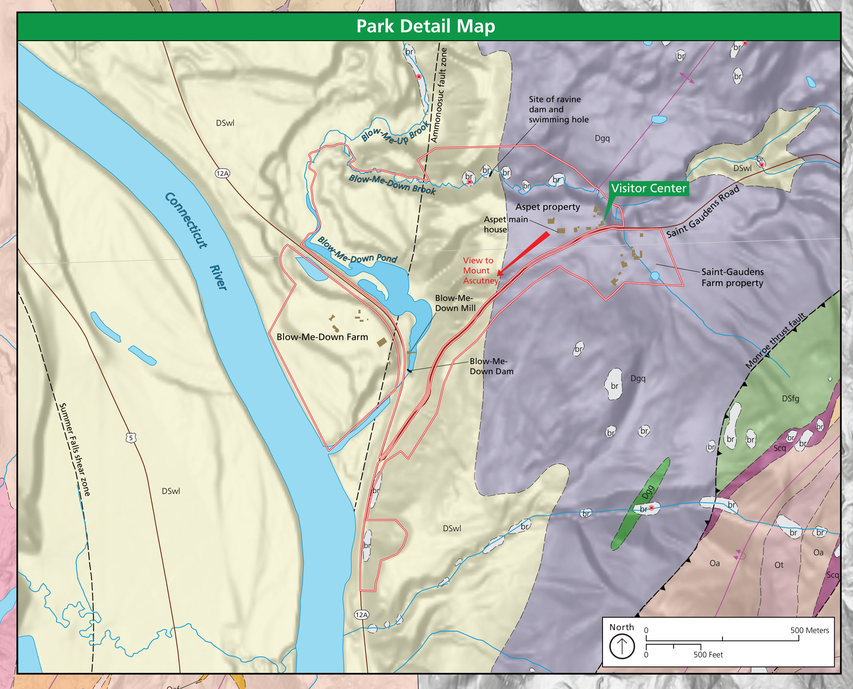
Geologic Map of Saint-Gaudens National Historical Park

New Hampshire

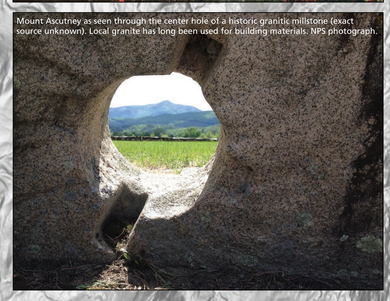
National Park Service
U.S. Department of the Interior

Geologic and Soil Resources Inventory
Natural Resource Stewardship and Science

Park Detail Map

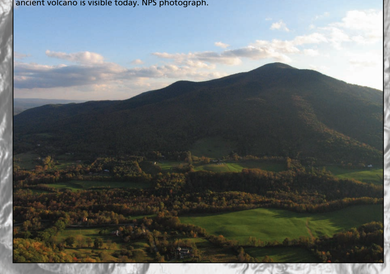


Aspet House with view of Mount Ascutney in the background. Artists frequently created works from around the house. NPS photograph.



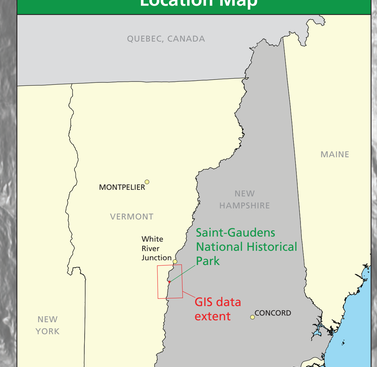
Mount Ascutney as seen through the center hole of a historic granitic millstone (exact source unknown). Local granite has long been used for building materials. NPS photograph.

Flooded mill at Blow-Me-Down Farm in 2011. The mill complex is located on the Blow-Me-Down Brook floodplain. NPS photograph.



Mount Ascutney rising southwest of Saint-Gaudens National Historical Park. The core of an ancient volcano is visible today. NPS photograph.

Location Map



This map displays geologic map data compiled by the National Park Service Geologic Resources Inventory. It is not a substitute for site-specific investigations. All GRI products are available at https://go.nps.gov/gripubs.

Source Maps:

Walsh, G. J. 2016. Bedrock geologic map of the Hartland and North Hartland quadrangles, Windsor County, Vermont, and Sullivan and Grafton Counties, New Hampshire (scale 1:24,000). Scientific Investigations Map SIM-3361. US Geological Survey, Reston, Virginia.

Walsh, G. J., P. M. Valley, P. J. Thompson, N. M. Ratcliffe, B. P. Proctor, and K. R. Sicard. 2020. Bedrock geologic map of the Mount Ascutney 7.5-x15-minute quadrangle, Windsor County, Vermont, and Sullivan County, New Hampshire (scale 1:24,000). Scientific Investigations Map SIM-3440. US Geological Survey, Reston, Virginia.

Source Scale: 1:24,000. According to US National Map Accuracy Standards, features are within 12 m (40 ft) of their true location.

Poster Layout: Trista L. Thornberry-Ehrlich (Colorado State University)

Poster Date: December 2024

LEGEND

- NPS Boundary
- Highway
- Water
- Buildings (park detail map only)

Geologic Points

- rock outcrop location
- spring
- source map photograph location (park detail map only)

Faults

solid bold where known or certain, long-dashed where inferred, dashed where approximate, teeth point toward the overriding block, U and D indicate upthrown and downthrown sides

- thrust fault
- high-angle fault
- right-lateral strike-slip fault
- left-lateral strike-slip fault

Folds

solid where known or certain, dashed where inferred arrows pointing in the down dip direction, arrow head indicates fold plunge

- antiform
- synform
- overturned antiform
- overturned synform

Geologic Contacts

solid black where known or certain, long-dashed where approximate, dashed where inferred, gray where an internal quadrangle boundary, blue where a shoreline

- contact

Geologic Units

- Kg Biotite granite (Early Cretaceous)
- Ks Syenite (Early Cretaceous)
- Ksm Medium-grained syenite to quartz syenite (Early Cretaceous)
- Kd Mafic dikes (Cretaceous)
- Kch Hornfels, inner metamorphic zone (Cretaceous)
- Kspb Syenite, plutonic breccia (Early Cretaceous)
- Kv Trachyte to rhyolite and volcanic breccia (Early Cretaceous)
- Kgd Gabbro and diorite (Early Cretaceous)
- Msz Silicified zone (Mesozoic)
- KDq Quartz veins (Cretaceous and Devonian)
- Dg Granite (Devonian)
- Dp Pegmatite (Devonian)
- Dgm Gile Mountain Formation, Meetinghouse Slate Member (Lower Devonian)
- DSm Melange (Lower Devonian and Silurian?)
- Dl Littleton Formation, schist member (Lower Devonian)
- Dlcg Littleton Formation, metaconglomerate member (Lower Devonian)
- Dlc Littleton Formation, coticule and ironstone member (Lower Devonian)
- Dlq Littleton Formation, interbedded quartzite and schist member (Lower Devonian)
- Dgq Gile Mountain Formation, feldspathic quartzite, granofels, and metapelite member (Lower Devonian)
- Dgqs Gile Mountain Formation, gray quartzite and metapelite member (Lower Devonian)
- Dgpc Gile Mountain Formation, quartzite, conglomerate, and metapelite member (Lower Devonian)
- Dgg Gile Mountain Formation, greenstone member (Lower Devonian)
- Dgqq Gile Mountain Formation, quartzite, conglomerate, and metapelite member, white quartzite to quartz-pebble conglomerate (Lower Devonian)
- Dgqcm Gile Mountain Formation, quartzite, conglomerate, and metapelite member, white and gray calcite marble (Lower Devonian)
- Dgh Gile Mountain Formation, hornblende fascicle schist member (Lower Devonian)
- Dgf Gile Mountain Formation, felsic gneiss and quartzose granofels member (Lower Devonian)
- Dgab Gile Mountain Formation, ankeritic biotite schist member (Lower Devonian)
- DSfm Fitch Formation, marble member (Lower Devonian and upper Silurian)
- DSfgr Fitch Formation, calc-silicate granofels member (Lower Devonian and upper Silurian)
- DSfs Fitch Formation, laminated schist member (Lower Devonian and upper Silurian)
- DSfg Fitch Formation, greenstone member (Lower Devonian and upper Silurian)
- DSf Fitch Formation, gray granofels and schist member (Lower Devonian and upper Silurian)
- DSCd Metadiabase dike (Lower Devonian and upper Silurian)
- DSwl Waits River Formation, limestone and schist member (Lower Devonian and upper Silurian)
- DSws Waits River Formation, gray phyllite and schist member (Lower Devonian and upper Silurian)
- DSwq Waits River Formation, gray phyllite and schist member, quartzite and granofels (Lower Devonian and upper Silurian)
- DSwv Waits River Formation, laminated schist and granofels member (Lower Devonian and upper Silurian)
- DSwf Waits River Formation, felsic gneiss and quartzose granofels member (Lower Devonian and upper Silurian)
- DSwvp Waits River Formation, porphyritic schist and granofels member (Lower Devonian and upper Silurian)
- DSwg Waits River Formation, large-garnet and hornblende garbenschiefer schist member (Lower Devonian and upper Silurian)
- DSwhg Waits River Formation, hornblende-plagioclase gneiss member (Lower Devonian and upper Silurian)
- DSwa Waits River Formation, amphibolite and greenstone member (Lower Devonian and upper Silurian)
- DSwss Waits River Formation, sulfidic schist member (Lower Devonian and upper Silurian)
- DSn Northfield Formation, schist member (Lower Devonian and upper Silurian)
- Scq Clough Quartzite, metaconglomerate and quartzite member (Silurian)
- Scs Clough Quartzite, rusty muscovite schist member (Silurian)
- Scms Clough Quartzite, muscovite schist member (Silurian)
- Ss Shaw Mountain Formation (Silurian)
- Oqd Quartz diorite of the Lebanon dome (Late Ordovician)
- Op Partridge Formation, sulfidic schist member (Ordovician)
- Opa Partridge Formation, sulfidic schist member, amphibolite (Ordovician)
- Opq Partridge Formation, sulfidic schist member, quartzite beds (Ordovician)
- Opp Partridge Formation, plagioclase studded schist member (Ordovician)
- Ogd Granodiorite, trondhjemite, and tonalite of the Sugar River pluton (Ordovician)
- Oa Ammonoosuc Volcanics, heterogeneous volcanic member (Ordovician)
- Oas Ammonoosuc Volcanics, sulfidic schist member (Ordovician)
- Oaf Ammonoosuc Volcanics, metafelsite member (Ordovician)
- Oafa Ammonoosuc Volcanics, bimodal metavolcanic rocks member (Ordovician)
- Oarr Ammonoosuc Volcanics, rusty sulfidic granofels member (Ordovician)
- Oarq Ammonoosuc Volcanics, lapilli tuff member (Ordovician)
- Oag Ammonoosuc Volcanics, felsic granofels member (Ordovician)
- Oaa Ammonoosuc Volcanics, greenstone and amphibolite member (Ordovician)
- Ochg Cram Hill Formation, greenstone member (Ordovician)
- Ochv Cram Hill Formation, felsic and mafic volcaniclastic rocks member (Ordovician)
- Ochq Cram Hill Formation, quartzite member (Ordovician)
- Ot Trondhjemite and tonalite (Ordovician)
- Otp Plainfield tonalite (Ordovician)
- Ontd Trondhjemite gneiss (Ordovician)
- OCmhfsmb Moretown Formation, hornblende fascicle schist member (Cambrian to Ordovician)
- OCmb Moretown Formation, black schist member (Cambrian to Ordovician)
- OCmgt Moretown Formation, garnet schist and granofels (Cambrian to Ordovician)
- OCmrq Moretown Formation, quartzite member (Cambrian to Ordovician)
- OCu Talc-carbonate schist (Cambrian to Ordovician)
- OCmfs Moretown Formation, green schist and granofels member (Cambrian to Ordovician))
- OCmfsc Moretown Formation, green schist and granofels member, coticule beds (Cambrian to Ordovician)
- OCma Moretown Formation, amphibolite (Cambrian to Ordovician)
- Y1bm Baileys Mills tonalitic gneiss (Mesoproterozoic)
- Y1bmp Baileys Mills plagioclase-phenocrystic tonalite gneiss (Mesoproterozoic)
- Ycfs Cavendish Formation, feldspathic schist or granofels (Mesoproterozoic)
- Ycm Cavendish Formation, marble (Mesoproterozoic)
- Ybg Biotite-quartz-plagioclase-gneiss (Mesoproterozoic)
- Ya Amphibolite (Mesoproterozoic)
- Y2rs Quartz schist and gneiss (Mesoproterozoic)

Geologic Outcrops (park detail map only)

- areas of bare, exposed bedrock