

PLEISTOCENE STRATIGRAPHY OF CENTRAL
AND WESTERN MCDONOUGH COUNTY, ILLINOIS
AS INTERPRETED FROM CERTAIN DEEP BORINGS

by
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An Abstract of a Thesis
Presented to the Department
of Geography of Western Illinois University
in Partial Fulfillment of the Requirements for the
Degree Master of Arts

Macomb, Illinois

August, 1987

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ABSTRACT

McDonough County, located in west-central Illinois, was glaciated from the northwest and the northeast resulting in a complex and poorly understood local glacial sequence. This study compiles a Pleistocene rock-stratigraphic column, from the stratigraphy in deep core samples, that represents the glacial sequence in McDonough County outside the Table Grove Moraine.

Two different time-stratigraphic columns (models) for the local Pleistocene rock sequence are presented using clay mineralogy and soil stratigraphy. The interpretation based on clay minerals (Model 1) suggests four glaciations, two from the northwest which deposited Pre-Illinoian Alburnett and Wolf Creek Formation sediments and two during the northeastern-derived Illinoian. In contrast, soil stratigraphy (Model 2) implies only two glacial events, deposition of the northwestern-derived Pre-Illinoian Wolf Creek Formation and a northeastern Illinoian advance.

Sedimentary and geomorphologic evidence, in conjunction with the local paleogeography, indicate that the soil stratigraphy interpretation (Model 2) may be correct. If so, it is suggested that the generally accepted interpretation based on clay minerals be reconsidered.