

LETTERS TO THE EDITOR

GENERAL BATHYMETRIC CHART OF THE OCEANS (GEBCO):
THE ARCTIC SHEET

Madam, The review by Brian Harland of the *General bathymetric chart of the oceans, sheet 5.17, 5th ed*, which appears in the May 1980 issue of *Polar Record*, was brought to the attention of the GEBCO officers. Considerable concern was expressed and the following rejoinder by Professor Eric S. W. Simpson, chairman of the Joint Intergovernmental Oceanographic Commission/International Hydrographic Organization Guiding Committee for GEBCO was approved. It would therefore be greatly appreciated if this letter and rejoinder could be published in the next issue.

Yours faithfully,
 DESMOND P. D. SCOTT
 Permanent Secretary, GEBCO
 25 May 1980

Rejoinder

The misleading comments made by Brian Harland should be restored to proper perspective in the interests of scientific objectivity:

1. The polar sheets of the GEBCO series are represented on polar stereographic (not 'nearly equidistant') projection as clearly specified beneath the title.

2. This sheet covering the north polar region, is the latest in the series comprising the fifth edition of GEBCO which was originally established by Prince Albert I of Monaco in 1903.

3. The data sources comprise 26 listed publications and the 1:1 000 000 GEBCO world series plotting sheets maintained by volunteering national hydrographic offices. It should be noted here that the GEBCO guiding committee includes colleagues from the Soviet Union who have been active in the compilation of the series. The USSR data input into sheet 5.17 is listed in the references.

4. According to the key to hypsometric tints, all heights above 3 000 m are not coloured because there are no elevations higher than this.

5. In the case of Greenland there certainly do *appear* to be subglacial as well as supraglacial contours and a glance at the legend will confirm this to be the case.

6. Bathymetry *appears* to be the main point of the chart: this is certainly supported by the title of both sheet and series.

7. Since compilation of the bathymetric contours was undertaken by four experienced and responsible marine geoscientists, it is quite reasonable to 'take it on trust that the complex pattern of contours does justice to the very many sources listed'.

8. The density of sounding data, as shown on the chart by sounding lines, provides an adequate indication of the confidence limits within which the contours have been drawn. Reference to the legend will show that only spot-soundings were available (beneath sea ice) over large areas, yet in others the high density of comprehensive sounding data would have necessitated many closely-spaced lines were it not for the policy of the GEBCO guiding committee to enclose such areas in 'boxes' as indicated in the legend. Unless read with care, these areas may appear at first sight to be devoid of sounding data.

9. The 1:5 000 000 Arctic Ocean chart published by Heezen and Tharp in 1975 contained more contours and detail showing 'highly personalized and tectonically interpreted bathymetry'. It must, however, be emphasized that the late Dr Bruce Heezen and his close colleague Marie Tharp were among the most ardent and enthusiastic supporters of the GEBCO bathymetric chart series. Both of them fully supported the efforts of the four scientific coordinators (by no means a committee as supposed by Harland) to compile sheet 5.17 within the limits imposed by bathymetric control and tectonic interpretation. The GEBCO fifth edition custom is to indicate contours (isobaths) at 500 m intervals (plus the 200 m isobath), allowing for the inclusion of 100 m contour

intervals in areas where morphological complexity and sounding control permit. Heezen and Tharp would have been the last to regard their sheet as competing in any way with the GEBCO series.

10. 'Choice and spelling of place-names seems to have been capricious'. In producing a world bathymetric chart series for international use, the problem of a universally acceptable nomenclature continues to exercise the GEBCO guiding committee. For the land areas, names have been deliberately reduced to minimum and are represented by the standard romanization systems in use by the United Nations: there are no editors and their attention has therefore not wandered. The guiding committee would certainly welcome his constructive suggestions for improvement of the system in use.

11. Names of submarine morphological features have been printed in blue and, wherever possible, in the English language with alternative names separately tabulated. We understand Harland's wish for achievement of an internationally acceptable and accepted system of uniform nomenclature.

The most surprising element of a review written by a geologist of Brian Harland's international standing is his emphasis upon nomenclatural trivia instead of the important geological tectonic implications of the submarine morphological features shown on this chart.

Madam, I have been shown the above rejoinder and given an opportunity to reply. Some apology is due, but Professor Simpson protests too much. I have put myself in the wrong by looking for, but failing to see, the 'polar stereographic projection'; however, for such a projection the polar latitudes are 'nearly equidistant', which is what the average user is interested in. It would seem that the tone of my review nettled the chairman, who writes as though such high contributing authorities must be beyond criticism. My tone was undoubtedly coloured by the questionable spellings of the conspicuous place-names ('nomenclatural trivia').

Yours faithfully,
W. B. Harland
29 July 1980

REVIEW

THE LIFE OF AUGUST COURTAULD

[Review by J. M. Scott* of Nicholas Wollaston's *The man on the ice cap: the life of August Courtauld*, London, Constable, 1980, 260 p, illus. £8.95.]

Nicholas Wollaston showed courage in undertaking a biography of August Courtauld, whom he never met and whose main achievement was in the Arctic of which he had no experience. That he has succeeded in producing a readable book, and an interesting character study, suggests other qualities too.

He writes well. His genealogy of the Courtauld family from its Huguenot roots is fascinating; the rest of the 'Childhood' chapter reveals little. Mr Wollaston mentions as important young Courtauld's rejection by the navy. No doubt this was a crossroads, possibly his cross, but judging by his reactions as an RNVR lieutenant in World War II, either he or the navy would have had to change character. The story scarcely comes to life before 'Cambridge', and then skeletal for there can be few records. The biographer admits being puzzled by the descriptions of August's character provided by his friends—all contradictory and all more or less correct. Many life long

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