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Laidlaw Summer I

Research Report

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***Central NY is a place of ebb and flows.***

*Driving in Central NY, I see barns in the folds of rolling hills and quiet streams.*

***The landscape in which the barns are sited in were carved by***

***glaciers*** from over 50,000 years ago. The relationship of these barns and the land vary.

*Some barns perch on the glacial ground, others are dug in and hold the land back. For some the boundary between barn and site are blurred, the grasses and weeds weaving in between. Other barns are dilapidated and are folding back on itself, returning to the earth. These barns are often framed by traces of their past, broken tractors and rusted pipes that reflect to a time of use.*

***It is through these barns that I learned that Central NY is a place of dualities: of nature and built, of preservation and dilapidation.***

*It is easy to get lost in Central NY without these barns. As I drove down highways: Rt. 116, NY-13, I learned to use barns as landmarks to get across the landscape. Some barns are bright red, with large X's on its front doors, others have a tree growing in between, or a hole large enough to let sun in. Some have the names of their family painted on the outside. Some have a basketball hoop attached to its front, the barn no longer used for animals and hay, but for a family with kids.*

***These architectures for storage, store more than just hay, animals and miscellaneous garage items. These barns store the stories of the***

***people, the land, and the culture of Central NY.*** It is through these barns, I met the inhabitants of Central NY, from the smallest of insects to the biggest of four legged beings.

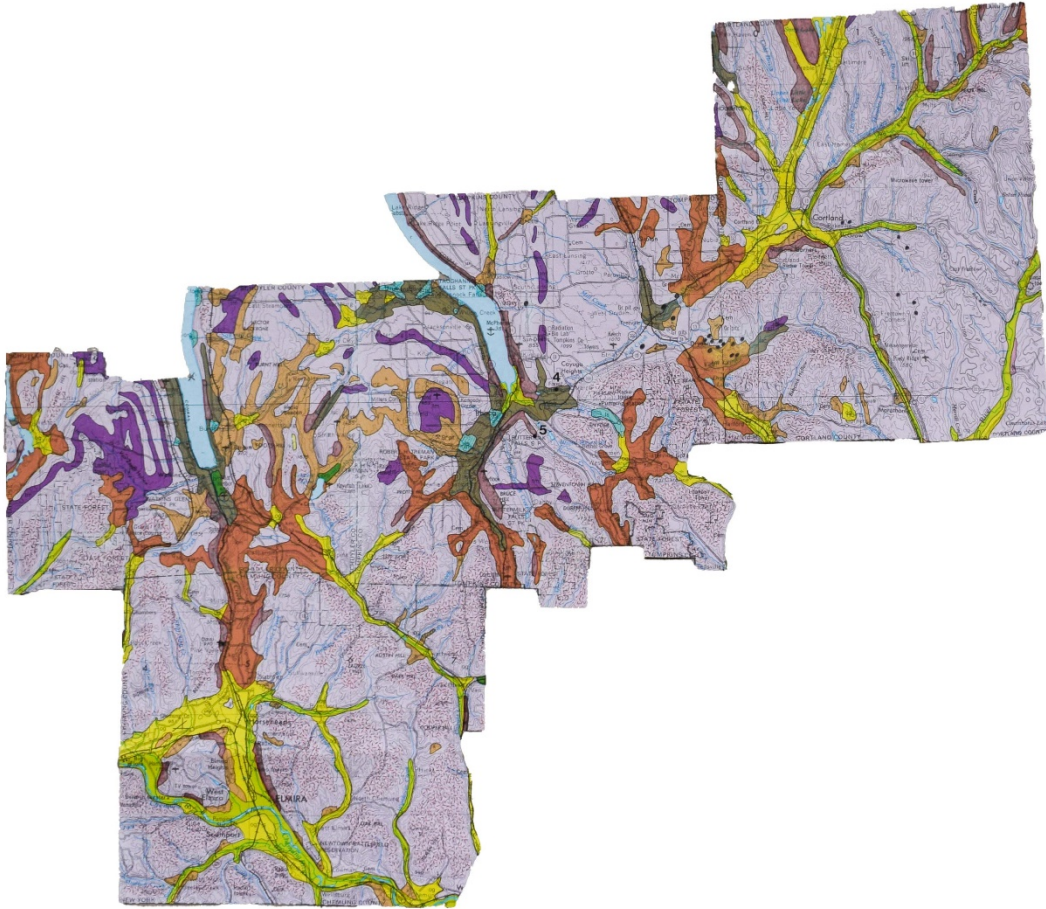
*These barns vary in age, some were built three generations of families ago, others were built last winter.*

***The energy of the people, the land, and the culture can be found in these barns. They are stored in the Barns. This is the embodied energy of these barns.***



*Photograph 1: Barn Overlooking Central NY Topography*

## Part 1: Embodied Energy and Site of Barns



*Clipping 1: Map of Barns Documented this Summer on Surficial Geologic Map of New York (Caldwell etc.)*

EXPLANATION	
	<b>al - Recent deposits</b> Generally confined to floodplains within a valley, oxidized, non-calcareous, fine sand to gravel, in larger valleys may be overlain by silt, subject to frequent flooding, thickness 1-10 meters.
	<b>all - alluvial fan</b>
	<b>pm - Swamp deposits</b> Peat-muck, organic silt and sand in poorly drained areas, unoxidized, may be overlying marl and lake silts, potential land instability, thickness generally 2-20 meters.
	<b>isc - Lacustrine silt and clay</b> Generally laminated clay and silt deposited in proglacial lakes, generally calcareous, potential land instability, thickness variable (up to 50 meters).
	<b>ls - Lacustrine sand</b> Sand deposits associated with large bodies of water, generally a near-shore deposit or near a sand source, well-sorted, stratified, generally quartz sand, thickness variable (2-20 meters).
	<b>og - Outwash sand and gravel</b> Coarse to fine gravel with sand, proglacial fluvial deposition, well-rounded and stratified, generally finer texture away from ice border, thickness variable (2-20 meters).
	<b>k - Kame deposits</b> Includes kames, eskers, kame terraces, kame deltas, coarse to fine gravel and/or sand, deposition adjacent to ice, lateral variability in sorting, coarseness and thickness, locally firmly cemented with calcareous cement, thickness variable (10-30 meters).
	<b>km - Kame moraine</b> Variable texture (size and sorting) from boulders to sand, deposition at an ice margin during deglaciation, locally cemented with calcareous cement, thickness variable (10-30 meters).
	<b>tm - Till moraine</b> Much like till, but more variable in sorting, generally more permeable than till, deposition adjacent to ice, more variably drained, may be ablation till, thickness variable (10-30 meters).
	<b>t - Till</b> Variable texture (e.g. clay, silt-clay, boulder clay), usually poorly sorted diamict, deposition beneath glacier ice, generally calcareous in northern part of map, relatively impermeable (loamy matrix), variable clast content - ranging from abundant well-rounded diverse lithologies in valley tills to relatively angular, more limited lithologies in upland tills, potential land instability on steep slopes, thickness variable (1-50 meters).
	<b>r - Bedrock</b> Exposed or within 1 meter of surface, the following types of rock may be exposed: Paleozoic limestone, sandstone, shale.
	<b>Bedrock stipple overprint</b> bedrock may be within 1-3 meters of surface, may sporadically crop out, variable mantle of rock debris and glacial till.

Clipping 2: Relevant Explanation of the Colors for Barns Documented using Surficial Geologic Map of New York (Caldwell etc.)



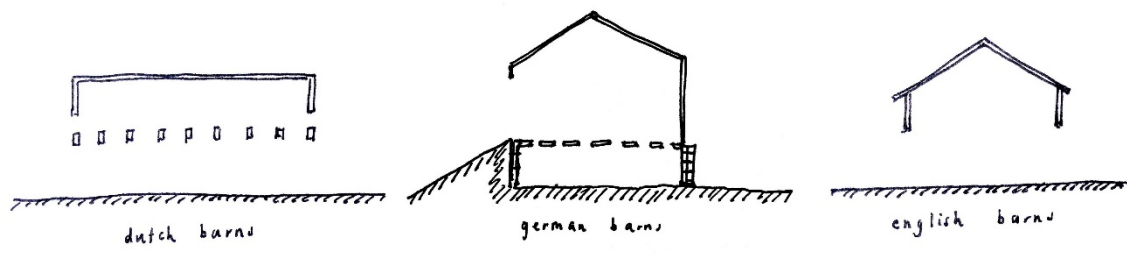
Landscapes of central New York bear a dominantly glacial imprint. Only vestiges remain of landforms that existed prior to Pleistocene glaciation. Flood plains and valley walls have been reshaped only very incompletely by postglacial processes.

Clearly, on the basis of evidence in adjacent areas, New York has experienced several glaciations. Yet, because each glaciation tends to destroy the geologic record of previous events, evidence of multiple glaciation is only preserved in unusual situations. The deflection of the Chemung River from its broad valley into the narrow canyon between Big Flats and Elmira is one such instance, for glacial deposits are inset within the canyon in a manner that was only possible because stream derangement had occurred previously. In protected gullies transverse to the main flow of glacier ice, older drift may escape erosion by later glaciation. Such is the stratigraphic record for instance, in valleys of Sixmile Creek and Great Gully, east-flank tributaries to Cayuga Trough in which organic materials in stratified sediment between till sheets have been radiocarbon-dated at more than 30,000 years. At Fernbank, on the west shore of Cayuga Lake a few miles north of Ithaca, sediments contain plant debris and freshwater shells that indicate glacial impoundment of Cayuga Trough more than 50,000 years ago.

In spite of such evidence of prior glaciation, surface deposits in central New York date almost entirely from late Wisconsinan time, an expansion of the ice sheet that began some 27,000 years ago and culminated with maximum extent perhaps 20,000 years ago.

*Clipping 3: Annotated Geomorphic History of Central NY from Surficial Geologic Map of New York (Caldwell etc.)*





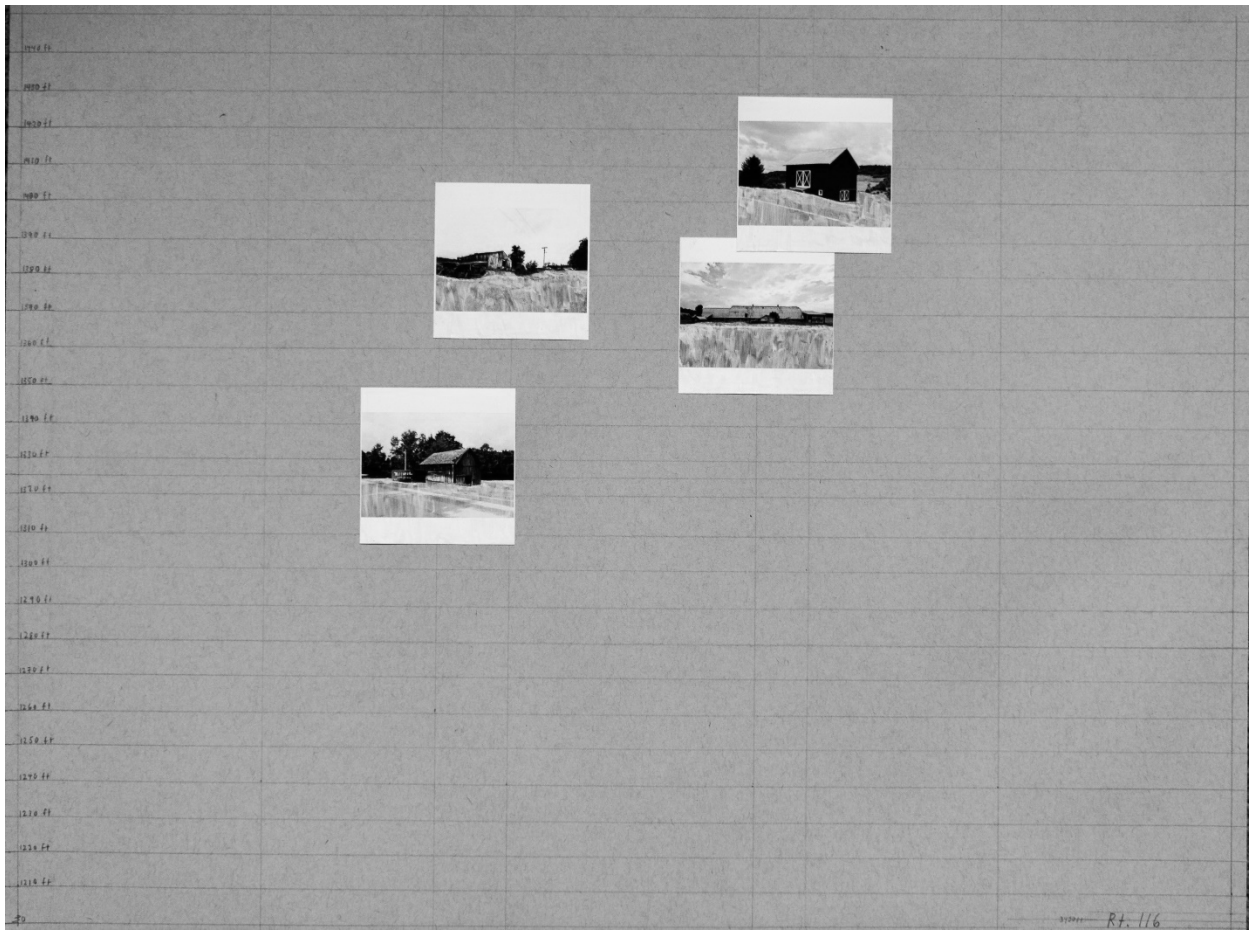
*Sketch 1: Typology of Central NY Barnhouses, Relation to Site: How do they touch the ground?*



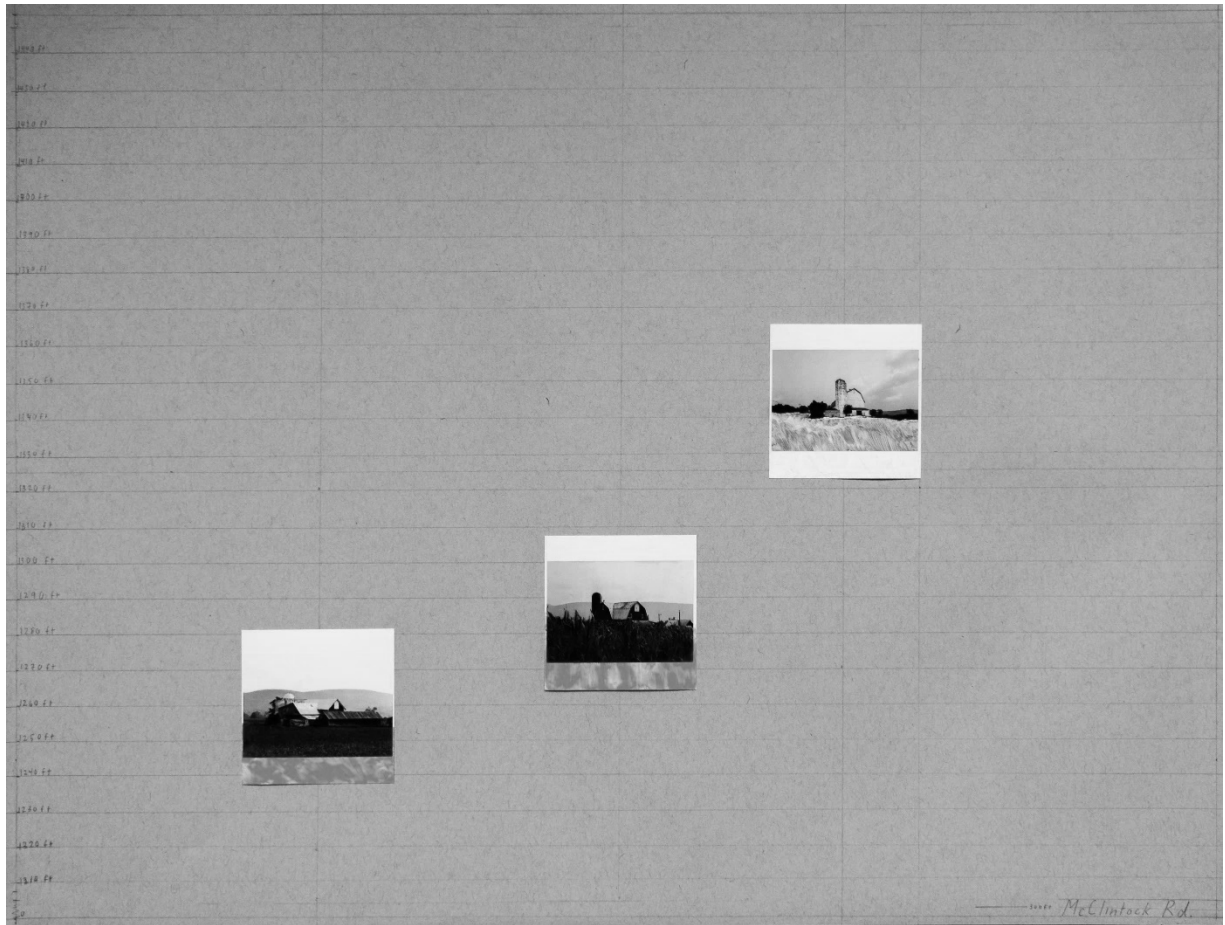
*Photograph 2: Barn on McClintock Rd, refer to Clipping 2 for information on Surficial Geology*



*Photograph 3+4: Barns on Rt. 116, refer to Clipping 2 for information on Surficial Geology*



*Analysis Drawing 3: Surficial Geology of Documented Barns on Rt.116*



*Analysis Drawing 4: Surficial Geology of Documented Barns on McClintock Rd.*

## Works Cited

### Map

Caldwell, D.H., and others, 1986  
Surficial Geologic Map of New York  
New York State Museum – Geological Survey  
Map and Chart Series #40.

### Drawings, Sketches, and Photographs

Maiko Sein, Field Research Summer 2021