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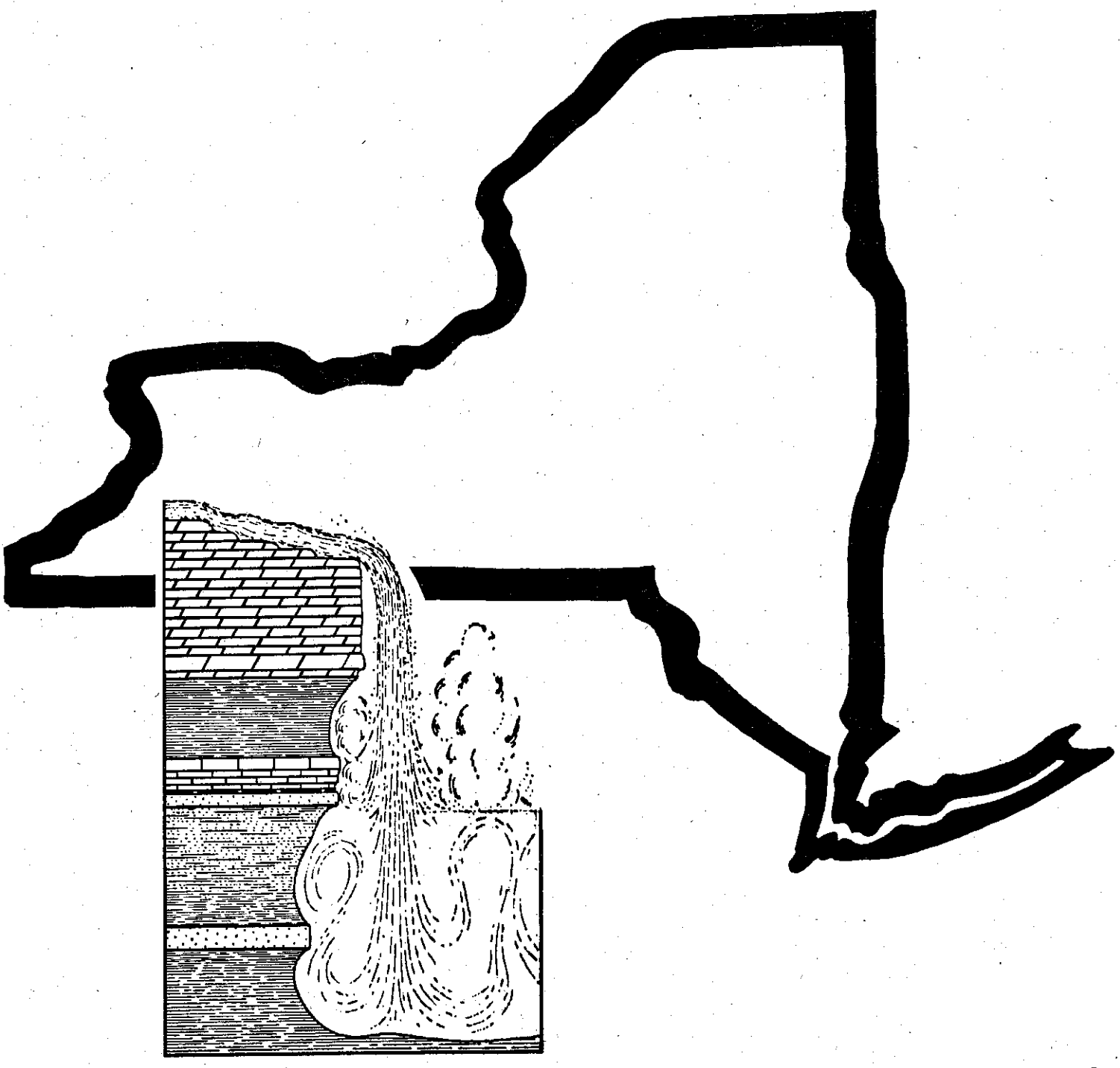
NEW YORK GLACIOGRAM



DEPARTMENT OF GEOLOGICAL SCIENCES

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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 and G. Gordon Connally

Peter Barnett

I am presently doing research on the tills of the Niagara Penninsula, trying to determine the best means of distinguishing them apart.

I'd be interested in learning of people who are working on similar problems there in New York State and of publications on similar topics (Peter is at the University of Waterloo, Department of Earth Sciences, Ed).

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Robert F. Black

Ernst Kastning is completing his M.S. under my direction, using a thesis on the caves of east-central New York. The field study includes detailed information on stritigraphy structure, and hydrology.

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James E. Bugh

Two of my students are presently analyzing marl and bog sediments with a recent mammoth discovery. This preliminary report is included below.

MOLLUSCAN FOSSIL ASSEMBLAGE OF THE PIRELLO FARM
MAMMOTH SITE, WAYNE COUNTY, NEW YORK

BY
Nancy Hayford and Susan Peper

Department of Biological Sciences
State University College
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After the preliminary discovery of several rib bones and vertebrae of a mammoth on the Pirello farm, located off Route 88 several miles south of Sodus, New York, major excavation operations were undertaken on October 23, 1973. A tooth was recovered during the investigation which positively identified the bones previously recovered as those of a mammoth, but major probes into the excavation area produced no further significant bone finds. As a result, the investigation was abandoned on October 30, 1973. However, the marl of the excavation area was found to contain a well preserved molluscan fossil assemblage. A sample of marl removed from the site yielded the information of Table I, and the overlying layer of peat contained the genera listed in Table II.

Identification of species for population statistics is continuing as this information is necessary prior to the determination of implied ecological relationships.

TABLE I. Molluscan Assemblage of the Marl from the Pirello Farm Mammoth Site.

	Number	Percent of Total
Aquatic Pulmonates		
Order Pulmonata		
Genus Fossaria		
Fossaria sp.	91	7.74%
Genus Cyrulus		
Gyraulus sp.	391	33.27%
Genus Helisoma		
Helisoma sp.	9	0.76%
Fresh Water Operculates		
Order Ctenobranchiata		
Genus Valvata		
Valvata Tricarinata (Say)	210	17.87%
Valvata Tricarinata Simples (Sterki	28	2.38%
Genus Amnicola		
Amnicola sp.	144	12,25%
White Clams		
Order Teleodesmacea		
Genus Pisidium		
Pisidium sp.	300	25.53%
Unidentified	2	0.17%
TOTAL	1175	100.00%

TABLE II. Molluscan Assemblage of the Peat from the Pirello Farm Mammoth Site.

Genus	Number	Percent of Total	
Amnicola	180 → 275	.1091	11% → 17%
Amnicola (limusa)	95 ↗	.0576	6% ↗
Fossaria	122	.0739	7%
Graulus	436	.2644	26%
Helisoma	61	.0369	4%
Pisidium	546	.3311	33%
Valvata	209	.1267	13%
TOTALS	1649		100%

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Parker Calkin

This summer I will have three M.A. students working on the Pleistocene of Erie County. Norman Bunting will be mapping the surficial geology in the Holland Quadrangle area and Michael Prior in the Hamburg - Langford area. Both will be extending details of the ice marginal drainage initiated by Garrett Hollands in the Colden Quadrangle. Kevin Shea will help me assemble the till stratigraphy of Erie County this summer. In addition to the glacial work I will be studying the Lake Erie shoreline (See G. Gordon Connally's entry this number).

In Niagara Falls, exposures of fossiliferous gravels (early Niagara River), underlying tills, and subjacent boulder gravels have been studied by myself and Carelton Brett, (an M.A. student with expertise in paleontology here at U.B.). We have also been working on some exposures of Lake Tonawanda sands which are loaded with molluscs. Hopefully, each of these fossil occurrences will furnish some interesting C14 dates.

Have you seen the following recently published papers?

Paul Karrow's (1974) Till stratigraphy in parts of southwestern Ontario: Geol. Soc. Am. Bull., v.85 (May) p. 761-768.

Herbert Mills and Paul Wells (1974) Ice-shove deformation and glacial stratigraphy of Port Washington, Long Island, N.Y.: Geol. Soc. Am. Bull, v.85 (March) p. 357-364.

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Donald R. Coates

Put on your calendar the dates September 27-28, 1974. This will be the time of our Fifth Annual Geomorphology Symposium on the theme "Glacial Geomorphology". It will be the best ever becasue we not only have a lot of Empire State talent, but are fortunate in having such "foreign" luminaries as Robert Legget, Cuchlain King, and Geoffrey Boulton. I have seen most manuscripts and they are all top-rate and will be must reading for all glacialists. The proceedings volume will be ready for distribution at the symposium. My own article "A Reappraisal of the Glaciated Appalachian Platuea" was aided by those who responded to my call for assistance. It is still not too late to give me your thoughts and suggestions for recent work since I am up-dating the bibliography of the region. I divide the Plateau into 9 sections and show there are vast differences among the sections as well as differences from the unglaciated plateau. Thus, the paper is largely a morphometry analysis of a glaciated terrain.

I am currently working with Jim Kirkland who will be co-author on a paper to be presented in Toronto (May 26th) at the Quaternary Environments Symposium held in conjunction with the Canadiam Association of Geographers Annual Meeting. Our title is "Applications of a Glacial Model for Large-Scale Terrain Derangements". We deal with glaciated areas in New York and Pennsylvania and show that a correlation of topographic anomalies and glacial deposits with a theoretically-derived ice model suggests a new approach to

glaciation in a rugged terrain. Computer generated cuvrves, mostly based on a 1 bar basal-shear-stress model, when superimposed on a three-dimensional topographic model can be related to terrain and to ice flow patterns. The Laurentide ice sheet advanced southwestward into the Lake Ontario-Erie basins and into the Hudson Valley. Glacial buildup eventually overtopped the Adirondacks which them became an accumulation area and outflow center with radial flow to the south and southwest. Such a total model explains the arcuate patterns of some drainages and the orientation of others. Even the Wisconsinan terminal position, and lake district of Pennsylvania fall into place using such a model. The paper will be published in their proceedings.

Other glacial work and up-coming projects are concerned with various consulting jobs on sand and gravel pits and legal cases involved with other aspects of economic products. I still continue to look for that indisputable evidence that proves significant valley-type glaciation in the Catskills, Since John Hack and others have debunked glaciation in the southern Appalachians, it is time the "Catskill evidence" for local glaciation was re-examined. I intend to get down to serious work on this during the summer. Again I would appreciate your ideas and thoughts on the matters.

As some of you may know, I continue to dabble in some endeavors that are non-glacial. These include: (1) Putting the finishing touches on the last volume of my trilogy on Environmental Geomorphology and Landscape Conversation. Hopefully, it will be out by late summer. (2) Directing our Sea Grant Program (financed by the U.S. Department of Commerce) entitled "Coastal Erosion, Stablization, and Utilization, South Shore, Long Island". We are now into the third year of a five year study. Currently, five students are doing M.A. theses and one is on a Ph.D. project. (3) Organizing a symposium to be given at GSA-Miami Beach on the topic "Urban Geomorphology in the Binghamton Metropolitan Area.

I hope to see most of you next September at our Symposium and some of you at the Toronto Friends meetings. We still have copies of the field guidebook of the Binghamton-Western Catskill Region that was developed for last year's Friends meeting.

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G. Gordon Connally

Perhaps the biggest news, which is already obvious, is that our proposal for a Penrose Conference on Pleistocene Stratigraphy in the Northeast was finally approved last November. The meeting will be convened by myself, Parker Calkin, Joe Hartshorn, and Lois Elms of G.S.A. from October 14-18. This is the Monday to Friday immediately following NEIGC. It is hoped that many of us can go directly from fieldtrips in Maine down to Amherst. Although all participants must be invited, the announcement that accompanies the Glaciogram indicates that it will just take a letter in order to receive an invitation. Although this conference follows hard on the heels of the Glacial Geomorphology Symposium at SUNY/Binghamton, the emphasis is so decidedly different that we do not anticipate too much duplication of participants of effort.

The SUNY/Buffalo Coastal Research-Group is currently investigating two widely separated coastlines. Parker, myself, and Chuck Cazeau have become involved with a joint archaeology-geology research project on the west coast of Mexico. Parker and I both were in Mexico last summer and I will be returning during the early part of the coming summer. My work concerns the soil stratigraphy in the uplands and coastal plain and was the subject of a paper in Dallas last fall. In addition, I have begun a study of the Erosion-Deposition Balance along the Lake Erie Shoreline, New York, funded by Sea Grant, along with Parker and Bob Apmann of our Civil Engineering Department. I will coordinate the project and concentrate on bluff erosion, Parker will concentrate on beach processes, and Bob will handle the contribution from drainage basins. Two graduate students, Tom Ostrye and Tony Richards are also involved; Tom will work on an M.S. thesis with Parker on beach erosion near Angola and Tony will begin a Ph.D. thesis on the interaction between waves and the shoreline.

In addition, I hope to spend some time wth Don Cadwell in New Jersey, east of the Delaware River, trying to determine the age of the Terminal Moraine in New Jersey. All in all, it promises to be a very busy summer.

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Stephen D. Connors

Presently I am working on a master thesis at Brooklyn College and plan to be some field work this summer in the Arcade, New York 7 1/2' quadrangle. I plan to collect random samples of soil and surficial deposits and analyze several physical properties, i.e. permeability and grain size, to evaluate the suitability of the area for solid waste disposal sites and septic tank location.

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Kernan W. Davis

Recent reorganization within the Department of Environmental Conservation has directed my attention toward analysis of geologic impacts upon the environment due to the construction, operation and maintenance of large generating plants: nuclear, fossil-fueled, pumped storage and hydroelectric. In a way, this new assignment is really old hat; I worked on the construction of the Niagara Power Project fifteen years ago.

In addition to this first priority work, which calls for detailed review of research and reports done by others, I respond to the old fire gong, which can send me searching to any quarter of the state where economic development tends to trip over or trample upon certain aspects of the Environment.

As a result of the sudden calls for instant analysis, I have, from time to time, consulted the Glaciogram to learn who has been working near one of my assigned sites.

My erstwhile assistant, Fred Van Alstyne, has taken up the reins of my old reign and will be reporting to you of his activities in the Salman River region.

John J. Donahue

John reports of two projects in progress: 1) a sedimentological study of Lake Albany dunes and 2) studies of the hydrological characteristics of Catskill tree-throw microtopography.

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Phodes Fairbridge

A follow-up on our November, 1973 report on Saharan Ordovician glacial grooves developed during a special symposium arranged in Quebec City, April 20-24, on the geological role of Drift Ice. Several interesting points emerged at this well-attended meeting, most efficiently mounted in the new "Comples Scientifique" with simultaneous English-French translation (as at the U.N.). This translation service makes the world of difference at an international group, because, frankly, while most of can read the other languages it is hard to catch the fine points in oral presentations. Lively and productive discussions ensued. Here are some high points:

(a) "GLACIEL": a new term, of classical root, proposed by Hamelin a decade or so ago, but only now getting into the limelight. It means simply floating ice, drift ice, either from icebergs, ice-foot, floe ice, fluvial or lacustrine ice. All floating ice in fact bar glacier ice attached to its source.

(b) Scours: all kinds of striae and scours were illustrated, contemporary and fossil, photographic and sonar. In my Sahara examples, I was able to recognize clear distinctions between glacier grooves and floating ice (ice floe) traces, the latter looking rather like multiple seismograph traces in various directions and sometimes making sharp turns. These are quite distinct from the long, continuous scours of glacier ice. Much of the glacier movement was over the continental shelf so that is scoured contemporary (wet) sediments.

(c) Sea-ice Transport: I presented a paper myself indicating the appearance of anomalous giant exotic blocks in non-glaciated high to mid latitudes associated with wide "wave-cut" shore platforms. These can now be dated as early Quaternary in age. Are they not really shore-ice cut? And merely trimmed by recent wave action?

Everyone is most grateful to Jean-Claude Dionne for his enormous energy and devotion in organizing the "Drift Icers". (He has a nice article with color pictures in the latest Canadian Geographical Journal v.88, no.2, Feb. 1974). Don't miss his picture of "Monroes" (more politely called "mamelles" by Hamelin), a type of elegant small mud-volcano named in honor of Marilyn Monroe. Informally, in the same theme, the miniature cones of melted ice-foot deposits were referred to as "Twiggies". Very large proglacial sedimentary volcanoes are beautifully preserved in the Saharan Ordovician but I refuse absolutely to call them "Wests" (in the interest of self-preservation from my furious fair assistants, who are, like Queen Victoria, "not amused").

Another follow-up on my November 1973 note to Glaciogram:

The 12,500 B.P. magnetic excursion referred to by Nils-Axel Mörner as the "Gothenburg Event" has been picked up now in Canada and in New Zealand. So it is not a local departure (which Creer suspected at first). Creer (personal comm.) is now satisfied with its essentially world-wide distribution. So, if any N.Y. Glaciogram reader has a lake core sequence (it must be fine-grained), he should get the paleomagnetist on to it (e.g. George Kukla at Lamont, or John Foster at Ottawa).

I've just been reading through the final draft of Horace Richard's "annotated Bibliography of Quaternary Shorelines" supplement 1970-74. It will be printed shortly by the Academy of Natural Sciences in Philadelphia. You can still purchase the first two volumes. No one should attempt to study coastlines without these indispensible aids.

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P. Jay Fleisher

A number of students in my glacial geology class are involved with several projects dealing with the glacial and periglacial geomorphology of the Upper Susquehanna drainage area. Brief descriptions of these projects are as follows:

TOPOGRAPHIC EXAMINATION OF POSSIBLE NIVATION HOLLOWS
IN THE UPPER SUSQUEHANNA

The study consisted of an examination of 7 1/2 minutes Quadrangles of anomalously large first order drainage basins. The expression of these drainages is in the form of arcuate identification along valley sides generally showing a steep "headwall" like feature upslope, and a minimum of two hundred feet of relief.

Upon graphic representation of the data collected, the following observations were made:

a) the frequency of hollows increases eastward,
b) their elevation increases eastward,
c) the relief increases eastward, and
d) their orientation becomes more random eastward

Ken Utley
Tom Pinto

CHARACTERISTICS AND ORIGIN OF THE RICHFIELD SPRINGS DRUMLIN FIELD

A study is under way examining characteristics inherent to the area described as the Richfield Springs Drumlin Field. This field is associated with the last advance of Wisconsin ice in this area. Inclusive in this study is map and field data as well as a research of previous work. An

attempt will be made to employ quantitative aspects of interpretation with respect to previous interpretation. Hopefully, from this we will be able to conjecture a sequence of events which finally led to the formation of this drumlin field and the associated topographic unconfirmity as its westerm boundary. This investigation will be integrated with others in an attempt to give a historical framework for the glacial history of the upper Susquehanna drainage.

Paul Heller
Phil Ames

EXHUMED BEDROCK GORGES OF PREGLACIAL (?) ORIGIN

A study of bedrock gorges on the slopes of Crumhorn Mountain east of Milford, New York is in progress. Through field and map observation the gorges were found to show a relatively low run-off compared to their size. A study of the gorge trends indicates a strong bedrock joint control.

Lodgment till has been found along stream channels and walls of the gorges indicating a preglacial origin. At present they are being exhumed to their original size!

Steve Strait
Jim Hornbeck

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Jane L. Forsyth

Work is scheduled to continue on the new project of relating geologic setting to distribution of prehistoric wet prairies near Bowling Green and hopefully to conclude study of the narrow pre-Maumee ice-marginal lakes near Lima, Ohio. Some of the material on the Lima lakes, as well as on the early postglacial history of the Lake Erie basin, appeared in a paper "Late-glacial and postglacial history of western Lake Erie", in the Fall 1973 issue of the Compass of Sigma Gamma Epsilon. Among other things, I refer to the "Great Flood" eastward out of Lake Erie basin, the probably nature of the early postglacial vegetation, and an interpretation of the recovery cruve for the lake level that suggests a dating for the Xerothermic.

It is also hoped to conclude, early this summer, new papers relating certain plant species to geologic substrates -

the thistle Carduus Nutans on shallow lime-gravel substratess (a follow-up on tan earlier paper, with the Ohio State University botanist, Dr. Ronald Stuckey, showing the plant on shallow limestone substrates), and

the cinquefoil Potentilla Recta occuring mainly inside the glacial boundary east of Columbus (but don't plan to map, using this plant - it loses its petals, and therefore its mapping effectiveness, very readily).

All of this will be interrupted for about a month, though, while I take an off-campus field class from the University of California (Berkeley), a study of Swiss alpine botany and ecology - jealous?

E. D. Frey

E.D. Frey, University of Waterloo (Ontario), is studying precambrian clast lithology as a possible index of till provenance in southwestern Ontario. He requests news of recent study of any far-travelled clast lighologies in till

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Richard P. Goldthwait

Mike Quinn and I have, in editorial stages, with the Geological Survey, the story of (Champaign County) interlobate area between Miami and Scioto sublobes, Ohio. Several clear-cut events between 25,000 to 17,000 C-14 years ago are now nailed down. Mike has just about finished the story of (Poss County) the ice border south of here and this shows ice there for a long time (4,000 years) as (in Highland County) to the west. We even have some answers for the Wisconsin drift found in hill valleys south of the great Illinoian kame drift masses (near Paint Creek). Our effort is still diluted by old studies (details, clays, etc., of Gahanna Cut; origin of Kelley's Island grooves; and the 11,200 year old "Lake Wayne" shore), and lots in Alaska, but each will come out!

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Paul F. Karrow

I plan to complete mapping of the St. Mary's area, north of London, for the Ontario Division of Mines early in the season. Two undergraduate students will be employed to survey stream terraces east of Lake Huron as part of a shore erosion project and study of Glacial Lake Algonquin history. Molluscan assemblages from the terrace deposits are being studied by Barry Miller, Kent State University, and a paper is in preparation. Two other undergraduates will be employed in geotechnical data compilation for the Waterloo, Kitchener, and Cambridge urban areas. Both the shore erosion and urban geology projects are cooperative efforts with Owen White of our Civil Engineering Department. Writing of papers and reports will fill the rest of my summer. A paper on till stratigraphy in southwestern Ontario will appear in G.S.A. Bulletin in May, and a paper on Lake Algonquin is being revised after critical review.

M.Sc. student Peter Barnett has his study of tills in the Niagara Peninsula well advanced. He is examining samples of Halton and Wentworth Till by means of texture, carbonate content, heavy minerals and trace elements. So far texture is the most useful in distinguishing the tills. Regional trends in texture and garnet ratios are becoming evident.

L. Kalas Canada Centre for Inland Waters, Burlington, is completing a study of the molluscs of the Toronto interglacial begun a few years ago by a Ph.D. student but later suspended.

Plans are progressing for a conference on non-marine Quaternary Paleoecology to be held at the University of Waterloo in May, 1975. It will precede the joing Geological Association of Canada and North Central Geological Society of America annual meetings being held at Waterloo. General sessions on Quaternary stratigraphy and geomorphology as well as two Quaternary geology field trips will be held. All told, we hope it will be an interesting week for Quaternary workers.

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James T. Kirkland, Donald M. Lewis, Robert E. Funk, Bruce E. Rippeteau

We are currently working on an interdisciplinary study of post-glacial sedimentation, aboriginal settlement systems, and biotic environments on the upper Susquehanna River between Oneonta and Otego. We have been afforded good stratigraphic control in otherwise featureless overbank silts by the work of Bob, Bruce, and their archaeological team on 10 archeological sites. The radiocarbon dating of prehistoric living floors on the sties shows that the deposits range from 1800 to over 5000 years old. The oldest Indian culture represented is the Lamoka phase of the Archaic (hunting, gathering, preceramic) stage. The latest groups pertained to the Late Woodland (ceramic and agricultural) stage which persisted into the time of European conquest.

We have been fortunate in recovering organic samples from some of the underlying lateral accretion deposits. One such sample has yielded dates of 8970 + 205 - 220 and 9020 $\pm$ 170 years B.P. (Dic-113,120). Don tentatively correlates pollen from these sections with the 30 or 33.5 ft. levels of Cox's Worcester Bog. He is currently working on other samples and should add much to our knowledge of post-glacial conditions in the upper Susquehanna River Valley. Jim has determined that the present Susquehanna River is entrenched into former glacial-lake silts and clays. This may account for the relative stability of the river in its channel and the generally low percentage of young overbank sedimentation, compared with the total volume of overbank silts in the floodplain. Archeo-stratigraphic correlations indicate that the initial silt accumulation in a given area (a few tens of feet from the river) is very rapid and diminishes with time.

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Jerry A. Lineback

Photographs taken by cameras onboard the Skylab manned orbital laboratory over east central Illinois in June, 1973, show interesting linear and circular features at the surface of the drift in an area between Champaign and Bloomington, Illinois. These features lie in an area previously mapped as being underlain by the Glenburn, Batestown, and Snider Till Members of the Wedron Formation (Wisconsinan). This area of unusual surface features may be underlain by a known, but unnamed and unmapped member of the Wedron. An attempt will be made to draw the boundaries of outcrop of this till unit from the Skylab photography and also to check the boundaries by field mapping. This is the first attempt in Illinois to use space photography to map pleistocene glacial materials. The principal investigator will be Jerry A. Lineback, Illinois Geological Survey

O.T. Maide and P.N. Agostino

During this past winter, Dunn Geoscience Croporation was contracted to confirm, if possible, the Pleistocene age of unconsolidated surficial deposits and to interpret the structures in those deposits exposed in an excavation site in Saratoga County, New York.

It was not possible to precisely date the glacial deposits in the area, because there was no woody material contained in the section to permit radiocarbon analysis. This is a problem common to the Middle (?) and Lake Wisconsinan (Woodfordian) deposits in eastern New York.

According to LaFleur (and others), the two most recent glacial advances recorded in the Hudson-Mohawk lowlands are the Hell Hollow and Mohawk glaciations which are identified by the petrographic components of their respective tills. The two tills at the investigated site compared closely with the tills of the Hell Hollow and Mohawk glaciations. The type section for both tills is at Fort Johnson, approximately 20 miles from the site. The structural deformation exhibited in the section is related to ice-push or ice-override and to contemporaneous slump associated with deposition. There are no apparent faults or folds which involve all of the Pleistocene section. With the exception of that deformation which is contemporaneous with deposition of several glacial units, the area has been structurally inactive since the inception of glaciation (ca. 35,000 years before the present).

In another recent project, Dunn Geoscience Corporation personnel were asked to collect and review geologic and hydrogeologic information in order to document the stability of slopes in the vicinity of a lakefront development. The object of the study was to determine whether the formation of the lake, an artificial impondment, would adversely affect the stability of slopes on a regional basis. The slopes are formed over steeply-dipping Normanskill formation shale and graywacke, which is overalin by variable thicknesses of lodgement till and glacial Lake Albany sediments. The relatively dense and impermeable till is composed of poorly-sorted clay, sand, gravel and boulder-size material. The Lake Albany sediments are chiefly thinly-laminated, plastic, soft to very stiff, highly impermeable blue clay and silt.

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Paul A. Mayewski

Presently I am undertaking a two-fold research effort as a Research Associate in the Department of Geological Sciences at the University of Maine:

1) Preparation of Late Wisconsin ice margin and ice surface elevation maps of North American and Antarctica to be used as input for the climatic modeling programs under the auspices of CLIMAP (Climate/long Range Investigation Mapping and Predictions).

2) Continuation of research begun at the Institute of Polar Studies, Ohio State University, on the glacial history and former ice surfaces in the Transantarctic Mountains based on the correlation of glacial events in the Queen Maud Mountains and in southern Victoria Land. Forthcoming Antarctic field studies are planned in northern Victoria Land in an attempt to determine the history of the East Antarctic ice sheet in a region not connected to the Ross Ice Shelf.

As of February, 1975, I will join the Department of Earth Sciences at the University of New Hampshire where I hope to undertake glacial geologic and geomorphologic research within New Hampshire.

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Marie Morisawa

Editing and publication of FLUVIAL GEOMORPHOLOGY, Proceedings of the 4th Annual Symposium at Binghamton is complete. Copies are available at $7.00 cost price from M. Morisawa, Publications in Geomorphology, SUNY, Bingamton, N.Y. 13901 (post-paid).

Current field work: Students and I are working on a variety of problems including: 1) Hydrologic and geomorphic effects of changing land use, urbanization and channel modifications in the Binghamton area. 2) Land use and open space inventories in Vestal, N.Y. 3) Assessment of wild, scenic and recreational rivers on N.Y. 4) Coastal erosion and stabilization studies on Long Island.

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Ernest H. Muller

Having been away from New York glacial geology for five months now, (in the Geology Department, University of Canterbury, Christchurch 1, New Zealand) I have no hot news to offer anyway, so just as well as pass up this time. I have been putting thought on the subject of drumlin origins and will be speaking on that subject at SUNY Binghamton this fall.

Time here is going fast and I find I am only beginning to feel familiar with New Zealand Quaternary Geology. INQUA was a great boost in this regard and it is great to have the Guidebooks to work with and from.

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Victor K. Prest

New York glaciogists may be interested to know of work recently produced by Sean O'Kileene (1974) as an M.A. thesis in the Department of Geology, Carleton University - i.e. "Deglaciation in the Ausable Valley, New York State". Sean is now on the staff at the Department of Geography, University of Galway in Ireland.

Victor E. Schmidt

Three matters are currently occupying my attention:

1) With the aid of students, the number of known specimens of Paleozoic or younger tillite (?) reported in the last issue of the Glaciogram has increased to ten, and the number of localities to four: till beneath meltwater sand and gravel near Brockport, a drumlin near Hemlock, the Valley Heads Moraine south of Honeoye Lake, and a kame terrace near Cohocton. Presently I am working on the identification of clasts in this tillite (/) and analysis of its matrix, while searching for clues that would prove, without questions, whether it is a tillite. Meanwhile, let me repeat my request for any information you may have concerning such tillite (?) in this region.

2) Field work in preparation fro the trip "Glacial Geology of the Western Finger Lakes Region" held during the September, 1974, meeting of the NYSGA, and again with my glacial geology class this spring, reinforces my belief that this area is indeed worthy of a glacial field conference in the near future. Inasmuch as Grodon Connally has done much, if not most, work in the area, an offer by him to lead such a conference would, I am sure, meet with enthusiastic response.

3) Mining of gravel, construction of super-highways, and artificial sculpturing of the landscape continue in New York State with little or no regard for the preservation of outstanding glacial features for future students to observe and study. Since many areas displaying such features could serve a double purpose - recreation as well as scientific study - these areas should be set aside as parks. A letter to Henry Diamond, former Commissioner of the New York State Department of Environmental Conversation, brought the encouraging reply that efforts twoard this end would indeed be one of the functions of the department. However, since Mr. Diamond's resignation from this position, and with the current problems of energy and ecology, nothing further has transpired to my knowledge. In this connection I would greatly appreciate information as to what others are doing, and suggestions for possible further action. In the meantime, my favorite esker for field trips has been stripped of its timber and is being excavated at a rapid rate.

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Frederick E. VanAlstyne

Last summer was spent working on the Great Lakes Salmon Hatchery site selection and it appears that the majority of this summer will be spent searching for a large groundwater supply for an "Inland" (Adirondack) Hatchery site.

The Great Lakes Salmon Hatchery Study is at the test well drilling phase near the Village of Altmer, New York. The study itself is now in the hands of Geraghty & Miller, Inc., Consulting Ground-Water Geologists, who are responsible for drilling, testing, and providing final (I hope) production wells. Seismic data for this area and parts of the West Branch Fish Creek near Camden is available from this office to any interested persons.

The "Inland" hatchery is to be sited in the Adirondack area. The office study thus far indicates three or four areas near the Village of Saranac Lake that may prove favorable. Geophysical studies will begin as soon as the "white stuff" is gone. Any suggestions as to possible locations in the Adirondacks would be appreciated.

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George W. White

George W. White of the University of Illinois, and Stanley M. Totten of Hanover College, will complete their mapping of Ashtabula County, Ohio, and preparation of a map and report for the Geological Survey of Ohio. The Survey continues to increase its emphasis on Pleistocene geology in the State.

A map and report on Mahoning County (county seat, Youngstown) by Totten and White, and of Columbiana County, south of Mahoning County, by White and Totten, will soon be in press by the Ohio Geological Sruvey. Maps are in color of one inch to one mile.

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Richard A. Young

We have obtained a radiocarbon date from the lake sediments beneath the Genesee Valley floodplain near Geneseo as described in the last issue of the Glaciogram (vol. 8, no. 2).

A thin layer of woody material in a section of fine gray lacustrine clays yielded a date of 8050 ± 135 years B.P. The samples were taken from two adjacent cores approximately 15 feet below the top of the lacustrine section. A thin veneer of 2 to 3 feet of river sediment covers the floodplain at the site. We interpret the woody material as "trash" washed into the lake off the front of a small delta. The top of the lakebeds have probably been eroded by the Genesee River as it built up and subsequently eroded its floodplain (to a maximum of 95 feet above the modern channel) over the last 4200 years or longer. Thus the date on the lake deposits provides only a minimum length of time for the existence of a "Finger Lake" in the Genesee Valley. If the thick morainal fill in the valley between Geneseo and Avon does represent the Port Huron readvance (or a roughly contemporaneous event), then the lake persisted for at least 500 years before fluvial aggradation began in the valley.

Continuing geologic and archaeological investigations may ultimately produce evidence of the events which transpired between 8050 B.P. AND 4250 B.P. The latter date is the oldest on archaeological materials excavated from within the Genesee River terraces by Dr. Wendell D. Rhodes, Department of Anthropology, Geneseo.

Refer to the N.Y.S. Geological Association 1973, Guidebook for a more detailed discussion of the geologic and archaeological evidence.

The "missing" Geneseo mastedon tooth mentioned in various geologic reports and pictured on page 363 of Hall's Natural History of N.Y., Part IV, 1843, has reappeared in the collections of the Department of Geological Sciences at Geneseo, where it has been put on display. The tooth has an interesting history in that Sir Charles Syell visited Geneseo to re-excavate the site in order to learn more about the geologic environment and the nature of the deposits in which the remains were found.

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Jessee L. Craft

Quality of Glacial Gravels Franklin-Warren

The objectives of this study are: (1) to obtain a better understanding of composition of land-based gravel deposits in the Franklin-Warren Area, and the relationship of composition to quality of coarse aggregates; (2) to obtain a better understanding of the stratigraphic relationships of the different gravel terraces; (3) to develop a method whereby prime exploration targets for quality gravel can be identified; and (4) look for methods of upgrading low-quality gravel to high-quality gravel. Field work has started and is progressing.

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Aleksis Dreimanis

In 1974-75, I am going on sabbatical leave and, hopefully, will come closer to completion of some of the projects which had piled up during the previous years.

Jointly with several co-workers, the following three papers have been published in the Geol. Soc. Amer. Memoir 136 (The Wisconsinan Stage), 1973, which may apply to the northwestern part of New York State:

1. Wisconsin Glaciation in the Huron, Erie and Ontario Lobes (jointly with R.P. Goldthwait),
2. The Erie Interstade (jointly with N.A. Mörner), and
3. Differentation of glacial tills in southern Ontario, Canada, based on the Cu, Zn, Cr, Ni geochemistry (together with R.W. May).

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