shedding of VSG complexed with antibody. Clarification of whether the hydrophobic extension is present on VSG at the cell surface must await the results of further experiments. Alternatively, the hydrophobic extension could act as a signal sequence during processing and secretion of VSG and could have been removed before arrival at the cell surface (in a manner analogous to amino-terminal leader sequences[11]). Comparison of the mature VSG amino terminus with the sequence inferred from the cDNA corresponding to the 5′ end of the mRNA, however, indicates the presence of an amino-terminal extension similar to the signal sequences found on almost all secreted proteins[11] (J.C.B. and G. Allen, unpublished results).

Glycosylation of VSG 117 has been shown to occur at positions 304 and 154 (Fig. 3; ref. 6 and G. Allen, personal communication). The tripeptide Asn-Ser-Thr found at the first site (position 304) conforms to the general sequence Asn-Xxx-Ser/Thr thought to be a requirement for glycosylation at asparagine residues[13]. The other site, however, does not. Instead, the cDNA predicts the tripeptide sequence Asp-Ser-Ser, suggesting attachment of the carbohydrate moiety to aspartate. To dismiss the possibility that this result was an artefact of the cDNA cloning procedure, a recombinant plasmid containing a genomic copy of the VSG 117 gene was analysed for the presence of the *Hin*fI cleavage site which is strictly dependent on the critical Asp codon (*GATTC*, positions 155–151, Fig. 3). The site was indeed present as defined by single and double digests with *Hin*fI and *Pst*I (J.C.B., unpublished results). It seems certain, therefore, that the primary translation product, at least, has Asp at position 154. We are now investigating whether the Asp is converted to Asn before glycosylation or is instead involved in a novel linkage to the carbohydrate. Similar analyses of cDNAs for other VSGs (now underway) should indicate whether the hydrophobic extension and glycosylated aspartic acid are universal features of the surface glycoproteins of *T.brucei*.

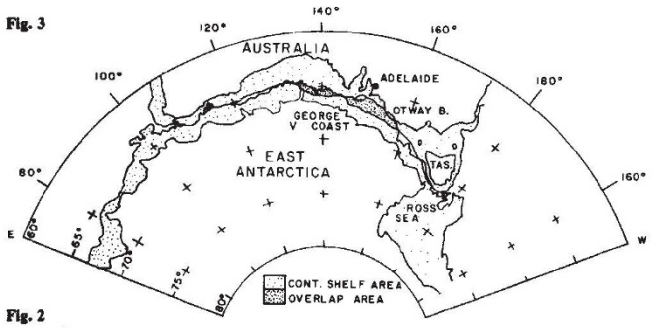
We thank C. A. Paynter for technical assistance, K. M. O'Hare and A. J. Newman for helpful advice and suggestions, G. Allen and A. A. Holder for communicating results before publication and critical reading of the manuscript, and A. C. C. Frasch, A. Bernards, C. Weissmann and M. Winther for supplying recombinant clones of VSG 117.

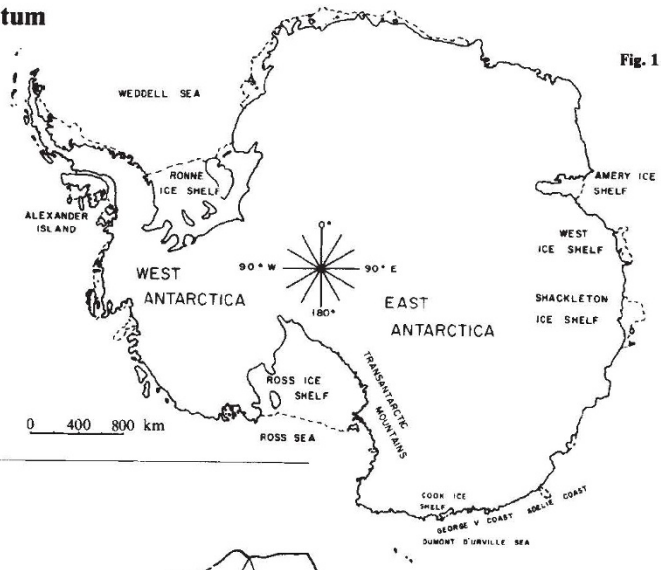
Received 7 June; accepted 1 October 1980.

1. Vickerman, K. *Nature* **273**, 613 (1978).
2. Cross, G. A. M. *Proc. R. Soc.* **B202**, 55 (1978).
3. Cross, G. A. M. *Parasitology* **71**, 393 (1975).
4. Bridgen, P. J., Cross, G. A. M. & Bridgen, J. *Nature* **263**, 613 (1976).
5. Johnson, J. G. & Cross, G. A. M. *Biochem. J.* **178**, 689 (1979).
6. Holder, A. A. & Cross, G. A. M. *Molec. biochem. Parasit.* (in the press).
7. Hoeijmakers, J. H. J., Borst, P., Van den Burg, J., Weissmann, C. & Cross, G. A. M. *Gene* **8**, 391 (1980).
8. Proudfoot, N. J. & Brownlee, G. G. *Nature* **263**, 211 (1976).
9. Porter, A. G. *et al. Nature* **282**, 471 (1979).
10. Waxman, D. J. & Strominger, J. L. *J. biol. Chem.* **254**, 4863 (1979).
11. Davis, B. D. & Tai, P.-C. *Nature* **283**, 433 (1980).
12. Barbet, A. F. & McGuire, T. C. *Proc. natn. Acad. Sci. U.S.A.* **75**, 1989 (1980).
13. Marshall, R. D. *Biochem. Soc. Symp.* **40**, 17 (1974).
14. Maxam, A. M. & Gilbert, W. *Proc. natn. Acad. Sci. U.S.A.* **74**, 560 (1977).
15. Sanger, F. & Coulson, A. R. *FEBS Lett.* **87**, 107 (1978).

Erratum

Figures 1, 2 and 3 were omitted from the letter 'Lower Cretaceous sediment from the East Antarctic continental shelf' by E. W. Domack *et al. Nature* **287**, 625–626.





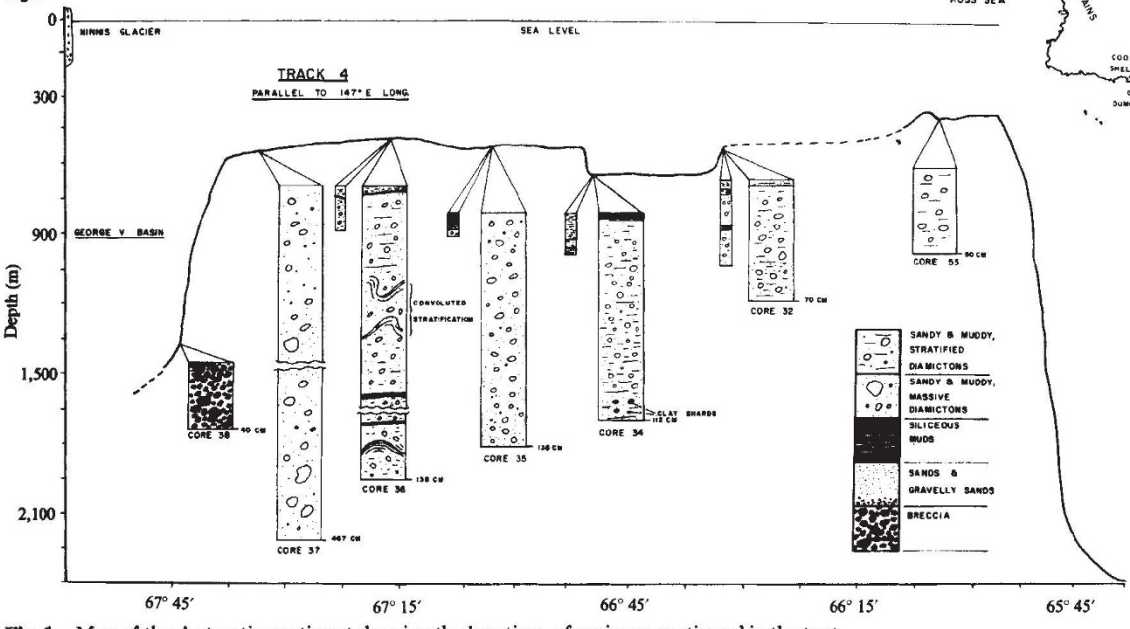


Fig. 1 Map of the Antarctic continent showing the locations of regions mentioned in the text.
Fig. 2 Profile of the continental shelf off the George V coast showing the relationship of core 38 to other sediments of the shelf (after ref. 7, Fig. 24).
Fig. 3 Morphological reconstruction of Australia and East Antarctica showing the positions of localities mentioned in the text (after ref. 9, Fig. 3).