

Report on the metalworking remains at Grenagh North, Co. Cork (20E0004)

Paul Rondelez

Macroom, Co. Cork

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Introduction

During archaeological investigations ahead of construction work at Grenagh North, Co. Cork, a large ditch and several other features were uncovered. The ditch and a linear feature yielded multiple pieces of heavily weathered slag, including smithing hearth cake material, pointing to blacksmithing carried out nearby. Fragments of pottery retrieved from deposits together with slag suggests the activity took place in Anglo-Norman times. A sherd of like crucible material points to the metalworking also included the production of copper-alloy objects.

Description of the material

Most of the metalworking remains (1681g) were recovered from north west to south east running ditch F11.

One of its lower fills, F20, yielded a partially preserved, heavily weathered smithing hearth cake (283g). More heavily weathered slag, including a smithing hearth cake (193g), was recovered in higher fill, F18. Another weathered smithing hearth cake was retrieved from fill F44 (142g). More weathered slag and smithing hearth cake material (Fig. 1) was found in upper fills F13 (331g). Sherds of late medieval pottery were recovered from fills F18 and F20.

Upper fill F6 of the same ditch F11, yielded a body sherd of a heat-affected ceramic vessel (Fig. 2). The fabric is very fine grained and a slight curvature suggests a rather large original diameter. The inner surface has up to four thin layers of vitrification with no visual metallic inclusions.

A further heavily weathered smithing hearth cake was recovered from single fill F36 within linear feature F37.

Interpretation and conclusions

The slag is characteristic of the waste of blacksmithing activities. The associated pottery suggests it is of late medieval date and its weathered nature suggests it could have been dumped in ditch F11 and linear F37 with the location of the activity being further afield.

The vitrification on the inner surface of the heat-affected ceramic fragment from upper fill F6 of ditch F11, suggests a metalworking function, likely a crucible, and its four-fold layering points to multiple use of the same. Crucibles can have different functions but the melting down of stock metal to cast into a desired shape is most likely. Although no metallic inclusions are visible, copper, or one of its alloys, is the most probable metal melted in this vessel. This would suggest the crucible was used for casting a series of smaller copper(-alloy) objects or single larger one. As such, its function could have been related to objects for domestic use or, possibly, to copper(-alloy) required in the nearby late medieval church.

Catalogue (materials not related to metalworking in italics)

Cut	Fill	Feature	Description	Weight (g)
F11	F6	Ditch	Fragment of heat-affected clay, heavily vitrified on its inner surface. 28 by 25mm and between 19 and 12mm thick. The clay is very fine-grained and has no inclusions. The outer surface appears to show slight curvature and if this would be representative of the whole, its diameter would be at least 0.1m. The vitrification consists of minimum 4 layers less than 1mm each thick. It has no metallic inclusions	8
F11	F13	Ditch	Heavily weathered, rather dense, irregular partially preserved (c. 80%) smithing hearth cake	205
F11	F13	Ditch	Two pieces of heavily weathered, rather dense slag	126
F11	F18	Ditch	Heavily weathered, rather dense, irregular smithing hearth cake	193
F11	F18	Ditch	Two pieces of heavily weathered, rather dense slag	62
F11	F20	Ditch	Heavily weathered, rather dense, rounded smithing hearth cake	662
F11	F20	Ditch	Heavily weathered, rather dense, irregular partially preserved (c. 70%) smithing hearth cake	283
F11	F44	Ditch	Heavily weathered, rather dense, flat bun-shaped, partially preserved (c. 80%) smithing hearth cake	142
F37	F36	Linear	Heavily weathered, rather dense, flat bun-shaped smithing hearth cake	234
<i>F37</i>	<i>F36</i>	<i>Linear</i>	<i>Likely heavily corroded iron object</i>	

Figures



Fig. 1. Weathered smithing hearth cake from fill F13 within ditch F11



Fig. 2a. Likely crucible fragment (outer surface) from fill F6 within ditch F11



Fig. 2b. Likely crucible fragment (inner surface) from fill F6 within ditch F11