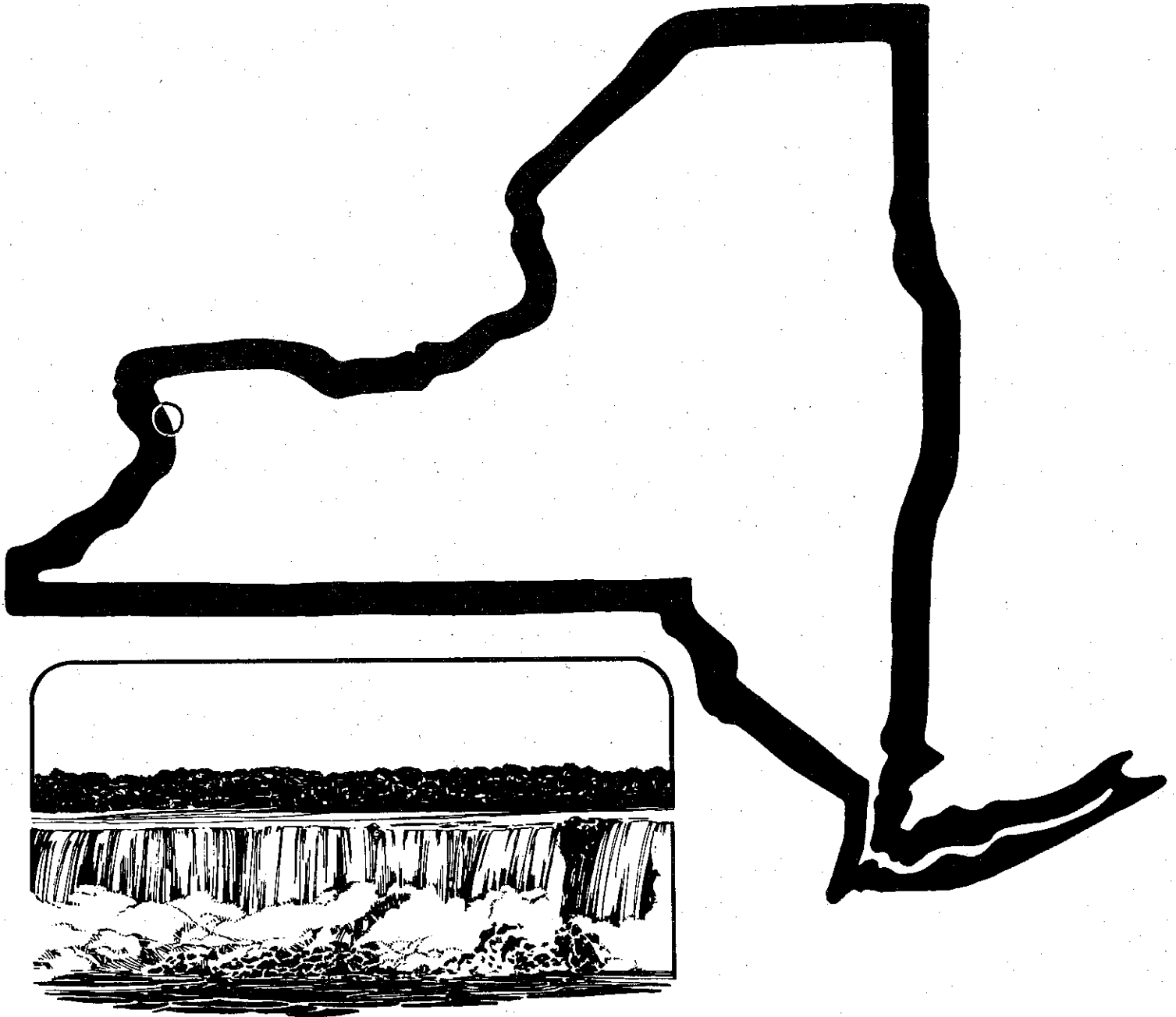


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NEW YORK GLACIOGRAM



DEPARTMENT OF GEOLOGICAL SCIENCES

State University of New York at Buffalo

Buffalo, New York 14226

EDITORIAL POLICY

The GLACIOGRAM is intended to be a collection of informal notes concentrated on Quaternary work relating to New York either directly or indirectly. It is not a formal publication and is not circulated to libraries nor to individuals not engaged in Quaternary research. The information included is often of a preliminary and tentative nature and as such should not be quoted and certainly not without communication with appropriate authors. One of the charter contributors (Muller, v. 6(1)) has suggested that reference to information in the GLACIOGRAM be identified merely as informal communication; we agree with this suggestion.

Parker E. Calkin

Stephen Averill - Geology, Fairleigh Dickinson University

For those who attended the NYSGA glacial study field trip: Lost-an exposure with Tappan (Yellow-Brown) Till overlying Lake Hackensack (red brown) Till; Found on 10/17/80 - Red Lake Hackensack sand and clay layers (deformed) beneath approximately 40 cm of Tappan Till topped with approximately 30-40 cm of brown coarse sandy outwash. The sequence was continuous in all four walls of the dug pit (a basement for a large house). This was on Pascack Road in southern Washington Township, N.J., approximately 1 km northeast of the Ridgewood kame group. Pictures and samples were taken. The lowest sediments appear to be identical to the vertical thin-bedded folded, sediment layers on the north side of the kame adjacent to Garden State Parkway Exit 165.

The most frequently asked question concerned the direction of ice flow by the Lake Hackensack glacier. The large clast and glacial striae evidence is somewhat ambiguous. A clay mineral study of the tills is just beginning, in an attempt to correlate them to specific regions in the adjacent Ramapo Highlands. If any of you know of similar studies done elsewhere, please drop me a note.

I want to thank all of you who attended. Your comments were though provoking, enlightening, and appreciated.

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Robert F. Black - Geology, University of Connecticut

My oral contribution, entitled "Modes of deglaciation of Connecticut", given last spring at the GSA regional meeting in Philadelphia has been modified somewhat and submitted for publication in the symposium volume being edited by Grahame Larson. My personal convictions on the correctness of my interpretations is based on many years of experience in the mid-west, Alaska, Canada, Antarctica, and this last summer in Greenland. My NSF funded studies on Atka Island, Aleutians, last summer concentrated on late-Quaternary history. A preliminary chronology of events is contained in an abstract submitted for the spring GSA meeting in Boston.

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Jerry Brown - CRREL, Hanover

The Fourth International Conference on Permafrost, organized by the National Academy of Sciences and the State of Alaska, will

be held 18-22 July 1983 at the University of Alaska in Fairbanks. The organizers extend a cordial invitation to attend this Conference.

If you wish to receive the first bulletin, please write to:

Mail to: Louis De Goes, Executive Secretary
Polar Research Board
National Academy of Sciences
2101 Constitution Avenue, NW
Washington, DC 20418

James Bugh - Geology, SUC, Cortland

SUNY Cortland is developing a summer field camp south of Albany. With the assistance of Don Cadwell and Bob Dineen the field program will include some interesting glacial sites for mapping and measurements.

Donald Cadwell - NYS Geological Survey

I have continued surficial mapping in Rensselaer and Columbia Counties. Preliminary data suggests that approximately 25 km² of ice became detached from the actively retreating Late Woodfordian glacier. Glacier thinning over the Rensselaer Plateau permitted the ice to stagnate and meltwater to deposit a distinctive suite of deposits. Active ice in the Hudson River Valley abutted against the western edge of the Rensselaer Plateau and controlled the elevation of meltwater outflow channels. The Kinderhook-Lebanon Valley stagnant ice block zone represents the last east-west retreatal ice margin south of the Plateau. Subsequent margins reflect the topographic influence of the Plateau.

I would also like to mention that if there is anyone interested in glacial mapping in eastern New York, contact me - if you have not done so already. There is a good possibility that we will be able to help defray some of the field expenses.

Parker E. Calkin - Geology, SUNY, Buffalo

Many thanks to Harold Borns for organizing a fine AMQUA Symposium at Orono in August which I attended on my return from a fourth season in the Brooks Range. The work of Jim Ellis and

I has been published in two papers in Arctic and Alpine Research, i.e. v. 11 (4), 1979 on "Nature and Distribution of Glaciers, Neoglacial moraines, and Rock Glaciers, East-Central Brooks Range, Alaska" (any paper with a title that long has to be exciting) and v. 12 (3), 1980 on "A Lichenometric Dating Curve and Its Application to Holocene Glacier Studies in the Central Brooks Range, Alaska". Some observations at the Gowanda Hospital Site south of Buffalo came out with Bob LaFleur's Guidebook of "Late Wisconsin Stratigraphy of the Upper Cattaraugus Basin - 1980 (a great trip). Details of the Gowanda Site by myself, Ernie Muller, and John Barnes (now of PA Geol. Survey) will be published by the American Journal of Science sometime in 1981.

Ph.D. student Pierrette Turcotte-Roy continues to collect information for details of the stratigraphy of western New York. Tom Lowell will do his Ph.D. studies in northwestern Maine where he'll try to clear up some of the ideas on late Wisconsin ice flow directions.

Peter Clark - Geology, University of Waterloo

I have completed my Master's thesis on the Late Quaternary history of the Malone, New York area under the supervision of P.F. Karrow (Waterloo).

Till characteristics were done on samples collected throughout the map-area, including the type areas of the Malone and Fort Covington tills as defined by MacClintock and Stewart (1965). Texture, clast lithology, carbonate content, heavy mineral assemblages, color, and till fabrics argue for only one till in the map area. This suggest that the last glacial event in the area was more extensive than proposed by MacClintock and Stewart (1965), and the ice advanced into the Adirondacks.

A deglacial history for ice retreat out of the Adirondacks was formulated on the basis of geologic and geomorphic features. It was suggested that ice remained at one position for a period of time during overall recession. This occurred as the glacier readjusted for topographic differences between the Adirondack Highlands and St. Lawrence Lowlands and does not represent a climatic event. This position approximates the Fort Covington terminal position defined by MacClintock, although significant local variations occur.

Four lake levels and the marine limit were identified and traced in the Lowlands for a distance ranging between 64 and 124 km. The highest lake level is correlated with Lake Iroquois;

this drained across Covey Hill at 1085 ft. into the Coveville stage of Lake Vermont. Level II (the next lowest level) is also correlated with the Lake Iroquois; this level drained through Covey Gap (1010 ft.) also into the Coveville stage. Level III correlates with the post-Iroquois Sydney phase in the Ontario Basin and the upper Fort Ann level in the Champlain Basin. Level IV correlates with the Belleville phase and the lower Fort Ann level. Level V is the marine limit. This level is correlated with the marine limit in the Champlain Basin. Projection of the tilted water plane of this level to the west allows a probable correlation with the Trenton phase in the Ontario Basin, thus suggesting that the Champlain Sea initially entered the Ontario Basin. This original period of confluence was followed by a separation of water masses in the Ontario Basin and the St. Lawrence Valley when isostatic uplift proceeded to lower the marine waters.

Publication of these results will hopefully be forthcoming. I have entered a Ph.D. program at the Univ. of Colorado and will be studying the glacial history on southern Baffin Island, N.W.T., Canada.

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Donald Coates - Geology, SUNY Binghamton

In the spring GLACIOGRAM I promised to provide abstracts of Ph.D. dissertations by my most recent doctoral students. Thus those for Richard Caprio and Robb Gillespie are now sent for inclusion in the fall GLACIOGRAM. Rich and Robb are both with major oil companies, rolling in the megabucks and telling their superiors of the importance of paleogeomorphology in the discovery of oil.

I have several other glacial students at Binghamton. Some of the M.A. people should finish by spring and I will discuss their work at that time. David Oszvath, a Ph.D. candidate is starting work on outwash and kame terraces. Tim Stone a M.A. candidate is comparing petrography of ice contact deposits with those of outwash sediments. Carol Terrana a M.A. candidate is looking at soft sediment deformation in glacial deposits. Kevin Phelan finished his study of arcuate erosional hollows in upland terrane, but took a position in Brazil before defending so doesn't have the degree in hand as yet. Peter Murdock, another M.A. candidate, is gearing up to study acid rain in the Adirondacks and one of the variables he will investigate are effects of changes in the glacial drift and their influence on the chemistry of lake waters.

My own work continues to be linked to legal cases, and consulting for sand and gravel companies. Also with compilation of the Geologic Source Reports as required by NYS Department of Transportation for those operators selling aggregate for use on State roads.

I have an article in The Geographical Magazine, v. 53, n. 1 for October 1980 entitled "Evidence for Lawyers- Geomorphology in Practice". I discuss some of the legal cases I have worked on for the New York State Attorney General. At the annual meeting of the Geological Society of America at Atlanta I will be giving a talk in the Engineering and Geology Session entitled "Legal Geology: Highway Condemnation Lawsuit Examples". The abstract appears in Geological Society of America Abstracts with Programs, 1980 Annual Meeting, v. 12, n. 7, p. 404. The case histories that are discussed are all drawn from environments with glacial deposits and their analysis.

The other part of my activities has been concerned with book publishing. The proceedings volume from the Ninth Annual Binghamton Geomorphology Symposium was published during the 1980 summer....THRESHOLDS IN GEOMORPHOLOGY, D.R. Coates and J. D. Vitek editors. It was produced by Allen & Unwin a British firm. One of the chapters was written by C.A. M. King "Thresholds in Glacial Geomorphology". Other glacial and ice chapters are: "Frequency, Magnitude, and Spatial Distribution of Mountain Rockfalls and Rockslides in the Highwood Pass Area, Alberta, Canada" by J. S. Gardner, and "River Ice Processes: Thresholds and Geomorphologic Effects in Northern and Mountain Rivers" by D. G. Smith.

My textbook on ENVIRONMENTAL GEOLOGY will be out at the end of this year (1980) and has quite a few references to glaciation. The editorship of the new series entitled "Environment, Energy and Society" also keeps me out of mischief. I currently have 13 authors writing various books in the series which will be published by Methuen (another British publishing house). I am still looking for more books since we are aiming for about a total of 30 in the series. They will be paperbacks of 200-250 pages. The first one is now in production on SOILS with Gerald Olson the author. Let me know if you have some suggestions or wish to volunteer.

Quantitative Appraisal of Till in South Central New York
R. C. Caprio, Ph.D. Dissertation, SUNY-Binghamton, 201 p., 1980

ABSTRACT

The lithostratigraphy of the upland tills (termed "Olean" in much of the older literature) of south-central New York has long remained unknown. Because the tills contain an overwhelming majority of locally derived sediment, traditional methods of study, including pebble counts and geomorphological criteria, have not revealed differences in the tills over wide areas of central New York and northern Pennsylvania.

The glacial tills in a study area encompassing about 4500 square kilometers, or all of Broome and Chenango Counties, and parts of Tioga, Cortland, Madison, Otsego, and Delaware Counties

are examined using an approach that has never before been applied to the tills in central New York. A battery of analytical criteria, including textural analysis, petrographic analysis, heavy mineral analysis, and major chemical analysis are used to compare 123 upland till samples.

Textural analyses support the division of upland tills into at least two genetic types. Ablation tills have sand-silt-clay ratios that average 64+4:24+6:12+6, and lodgment tills have an average ratio of 33+8:39+8:27+8. Petrographic analyses indicate that although particles above sand size (-1 phi or 2 mm.) are nearly 100% locally derived, the percentage of erratics increases with decreasing grain size. Almost 10% of the grains between 1 and 2 phi in size are erratic. The erratic content of the tills is closely associated with proximity to "through valleys".

Analyses show that nearly all of the non-opaque heavy minerals in upland tills are garnets. When the ratio of purple/red garnets (calculated in the manner first described by Dreimanis, 1960) are compared over the study area, an average ratio of 3.8 occurs. Garnet ratios are generally greatest in the northeastern part of the study area and decrease to the southwest. Major chemical analyses of bulk till samples show remarkable homogeneity over the entire study area.

The differences documented can be explained using a new depositional model. Two sources of erratic material define the provenance of the upland tills. The first is called a primary source and involves direct contribution of foreign material from Canada, the Adirondack Mountains, and the "Limestone Belt" of north-central New York. The second is termed a secondary source and involves indirect contribution of foreign material by re-entrainment of erratic rich preglacial through valley sediments. The type and amount of erratic material present in upland till can be described as some combination of these two types.

This new approach to the analysis of upland till deposits in the Appalachian Plateau is better suited to the problem of studying erratic poor tills than more traditional methods. Wherever rugged topography has made interpretation of glacial lithostratigraphy difficult by causing dilution by local bedrock sources to obscure differences in till provenance, this approach might be used with success...

Quaternary Geology of South-Central New York

R. H. Gillespie, Ph.D. Dissertation, SUNY-Binghamton, 205 p., 1980

ABSTRACT

Since Louis Agassiz first described the south-central New York region in the 1860's, several generations of glacial geologists have attempted to describe and analyze the region. The glacial events responsible for the creation of this landscape are still not well understood; however, heavy mineral studies and garnet ratio studies are now proving useful in deciphering glacial events in adjacent area. In this study, traditional field mapping was used in conjunction with these newer study methods in an effort to unravel the sequence of Wisconsinian glacial events of the region.

A vertical bright/drab till facies was discovered at the Newton-Hoffman Creek dam site in Elmira, New York where it was observed that: (1) the facies contained a gradational relationship with drab-till overlying bright-till, (2) red garnets and crystalline erratics were derived from the same source and implaced at the same time, and (3) the purple garnet erratics were implaced during a relatively short time span.

Bedrock striation directions and the orientation of hillslope arcuate hollows indicate that the region was traversed by different glacial ice lobes from both the northeast and the northwest. Channelling of glacial ice at the south ends of the Cayuga and Seneca Troughs caused more severe glaciation in the Elmira-Waverly area and protected the Waverly-Vestal area from direct glacial ice flow.

The glacial features in the region and the distribution patterns of erratic components can best be explained by a model of Wisconsinian glaciation that includes: (1) An early Wisconsinian glaciation from the northeast. Purple garnets and chert erratics were transported into the Finger Lake Troughs and Paleozoic and crystalline erratics were spread throughout the south-central New York region. (2) A mid-Wisconsinian interstadial event during which purple garnets and chert erratics were concentrated in the Finger Lake rock basins, and Paleozoic and crystalline erratics were transported along the through valley system. (3) A late Wisconsinian glaciation from the northwest which transported purple garnets and chert erratics, southward from the Finger Lake Troughs and locally redistributed the erratic-rich valley gravels. Bright/drab till facies were created by this local reincorporation.

During Woodfordian time, ice probably occupied a position along the "Binghamton" border (as mapped by MacClintock and Apfel, 1944). Because it is no longer desirable to retain the term "Binghamton," it is now proposed that part of this border position be renamed the Nichols Moraine based on a prominent kame-moraine type locality at Nichols, New York.

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Robert Dineen - NYS Geological Survey

This field season I mapped (on a detailed reconnaissance basis) the Helderberg Plateau from Albany to Kingston (N-S) and from Coxsackie to Middleburg (E-W). What follows is a report on that field work:

GLACIAL FEATURES OF THE HELDERBERG PLATEAU

The Helderberg Plateau of east-central New York is underlain by (from oldest to youngest and from north to south): Ordovician sandstone and shale of the Schenectady Formation, and Devonian rocks comprising the limestones of the Helderberg Group and Onondaga Formation, gray sandstone and shale of the Hamilton Group, red sandstone and shale of the Kiskatom Formation and red to gray conglomerate, sandstone, and shale of the Genesee Group. The rocks dip gently to the southwest. Major northwest- to southeast-trending scarps are developed along the boundaries of each of the rock groups. The scarps have 150 to 300 m of relief. Three major glacial lobes invaded the plateau during Woodfordian time: the Mohawk lobe moved west-southwest across the Plateau, and dominated the area north of Fox Creek; the Schoharie lobe moved southwest along the axis of the Schoharie Valley, and dominated the area west of Coxsack; the Hudson lobe moved south-southwest across the southeastern half of the Plateau. The north-trending spur of Windham High Peak deflected the Hudson lobe, causing west-southwest flow up the Catskill valley and east-southeast flow down the Catskill Valley east of East Durham. Ice flow of the Hudson lobe was deflected eastward in narrow (1.0 km, 0.6 mile) zones along the base of each major scarp, the flow was south-southwest over the tops of the scarp, and was deflected westward along the dipslopes.

The glacial lobes oscillated across the major scarps; two readvances can be documented on the Helderberg Plateau. The readvances, from oldest to youngest, and from south to north, are the Middleburg-Berne-Oak Hill-Lawrenceville (Hudson and Schoharie Lobes), and Yost-Duanesburg-Altamont (Mohawk lobe) readvances. Each readvance flowed west-southwest down the dipslope of a major scarp, and overrode sediments of ice marginal lakes that occupied the lowlands along the base of the next scarp. The Oak Hill readvance impinged upon small valley glaciers along the northeast-facing slopes of Blackhead Mountain. These valley glaciers did not exist after the retreat of the Oak Hill ice. This implies that ice tongues in the Catskills did not survive into Lake Albany time. Meltwater from stagnant ice flowed east-southeast, across the dipslopes of the scarps during the waning stages of each readvance, depositing large kame and esker complexes and thick masses of ablation till.

Three tills can be mapped in the southern section of the Plateau. They are: a lower gray to very pale brown till, a middle light reddish brown to pink till, and an upper pale brown to gray till. The tillstones of the upper and lower tills are of Hamilton Group and Hudson River valley lithologies, the tillstones of the middle pink to light reddish brown till are dominated by the Kiskatom Formation. The lower till is probably related to the Tannersville ice margin. The middle till overlies lacustrine sediment in the Freehold area, and was probably deposited by the Oak Hill readvance. The upper till probably has multiple origins, it was deposited as ablation till during the Oak Hill readvance and as lodgement till during the younger, Yost readvance. The tills cannot be differentiated by color north of the Kiskatom outcrop.

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Rhodes Fairbridge - Geology, Columbia University

Attended International Geological Congress in Paris, July, 1980. A review of its Quaternary and Neotectonics work will be published soon in Zeitschrift für Geomorphologie.

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Jane L. Forsyth - Geology, Bowling Green State University

Jane Forsyth reports that she has been too busy with lectures, meetings, classes, and graduate students to do anything worth reporting. However, her graduate students are doing good work.

Jack Klotz, the student working on terraces along the Maumee River, has determined that they seem to correlate with some of the late glacial lake levels in Lake Erie, just as some of you wrote to say they would. Don Guy (also of the Ohio Geological Survey) has been working on the origin of the Sand Point on the north side of Sandusky Bay and has found that it has been there, in varying shapes and positions, for many years, but that the construction of the navigational-channel structure on the end of Cedar Point had a significant effect on these variations. Mike Grube has studied the sand of the Oak Openings belt in southwestern Lucas County (west of Toledo) and found the whole belt to be uniformly fine-grained sand with an aeolian skewness that can be traced all the way north to some source deltas near Ypsilanti and Plymouth in Michigan. Valerie House has been mapping the glacial deposits in Wyandot County (Upper Sandusky) in north-central Ohio, where the Goldthwait et al. Glacial Map shows ground moraine and one thin end moraine, but where soils mapping revealed lake deposits, and Val has found four lakes with some excellent outlet channels, one or two deltas (one kettled), one or two eskers, some sand dunes, plus some ground moraine and end moraine. With luck, all four graduate students will finish up in this 1980-81 year.

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Dick Goldthwait - Geology, Ohio State and Florida

Seem to keep more than busy with new-old projects: (1) finishing off a colorful map (1:250,000) from all sources of Quaternary of Western Ohio -- no idea who might print it or when, (2) completing articles -- one from GSA last March -- on the deglaciation of White Mtns., NH, and (3) two field trips in Ohio for 1981 -- one for SCAR in early September and one for GSA at Cinci in November. Sure enjoyed both AMQUA (Onono) and the (International) glaciologists meeting in Norway this year.

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Paul F. Karrow - Earth Science, University of Waterloo, Ontario

Peter Clark completed his M.Sc. thesis this fall on "Late Quaternary history of the Malone area, New York". His reconnaissance work extended from Covey Hill to well west of Malone and reached conclusions differing substantially from those of MacClintock and Stewart, whose mapping evidently needs reexamination. Future publications are expected to report his findings. Peter has gone on to INSTAAR for Ph.D.

E.V. Sado also completed his M.Sc. thesis this fall on "The Quaternary stratigraphy and history of the Lucan map-area, southwestern Ontario". His work dealt with the area just north of London, Ontario where the Huron lobe deposited several tills of Port Bruce and Nissoui stadial age.

J. Turner, post-doctoral fellow with P. Fritz and me, is now completing his study of carbon isotopes in marl lakes, the aim of which is to understand better radiocarbon dating. Preliminary results of the work were presented at the Halifax meeting of the Geological Association of Canada last May.

B. Warner, who completed his M.Sc. on the palynology of Manitoulin Island last spring, has been working on several paleobotanical projects with me. We did some sampling of the Corry bog in northwestern Pennsylvania with the aim of redating and doing palynology. Study of plant macrofossils from Nipissing sediments near Sault Ste. Marie is underway. He is also examining pollen from a 20-foot section of interstadial sediments at the bottom of a 136-foot hole near our campus in Waterloo. A continuous core was retrieved from the site with the Department drill rig this fall. The organics are at least older than Catfish Creek Till, but nothing large enough to date was found.

I spent several weeks in May and June surveying raised shorelines of the Algonquin-Nipissing series near Port Elgin and Sault Ste. Marie. A paper is in press on the Nipissing transgression in southern Lake Huron. Several additional sites have been studied for molluscs and plants relating to glacial lake history.

Paul Finamore is beginning his M.Sc. study of an area north of Lake Ontario near the northernmost Lake Iroquois beaches, supported by the Ontario Geological Survey.

J. Richard and J. Cronin are also starting M.Sc. programs with research on the Cochrane advance in northern Ontario and glacial lakes near Georgian Bay, respectively.

H. C. Saunderson, Wilfrid Laurier University, and P. Martini, University of Guelph, have joined the Department as Adjunct Professors and will add considerably to our resources for graduate work in Quaternary sedimentology. Saunderson has worked particularly on eskers and Martini on coastal and glaciofluvial deposits.

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Alan and Anne Morgan - Biology, University of Waterloo

Scott Elias who recently obtained his Ph.D. from the Institute of Arctic and Alpine Research in Boulder, Colorado, is with us as a P.D.F. He is working on fossil beetles from sites in the northern United States including Longswamp, Pennsylvania, dated at 12,500 yrs B.P. (see Watts, Ecol. Mon. 1979 49 (4), p. 427-469) and Au Sable River, Michigan dated at 4,100 yrs B.P. We hope these sites will provide further data on the distributions of Coleoptera following ice retreat.

Randy Miller recently completed his M.Sc. on fossil beetles from Lockport Gulf, N.Y. He is now starting his Ph.D. research and is working jointly with the Morgans and Peter Fritz at Waterloo attempting to relate the isotopic composition of beetle chitin to palaeoenvironments. This is an exciting new research area and we look forward to the results over the next few years.

Anne Morgan was awarded an NSERC Research Fellowship this Fall and returned to full time beetle research at Waterloo. Work is progressing jointly with Alan on the insects from various sites which pre- and post-date the Wisconsinan advance to find out where the beetles moved to and how they started moving back into areas that they presently occupy. Our first attempt at bringing some of this data together will be published late in 1980 or early in 1981 in the Canadian Entomologist. Work is also underway on a number of new sites of Early Wisconsinan age in the Toronto region and a 10,700 year old site near Burlington, Ontario. Investigations are continuing on samples from the Yarmouth section (Iowa), Memphis (Tenn.) and a variety of sites from the Alaskan North Slope. Work is also in progress on the identification of some fossil beetle assemblages from Rancho la Brea and the McKittrick tar pits of California.

In the last Glaciogram Alan Morgan made a plea for Pleistocene workers familiar with organic deposits along the margin of the Wisconsin limit to contact him with information about sites which could be excavated. This information is still requested--if you do not want to write anything in detail, please drop a postcard to the University of Waterloo, Department of Earth Sciences, with your telephone number. Either Alan or Anne will contact you to discuss further information.

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Walter S. Newman - Geology and Radiocarbon Lab, Queens College, CUNY

Past sea levels at six localities in the Lower Hudson estuary are defined by more than 80 assays on basal peat samples. The radiocarbon dates plotted here all contain marine and brackish water diatoms. For most localities, the data define a pattern of marine transgression for the past 7000 years. However, the sea level curves from two stations, both within the Ramapo Fault Zone, are clearly inconsistent with those stations both north and south of the fault zone and suggest that a block entirely within the Ramapo Fault Zone has undergone differential crustal movement during the latter portion of the Holocene. The data plot appears in the accompanying figure.

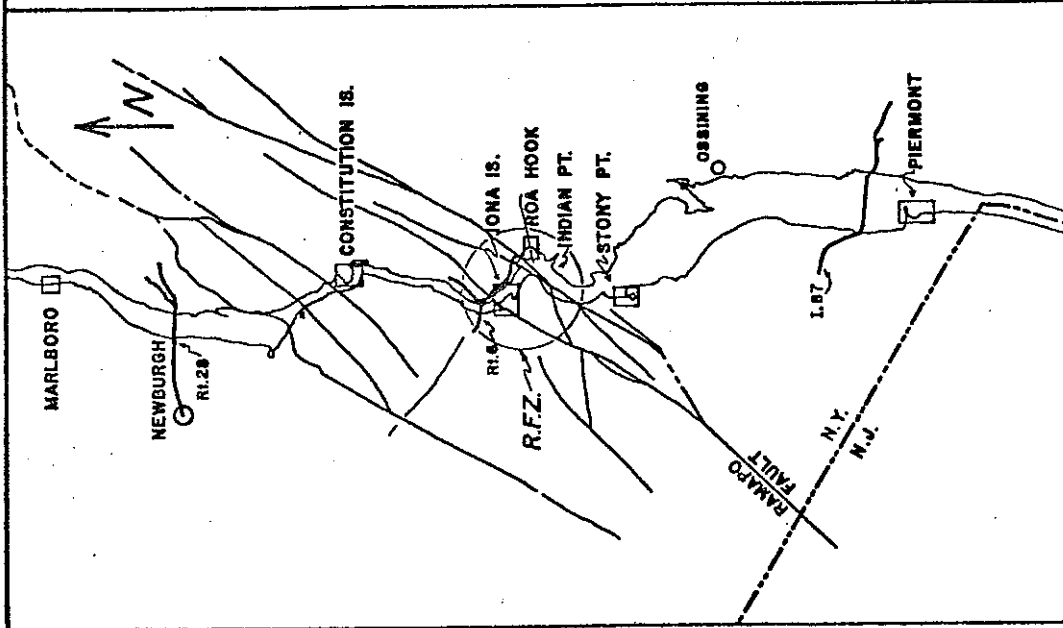
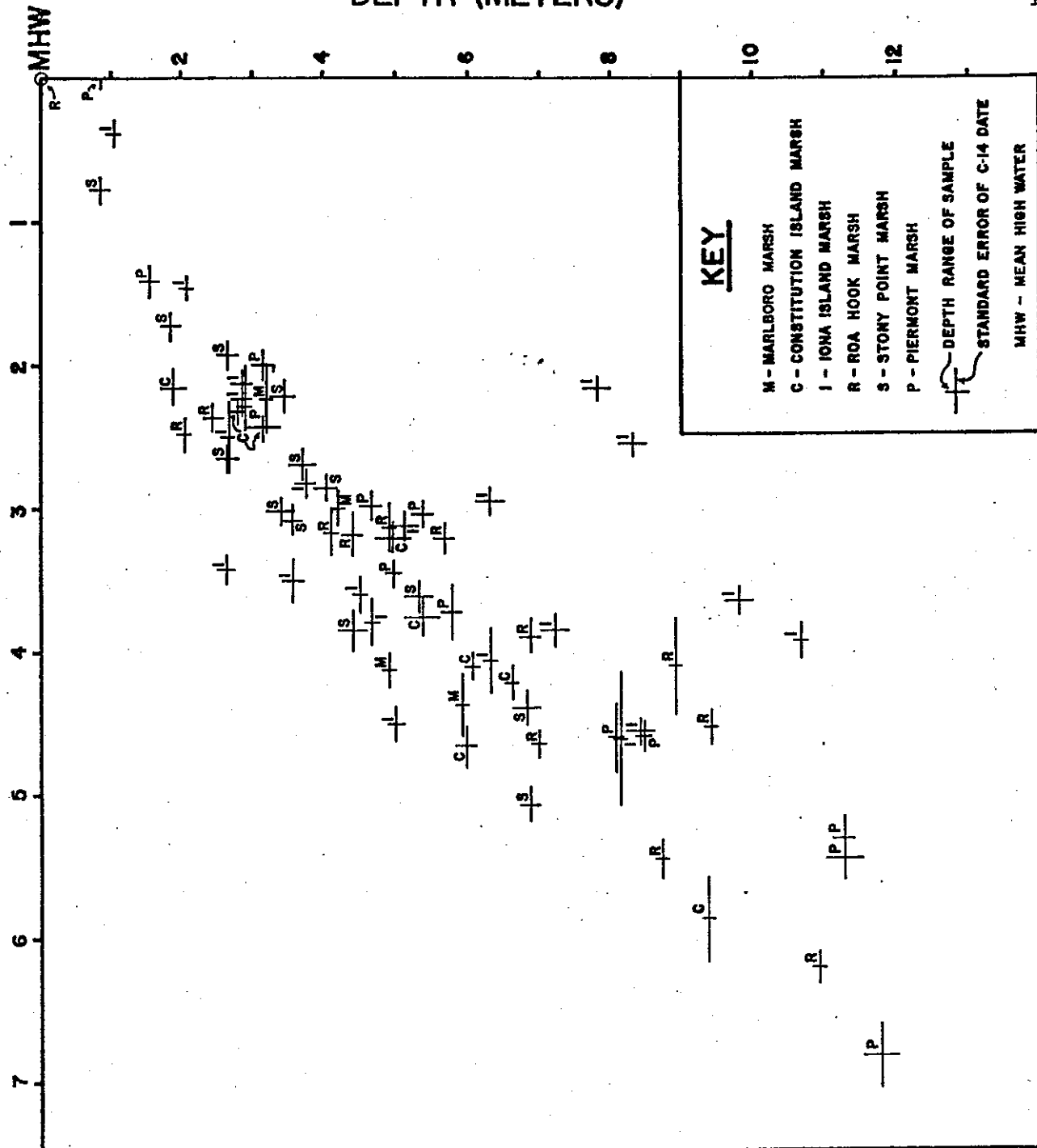
Thanks to the New York State Department of Transportation and the cooperation of Al Brand of the Consulting Engineering firm of Mueser, Rutledge, Johnston and DeSimone, we have been able to date several basal peats secured from the right-of-way of the WESTWAY Project along the west shore of Manhattan Island. The four dated basal peats so far dated with respect to Mean High Water are:

QC-1029	-19.2 to -19.8 m	8190±130
QC-1028	-21.3 to -22.0 m	8745±165
QC-1026	-22.9 to -23.5 m	9170±225
QC-1025	-24.8 to -25.5 m	11,295±215

These data generally confirm Blackwilder's (1980, p. 534-537) GEOLOGY data for the east coast of the United States although Dick Pardi and I believe that we're seeing decaying post glacial isostatic rebound rather than eustasy. More coming! We'll keep you all informed.

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C-14 YEARS BEFORE PRESENT ($\times 10^3$)



HUDSON ESTUARY

R.F.Z. = RAMAPO FAULT ZONE

0 5 10 Km.

Gerald W. Olson - Agronomy(Soils), Cornell University

My work this past year has concentrated on preparing soils tours for various counties in New York State. I have just prepared the manuscript for a book "Uses of Soils in Landscapes" to be edited by Dr. Don Coates of SUNY-Binghamton for the Environmental Series to be published by Dowden and Methuen. During November 1980 I will be teaching a course on "Multidisciplinary Applications of Soil Surveys" at CIDIAT (University of the Andes) in Merido, Venezuela.

J. P. Schafer - USGS, Reson, Virginia

Preliminary manuscript versions of the 1:125,000 maps of glacial geology and surficial materials of Conneticut are to be completed this winter, and we intend to display them at the NE Section GSA meeting in April.

In the course of the compilation, Janet Stone has put together evidence that supports the existence of a late-glacial lake in Long Island Sound (versions of which have been suggested by Antevs and by Lougee, and more recently by Newman and others). Because of the interaction between postglacial tilt and the northward convexity of the present shoreline, deltas occur above present sea level only from near Fairfield to Clinton; a topset/foreset contact in the New Haven delta-plain is at about +6 m. The New Yorkers presumably can close off the west end of this lake, but it is far from obvious what can be done in eastern Long Island Sound to hold water at this level (well above the postglacial lake at -25 m or lower, identified by R. B. Gordon and his students). The well-known clays in the Quinnipiac Valley near New Haven were deposited in a slightly higher glacial lake, cut off from the Sound Lake by the New Haven delta-plain, as stated by Flint.

David P. Stewart - Geology, Miami University, Ohio

Thought you might like to know that we will be giving a glacial geology field trip during the 1981 G.S.A. meeting in Cincinnati. The field trip spans three days and one day will be in this area.

George W. White - Geology, University of Illinois

Glacial Geology of Ashtabula County, Ohio (Ohio Division of Geology Rept. of Invest. No. 112) with Stanley Totten appeared in early 1980 (with a 1979 date). Totten's chapter on strand lines is very important. A sheet of six maps on Extent of Till Sheets and Ice Margins in Northeastern Ohio (Geologic Note 6), appeared at the same time. Lake County is in final proof stage. Several other county reports and a summary monograph are in press.

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Aleksis Dreimanis - Geology, University of Western Ontario

It is now quite certain that the Southwold Drift of the north shore of Lake Erie is not of Middle Wisconsin age, but it belongs, as a member, to the Late Wisconsinan Catfish Creek Drift Formation (see the guide "Field trip to the "Bradville"-Plum Point area, north shore of Lake Erie, 11 October, 1980). Its place (between the Middle Wisconsin Tyrconnell Fm. and Wallacetown Fm.) is taken probably by the Dunwich Drift that is definitely younger than the Tyrconnell Fm.

I went twice to the east coast of Canada and Maine, and visited my grad. students in New Brunswick and S. Quebec. Before and after the IGCP Project 24 international meeting in NW Germany (on Glaciations in the Northern Hemisphere) I was invited by several Danish and German geologists to look at their till sections, and saw a good variety of tills indeed.

Though I am officially retired with July 1, 1980, I am still part-time at the Department, working together with my seven doctoral candidates and two post-doctoral fellows and trying to catch up with all the unfinished tasks. My colleagues and students had prepared for me a very pleasant get-together, by arranging a symposium on Quaternary Geology Applied to Modern and Future Earth and Environmental Sciences' on October 10 with a following dinner where, among the some 170 participants, I met a good number of old friends and former students from the early years at UWO, received many surprise gifts, and on the following day, in spite of rain, about one third of the group went to look at the Lake Erie cliffs. My sincere thanks to all of the participants at the 'Dreimanis Day', and the many nice letters from those who could not participate!

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Peter Martini - Land Resource Science, University of Guelph,
Ontario

We have completed the field work of the Ontario coasts of Hudson and James Bay for a multidisciplinary five-year project dealing with the geomorphology, sedimentology, pedology and ecology (plants and wildlife) of tidal flats and marshes. Observations and new data have been obtained also in inland parts of the Hudson Bay Lowland to elucidate the development of permafrost, weathering rates, and uplift rates of the land. Much of this work, and other work going on in Hudson/James basin and hinterlands will be presented at the forthcoming Symposium on Hudson/James Bay that will be held at the University of Guelph on April 28-30 1981. For further information about the Symposium and to be put on the mailing list, please write me. If you have something to contribute to the Symposium you can still do it by presenting a poster paper: let me know though, space is limited.

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Richard R. Pardi - Radiocarbon Lab, Queens College

As many Glaciogram readers already know I've begun a project of isotopic (et al.) analysis of carbonate concretions from New England. Although I have now collected samples from all the major Pleistocene water bodies of New England, I will continue to welcome any news about sampling locals or any concretions in extant collections where field locations were precisely recorded.

As Walt Newman noted in Volume 14 we had originally hoped that concretions might be reliably C-14 dated. At this stage it appears that the situation is not at all simple; concretions need a lot of backup data before they can be accepted for C-14 analysis.

There does appear to be a connection between shape and genesis in concretions, and I would ask you readers to keep an eye out for small, nearly spherical reddish-brown concretions. Oddly shaped or elongated concretions are almost certainly useless as dating material.

I want to take this opportunity to thank everyone who's helped me collect so far. I will be reporting my results here and elsewhere in the near future.

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