CAMPUS GEOLOGY
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Glacial History

- 24,000 BP Glaciers approached Northern New England
- 21,600 BP Glaciers on Long Island (Sirkin, 1996)
- Glaciers gone by 18,000 BP (Sirkin, 1982)
Glacier advancing

- Climate changed from pine, birch, oak and hemlock forest at 28,000 BP to tundra by 18,000 BP (Sirkin, 1996)

- Margin of glacier was in the vicinity of Long Island for 2,000 to 3,000 years

- Permafrost may have lasted until 13,000 BP
Section on Campus

http://www.geo.sunysb.edu/lig/Conferences/abstracts-04/nienstedt/nienstedt.htm
Glaciotectonics

- As the glacier advanced over Long Island’s unconsolidated sediments it bull dozed them.
Tunnel Valleys

- Valleys formed by subglacial streams that may run uphill
- Common along Long Island’s North Shore
- [http://pbisotopes.ess.sunysb.edu/reports/dem_2/tunnel_valleys.htm](http://pbisotopes.ess.sunysb.edu/reports/dem_2/tunnel_valleys.htm)
Gustafson and Boyd (1987)
Katabatic Winds

- Ventifacts
- Loess -- Wind blown silt
- Several feet to inches thick on Long Island
Zhong, 2002

Campus Site

Loess

Wind blown sand

Till
Summary

- Timing
- Glaciotectonics
- Tunnel Valleys
- Katabatic winds