

Mount Rushmore



Shrine of Democracy Sixty million years ago this land was in turmoil. Hills and mountains were being thrust up and gradually eroded. On the nearly indestructible granite face of one of these peaks, Mount Rushmore, the heads of four American Presidents have been carved in bold relief. These figures symbolize the birth and trials of the first 150 years of the United States. Individually they represent the ideals of the Nation. George Washington signifies the struggle for independence and the birth of the Republic, Thomas Jefferson the idea of representative government, Abraham Lincoln the permanent union of the States and equality for all citizens, and Theodore Roosevelt the 20th-century role of the United States in world affairs.

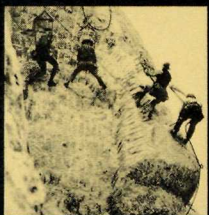
The Memorial Idea In 1923 Doane Robinson, the South Dakota State historian, conceived the idea of carving colossal statues of romantic western heroes such as Jim Bridger, John Colter, and Kit Carson on the granite formations known as the Needles in the Black Hills. The proposal had only moderate public acceptance, and at times criticism of the project was severe. But Robinson was able to gain the influential support of South Dakota Senator Peter Norbeck and Representative William Williamson. Slowly public opinion changed, the memorial was authorized, and some funds were obtained to begin the work. Robinson invited the sculptor Gutzon Borglum to the Black Hills in the autumn of 1924 to study the proposal.

John Gutzon de la Mothe Borglum was born in St. Charles, Idaho, on March 25, 1867. He began painting at an early age, and in his early twenties sales of his works enabled him to study art in France for several years. It was there, in 1890, that he began to sculpt. His final paintings were completed in 1903, and from that time on he

worked only as a sculptor. His fame grew, as did the size of his works. In 1915 he was asked by the United Daughters of the Confederacy to carve a head of Gen. Robert E. Lee on Stone Mountain in Georgia. Work did not begin until 1923, but some demands made by Borglum soon led to his dismissal. The invitation to the Black Hills presented him with an opportunity to create a monument whose dimensions would be "determined by the importance to civilization of the events commemorated." For this purpose a location other than the Needles was needed. After much searching Borglum selected Mount Rushmore because it was smooth-grained granite, its 6000-foot height dominated the surrounding terrain, and it faced the sun most of the day.

Carving the Monument Work on the mountain began August 10, 1927, the same day President Calvin Coolidge officially dedicated Mount Rushmore as a national memorial. Fourteen years were needed to bring the sculpture to its present appearance, but because of delays caused by lack of funds and bad weather only 6½ years were actually spent in carving.

In the early years private donations supported the project, but when more funds were required the Federal Government assumed full financial responsibility. Federal appropriations accounted for \$836,000 of the \$990,000 spent on the memorial between 1927 and 1941. In March of the latter year Gutzon Borglum died. His son Lincoln, who had worked closely with his father on the monument, continued the project until funds ran out later the same year. Since then no additional carving has been done, nor is any further work on the memorial planned.



These three photographs show steps in the art of "mountain carving". After blasting with dynamite, workers scramble over George Washington's face to remove excess granite with jackhammers, revealing the outlines

of his nose. When the carving was within about three inches of the finished surface, the technique changed—shallow holes, three inches apart, were

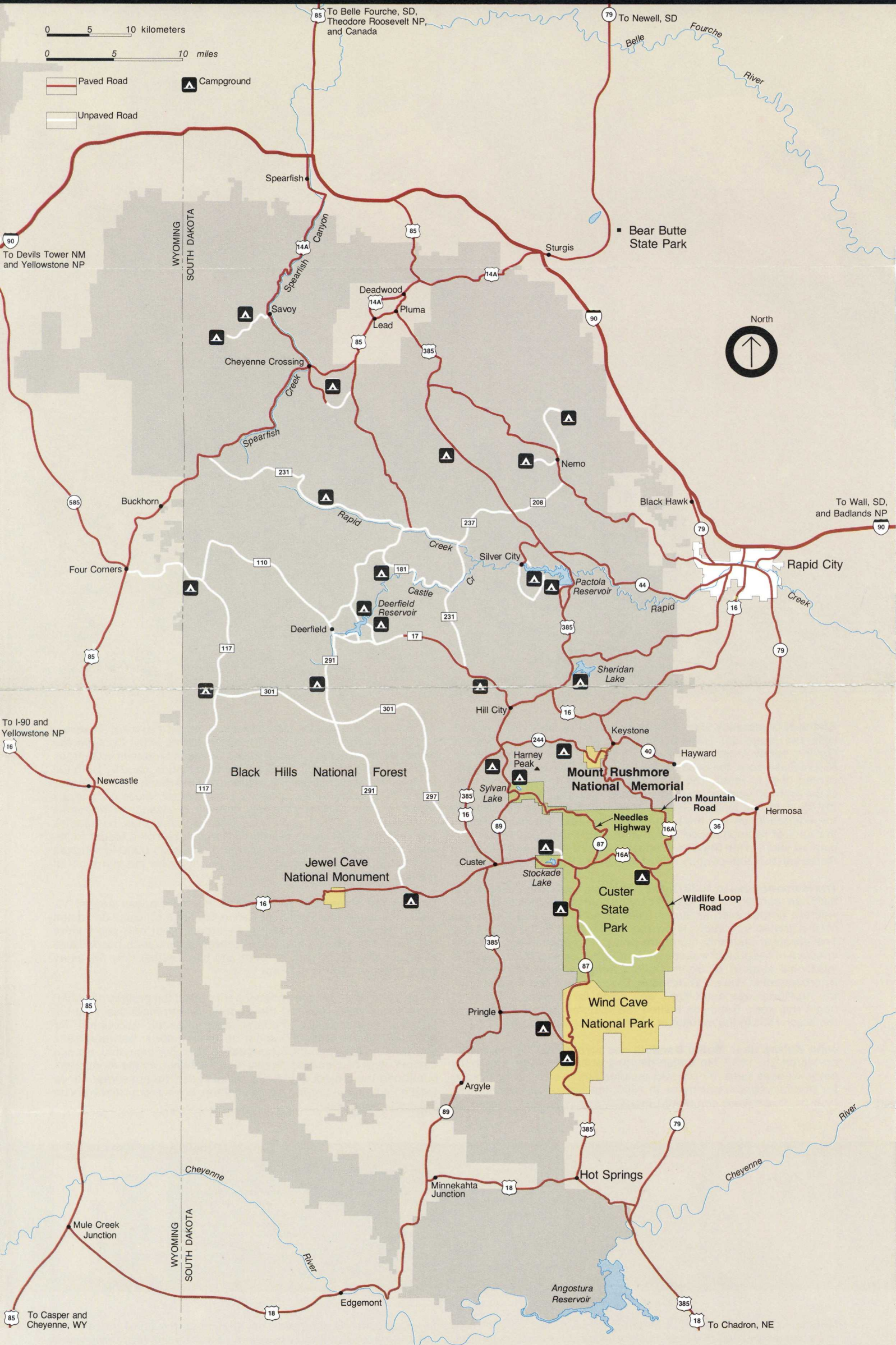
drilled, and the remainder of the rock wedged off. The surface was then smoothed by "bumping." Gutzon Borglum, in his "swing seat," inspected and supervised the entire process.



Mountain Carving To say that Mount Rushmore was "carved" is to use a convenient figure of speech. Very few conventional sculpturing methods were employed in what was actually "a unique engineering accomplishment." Gutzon Borglum used the engineering techniques at Mount Rushmore that he had developed during his work on Stone Mountain. He first designed a grouping of the four Presidents to conform to the mountain's granite cap, but deep cracks and fissures, later discovered in the rock, required nine changes in the design. Five-foot models of each figure guided the workmen on the mountain. Measurements were taken from the models with a horizontal bar and plumb bob, enlarged 12 times, and transferred to the

mountain. After a reference point, such as the tip of a nose, was located, excess rock could be removed with dynamite, often to within 3 or 4 inches of the finished surface. Some 450,000 tons of rock were removed in this manner.

Drillers, suspended over the face of the mountain in "swing seats" used jack hammers to honeycomb the surface with shallow holes at intervals of about 3 inches. The remaining rock was wedged off with a small drill, or a hammer and wedging tool. Finally the sculpture was smoothed with a small air hammer in a process known as "bumping."



About Your Visit

The memorial is 25 miles southwest of Rapid City and 3 miles from Keystone, SD. Transcontinental buses and major airlines serve Rapid City.

The sculpture is best

viewed under morning light. During the summer months, from Memorial Day to Labor Day, an evening sculpture lighting program is presented in the amphitheater. The visitor center is open all

year. A park concession provides food and gift services. Overnight accommodations, campgrounds, and picnic sites are only available in nearby communities and Black Hills National Forest.

For Your Safety

Climbing Mount Rushmore is prohibited. Stay on trails and stairways. *Do not run.* Do not disturb, injure, or destroy natural features or wildlife in the memorial. Building fires is not allowed. Be

careful with cigarettes and matches. Promptly report all accidents in the memorial to a ranger. Pets must be kept under physical control at all times.

Administration

Mount Rushmore National Memorial is administered by the National Park Service, U.S. Department of the Interior. A superintendent, whose address is Keystone, SD 57751, is in charge.