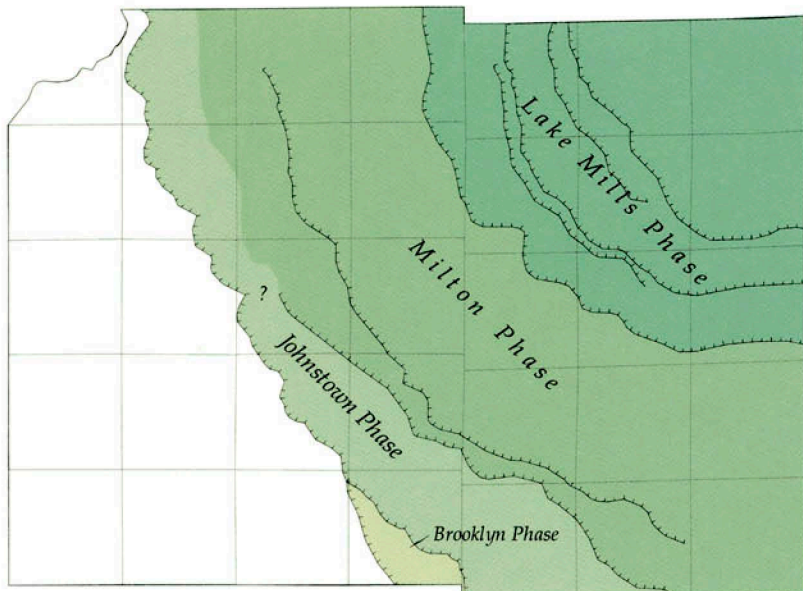
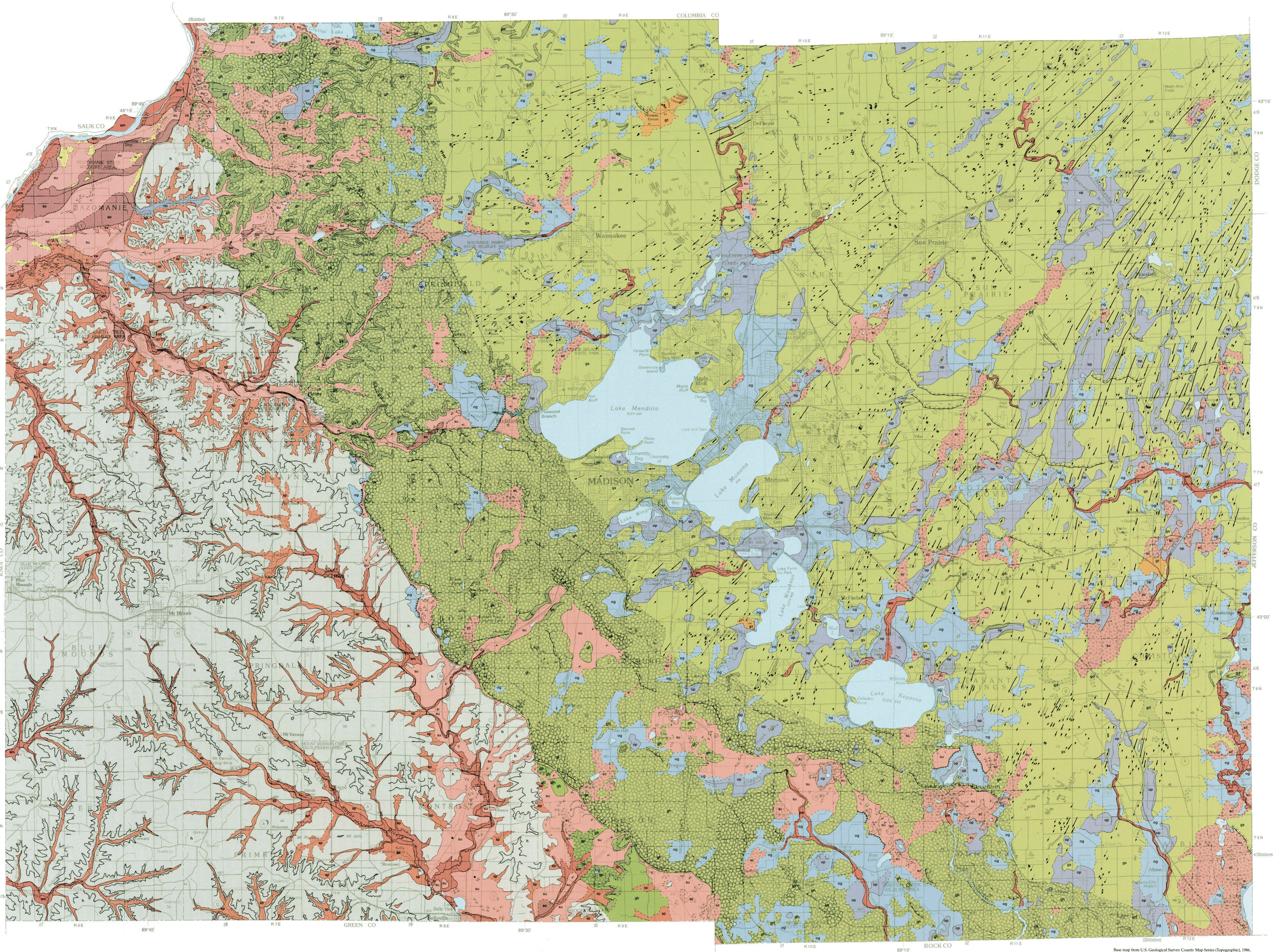
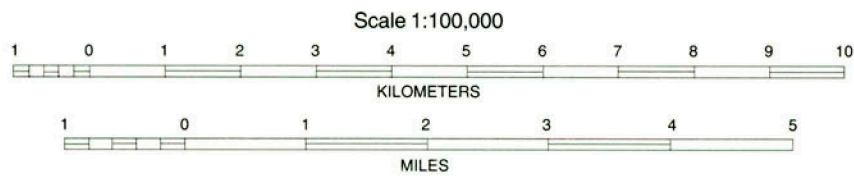


Lee Clayton and John W. Attig
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EXPLANATION

- Windblown sand.** More than about 1.5 m thick; dunes generally no more than a few meters high; most deposited after the Wisconsin Glaciation.
- Nonglacial-stream sediment.** Primarily sand or gravelly sand; typically several meters thick. Unit **sm**: sediment deposited on floodplains of modern rivers; overlain in places by thin, silty overbank sediment, some of which is overlain by thin and patchy peat. Unit **sp**: sediment deposited by premodern rivers; most deposited during the Wisconsin Glaciation; commonly forms fans or flat terraces above modern floodplains; includes rubbly solifluction deposits along valley sides.
- Meltwater-stream sediment.** Sand and gravel; typically at least several meters thick; deposited by braided streams that carried glacial meltwater during the Wisconsin Glaciation; part of the Horicon Member of the Holy Hill Formation. Unit **su**: uncollapsed meltwater-stream sediment; flat outwash plains. Unit **so**: uncollapsed meltwater-stream sediment overlain by postglacial organic sediment. Unit **sc**: collapsed meltwater-stream sediment; deposited on stagnant glacial ice, resulting in hummocky topography when the ice melted. Unit **se**: eroded meltwater-stream sediment; gullied topography resulting from erosion in postglacial time, probably while permafrost was still present.
- Offshore lake sediment.** Plane-bedded and cross-bedded sand and plane-bedded silt and clay; also includes some near-shore gravel; typically 1 m to tens of meters thick; deposited during the Wisconsin Glaciation; part of the Horicon Member of the Holy Hill Formation; in places overlain by several meters of postglacial offshore sediment, including bioturbated silt and clay (with some organic material) and marl (with mollusk shells). Unit **og**: mostly uncollapsed, with flat topography; some deposited on stagnant ice, resulting in slightly hummocky topography. Unit **op**: overlain by a few meters of postglacial peat; flat topography. Unit **oe**: eroded offshore sediment; gullied topography is the result of erosion in postglacial time.
- Till.** Gravelly, clayey, silty sand deposited by the Green Bay Lobe; generally at least a few meters thick; part of the Horicon Member of the Holy Hill Formation; includes many small to large inclusions of meltwater-stream sediment and glacial-lake sediment that could not be separately mapped. Unit **gs**: uniform subglacial till deposited during the last part of the Wisconsin Glaciation; smooth, streamlined topography with drumlins. Unit **gt**: similar to unit **gs**, but underlain at shallow depth by meltwater-stream sand and gravel. Unit **gh**: nonuniform collapsed supraglacial till and sorted supraglacial debris deposited during the last part of the Wisconsin Glaciation; slightly hummocky topography. Unit **gk**: similar to unit **gh**, but more hummocky. Unit **gb**: nonuniform supraglacial till and sorted supraglacial debris deposited during the Brooklyn Phase of the Wisconsin Glaciation; nondescript glacial topography. Unit **gp**: similar to unit **gb**, but hummocky.
- Glacially scoured dolomite plateaus.** Includes places in the glaciated area where Pleistocene sediment is very thin or absent and dolomite is exposed at the surface; identified on aerial photographs by the presence of bedding scarps or joint patterns characteristic of the Sinnipee Group.
- Steep eroded slopes in glaciated areas.** Includes areas gullied in postglacial time, eliminating glacial topography; a variety of materials, including till, dolomite, and sandstone, is exposed at the top of the slopes; fans of hillslope sediment cover the lower parts of the slopes; many of these slopes previously were scarps along the sides of preglacial valleys.
- Hillslopes underlain by early Paleozoic rock in the unglaciated area.** Includes dolomite on the uplands, sandstone in the scarps at the edge of the uplands, and shale in Blue Mounds. Rock is generally overlain by a few meters of red-tinged clay or sand of the Rountree Formation, which in turn is overlain by 1 m or less of windblown silt or the Kieler Formation; rubble consisting of material derived from the Paleozoic formations and from the Rountree and Kieler Formations has accumulated on the lower flanks of the steeper slopes. Probably includes areas that have been glaciated (but evidence is scarce or lacking) in the south-central part of the county.



Southwestern extent of the Green Bay Lobe during four named phases and several unnamed subphases of the Wisconsin Glaciation. The hachured lines mark the position of stable ice margins.

Symbols

- Jordan scarp
- St. Peter scarp
- Lip of bench at base of East Blue Mound
- Lip of bench at top of East Blue Mound
- Drumlin. A symbol shown on the map may represent several drumlins that are too small to be shown individually at the map scale. Thick symbol represents prominent drumlins.
- Esker
- Small moraine. Low, obscure ridge that can be seen on aerial photographs, but is too small to be shown on topographic maps; generally several meters wide and no more than a few meters high. A symbol shown on the map may represent several small moraines that are too small to be shown individually at the scale of this map.
- Medium-sized moraine. Conspicuous sharp-crested ridge that is narrower than about 200 m, but generally shows up on topographic maps; generally several tens of meters wide and a few meters to a few tens of meters high.
- Ice-contact face
- Delta slipeface
- Beach ridge and shore scarp
- Stream cutbank. Only those more than about 5 m high are shown.
- Direction of meltwater flow. Arrows show the flow direction of meltwater rivers, interpreted from channel scarps on outwash plains (arrowheads without stems) or from the slope of land (arrowheads with short stems).
- Spillway. Small meltwater channels that were lake outlets.
- Ice-wedge polygons
- Geologic contact. Solid where position shown on the map is generally within 0.1 km of the true position; dashed where position shown on the map is commonly more than 0.1 km from the true position.

This map is an interpretation of the data available at the time of preparation. Every reasonable effort has been made to ensure that this interpretation conforms to sound scientific and cartographic principles; however, the map should *not* be used to guide site-specific decisions without verification. Proper use of the map is the sole responsibility of the user.

Plate 1. Pleistocene geologic map of Dane County, Wisconsin.