

First Archaeobotanical Analysis from the Early Bronze Age settlement site of Caolas an Eilean in Coll, Inner Hebrides

By Natasha Cross with co-authors Dr Ruth Pelling; Dr Darko Maričević and Dr Emma Jenkins

THE SITE

Caolas an Eilean is located in Coll, Inner Hebrides and was occupied throughout the Early Bronze Age. The site was evaluated and excavated in 2006- 2007 by the Inner Hebrides Archaeological Project (Mithen 2007) and has been interpreted as a settlement, involving a major fire event (Maričević 2009). However, previous palaeoenvironmental work on the site is limited (Wicks 2007), with no previous archaeobotanical analysis on the site.

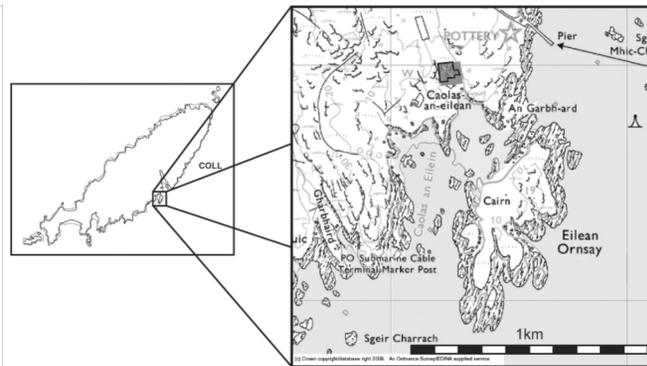


Figure 2: Site location of Caolas an Eilean in Coll, Inner Hebrides (Maričević 2009, p. 122).

Figure 1: Site location of Coll, Inner Hebrides (Wicks 2007a, p. 10).

RESEARCH AIM

The aim of this research is to gain further understanding of the plant use and palaeoenvironmental context of the Bronze Age site of Caolas an Eilean, through the analysis of archaeobotanical remains including charcoal.

METHODS

- 12 Samples were processed using flotation.
- Residues were sieved into 4mm, 2mm and 1mm fractions.
- Each flot was sieved into 4mm, 2mm, 1mm and 500µm fractions.
- Seeds, cereals and charcoal were identified and quantified.



Figure 3: Using the Siraf type flotation machine (Personal Collection)

RESULTS

Relative frequencies of flora within the assemblage

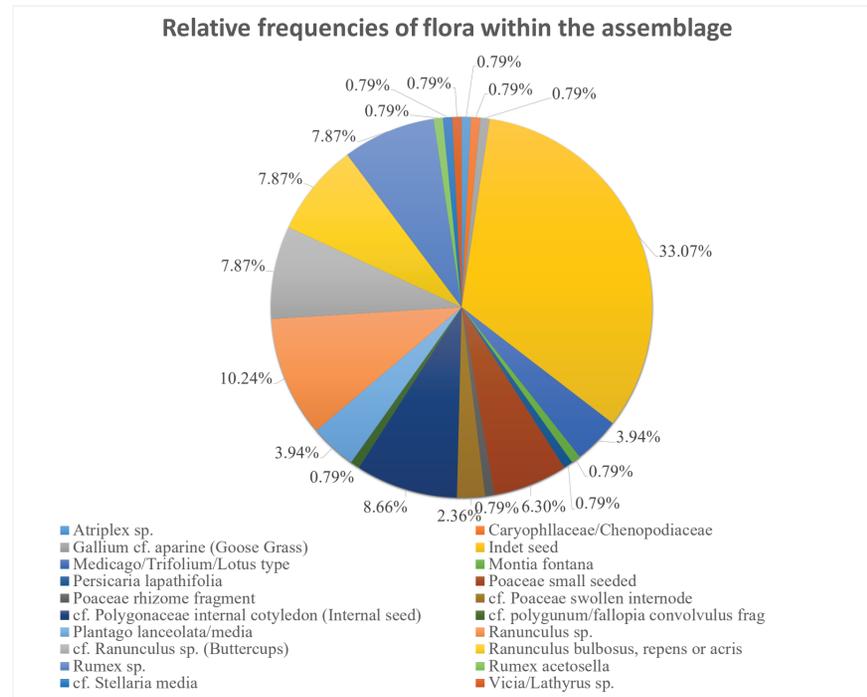


Figure 4: Relative frequencies of flora within the assemblage (Personal Collection)

- Total: 127 seeds (See figure 4).
- Some samples contained no seeds.
- 42 were indeterminate.
- 20 taxa represented.
- Dominated by *Ranunculus* sp., (Buttercup).
- *Polygonaceae* (Buckwheat family) internal cotyledons were common.
- Poor preservation- highly abraded.

Relative frequencies of charcoal within the assemblage

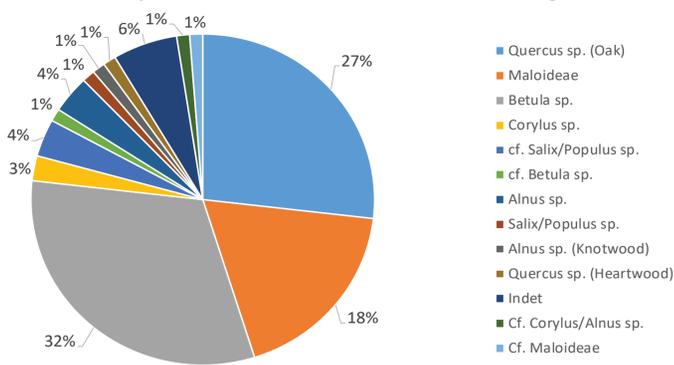


Figure 5: Relative frequencies of charcoal within the assemblage (Personal Collection)

- Total: 82 fragments identified (See figure 5).
- 5 were indeterminate.
- Dominated by *Betula* sp., (Birch) wood, followed by *Quercus* sp., (Oak) and Maloideae.
- Most mature trunk wood.

Relative frequencies of modern plant material and other finds within the assemblage

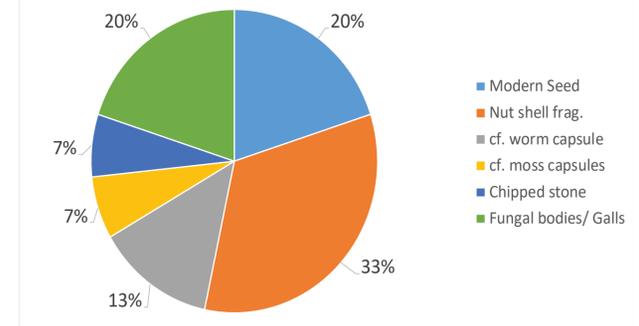


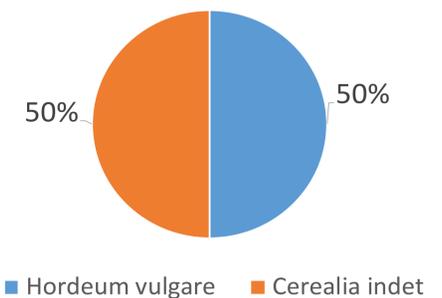
Figure 6: Relative frequencies of modern plant material within the assemblage (Personal Collection).

- Rare on site (See figure 7).
- 3 *Hordeum Vulgare* (Six-row Barley) grains.
- 3 indeterminate cereal grains.
- One *Hordeum Vulgare* grain was angular and likely hulled.

- Rare on site- only in 5 samples.
- Nut shell fragments most common (See figure 6).
- Fungal bodies and modern seeds more well represented.
- 1 fragment of chipped stone.

Figure 7: Relative frequencies of cereals within the assemblage (Personal Collection)

Relative frequencies of cereal grains within the assemblage



CONCLUSION

- Poor preservation made identification difficult.
- Environment dominated by buttercups and flora from the buckwheat family.
- Wood availability on the island was much greater than previously thought.
- Lack of sedges indicate evidence for peat burning.
- No heather or rushes found- unusual for peat/bog soils.
- Hulled barley would have required further processing prior to human consumption or before use as animal fodder.

REFERENCES

Maričević, D., 2009. *Later Prehistory of Tiree and Coll, Inner Hebrides, Scotland: Application of geophysics in archaeological investigation of cultural landscapes*. Thesis (PhD). University of Reading.

Mithen, S., 2007. *Inner Hebrides Archaeological Project: 2006 Fieldwork on Tiree, Coll and Mull*. University of Reading: Unpublished Report, Report 4.

Wicks, K., 2007. *Vegetation History, Human Impact and Climate Change During Prehistory: an Island Perspective of the Isles of Tiree, Coll and North-West Mull*. Thesis (PhD). University of Reading.