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# Stone Axes in Co. Tipperary

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This paper reports the recent discovery of a stone axe and a stone adze in Co. Tipperary. A morphological description of these important objects (by Cooney) is accompanied by a report on their petrology (by Feehan and Stillman), and the objects are set in the context of the presently known number and distribution of axes in the county (by Grogan). The term "axe" is taken to cover axes, adzes and chisels in the general discussion.

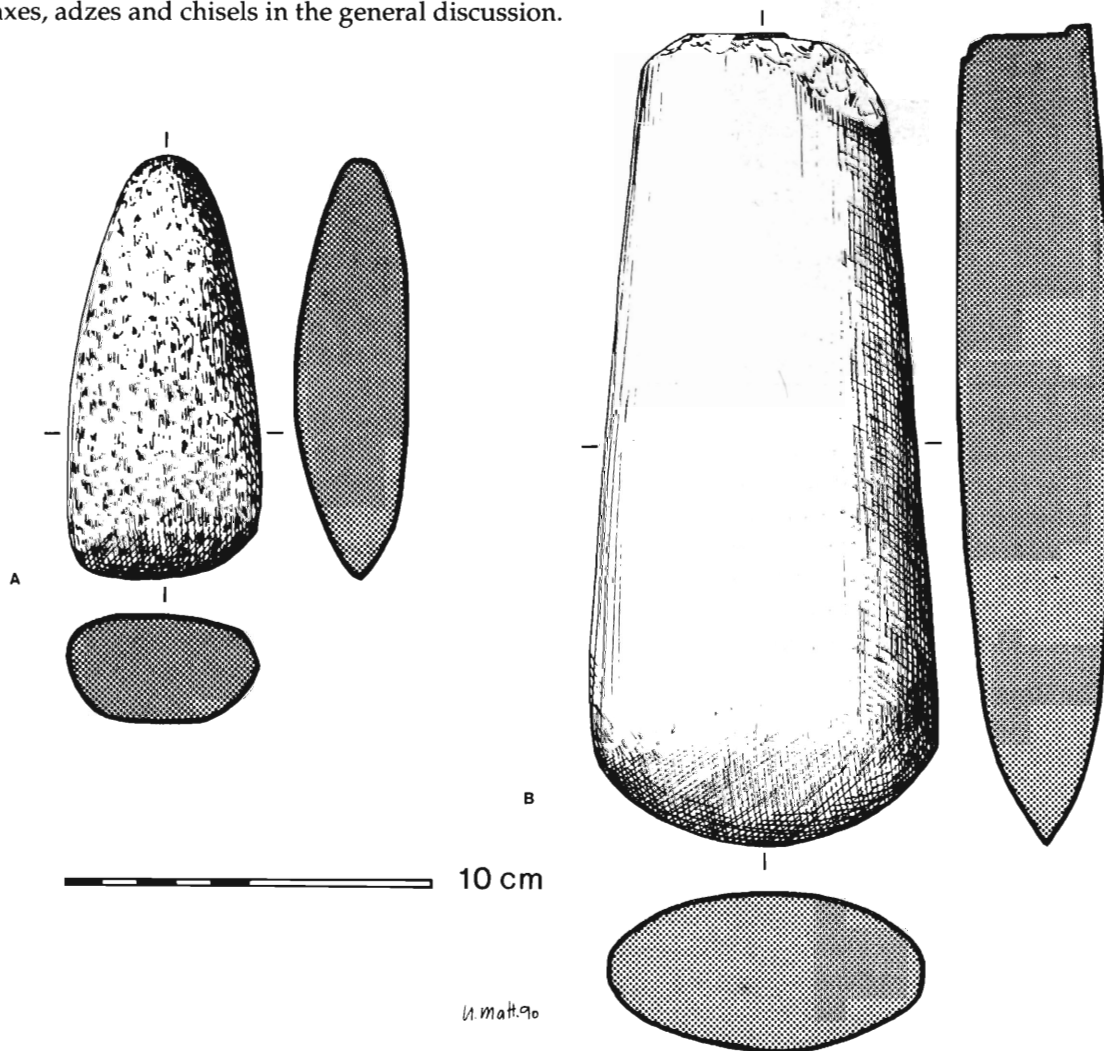
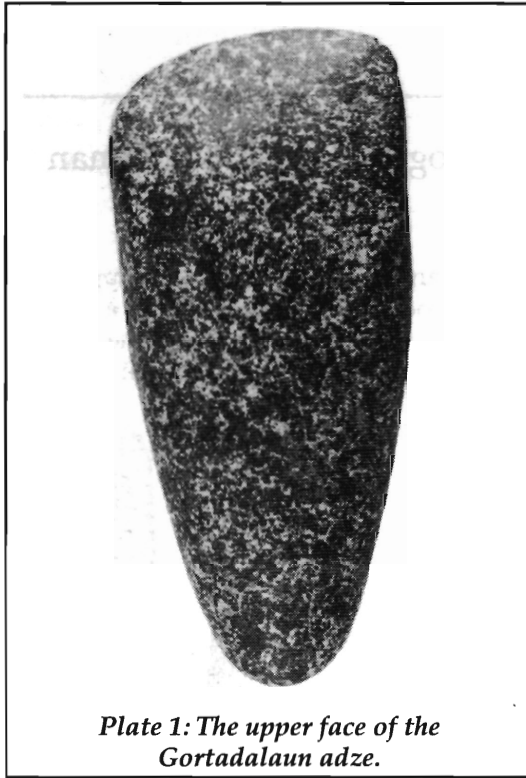


Figure 1: (A) the adze from Gortadalaun; (B) the axe from Ringroe.



*Plate 1: The upper face of the Gortadalaun adze.*

### **The Gortadalaun adze**

In Gortadalaun townland (OS 6" 15, 10.0cm from W, 33.3cm from N, Nat. Grid Ref. R 884 847) to the south of Ardcroney a stone adze was found in the mid-1980s while cabbage was being weeded. The location is shown as 2 on Figure 2. This object (Fig. 1A, and Plate 1) was manufactured by pecking or hammering, and then was ground to smoothen the surface irregularities. The object has a slightly irregular appearance.

The sides are broad, with the upper areas rounded (and with a noticeably coarser surface than the rest of the adze), but they become flat lower down. The right side is slightly convex in profile; the left side is markedly convex in profile. Both sides have a clear junction with the cutting edge. The upper face is very gently convex in profile, with a marked bevel to a small blade area which has a more polished surface than the rest of the axe. The lower face is convex in profile with a larger blade area.

The cutting edge is asymmetrical in appearance and shows signs of wear, particularly towards the right side. The butt is complete and rounded in appearance. The profile of the adze is thick with a

plano-convex section. It is 116mm in length, 52mm in maximum width (at the junction of sides and cutting edge), 31mm in maximum thickness and weighs 302gm. The object is in private possession.

The petrological analysis of the Gortadalaun adze was by X-ray diffraction and fluorescence analysis of a very small sample of powder taken from a tiny hole drilled in the object.

The identification of the mineral species is not definitive because of the small size of the powder sample. It can, however, be described as being made from a metagabbro, possibly from the Antrim province; but there are many other metagabbro locations in Ireland, notably in Donegal, Connemara and Tyrone. It is not local to the Gortadalaun area.

### **The Ringroe axe**

The axe was found, in the 1970s in a ploughed field, in the townland of Ringroe (OS 6" sheet 10, 18.0cm from W, 15.7cm from S. Nat. Grid Ref R 892 900) to the north of Ardcroney. The location is shown as 1 on Figure 2. The object (Fig. 1B, and Plate 2), which was manufactured by flaking, grinding and polishing, is in good condition and has a very regular appearance, with a fine all over polish except where it has been damaged at the butt.

The sides are broad with an overall rounded appearance, but they are faceted. They expand from the butt to the cutting edge. Both have a clearly defined junction with the cutting edge. Both the upper and lower faces are gently convex in profile and convex in section, with well defined blade areas. There is a small area with an unpolished surface on the lower face, which appears to represent a remnant flake scar which was not removed during the grinding and polishing of the axe. Modern surface scratching and paint (?) are visible on both faces.

The cutting edge is symmetrical and thin, in good condition, but shows signs of wear with very

small chip marks along most of its length. The butt is broad, but has been damaged, and the polished surface at the contact with the sides and faces has been mostly removed. It is not clear if the butt was originally flat or whether it may have been oblique/diagonal in appearance. The axe, now in the collections of the National Museum of Ireland (NMI 1989:9), is 222mm in length, 94mm in maximum thickness (at junction of the sides and cutting edge); the maximum thickness is 44mm and it weighs 1573gm.

The petrological identification of the axe was carried out using a thin section taken from it. This was examined with a polarising microscope. The rock was identified as a mullite - cristobalite - iron oxide hornfels (porcellanite). This is petrographically identical with that at Tievebulliagh, Co. Antrim and Brockley, Rathlin Island, Co. Antrim.

### Discussion

These two objects are important additions to our knowledge of stone axes in Co. Tipperary on a number of grounds. The present estimate is that there are 39 axes known from the county (see Appendix 1), and only two others have the exact details of discovery and landscape context, such as we have for the Gortadalaun and Ringroe finds. The Ringroe axe is an example of a porcellanite axe from Tievebulliagh, or from Rathlin Island, Co. Antrim which ended in Co. Tipperary. It is a significant addition to the small number of porcellanite axes known from Munster (Sheridan, 1986; Sheridan *et al.*, forthcoming).

More specifically, it can be described as belonging to a particular form of porcellanite axe, known as the "Malone type", distinguished by being at least 200mm in length with a highly polished surface. Some of these axes have a markedly oblique, squared-off butt, but it is unclear whether the Ringroe axe had this feature.

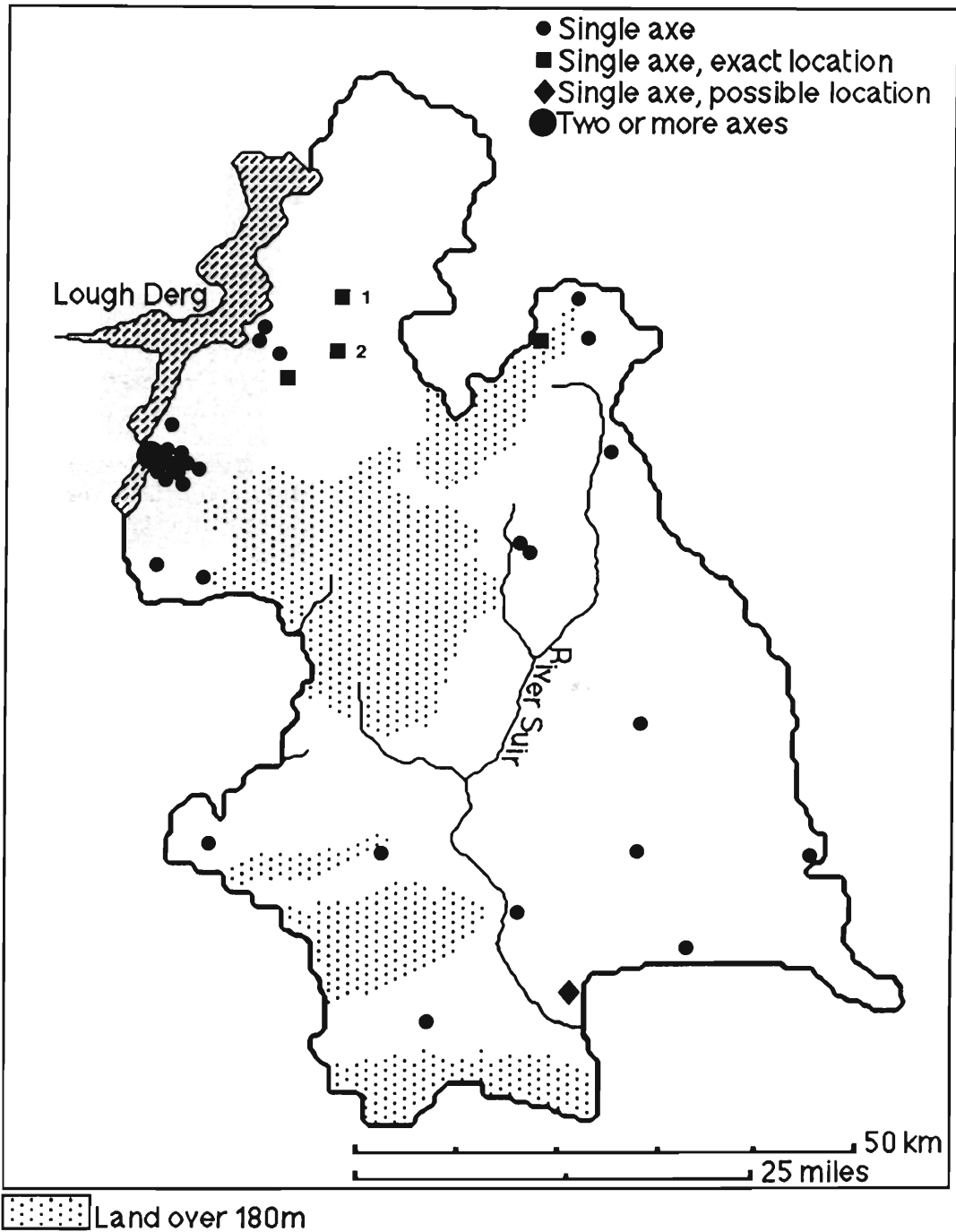
It can be suggested that as well as having a functional use axes like this would have had a social and economic role, serving as ceremonial or prestige objects (Sheridan, 1986, 23). It should be noted that while most Malone-type axes show no signs of use the Ringroe axe clearly does. Its value would have been enhanced by the fact that it was made from a non-local, "exotic" and high quality raw material.

The Gortadalaun adze is also made from a non-local raw material, although unlike the porcellanite the metagabbro cannot be tied to a restricted source and could have come from a number of different areas to the north. Bearing the slightly irregular shape of the adze in mind, there is a possibility that the object was made from a pebble of metagabbro which could have been available more locally in glacial deposits. Hence the Gortadalaun adze is more difficult to trace to its source point than the Ringroe axe.

Looking at the other axes from Tipperary, Grogan (1989) noted that a number of locally available raw materials such as limestone and clay ironstone were used in the manufacture of axes, but that there is at least one other example of a non-local axe in the form of a flint axe from Killerk North



*Plate 2: The upper face of the Ringroe axe.*



*Figure 2: Preliminary distribution map of stone axes in County Tipperary. The location of the Ringroe axe is shown at 1, and the location of the Gortadalawn adaze is shown at 2.*

townland (Lucas et al., 1971, 187). This is flaked or chipped with a polished surface on both faces adjacent to the cutting edge. While this might have been manufactured from glacial erratic flint (see Woodman and Griffiths, 1988), it is more likely to have been derived from the fresh flint deposits in the chalk outcrop areas in Cos. Antrim and Derry.

In terms of date, it is probable that the Ringroe and Gortadalaun objects and most of the other Tipperary axes date to the Neolithic period, sometime between 4000 and 2500 BC. Stone axes were in use before this date during the Mesolithic period (Woodman, 1978), and continued in use after the development of metallurgy in the Bronze Age (e.g., see Sheridan, 1986), but the main period of production and use was undoubtedly during the Neolithic.

The distribution of stone axes in the county is shown in Figure 2. On this map 36 out of the 39 known axes can be marked. The pattern of distribution shows a definite concentration to the south-west of Nenagh in the vicinity of the Shannon. This can be related to the great quantities of axes recovered from the Shannon at Killaloe (Mahr, 1937), and reflects considerable prehistoric activity in this area. The lesser concentration to the north of Nenagh in the general vicinity and to the west of Ardcroney could be linked to the evidence of important prehistoric sites in this area (Manning, 1983-4).

It is probable, however, that neither the map nor Appendix 1 reflects the total number of stone axes known from the county. Two of the authors (Cooney and Grogan) are compiling a national database of stone axes and would be very pleased to know of other examples from Co. Tipperary or adjacent areas.

**APPENDIX 1**  
List of stone axes from Co. Tipperary

<b>Townland</b>	<b>6" sheet</b>	<b>NGR</b>	<b>Registration No.</b>
Ballina 1 Found with Ballina 2?	25		NMI 1946 : 16
Ballina 2 Found with Ballina 1?	25		NMI 1946 : 17
Ballina 3-5 Found together with three fragments in a ploughed field	25		NMI 1947 : 200-2
Ballina 6 Lucas <i>et al</i> 1963, 117	25		NMI 1961 : 206
Ballyhimikan	20	R 850 813	NMI 1977 : 2172
Ballyphillips	30		NMI 1933 : 971
near Bansha	67		NMI 1908 : 159
Bartoose Lucas <i>et al</i> , 1961, 69	37		NMI 1959 : 775
near Cahir	76		CPM : G 949
Carrickavoher Lucas <i>et al</i> , 1962, 144	?		NMI 1960 : 569



Townland	6" sheet	NGR	Registration No.
Castlejohn Lucas <i>et al</i> , 1962, 144	72		NMI 1960 : 621
Cullenagh 1 Found with Cullenagh 2?	25		NMI 1938 : 162
Cullenagh 2 Found with Cullenagh 1	25		NMI 1938 : 163
Cullenagh 3	25		LM 29
Derrymore	17/18		Roscrea Heritage Centre
Cloney	87		NMI P1952 : 129
Dovea (Upper or Lower) 1 Lucas <i>et al</i> , 1962, 144	35		NMI 1960 : 580
Dovea (Upper or Lower) 2 Lucas <i>et al</i> , 1962, 144	35		NMI 1960 : 581
Dromineer	14		NMI 1978 : 6
Graystown	54		M UCC : 27
Gortadalaun	15	R 884 847	Priv. Possession
Killaloan Lower	83		Tipp. SR Co. Mus. 1984 : 1
Killerk North Lucas <i>et al</i> , 1971, 187	70		NMI 1968 : 35
Knigh	14		NMI 1944 : 420
Knockadromin Lucas <i>et al</i> , 1963, 117	25		NMI 1961 : 205
Knocklofty?	82		Tipp. SR Co. Mus. 1983 : 3?
Moanmore	65		NMI 1954 : 107
Rathmorley	?		M UCC : 28
Rathnaveoge Lower	17		NMI 1980 : 16
Ringroe	10	R 892 900	NMI 1989 : 9
Roolagh 1 202	25		NMI 1937 : 2488



Townland	6" sheet	NGR	Registration No.
Roolagh 2 Lucas <i>et al</i> , 1962, 143	25		NMI 1960 : 512
at Roscrea	12		NMI 1881 : 45
Ryninch (Upper or Lower?)	19		NMI 1937 : 2584
near St. David's	14		NMI 1937 : 1 (loan)
Shower Lucas <i>et al</i> , 1961, 69	37		NMI 1959 : 682
probably Co. Tipperary Lucas <i>et al</i> , 1960, 15			NMI 1958 : 83

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