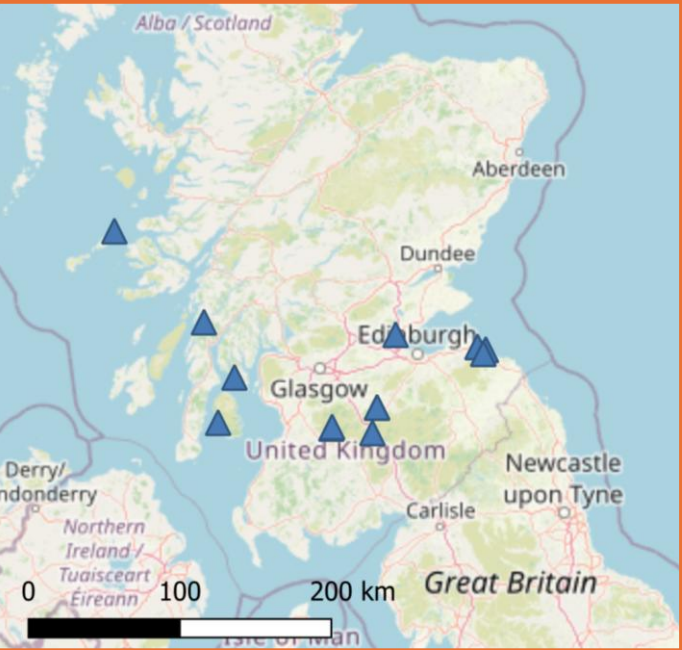


Society and Identity amongst the Bell Beaker People of Southwest Scotland: Integrated Analysis of the aDNA and Archaeological Evidence (2450-1800 BCE)

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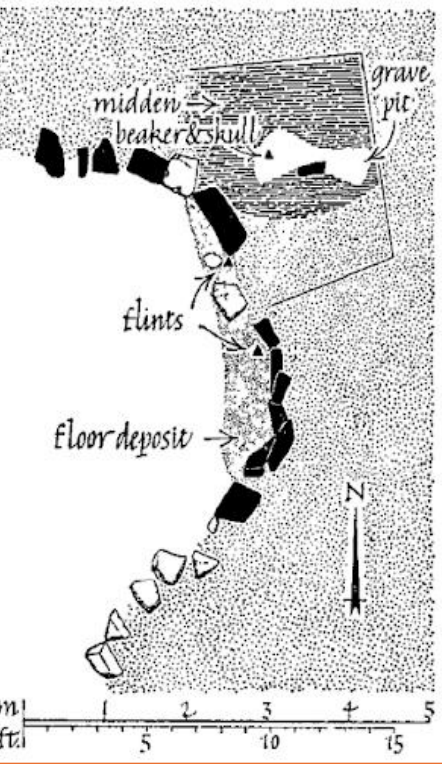
Introduction

Questions surrounding the origins of the Bell Beaker phenomenon, its associated practices, and interactions with existing populations have been debated since the 19th century. Despite several key discoveries in south-west Scotland, it remains an understudied Beaker region. Recent advances in aDNA and isotope research also now provide an opportunity to integrate archaeological and biomolecular evidence. Integrating osteological, mortuary, settlement, aDNA, and isotope datasets, this study adopts an engendered, evidence-focused approach to investigate identity, mobility, kinship, and social organisation amongst Bell Beaker communities in south-west Scotland.

Datasets:

- SW Scotland Beaker inhumation burials with viable osteological data (n=5)
- SE Scottish Beaker burial data (n=17)
- Domestic structures across 4 Beaker settlement sites (n=9)
- Published aDNA samples (n=8)
- Published isotope data (n=10)

Left: Map of all Southwestern Scottish sites and samples included in study.



Theoretical framework:

Identity is a composite of experience: the food we eat, our DNA, the landscapes we inhabit, the people we live amongst, and the ways we are remembered after death. Only by integrating both scientific and archaeological evidence can we comprehensively reconstruct identity in the past.

Analysis:

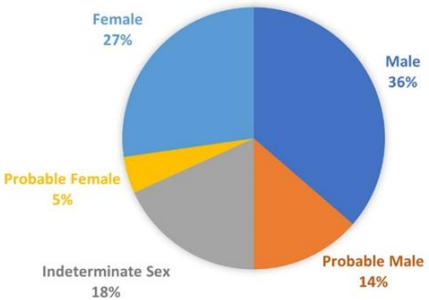
- Osteological data analysed against sex, grave composition, pathology and taphonomic data to create osteobiographies of individual lifeways and deathways.
- Architectural and craft production evidence, agricultural or pastoral traces, and site location used to interpret Beaker land use and social organisation.
- aDNA and strontium, oxygen, nitrogen, and carbon isotope data used to investigate ancestry, biological relatedness, mobility, and diet across samples.

Datasets were analysed separately, then integrated to form comprehensive societal and identity models.

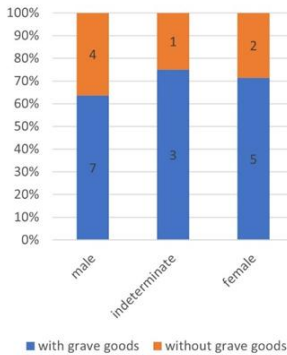
Left: Site illustration of Beaker burial and settlement site at Sorisdale, Coll

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SEX PREVALENCE AMONGST SOUTHERN SCOTTISH BEAKER SKELETONS.



Presence or absence of grave goods across sex categories



Above: Sex and grave goods in Beaker graves from southern Scotland.

Conclusions:

Population and mobility

- Southwest Scotland Beaker people had Pontic-Caspian Steppe ancestry, Lower Rhine cultural affiliations, and high levels of mobility.

Lifeways

- Settlement evidence indicates seasonal, semi-sedentary occupation of upland, lowland, and coastal landscapes.
- Settlement and isotopic evidence indicates a mixed farming economy focused on pastoralism and terrestrial resources.

Identity and kinship

- Archaeological and genetic evidence indicates complex kinship relationships that were not necessarily biologically based.
- Grave goods were more strongly associated with age than biological sex.

Society

- Archaeological evidence does not support models of a sexually stratified or socially hierarchical Bell Beaker society.

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