moraine in harmony with summer ogive troughs (where diffuse surficial debris lowers the differential ablation ratio below 1) can be explained by mass movement of moraine sediments over the flanks of the ice core into such areas. Clearly, moraine form is an ambiguous indicator of moraine dynamics.

Department of Geography,

N. EYLES

Memorial University of Newfoundland, St John's, Newfoundland, Canada A1C 5S7 28 June 1975

REFERENCES

Anderton, P. W. 1970. Deformation of surface ice at a glacier confluence, Kaskawulsh Glacier. (In Bushnell, V. C., and Ragle, R. H., ed. Icefield Ranges Research Project. Scientific results. Vol. 2. New York, American Geographical Society; Montreal, Arctic Institute of North America, p. 59-76.)
Eyles, N. In press. Models of medial moraine development. [Paper presented at Canadian Association of

Geographers Annual Conference, Vancouver, B.C., May 1975.]
Small, R. J., and Clark, M. J. 1974. The medial moraines of the lower Glacier de Tsidjiore Nouve, Valais, Switzerland. Journal of Glaciology, Vol. 13, No. 68, p. 225-63.

SIR,

Morphology and development of medial moraines: reply to further comments by N. Eyles

We are grateful to N. Eyles for his further comments. We would like to add two minor points only. First, our experience of medial moraines in the Valais suggests that lateral compression is not an important factor here; instead, all moraines become progressively wider down-glacier, mainly as a result of lateral debris sliding. Sometimes this widening is most pronounced very close to the glacier snout (though this is not so, of course, on the Glacier de Tsidjiore Nouve), where—as Mr Eyles rightly suggests -subglacial debris components may be added to the moraine, increasing differential ablation, heightening the moraine ridge and accelerating lateral debris sliding. Secondly, we are especially interested in Mr Eyles's comment on the immature beading of the Austerdalsbre moraine, which he explains in terms of mass movement of moraine sediments into summer ogive troughs. This mechanism, which seems a highly probable one, would clarify the problem of explaining the apparent concentration of englacial debris in summer ogives, when in our view the source of the debris is most likely to be well above the ice fall on which the summer ogive is supposed to have developed.

Department of Geography, University of Southampton, Southampton SO₉ 5NH, England 23 July 1975

R. J. SMALL M. J. CLARK