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## Newgate Prison and Copper Mine

**T**he Newgate Prison and Copper Mine is a state-administered historic museum complex located in rural East Granby, Connecticut. The historic significance of the Newgate copper mine has been recognized by the National Park Service and the American Society of Mechanical Engineers with respective historic national landmark designations.

Newgate began as one of the earliest attempts at large-scale copper mining in the country. Copper ore was discovered at the site in 1705. Two years later, the copper mining venture became the first chartered mine in the country. Construction of the mine was hampered by disputes among the 64 proprietors until 1712, when the mine was leased for 30 years to a small partnership organized by Thomas Belcher. By 1742, when the lease expired, the mining efforts had failed to turn a profit. Further operations ceased in the mid-18th century when the accessible higher-grade ore had been exhausted.

Subsequent to the initial mining operations, the colony of Connecticut acquired the property as a place of confinement for prisoners; a primary assumption was that productive mining could be achieved by the prisoners in order to defray the expense of their confinement. In 1776, Newgate Prison became the nation's first state prison. Newgate was initially a prison-without-walls; the

*Wooden ore cart rests in situ. This artifact was discovered as a result of the University of Connecticut's geological investigations of flooded tunnels at the Newgate copper mine.*



below-ground mine was used to house the prisoners. Almost as soon as it was established, the prison was plagued by escapes as inmates overpowered the few guard and miners. The frame guardhouse was burned by the prisoners in 1777. The facility was temporarily abandoned until 1780, when a new frame structure was erected and prisoners returned to the site. However, the mining operation did not resume, because the state's attempt to reactivate the mining operation with prison labor proved uneconomical.

Like copper mining, nailmaking proved unprofitable. The state of Connecticut embarked on a series of prisoner industries in an effort to make the prison self-sufficient. Cooper, cabinet, shoe, and wagon shops were added and a man-powered treadmill for grinding grain was installed in 1824 within a new four-story stone cell-block. All of the prisoner-produced commodities were sold to the public, which visited the facility in fairly large numbers. However, these diverse industries could not offset expenses and Newgate Prison was finally abandoned in 1827; the incarcerated were transferred to a new state prison in Wethersfield, Connecticut.

In the 19th century, several independent and unsuccessful attempts to mine copper occurred at Newgate; most notable was the Phoenix Mine Company's 1831-1836 struggle to revive the mining operation with newer technology and steam engines. These ventures proved financial disasters because of the ever-decreasing quality of high grade ore and technical difficulties with its refinement. Phoenix's last known mining operation ceased in 1836, probably the last time some of the mine workings were dewatered.

The property, thereafter privately owned, eventually became a well-known tourist destination in the early 20th century. The evocative ruins of the prison's structures, the expansive vista of the rural Connecticut countryside, the challenging descent into the mine's abandoned tunnels, and the hurly-burly collection of caged bears and peacocks, military tanks, and other exotic attractions ensured numerous visitors in search of an interesting summer or fall outing.

Concerned about the ever-increasing deterioration of the above-ground prison structures and the historic importance of the mining-prison complex, the state of Connecticut re-acquired the property in 1968. The property has since been administered by the Connecticut Historical Commission as a state historic museum.

The early 20th-century tourist attractions have been removed, a small visitor's center constructed, and stabilization has been undertaken of extant prison-related structures. Extensive archival research has documented the names, respective

crimes and duration of sentence, and typical daily rations for those incarcerated at Newgate. In addition, the general layout, function, and construction chronology of prison-related structures has been fairly well ascertained. Extant prison documents and the emotive image of prisoners huddled belowground with only torchlight and straw bedding have combined to facilitate an interpretative focus on the half-century of prison use of this remarkable site. By comparison, the early-18th- and mid-19th-century copper mining operations have become an interpretive postscript. The mines are viewed first and foremost as a place of confinement for personalizing the daily lives of Connecticut's late-18th-century prison population.

However, geoaerchological and archeological research may provide important new data for subtly re-focusing the on-site interpretive programs to include the history of mining at Newgate. In 1986, the University of Connecticut's Department of Geology's interest in the water transmissive properties of the mine's Mesozoic sedimentary bedrock resulted in the dewatering of that portion of the mine's underground workings that had been flooded since the final 1830s mining operations. Pumping continuously for 36 hours, the submersible pump drained approximately 127,000 gallons of water and lowered the mine's water table by 3.8 meters. Because the water's weight provided an equilibrium balance for several unstable wooden structures that retained tailings from 19th-century mine-related work areas (audible sounds of movement were noted), the submerged tunnels were not totally dewatered. Nonetheless, this unique opportunity confirmed that the extent of the flooded area does not differ measurably from an 1831 map, indicating that the 19th-century efforts did not remove substantial quantities of ore. In addition, concurrent archeological investigations documented the existence of a one-plank-wide wooden walkway down the center of the dewatered tunnel, several wood plank structures for retaining waste tailings, a sledge hammer, and a remarkably preserved wooden hand ore cart that had been placed in a niche in the sidewall of the dewatered tunnel. Due to conservation concerns, the artifacts were retained *in situ* and were subsequently re-submerged as the area gradually reflooded.

The Connecticut Historical Commission recently contracted with the Public Archaeology Survey Team Inc. in order to clarify areas of archeological sensitivity, provide professional guidance concerning the agency's day-to-day operations, and further enhance on-site interpretation of historic structures including subsurface mining remains at the Newgate complex. Research has commenced with the re-analysis of the Historical Commission's extensive collection of primary and secondary

records as well as the initiation of extensive new archival studies, particularly the extant records of the Phoenix Mining Company.

Primary goals of the ongoing archeological investigations, the first ever undertaken at Newgate, are the refinement of the site's complex chronology and the identification of historic structures and archeological features associated with the property's multiple use for mining, ore processing, prisoner confinement, and private entrepreneurship. Comparative research on contemporaneous mining operations and prison systems will help establish an appropriate historic context and will provide information for interpretation of archeological remains at Newgate.

Results from preliminary archeological field testing has been encouraging. The extant network of underground tunnels have been more precisely mapped; drill holes are being carefully examined in hopes of determining the sequence of mine operations at the site. Archeological excavations have revealed an extraordinarily complex stratigraphy, which clearly indicates that a markedly different landscape existed historically in contrast with today's virtually flat "prison yard." Areas that for years had been presumed to be underlain with mine tailings yielded no evidence of mine waste at all. Conversely, areas traditionally identified as former prison building locations, such as the nailmaking shop, were discovered to consist of several feet of fist-sized, loosely packed mine tailings. Preliminary analysis of recovered materials suggests that some minimal level of on-site smelting occurred. Eighteenth-century burn layers have been identified, which allows for the potential correlation of particular locations and structures with historically documented prisoner uprisings.

The ongoing research is providing an improved framework for re-interpretation at this national landmark. Newgate was a national leader in both mining and prison development and, hopefully, the ongoing archeological, historical, and geological investigations will have relevance for similarly complex sites across the country.

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