

# Analysis of the metallurgical residues from the Water Supply Scheme excavations at Tuam, Co. Galway (10E0117)

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## **Introduction**

During excavations in the historic centre of Tuam, Co. Galway, a limited amount of metal working residues were recovered (Bower and Delaney 2011). All the material is likely to have been produced during iron smithing.

## **Methodology**

The metallurgical material was examined macroscopically and using a binocular microscope, after which the assemblage was described and weighed (see Catalogue).

## **The material**

In Trench 2 at Church Lane three small pieces of slag were found in fill (C.14) of ditch (C.13) and another in fill (C.16) of its recut (C.15). All pieces are rather undiagnostic, but fit well into the range of types of slag which are the result of blacksmithing. Fill (C.14) also produced as yet unidentified pottery sherds.

In Trench 3 at Saw Pit Lane, an additional piece of metal working debris was found in the upper fill (C.49) of a large ditch (C.48) (Pl. 1). This piece was designated as 'iron bloom', i.e. the product removed from the furnace after smelting, but is identifiable as the central part of a Smithing Hearth Cake, which is the typical result of early iron smithing (Crew 1996). The ditch itself seems to have been overlain by the boundary wall (C.59) of St. Jarlath graveyard and radiocarbon analysis on animal bone from a lower fill (C.57) of the same ditch returned a date of cal AD 652-766 (UB-17156) (J. Kiely, pers. comm.).

## **Conclusions**

The assemblage from the Saw Pit Lane area in Tuam indicates that iron smithing was taking place here, both in the Early Medieval period and at a later, yet to be specified, date.

## **References**

- Bower N. and Delaney F. 2011 *Preliminary Excavation Report – Sawpit Lane, Tuam, Co. Galway. Excavation Licence Number 10E0117*. Unpublished Preliminary Report, Eachtra Archaeological Projects Ltd.
- Crew P. 1996 *Bloom refining and smithing slags and other residues*. (=Historical Metallurgy Society. Archaeology, Datasheet 6). London, Historical Metallurgy Society.

## Catalogue

Context No.	Sample No.	Find No.	Feature	Weight (g)	Description
14	2		Fill of ditch c.13	7	Three small pieces of light, vesicular slag. Two drippy pieces
16		18	Fill of recut c.15	29	Small slag fragment with multiple charcoal inclusions
49		36	Fill of ditch c.48	121	Fragment of dense SHC. Charcoal impressions on the base and a vitrified creamy green upper surface

## Plates



Plate 1: Fragment of a Smithing Hearth Cake from (C.49), Saw Pit Lane, showing a fracture face and the vitrified upper surface.