

C¹⁴ DATES FROM THE SCORESBY SUND REGION, 1972Abstracts by **Svend Funder**

Radiocarbon dates have been obtained on samples of marine bivalve shells and lake mud collected by the author. The dating has been carried out at the following three institutions: 1) The C¹⁴-laboratory at the National Museum, Copenhagen, by H. Tauber (samples marked K); 2) Department of chemistry at the University of Washington, U.S.A., by A. W. Fairhall (samples marked UW); 3) Isotopes Inc., Westwood, New Jersey, U.S.A. (samples marked I).

The dates are expressed as uncorrected C¹⁴ years based on the conventional half life for C¹⁴ of 5570 years. In the dating of bivalve shells the surface material of the shells has been removed prior to analysis.

The dates are listed according to their GGU numbers; their location appears on map 4.

GGU 106510: UW-227. At stream 4 km south of Gurreholm, Jameson Land (71° 12' N, 24° 33' W).

Age: 37000 ± 1100 B.P.
35050 B.C.

Shells of *Hiatella* (= *Saxicava*) *arctica* from surface of cliff of sorted silt 45 m above sea level. The top of the cliff forms an extensive terrace 50 ± 5 m above sea level.

Datings of shell substance from different levels in the shells in this sample are currently being carried out in order to evaluate possible contamination of the material.

GGU 106518: UW-228. At the coast of Jameson Land north of Lollandselv (70° 57' N, 24° 13' W).

Age: 19500 ± 250 B.P.
17550 B.C.

Shell of *Hiatella* (= *Saxicava*) *arctica* and *Mya truncata* from the surface of polygons on top of a bank of sorted silt 36 m above sea level.

- GGU 106524: I-5419. Coast of Jameson Land at Heden (70° 46' N, 24° 07' W).
 Age: a) 21020 ± 430 B.P.
 19070 B.C.
 b) 24300 ± 700 B.P.
 22350 B.C.

Shells of *Mya truncata* found *in situ* in cliff of grey silt 42-45 m above sea level. The top of the cliff forms an extensive abrasion terrace that ends in a boulder shoreline 50 m above sea level.

The two ages represent individual datings on material from the same sample; before dating a) 62 % of the shell substance had been removed from the surface; before dating b) 37 % was removed.

- GGU 146503: K-1917. "The Flakkerhuk moraine" at Kap Stewart, Jameson Land (70° 27' N, 22° 42' W).
 Age: > 35000 B.P.

Shell fragments of *Mya truncata*, *Hiatella* (= *Saxicava*) *arctica* and *Tridonta* (= *Astarte*) *borealis* on surface of an exposure of sorted silt 33-36 m above sea level in the lower part of the moraine that here attains a height of 69 m above sea level. The shell fragments were somewhat worn and may be reworked.

- GGU 146504: K-1918. At coast north-east of Kap Tobin (70° 25' N, 21° 54' W).
 Age: 380 ± 100 B.P.
 1570 A.D.

Shells of *Mya truncata* and *Hiatella* (= *Saxicava*) *arctica* from rock-fissures 6-8 m above sea level. Barnacle shells were found together with the bivalve shells and barnacle footplates were noted on the rock surface.

The data indicate that the bivalve shells may have been thrown up by the surge or pressed up by ice.

- GGU 146505: K-1916: "Mortens sø" at the mouth of Klitdal, Hurry Inlet (70° 52' N, 22° 27' W).
 Age: 9630 ± 120 B.P.
 7680 B.C.

Clay gyttja representing the lower 3 cm of a 403 cm thick gyttja deposit; the gyttja overlies gravel and sand of probable glacial origin. Lake water level 48 m above sea level.

The sample gives a minimum date for the deglaciation of the area – and of Hurry Inlet.

GGU 146506: K-1919. Mouth of Ryders Elv, Hurry Inlet (70° 52' N, 22° 29' W).

Age: 9010 ± 120 B.P.

7060 B.C.

Shells of *Mya truncata* on the surface of deposits of sorted silt and sand 30-33 m above sea level; indicative of sea level 35-41 m above the present. Marine limit 41 m above sea level at the locality.

GGU 146510: K-1915. At Konglomeratelv in Kjove Land (71° 21' N, 24° 50' W).

Age: 9900 ± 140 B.P.

7950 B.C.

Shells of *Hiatella* (= *Saxicava*) *arctica* and *Mya truncata in situ* in cliff of sorted silt 95-100 m above sea level. The silt is overlain by deltaic sand ending in a terrace at 107 m above sea level.

The silt represents the invasion of the sea in the area immediately after deglaciation, and the sample gives a minimum date for this event and for a sea level 107 m above the present.

The locality has been described earlier by Sugden & John (1965).

Reference

Sugden, D. E. & John, B. S. 1965: The raised marine features of Kjove Land, East Greenland. *Geogr J.* **131**, 235-247.

Note added in proof.

By further dating of sample 106510 an age of >40000 years BP has been obtained for both the outer and the inner fraction of the shell material. In both datings however, there were traces of C¹⁴ suggesting an age between 40000 and 50000 years for the sample (A. W. Fairhall, personal communication).