

The History of the Pompton Pink Granite: New Jersey's Prized Building Stone

Approaching the Riverdale and Pompton Junction areas from the east, prominent ridges stand like silent sentinels that form a gateway to the New Jersey Highlands. Conspicuous among the billion-year-old Precambrian rocks is a pink granite that looks strikingly different than the darker, more drab-colored rocks nearby. Granite of various types is common in the 1,000 square miles of the New Jersey Highlands, where it underlies approximately one half of the region (fig. 1). Most granite is named after a location, such as the Byram in Sussex County or Lake Hopatcong in Sussex and Morris Counties. They usually form large bodies covering nearly the entire length of the Highlands from New York State to Pennsylvania. Few granite bodies are given names when they occur over very small geographic areas. One that merits this distinction, while underlying barely half a square mile, is called the Pompton Pink Granite. The history of why this granite was singled out begins in the nineteenth century.

By 1900, the name Pompton Pink Granite was widely accepted and is found in the Annual Report of the State Geologist for New Jersey in 1908: "Building Stones of New Jersey" by J. Volney Lewis. The source of the name is uncertain, but it very likely originated as a trade name by quarry operators in reference to the location and distinctive color of the granite. Pompton Pink Granite is found only in the northeastern Highlands at Pompton Junction in Passaic County and Riverdale in Morris County (fig. 1). It was mined from two different quarries for nearly a century during the 1800's and 1900's, and used as a decorative building stone. The quarries, the Jersey Pink Granite Company and the Herbert L. Brown Company, are still in operation, although under

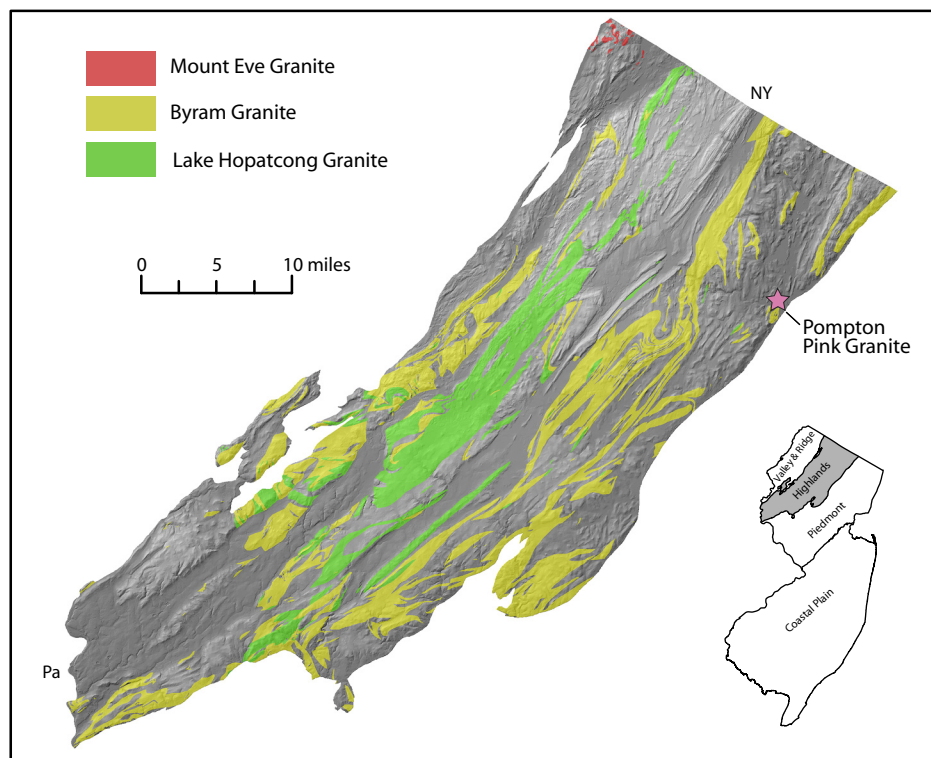


Figure 1. Simplified geologic map showing the distribution of major granite bodies in the New Jersey Highlands in relation to the Pompton Pink Granite at Pompton Junction.

different names. Most of the granite has been removed, although small remnants are visible in roadcuts along Routes 23 and 287 immediately north of the intersection of the two highways.

The exact age of the Pompton Pink Granite is unknown. Based on its texture and relationship to other Precambrian rocks, it very likely falls in the age range of granitic rocks in the Highlands that have been dated at 1,000 to 960 million years. Evidence supporting this interpretation includes the fact Pompton Pink Granite occurs as small irregular-shaped bodies that cut across contacts with, and contain fragments of, older Precambrian rocks in the Riverdale area. Also, the granite lacks the alignment of mineral grains into parallel bands that indicate it would have been altered more than 1 billion years ago during a known metamorphic event.

The Pompton Pink Granite (fig. 2) is pink to pinkish-white in color

with light green mottling and is composed of the minerals quartz (gray), potassium feldspar (pink), plagioclase feldspar (green), and magnetite (black). The granite owes its characteristic color to an abundance of potassium feldspar that makes up much of the rock. The source of the magma that formed the granite was the continental crust beneath the New Jersey Highlands. Following a mountain-building event produced by the collision of the ancestral eastern North American and South American



Figure 2. Representative sample of the Pompton Pink Granite displaying its characteristic color and coarse grain size.

continents at about 1030 million-years-ago, the crust beneath the Highlands thickened greatly. As the compressional stresses associated with this collision began to ease, the continental crust underwent partial melting on a relatively small scale, which produced the small volume of Pompton Pink Granite that we see today.

The Pompton Pink Granite was prized as a building stone because of its extraordinary color and coarse grain size. This granite saw widespread use locally as a building stone, but was employed mostly for small applications such as monuments. One of its most prominent uses was its application as the primary building stone for St. Paul's Episcopal Church in Paterson (figs. 3a and 3b). Construction of the church was initiated in 1895, and upon completion the entire exterior of the church and the pulpit inside were constructed from this beautiful granite.

Another noteworthy use of the granite in the early 1900's was for the landing at the entrance to the Smithsonian National Museum of Natural History in Washington D.C. (fig. 4). In the spring of 1998, Smithsonian representatives contacted the New Jersey Geological



Figure 3b. Close-up of the exterior of St. Paul's Episcopal Church.

Survey for assistance in obtaining a sample of the building stone. The Smithsonian was seeking samples for an exhibit in the Hall of Geology about the rocks that were used to construct the National Museum of Natural History. Aside from what was used for the construction of the museum, all that remained at the Smithsonian was a small piece of granite dated 1908, with a label that read: "Used in platform new museum building; Locality, Pompton Junction, NJ." Staff of the New Jersey Geological Survey familiar with the Pompton Pink Granite had little difficulty helping the Smithsonian obtain large blocks from the Riverdale quarry for the museum's new exhibit (fig. 5).

Despite, or perhaps because of, the small amount of Pompton Pink



Figure 4. Pompton Pink Granite forming the landing at the south entrance to the Smithsonian National Museum of Natural History, Washington, D.C.

Granite that existed within the New Jersey Highlands, the desirability of this very attractive stone cannot be overstated and serves to remind us of the proverb that sometimes "good things come in small packages."



Figure 5. Polished slab of Pompton Pink Granite (upper right) on display at the Smithsonian National Museum of Natural History's exhibit on the building stones used in construction of the museum.



Figure 3a. St. Paul's Episcopal Church in Paterson, constructed of Pompton Pink Granite.

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