

Assessment of Ceramic Building Material and Mortar from Clare Abbey, County Clare, Ireland (C020)

Alan Vince

A small collection of ceramic building material and mortar from archaeological fieldwork at Clare Abbey undertaken by TVAS Ireland Ltd was submitted for identification and assessment. A small proportion consisted of fragments of stone with no sign of working, which are catalogued but not assessed. The remainder consists of brick fragments of later medieval or post-medieval date, some fragments of field drain of 19th or 20th-century date and a fragment of ridge tile of medieval or early post-medieval date. The mortar appears to come from the core of a substantial wall.

Description

Mortar

Five samples of mortar were submitted. They range in size from a small piece weighing 1gm to a large sample of 873gm (two fragments). All the fragments appear to have the same composition and contain abundant subangular gravel of unknown lithology. The larger fragments have flat surfaces which might either be wall facing or the impressions of ashlar blocks, although the lack of tooling marks makes the latter unlikely.

Ceramic Building Material

Ridge Tile

A small fragment from a ridge tile was submitted. The fragment has a fine, inclusionless groundmass with sparse inclusions. The core is reduced grey and the surfaces and margins are oxidized. Spots of plain glaze are present on the upper surface. Such ridge tiles were used on Anglo-Norman structures in Ireland from the later 13th to the 16th or 17th centuries.

Brick

Sixteen fragments of brick were submitted. These could be divided into two groups based on an examination of their fabric at x20 magnification.

The first group, consisting of 14 of the fragments, is composed of a calcareous, silty clay with whitened surfaces (salt surfacing) indicating that it was made from a calcareous salt-rich clay. Some of the fragments have moderate impressions of straw in the body but no other inclusions are present. One of the fragments has a slightly coarser texture than the remainder. Some of the fragments have a moulding sand on their bases and sides composed of well-rounded quartzose sand.

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This sand is visually extremely close to that found in the Severn Valley around Worcester and it is possible that this fabric is indeed imported from Western England.

The second group consists of two fragments which contain moderate angular rock inclusions, amongst which visually chert appears to be present.

Field Drain

Five fragments of field drain were submitted. All have a similar appearance, and were made from a fine, calcareous, clay and have smooth surfaces, inside and out.

Assessment

The ridge tile and the brick fragments could be of medieval or early post-medieval date and the bricks are very similar to those used in the 15th century at Tewkesbury Abbey and Llanthony Secunda Priory, Gloucester, both of which appear to have been produced at Worcester. Without a search of the geological literature, an Irish source cannot be discounted, but it is unlikely.

The field drains are of a type which became common in England in the mid 19th century and these are probably no earlier. Whether these are local or imported is uncertain to the author, but again good parallels exist in the Bristol Channel, for example at Bridgewater, where such fine calcareous clays were utilised.

Further Work

The source of the main brick group and the field drains could be investigated further using thin section and chemical analysis but the ridge tile and the second brick group contain fragments which are too small for further study.

Appendix 1

REFNO	DN NO	class	Context	Cname	Subfabric	Description	Form	Part	Nosh	NoV	Weight
51:61	0	CBM	51	MTIL	SILTY CALCAREOUS;SALT SURFACED	FINE ROUNDED QUARTZ MOULDING SAND	BRICK	BS	1	1	35
51:62	0	CBM	51	MTIL	SILTY CALCAREOUS;SALT SURFACED		BRICK	BS	1	1	5
51:63	0	CBM	51	MTIL	SILTY CALCAREOUS;SALT SURFACED		BRICK	BS	1	1	2
51:64	0	CBM	51	MTIL	SILTY CALCAREOUS;SALT SURFACED		BRICK	BS	1	1	0.5
39:16	0	CBM	39	MTIL	SILTY CALCAREOUS;SALT SURFACED;MODERATE STRAW VOIDS	FINE ROUNDED QUARTZ MOULDING SAND	BRICK	BS	1	1	272
50:4	0	CBM	50	PMTIL	IRON-RICH CLAY PELLETS;FINE CALCAREOUS GROUNDMASS;SPARSE STRAW VOIDS	MOULDED	FIELD DRAIN	BS	1	1	38
50:5	0	CBM	50	PMTIL	IRON-RICH CLAY PELLETS;FINE CALCAREOUS GROUNDMASS;SPARSE STRAW VOIDS	MOULDED	FIELD DRAIN	BS	1	1	8
50:6	0	CBM	50	PMTIL	IRON-RICH CLAY PELLETS;FINE CALCAREOUS GROUNDMASS;SPARSE STRAW VOIDS	MOULDED	FIELD DRAIN	BS	1	1	1
50:7	0	CBM	50	PMTIL	IRON-RICH CLAY PELLETS;FINE CALCAREOUS GROUNDMASS;SPARSE STRAW VOIDS	MOULDED	FIELD DRAIN	BS	1	1	0.5
55:86	0	CBM	55	MTIL	SILTY CALCAREOUS;SALT SURFACED		BRICK	BS	1	1	26
55:87	0	CBM	55	MTIL	SILTY CALCAREOUS;SALT SURFACED		BRICK	BS	1	1	27
55:88	0	CBM	55	MTIL	SILTY CALCAREOUS;SALT SURFACED		BRICK	BS	1	1	18
55:89	0	CBM	55	MTIL	SILTY CALCAREOUS;SALT SURFACED		BRICK	BS	1	1	11
55:90	0	CBM	55	MTIL	ANGULAR ROCK FRAGS <3.0MM		BRICK	BS	1	1	5
55:91	0	CBM	55	MTIL	SILTY CALCAREOUS;SALT SURFACED		BRICK	BS	1	1	4
55:92	0	CBM	55	MTIL	COARSE SILTY CALCAREOUS;SALT SURFACED		BRICK	BS	1	1	1
55:93	0	CBM	55	MTIL	ANGULAR ROCK FRAGS <3.0MM		BRICK	BS	1	1	0.1
93:2	0	STONE	93	STONE	CRINOIDAL LIMESTONE		GEO	BS	1	1	37
93:3	0	STONE	93	STONE	WHITE/LIGHT GREY MICRITE		GEO	BS	1	1	9

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AVAC Report 2007/97

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59:34	0	CBM	59	STONE	SPARRY LIMESTONE		GEO	BS	1	1	14
59:35	0	CBM	59	MTIL	SILTY CALCAREOUS;SALT SURFACED		BRICK	BS	1	1	4
59:36	0	CBM	59	MTIL	INCLUSIONLESS GROUNDMASS;SPARSE QUARTZ AND CALCAREOUS INCLUSIONS	PLAIN GL SPOTS;OXID SURFACES;GREY CORE	RIDGE	BS	1	1	2
58:78	0	CBM	58	MTIL	SILTY CALCAREOUS;SALT SURFACED		BRICK	BS	1	1	13
51:65	0	CBM	51	PMTIL	IRON-RICH CLAY PELLETS;FINE CALCAREOUS GROUNDMASS	MOULDED	FIELD DRAIN	BS	1	1	17
51:60	0	CBM	51	MTIL	SILTY CALCAREOUS;SALT SURFACED		BRICK	BS	1	1	7
	0	MORTAR	151	MORTAR	ABUNDANT SUBANGULAR GRAVEL <5.0MM		MORTAR	BS	13	1	702
	0	MORTAR	59	MORTAR	ABUNDANT SUBANGULAR GRAVEL <5.0MM		MORTAR	BS	2	1	873
	0	MORTAR	97	MORTAR	ABUNDANT SUBANGULAR GRAVEL <5.0MM		MORTAR	BS	1	1	1
	0	MORTAR	68	MORTAR	ABUNDANT SUBANGULAR GRAVEL <5.0MM		MORTAR	BS	6	1	58
	0	MORTAR	153	MORTAR	ABUNDANT SUBANGULAR GRAVEL <5.0MM		MORTAR	BS	2	1	41