



**Location, Access & ownership:** This midden site (entry no. 5625 in the Shetland Sites and Monuments Record) lies at West Voe, Sumburgh, Dunrossness, Shetland (HU 392 110). It is directly opposite the nationally important multi-period site of Jarlshof and can be accessed from the beach.

**Main period:** Late Mesolithic–Early Neolithic



Fig. 1. The lower midden at West Voe exposed by coastal erosion in 2004 (Photo: N.D. Melton)

On the beach at West Voe a sequence of prehistoric middens has been exposed by coastal erosion. Particularly noticeable are the large oyster shells in the earliest midden, and it seems likely that the site equates with the ‘fossil oyster bed’ in the ‘seabank at Sumburgh’ that George Low describes having dug into during his tour of Shetland in 1774 (Low 1879, 186).

Preliminary investigations in 2002 (Melton & Nicholson 2004) revealed that the earliest, oyster-shell, midden also contained seal and seabird bones. This midden had been deposited on a thin black greasy layer that sealed the shattered sandstone bedrock. Immediately above the oyster-shell midden was another deposit made up of limpet shells; seal and seabird bones were again present. These two together comprise the ‘lower midden’, which was sealed by a layer of sand, c. 0.4 m thick. Above the sand was an ‘upper midden’ composed entirely of cockle shells. This upper midden butted against a drystone wall that was 0.6m wide and survived to a height of 0.6 m. Both wall and midden were then sealed by approximately 10 metres of unstable, mainly post-medieval, sand dunes.

An optically stimulated luminescence [OSL] date was obtained from the sand between the upper and lower middens. The date obtained, 4830 +/- 430 BC, showed this to be the first Mesolithic site to be identified in the Northern Isles. Following this encouraging preliminary result, radiocarbon dates of 4320–4030 cal BC and 3750–3520 cal BC were obtained from a limpet shell from the earlier midden and a cockle shell from the upper midden respectively.

The site was investigated in more detail in 2004 and 2005 by Bradford University (Melton & Nicholson 2007; Melton 2008; 2009). These excavations revealed that the Mesolithic–Neolithic transition occurred in the uppermost levels of the lower midden and was associated with an area of trampled mussel shells. Tiny sherds of pottery were found concreted into the trampled surface, and cattle and sheep bones were found immediately above it, together with yet more seal and seabird bones. Dates of 3770–3640 cal BC and 3710–3530 cal BC were obtained from the sheep and cattle bones. An analysis by Prof G. Gillmore of the layer of sand that separated the two middens revealed that it had been laid down c. 3500 BC by a series of major storms (Gillmore & Melton 2011). A pollen core taken in the nearby Loch of Gards revealed a decline in tree pollen during the period of midden formation (Edwards *et al.* 2009).

Fig. 2. Investigating the middens in 2004 (Photo: N.D. Melton)



The Late Mesolithic–Early Neolithic middens at West Voe are unique in Shetland and provide archaeological evidence for both the Mesolithic colonization of and the arrival of agriculture on this island group, the most remote in the North Atlantic to be reached by the Mesolithic and Neolithic peoples of Europe. Their archaeological importance is enhanced by the earlier discovery of Early Neolithic human remains during construction works at the nearby Sumburgh Airport in 1977 (Hedges & Parry 1979;

Walsh *et al.* 2012). These human remains are contemporary with the upper midden at West Voe and have provided an exceptional opportunity to study through scientific analysis the individuals likely to have been involved in forming the middens (Montgomery *et al.* 2013).

### References and further information

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