsealed bottles (Hume 1961; 1970) and it is reasonable to ask how reliable the dates actually are. It is not surprising that die-cutters occasionally got numbers muddled e.g. 1738 for 1783 (Truro 1976, nos. 117-18), and there are examples of dates which are wildly different from the date of the bottle e.g. Ashurst (1970, fig. 34, no. 3) illustrates an early 19th century bottle dated 1753, and sometimes there are good explanations for these (see Ruggles-Brise's comments 1949, 112) on the date 1648 on a hock bottle of *c.*1750 and (1949, 118-19) on the series of 19th century bottles sealed W.LEMAN.CHARD 1771 (Vose 1980, pl. 37). But judging individual bottles for consistency will only reveal the stark discrepancies.

The little independent evidence, e.g. the accounts of the Beilby and Bewick workshop (Ellison 1975; Wills 1977, 51) suggests that dates on seals will generally be no worse than a couple of years either side of the date of production.

The bottles have no provenance so there is nothing to draw attention to the Cumberland glasshouses (Buckley 1926) although it is probable that Maryport would have been producing bottles at this date. Within Britain there is generally insufficient information to identify the products of individual bottle-houses, or even to recognize, say, a Scottish bottle from an English one. But there is nothing in the information I have seen (Chambon 1955, pl. T; Hume 1961, 109-10, fig. 5, no. 24-6; Hume 1970, 63-4, 71, figs. 15-16; Hume 1974, 194-6, figs. 86-7; Ruggles-Brise 1949, 60, pl. 2; Jones 1971, figs. 3-4; Wills 1977, 34-7) to suggest a European origin.

Even when the excavation of a glasshouse produces vast quantities of bottle fragments and thus

leads to provisional characterization of the local products, as at Gawber (Ashurst, 1970), the international trade in cullet in the 18th century will always leave a nagging doubt.

Conclusions

Together the bottles allow us to appreciate the extent of variation to be expected in some aspects of manufacture. There are minor flaws common to both bottles (such as the rocking caused by the uneven base-ring, the misalignment of the seal matrix) which are interesting, if not surprising, and there are differences (such those in capacity and execution of neck finish) which are sobering.

There is little scope for a sudden improvement of the existing outline (Hume 1961; 1970) for the evolution of the shape of the wine bottle. Attention could profitably be given to details of technology to try and build up a picture of which characteristic techniques are found in combination. This may eventually lead to a better understanding of place of manufacture, and may allow some "fine-tuning" of the evolutionary type series. Almost any bottles, and even fragments, can be used to reveal the repertoire of techniques, but sealed bottles offer the best opportunity for progress.

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16. *Tempest Tower, Little Orton, and its builder James Sibson*

By JEREMY GODWIN, M.A.

Between 1874-9 James Sibson of 1 Cavendish Place,[1] Carlisle, gentleman, bought up a sizeable part of the houses and lands in Little Orton, and in 1875 built a new farmhouse on his recently bought lands, with an ornamental pele-like entrance-tower for the adjoining farmyard, to crown his arrival in society as a landed gentleman, setting it off with the genteel trappings of "The Park" (the fields across the road) and the "Roman Camp" (a field to west). Until 1878 some of "The Park" had been Little Orton Green, seven acres of rough pasture for its tenants in common, James Sibson included; in 1877 they agreed to have it enclosed, entrusting Lister Asquith with the work; he made his Award and map in 1878.[2] The lion's share went to James Sibson, but some went to others, whom he later bought out.[3] Also enclosed then was $1\frac{1}{2}$ acres of rough pasture at the west end of the old occupation road[4] (now bridleway) to Belle Vue and Carlisle. The "Roman Camp", a square-shaped field near Orton Moss, is now arable, with no sign of any reason for its name other than its shape; it was "called Plantation in deed".[3] And on Lough Bank[5] (a low ridge) and Far Croft (comparatively far, that is, from the village) he had built Tempest Tower.

The house is set back from the road by about a hundred yards, and is built[6] of brick laid in Flemish bond with very pale yellow stretchers; the effect is of paleness dotted with red. The main front is three-bay, two-storey, with Welsh slate roof, yellow brick chimney-stacks, rusticated stone quoins, two-pane sash windows, and front door in centre with flattened-half-oval radial fanlight set in a brick arch with red sandstone Tuscan columns *in antis*. Set back from the main block is an east wing built in like manner, two-storey, two bay. The tower itself adjoins the house on the west end: is of three storeys above the entrance-arch through to the brick farmyard behind; is built of red sandstone, ashlar to the main (south) front, cement-rendered on west, and with rougher, paler and darker bluish stones mixed in on the east side, now lichened, giving it a friendly, aged effect. The tower is narrower than the house, which juts into the farmyard. In the tower's south-west corner is a staircase to the upper floors. The tower is about fifteen feet square internally; walls about eighteen inches thick; has Tuscan pillars of red sandstone *in antis* on south front, with a sundial over the south-east pillar; red sandstone details to its rooms' small round-headed windows, and small lancets on the south-west and south-east corners; on the east side, are blind lancets for decoration. A battlemented top (four embrasures on the west side), hides the roof; on the south side is an enlarged central merlon pierced with three round holes set together for effect. There is one window, on the third floor facing north. Beneath the third-floor window, on the south side, is a pale-yellow stone tablet, inscribed in large capitals:

TEMPEST TOWER

BUILT BY
JAMES AND RUTH SIBSON
1875

On the north (farmyard) side, immediately above the arch, on a block of more-golden but now badly weathered stone, is a five-line inscription in small capitals, of which only the lower-left corner is now legible. The words are from Shakespeare's *Tempest*:[7]

"The cloud-capp'd towers, the gorgeous palaces,
The solemn temples, the great globe itself,
Yea, all which it inherit, shall dissolve,
And, like this insubstantial pageant faded,
Leave not a wreck behind."

(The inverted commas, and the word "wreck", are Sibson's. Perhaps he was quoting from memory). The words of Prospero, closing a masque of gods and goddesses to return to less-welcome reality, were an inspired but ironic choice, as James and Ruth were soon to realize. He was sixty when he built Tempest Tower; he died in 1892 mortgaged to the hilt, and by 1894 his name was no longer in Orton's list of owners, though a "principal" one in 1884.[8]

An avenue planted with four oak trees leads the drive up and through the tower; against the field-wall half-way down, is a three-step red sandstone mounting-block. Lawn to front; youngish copper-beech at south-east corner to road. The road goes to Bow and Moorhouse. Across the road is the former Green, now rich pasture. The farm is a working dairy farm and although in 1884 the tower was "a conspicuous object for miles around", nowadays it merely peeps over its buildings; on its low ridge, an unassertive cross between a church-tower such as Newton Arlosh's and a homely pele.

The fields comprising the tower and house's site were sold to James Sibson on 14 May 1874 by Mrs. Anne Hetherington of Carlisle: by 26 October 1875 he had built them, set up his farm, and become a landed proprietor. It was, however, only a farmhouse: he continued to live at 1. Cavendish Place, a comfortable but far from grand house in Warwick Road on the east corner of Spencer Street (No. 51 Spencer Street, also his, backs on to No. 1), which was leasehold. In Little Orton he now had about 258 acres, and twelve acres near Prior Rigg just into Caldewgate township; these twelve acres were part of the old Railton of Carleton (Carlisle) estate sold him by Mrs. Anne Hetherington, daughter of Joseph Railton – it comprised a house and 115¾ acres mainly in Little Orton. Another house and 113-116 acres (the total varies) was the old Twentyman estate, who sold to the said Railtons. The two houses near the east end of the village, opposite one another, called "Down Gate houses" in the 1741 sale deed by Furnass to Moor, were sold him by Mrs. Scott;[9] a twenty-acre parcel of former plantation (1838) later woodland (1855) was sold him by Joseph Hind's granddaughter Mary, now of Caldewgate, the wife of Walter Wood, late of Little Orton, yeoman. She also sold him her grandfather's house and 23½ acres. And from Norman of Bow (Orton), a fellow-owner in Little Orton before and after his time, he bought a 2¾-acre close called Middle Moss. Having built Tempest Tower, he merged Lough Bank, Far Croft, Near Croft, and Calf Garth into one large field which he called "Homestead Field", and today the farm's yards and buildings occupy most of its centre, west and north of the house.

But already he was living beyond his means, and the words on the north tablet may be his tacit admission. For his masque was as airy as Prospero's and the rest of his life was ensnared in a maze of mortgages, totalling over £10,000 by the time he died in 1892. His first mortgage was in 1874; by 1876 he had three; his last, in 1890 (aged 75), was to Dobinson & Watson, solicitors, Carlisle, for £270; the schedules of this 1890 mortgage lucidly summarize his debts and his estate, providing a good plan of the Little Orton components on its second skin; and there are draft notes amounting to a virtual survey too.[10] Other mortgagees included the Cumberland Benefit Building Society, using as lever his sixty shares in it (1876); and Thomas Blyth Howrie, a Scottish commercial traveller who by 1889 was of Inverness and was his son-in-law and joint Executor. Despite his financial juggling, he managed to buy 4¾ acres more in 1881, and made four exchanges of land in 1875, 1876, 1879, and 1888 totalling about 16¼ acres. Some of this was in "The Park". Until 1882

he had property also at Grinsdale, but it was sold for £1,000 that year to reduce his £8,400 mortgage. In Carlisle he had houses and plots in Tait Street, including freehold shops and houses at Nos. 4, 6, 8, and 10; in Botchergate similar on Tait Street's corner, and houses in James Terrace (built on the former "Rigg of land called Raven's") also in Botchergate; and he had two customary parcels of "the Manor of Botchergate" comprising a 44½-foot frontage on William Street (now with seven houses on it), and two houses on part of "two Riggs of land called Gards" with William Street on the south-east. He also had 1 Cavendish Place and 51 Spencer Street, both leasehold. He had bought some of his Tait Street/Botchergate estate in 1855 and 1861; in 1865 he bought two closes on the former common of Kirkandrews-on-Eden called Three-Haynings (10¼ acres, by 1890 made into one close); and in 1866 he bought a three-acre piece of the Haynings, a close near Prior Rigg.[10]

He made his Will[11] on 23 September 1889, describing himself as "gentleman", specifying most of his estate, but naming only his wife Ruth and his son-in-law Thomas Blyth Howrie as relatives; also named were Elizabeth Downes and her daughter then living under his roof. In addition to Howrie his other executor was his friend James Atkinson, draper, of 2 Cavendish Place. Ruth was to have his two abutting houses for life. He died at No. 1 on 31 October 1892 aged 77; the deaths notice mentions friends, but no details of life or relatives,[12] and there was neither obituary nor probate. His widow was still at 1 Cavendish Place in 1894, but had gone by 1897, when Mrs Howrie was living there; by 1914 her husband T. B. Howrie was resident there, having quitted trade.[13] Like James, Ruth Sibson had no probate after her death.

But Tempest Tower remains, and has matured with time, a late example of its kind. Others, such as the Nottinghamshire banker and amateur architect Joseph Pocklington, have built such whimsies: but they, unlike James Sibson, could afford it. The farm has kept its character as a working farm,[14] and has kept its name: though the reason will soon be hard to seek, once the last of the vital north inscription disintegrates, that now with the recently-deposited deeds explains both name and history of this modest estate.

Notes and references

The main source is an unpromising-looking large bundle of deeds and mortgages in C.R.O., Carlisle, ref. DX/1134/13, with further deeds in DX/1134/4 and DX/1134/14; these were deposited in September 1986, from the office of Dobinson, Turner & Hughes, solicitors, Carlisle. Also from them, but previously, are the Little Orton Inclosure Agreement and Award (1877-8), ref. DX/960/1-2. All references are from DX/1134/13 unless stated, supplemented with my own observations made on a visit on 27 September 1986.

[1] Now 61 Warwick Road. For "Cavendish Place" as street name see Arthur's Map of Carlisle, 1880.

[2] DX/960/1-2; the time-lag explainable by the fact that Lister Asquith, as a busy surveyor, would slot it into his other work.

[3] Draft notes (survey) to unravel the mortgages, *c.*1890, in DX/1134/13.

[4] Ordnance Survey 25" first edition (1864), Cumberland Sheet XXIII.5, and its accompanying parish gazetteer. Little Orton is in Baldwinholme Township. This sheet's date is given in its second edition. C.R.O., Carlisle's copy of the first edition sheet was later used in 1877-8 to draw up the allotments of the inclosure, and marks the local landowners around the village, so that it is an estate map in effect. Other plans of whole or parts of James Sibson's estate are inset or on dorse of DX/1134/4 (1875 deed) (Down Gate houses and land); DX/1134/13 (May 1874, whole estate); *ibid.*, 1890 (do.); *ibid.*, February 1875 (part of estate); *ibid.*, July 1881 (close south of village). As for the "road", it is now a good "green lane", with some stone metals in its bottom, and runs into Belle Vue, where it becomes Green Lane and then Brookside, ending at the original foot of Bower Street.

[5] Named in plan on dorse of May 1874's deed.

[6] Technical details from D.O.E. Scheduled Buildings List, City of Carlisle (part), 1984, C.R.O. Carlisle, S/DOE/3/21, supplemented and corrected by what I saw (the columns' order is not "Ionic"; the sundial is overlooked; as were much of the inscriptions). Tempest Tower is listed as Grade II.

[7] Shakespeare, *The Tempest*, Act IV Scene 1, lines 152-6.

[8] T. F. Bulmer, *Directory of East Cumberland* (1884), p. 279; Kelly's *Directory of Cumberland* (1894).
[9] The draft mortgage of 21 October 1875 for a 1½-acre part of Lough Bank conveys it "together with the dwelling house and buildings erected thereon": this is Tempest Tower. As for Down Gate houses, the descent was Furnass, Moor (1741), Millican (of Maryport), Bowes (do.), Scott, Sibson (in two stages, 1875 and 1879).
[10] The Grinsdale estate is also briefly mentioned in his 1881 mortgage. There were Sibsons at Grinsdale in the early 19th century (see e.g. C.R.O., Carlisle, DX/769/210), but James Sibson was not baptized there (1814-17).
[11] Office copy is in DX/1134/13.
[12] *Carlisle Journal*, 4 November 1892, p. 3.
[13] Kelly's *Directory*, 1894, 1897, 1914.
[14] Kelly's and Bulmer's and other Directories, 1875-date.

17. *An Ethnographic Specimen at Rosley School*

IAN CARUANA

Lest confusion should occur in the future, it is worthwhile to put on record that a 'fish-tailed' stone axe of African origin in the children's museum at Rosley School (Westward Parish) near Wigton is a recent import into the county. Fuller details of its history, as far as is known, and drawings have been deposited in Carlisle Museum.

Proceedings

By MRS D. MORGAN

The following list is a summary of the Society's excursions since those published in Proceedings in CW2, lxxvii. The places or buildings mentioned are those visited by the Society and described to members and their guests.

1977

Summer meeting, 8 and 9 July: Eden Area - Howgill Castle, Kirkby Thore Hall and Roman Fort, Long Marton Church, Maulds Meaburn Hall, Milburn Village, Morland Church and House, Newbiggin Hall, Shap Abbey, Wetheriggs Pottery, Witherslack Stone Circle.

Autumn meeting, 8 - 15 September: Winchester - Avebury, Chichester, Fishbourne Roman Villa, Romsey Abbey, Stonehenge, Old Sarum, Salisbury Cathedral, Singleton Open Air Museum, Winchester and environs.

1978

Spring meeting, 1 April, Ulverston.

Summer meeting, 7 & 8 July: Cockermouth - Maryport area - Brigham Church, Bridekirk Church, Clifton Church, Crosscannonby Church, Dearham Church, Maryport - Harbour, Motte & Moated Site, Roman Fort, Netherhall, The Salt Pans.

Autumn meeting, 7 - 10 September: Hull area - Beverley Minster and St Mary, Bridlington Priory Church and The Bayle, Burton Agnes Hall, Hull Art Gallery, Town Docks, Guildhall, Holy Trinity Church, Trinity House and Wilberforce House, York Coppergate Excavations, The Bedern, The College of the Vicars General.