

## ORIGIN OF THE GREAT LAKES BASINS

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## ABSTRACT

The importance of ice erosion in the excavation of the Great Lakes is discussed. It is concluded that the basins were excavated primarily by ice and that diastrophism and glacial damming of former river valleys have had only minor effects. Reasons for this conclusion are as follows:

(1) Basins of this type are common particularly around the periphery of areas of continental glaciation. Many of these basins have been overlooked since they are submerged below ocean level in various arms of the sea.

(2) Similar basins are lacking in the areas directly outside of the margins of the glaciated tracts.

(3) The Great Lakes are both too deep and too wide to be considered the product of river erosion near the north south continental divide. However, ice erosion may have followed old river valleys of small proportion.

(4) Post glacial warping seems to have had little to do with the basins since it was of a type which would have tended to eliminate rather than form basins of this type.

(5) The shape of the basins is typical of glacial erosion.

(6) The size of the moraines beyond the lakes is comparable to the amount of material which would have been excavated if ice had been the chief factor. Also the nature of the drift suggests origin in the weak rocks of the lake basins.