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Joseph E. Upson, WRD
U.S. Geological Survey

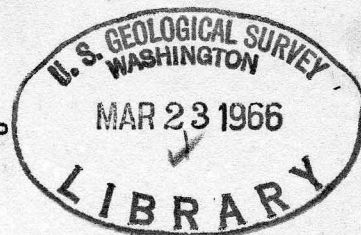
NO. 28: 1965

*Friends of the Pleistocene - Eastern
Group Field Conference*

FRIENDS OF THE PLEISTOCENE, LONG ISLAND TRIP
May 21-23, 1965

Excursion on Saturday, May 22

Geologic names used are those of Fuller



- Stop No. 1. - South slope of Harbor Hill. Type locality for the Harbor Hill moraine. Outwash plain extending to the south. Fuller, (p. 168.)
- Stop No. 2. - Cuts along railroad transecting Harbor Hill moraine on north side of Harbor Hill. Note gravelly nature of the material - not typical clay till.
- Stop No. 3. - McCormack sand and gravel pit. Cretaceous sand, dipping, and overlain unconformably by Manhasset formation (Fuller, p. 114): Herod gravel at base; Montauk till above; and then Hempstead gravel. At top is till, part of the Wisconsin drift of Fuller (p. 158).
- Stop No. 4. - Non-operating gravel pit. Cretaceous sediments are visible thrust over Pleistocene, probably Montauk till and Hempstead gravel of Fuller.
- Stop No. 5. - Peat bog on till of Wisconsin drift. Pollen diagram prepared by L. A. Sirkin. Peat taken from southeast side of this bog and near base of peat but not in the deepest part, has been dated as around 5000 years B.P. by Carbon - 14.
- Stop No. 6. - Garvies Point. New County Park. Deformed cretaceous clays and, on the beach, possibility of finding pyrite (marcasite ?) nodules.
- Stop No. 7. - Weeks Point. Steeply dipping fine sand with clay interbeds. Called Jacob sand by Fuller, (p. 108); and resembles the Jacob elsewhere. Questions: Which is the direction of overturning? Where is the Montauk till?
- Stop No. 8. - Shallow gravel pit off Underhill Road. Till of Ronkonkoma moraine. Part of Wisconsin drift of Fuller. Question: is it Montauk till?
- Stop No. 9. - Manetto Hills. Yellow gravel, stained pebbles of quartz. Manetto gravel of Fuller (p. 80-81).

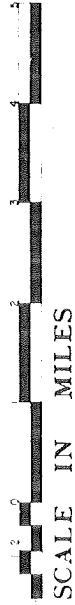
Stratigraphy according to Fuller

Wisconsin	Wisconsin drift	Retreatal deposits Outwash Harbor Hill moraine Outwash Ronkonkoma moraine Ground moraine	
	Vineyard formation	Not identified.	<u>Woodworth</u>
Illinoian	Manhasset formation	(Hempstead gravel	Tisbury beds
		(Montauk till	Gay Head
		(Banded bouldery till.	
		(Herod gravel	Sankaty beds
Illinoian	Jacob sand	Fine laminated to massive sand.	
Yarmouth	Gardiners clay	Tough, red, brown, gray or black clay. Faintly laminated to massive.	
Kansan	Jameco gravel. Nowhere exposed. Known only from well records. Coarse gravel.		
	Manetto gravel. Predominantly quartz; a few rotten granites.		
	Cretaceous. White to varicolored sand and clay.		

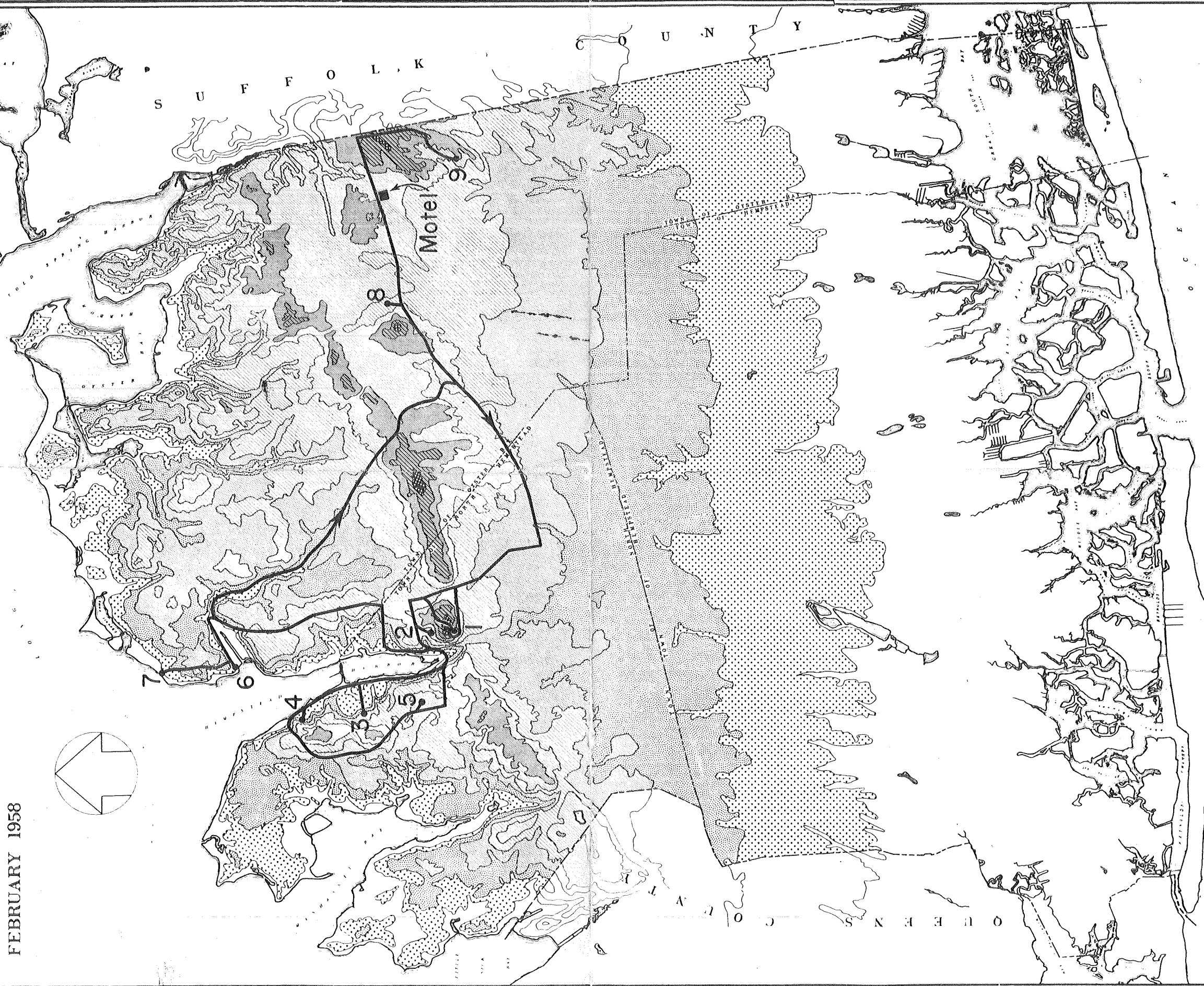
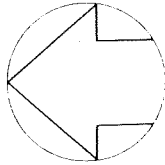
Bloom

RELATIVE RELIEF

NASSAU COUNTY PLANNING COMMISSION



FEBRUARY 1958



LEGEND

0 - 40 FEET	200 - 240 FEET
[Stippled pattern]	[Diagonal lines, top-left to bottom-right]
40 - 80	240 - 280
[Dotted pattern]	[Diagonal lines, bottom-left to top-right]
80 - 120	280 - 320
[Cross-hatched pattern]	320 - 360
120 - 160	360 - 400
160 - 200	[Solid black]

NOTE: BASIC INFORMATION OBTAINED FROM U.S. GEOLOGICAL SURVEY AND U.S. ARMY CORPS OF ENGINEERS 1947

Take Glass slides for Kaye

7⁰⁰ car & taxi: Motel Angerstein - 1100
+ 200 car CA

15.00 (4 meals, train) - Paid to Joe Upson; April 26
1.50 extra Sun. lunch
16.50 check

FRIENDS OF THE PLEISTOCENE

Eastern Division

Meeting of May 21-23, 1965, on Long Island, N. Y.

Second and Final Notice

Classic localities for Long Island glacial geology

The purpose of this excursion is to examine in leisurely fashion some of the "classic" localities for the Long Island glacial stratigraphy. Fuller, Veatch, and others early identified four glacial stages in Long Island and New England islands. Later students reduced this number to one or two. Recently Kaye has found evidence of four stages on Martha's Vineyard, so perhaps the pendulum is swinging back. Many glacial geologists in recent years have not seen the Long Island deposits at all. So the idea is simply to look at some of the early known localities, and mutually consider their significance in the light of modern developments.

On Saturday we will plan to visit the Harbor Hill moraine, the Manhasset formation (including the Montauk till), Cretaceous sand and clay and Pleistocene outwash, (hopefully) exposures of Gardiners clay and/or Jacob sand, and if possible the Manetto gravel, all in or near Nassau County. This would be a one-day trip -- Saturday only.

Exposures of Gardiners Clay and Jacob sand may not be available in this vicinity. Some do occur a substantial distance east on the Island. To visit them on Sunday morning would mean at least a one-hour ride each way, and hence only one to two hours at the localities. However, if any one is interested in the second half-day, involving considerable bus ride, I will arrange such a trip. The type localities for the Montauk till, Jacob sand, and Gardiners clay are too far away to be included.

Attendance limit will be two bus loads, or not more than 90 people. If we receive more applications than this, some selection will have to be exercised in making up the final list of acceptees. Consequently, do your best to avoid indicating your participation and then not showing up.

Transportation will be by chartered bus. No private cars. We will leave the motel at 8:00 am and return by 6:00 pm on Saturday; and by 12:00 or 1:00 pm on Sunday if that trip is held.

Accommodations have been arranged at the Woodbury Motel, 8030 Jericho Turnpike, Woodbury, Long Island, New York, 11797, Mr. David S. Wilson, proprietor. The telephone number is 516 Walnut 1-8500.

11.00 motel
7.50 lunch

21.50

Meals have been arranged at the Woodbury Motel; and will comprise: Saturday: breakfast, box lunch, and dinner and annual meeting. Sunday: breakfast. Lunch on Sunday noon will be extra - either another box lunch or a formal meal at the Motel. This can be decided when we see the desires for the Sunday trip.

Registration will be at the Woodbury Motel from 5:00 to 9:00 pm on Friday, May 21, 1965. Notification of intention to attend the excursion must be accompanied by your check payable to me to cover meals, bus transportation, and route map. Total - \$15.00. If you do not intend to make the Sunday excursion, subtract \$2.25. Pay for motel room upon arrival. (These costs involve some estimates. If there is any surplus it will be refunded; I hope it will not be necessary to make an added assessment.)

References. It is suggested that the chief reference for this trip is Fuller, M. L., The Geology of Long Island, N. Y.: U. S. Geol. Survey Prof. Paper 82, 1914.

Others are: MacClintock, Paul, and Richards, H. G., Correlation of late Pleistocene marine and glacial deposits of New Jersey and New York: Bull. Geol. Soc. America, vol. 47, p. 289-338, 1936.

Swarzenski, W. V., Ground-water supplies in Pleistocene and Cretaceous deposits of north-western Nassau Co., N. Y.: Annals N. Y. Acad. Sci. vol. 80, art. 4, p. 1077-1091, 1959.

Kaye, C. A., Outline of Pleistocene geology of Martha's Vineyard, Mass. in Geological Survey Research 1964: U. S. Geol. Survey Prof. Paper 501-C, p. 134-139, 1964.

Maps. Seacliff, Mamaroneck, Hicksville, Bayville, Huntington, and Lloyd Harbor, N. Y. Quadrangles will cover the Saturday trip.

Please return the attached form with your reservation and remittance to Joseph E. Upson, U. S. Geological Survey, Water Resources Division, Washington, D. C. 20242. Attention: Rm. 308 AT.

Best, April 26
Joseph E. Upson
Joseph E. Upson

Deadline for reservations is May 10, 1965