her remarks and her autobiography were only for his eyes, and even suppressed some passages in the autobiography before sending it to him.

6. Caroline here added her own footnote in the form of a P.S.: "I must say a few words by way of apology for the good king and ascribe the close bargens which were made between Him and my Brother to the shaby mean spirited advisers who were undoubtedly consulted on such occasions. . . . NB Sʳ J. Banks remained a sincere well meaning friend to the last."

7. Correspondence about the 40ft telescope between Herschel and Banks together with statements of the expenses are printed in A. Aspinall, *The later correspondence of George III* (5 vols, London, 1952–70), letters 236, 369, 379, 432, 570. The sums for which Herschel rendered 23 receipts from February 1786 to July 1790 (including his salary) totalled £2947. 10s. 0d. His original estimate had been £1395 with £150 per annum maintenance.

8. The ruin of her brother's health by his astronomical exertions made a deep impression upon Caroline who in her letters from Hanover is constantly asking for assurances of her correspondents' health. In particular when John was beginning some sweeps with his father's instruments in 1826 she not only sent many hints but also a long detailed warning against over-taxing his strength as his father had done (Caroline to John Herschel, 1 February 1826, Egerton MS 3761 f45ʳ).

9. *I.e.* Georgium Sidus as Herschel named Uranus, two satellites of which were detected in 1787.

10. The polar distance clock and an astronomical regulator by John Shelton were kept together in the hut where Caroline worked (Bennett, *op. cit.*, 91). The regulator, which remains in the possession of Herschel's descendants, was given to Herschel in 1786 by Alexander Aubert who states that "The Regulator was Skelton's own and which he made for himself" (Aubert to Herschel, 19 October 1786, printed in Constance A. Lubbock, *The Herschel chronicle, the life-story of William Herschel and his sister Caroline Herschel* (Cambridge, 1933), 180).

THE ISLAND OF EDAY

This small island is one of the Orkneys and, like the main island, it is relatively fertile. We spent a few days on the island and visited the chief remaining Megalithic sites. But we had everywhere the usual feeling of frustration in that we were sure that so much had been removed. Of three standing stones we found one, the Setter Stone, to be particularly interesting and one, at Burn of Mussetter, to be worthy of note.

The Setter Stone

This stone is about 16ft high and in plan 6ft × 21in. It is orientated about 283°, and this with a horizon altitude of 2°·1 shows a declination of about 7°, which is close to the Sun's declination one Megalithic month after the vernal equinox. Much more important, however, is the view to the north, because here appears the prominent vertical cliff at Grey Head on The Calf of Eday (Figure 1). The cliff is about 40ft high and forms the west side of a promontory pointing north.

Judging by the contours on the 1:10,000 O.S. map, the highest ground shown in Figure 1 is at the tip of the promontory. According to P. Young in his book *Slopes* (London, 1972), a cliff with this exposure is liable to an erosion rate of at
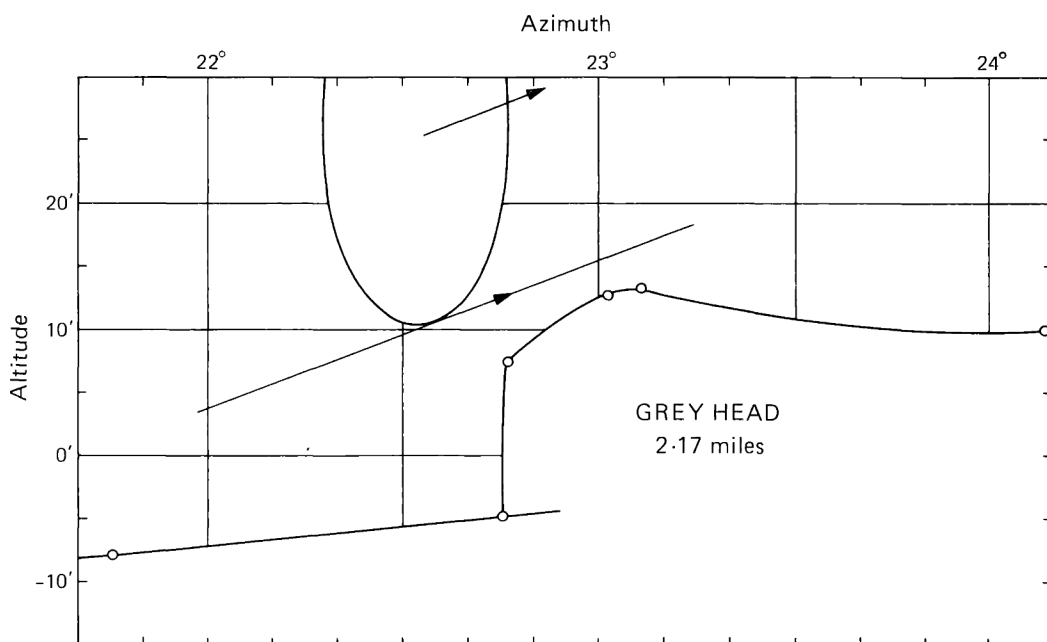
Azimuth

FIG. 1. Moon rising at major standstill with declination $(\epsilon+i)$ as seen from Setter Stone, Eday $(\epsilon=23°53')$.

least 1mm per year and perhaps much more. In 3,500 years there must have been many metres eroded off both the visible cliff and that behind, thus lowering the peak. Since 1m is, in Figure 1, about one arc minute, we see that no accurate estimate of declination is possible but the value cannot have been far from $(\epsilon+i)$, where ϵ and i are respectively the obliquity of the ecliptic and the inclination of the Moon's orbit.

Stone at Burn of Mussetter

This stone is about 8ft high and, according to local information, has recently been re-erected. The top of Forseness Hill is at 270°·6 with an altitude of 1°·0 and these give a declination of 0°·8, the value at Megalithic Man's equinox. No definite mark was, however, seen on the flat hill top. The cliff at Stanger Head gives a declination of about 28°·1 and it would be seen that the deficiency from $(\epsilon+i)$ is too great to be explained by erosion of the cliff which is 6 miles away.

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