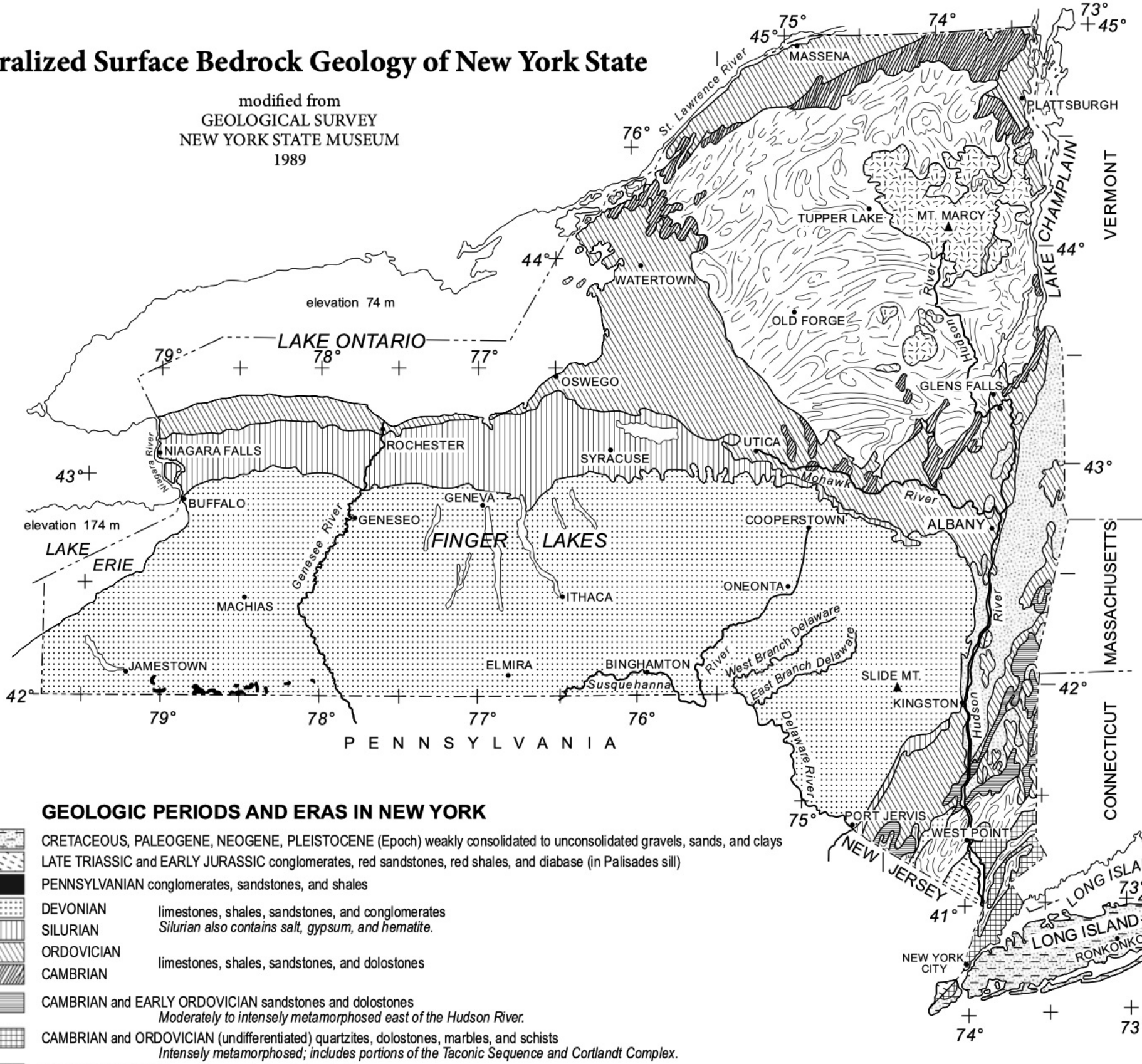
Generalized Surface Bedrock Geology of New York State

modified from
GEOLOGICAL SURVEY
NEW YORK STATE MUSEUM
1989



GEOLOGIC PERIODS AND ERAS IN NEW YORK

Dominantly sedimentary origin

- CRETACEOUS, PALEOGENE, NEOGENE, PLEISTOCENE (Epoch) weakly consolidated to unconsolidated gravels, sands, and clays
- LATE TRIASSIC and EARLY JURASSIC conglomerates, red sandstones, red shales, and diabase (in Palisades sill)
- PENNSYLVANIAN conglomerates, sandstones, and shales
- DEVONIAN — limestones, shales, sandstones, and conglomerates
- SILURIAN — *Silurian also contains salt, gypsum, and hematite.*
- ORDOVICIAN — limestones, shales, sandstones, and dolostones
- CAMBRIAN — limestones, shales, sandstones, and dolostones

Dominantly metamorphosed rocks

- CAMBRIAN and EARLY ORDOVICIAN sandstones and dolostones
  Moderately to intensely metamorphosed east of the Hudson River.
- CAMBRIAN and ORDOVICIAN (undifferentiated) quartzites, dolostones, marbles, and schists
  Intensely metamorphosed; includes portions of the Taconic Sequence and Cortlandt Complex.
- TACONIC SEQUENCE sandstones, shales, slates, phylite
  Sedimentary to moderately metamorphosed rocks of CAMBRIAN through MIDDLE ORDOVICIAN ages
- MESO PROTEROZOIC gneisses, quartzites, and marbles
  Lines are generalized structure trends.
- MESO PROTEROZOIC anorthositic rocks

Some intensely metamorphosed rocks (regional metamorphism about 1000 mya)

Miles
0 10 20 30 40 50
0 20 40 60 80
Kilometers

N W E S