

#### FOR YOUR SAFETY

Climbing of Mount Rushmore is prohibited. Stay on trails and stairways. *Do not run.* Pets must be kept under physical control at all times. Do not disturb, injure, or destroy natural features or wildlife in the memorial. The building of fires is not allowed in the memorial. Be careful with cigarettes and matches. Observe posted speed limits. Promptly report all accidents in the memorial to a park ranger. Set handbrake and leave vehicle in gear when parked.

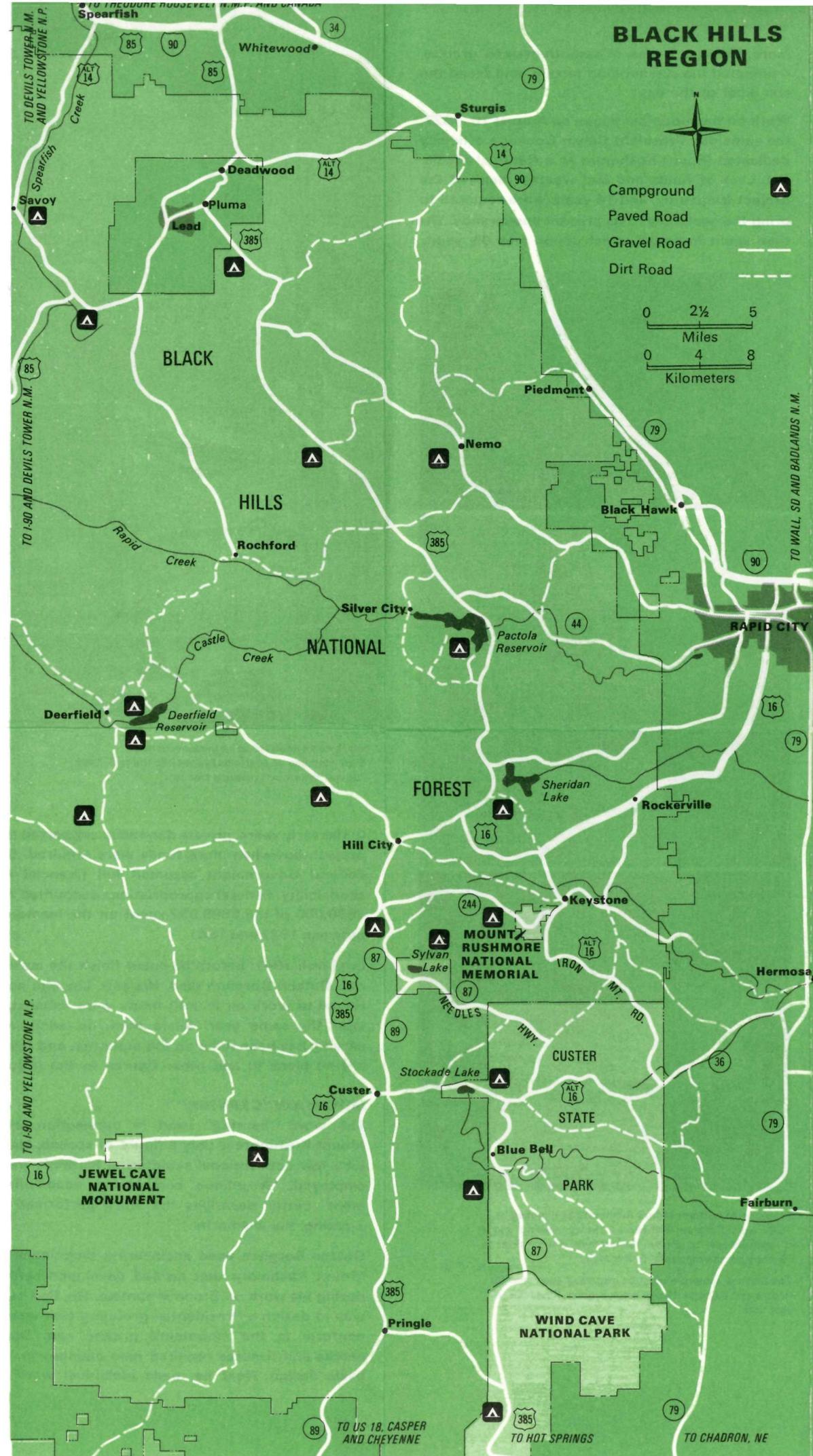
#### ABOUT YOUR VISIT

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

The sculpture is best viewed under morning light. Each night from June 1 to Labor Day, floodlights illuminate the faces. During this time, evening programs are presented in the amphitheater. The visitor center and park concession, which has food service and souvenirs, are open all year. Overnight accommodations, campgrounds, and picnic sites are only available in nearby communities and Black Hills National Forest.

#### 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.



# Mount Rushmore

NATIONAL MEMORIAL  
SOUTH DAKOTA

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As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

**National Park Service**  
**U.S. DEPARTMENT OF THE INTERIOR**



Gutzon Borglum

The faces of the four American Presidents carved into 6,000-foot Mount Rushmore boldly symbolize the vigorous beginning and trials of the United States during its first century and a half of growth. George Washington represents the struggle for independence and the birth of the Republic. Thomas Jefferson expresses the country's political philosophy of representative government. Abraham Lincoln typifies the permanency of the Nation and the struggle to assure equality for all its citizens. Theodore Roosevelt depicts 20th-century America, a period which awakened the people to the necessity for conserving the natural resources and saw the United States emerge as a determining influence in world affairs.

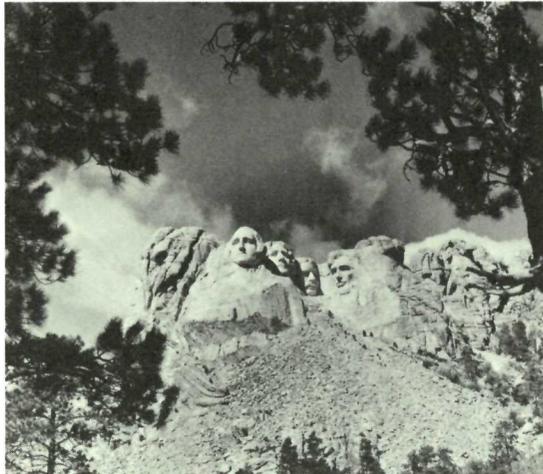
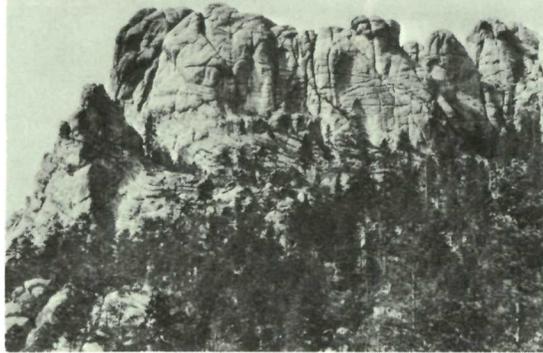
#### HOW THE MEMORIAL WAS CREATED

The idea of a gigantic sculpture in the Black Hills originated in 1923 with Doane Robinson, State historian of South Dakota. In the beginning, he considered carving, on the granite formation known as the Needles, the figures of romantic western heroes such as Jim Bridger, John Colter, and Kit Carson. The proposal met with only moderate public acceptance. At times criticism of the project was severe, but through the support of South Dakota's Senator Peter Norbeck and Representative William Williamson, public opinion was changed and authorization for the memorial and funds to carry the work forward were obtained.

At the invitation of Robinson, Gutzon Borglum came to the Black Hills to study the proposal in the autumn of 1924. Borglum, a sculptor then at work on a Confederate memorial on Stone Mountain in Georgia, immediately saw an opportunity to create a memorial of national significance and suggested Presidents as subjects. A location other than the Needles was needed, and after much searching Borglum selected Mount Rush-

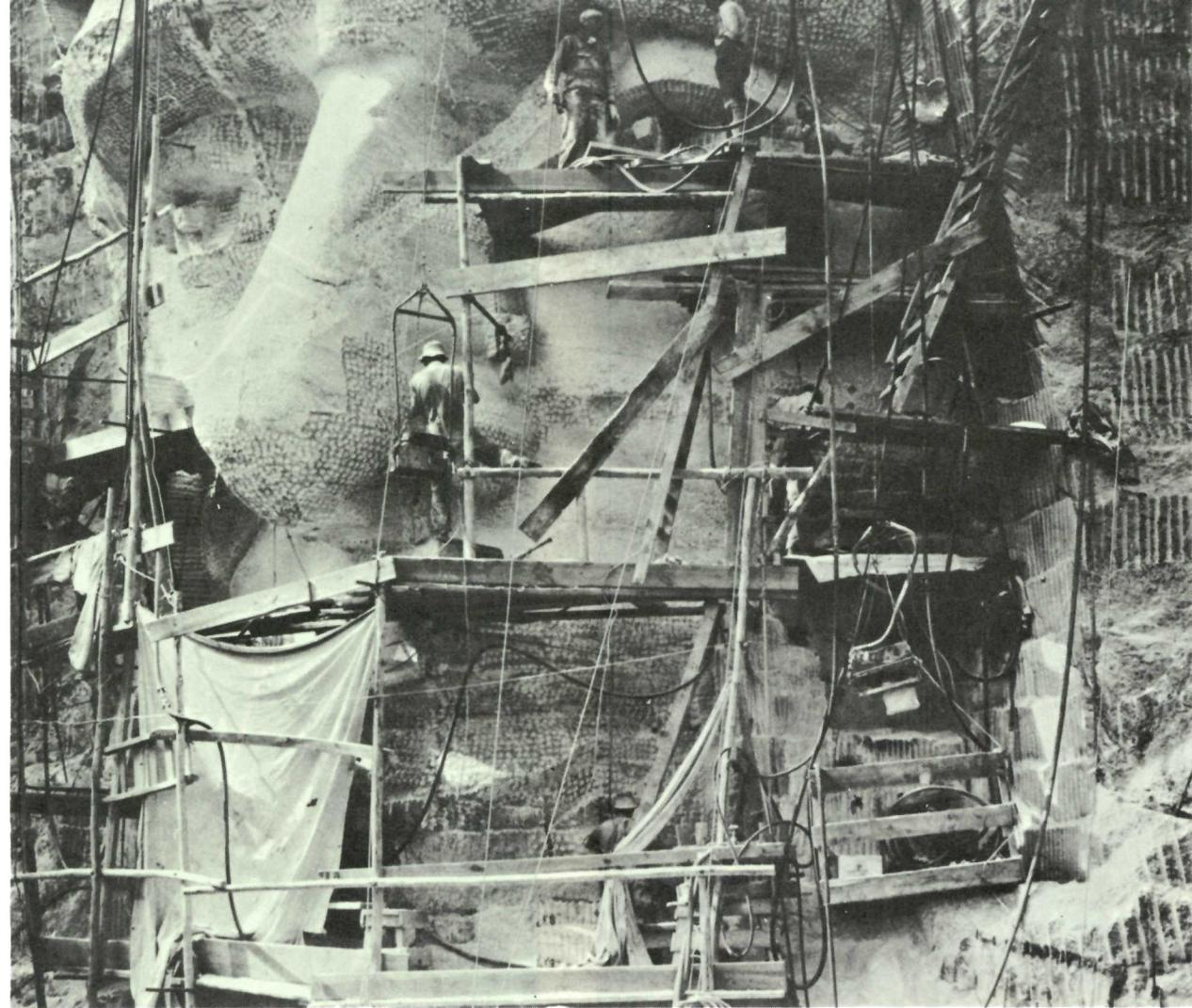
more, because it was of smooth-grained granite, dominated the surrounding terrain, and faced the sun most of the day.

Work on the mountain began on August 10, 1927, the same day President Calvin Coolidge officially dedicated Mount Rushmore as a National Memorial. Lack of funds and bad weather delayed the project frequently, and 14 years were required to bring the sculpture to its present appearance. The time spent in actual construction was 6½ years.



From top to bottom: Mount Rushmore as it looked in 1924 when Borglum first saw it; "honeycombing" made it relatively easy to remove the last layer of rock prior to "bumping"; the memorial as it is today.

The finished sculpture must be inspected each year for cracks and damage. Repair work is done, if needed, at that time.



Work nears completion on the Lincoln head. Men, standing on scaffolds braced into the rock itself, "bump" the stone to make it smooth.

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 \$989,992 spent on the memorial between 1927 and 1941.

In March 1941, before he could finish the memorial, Gutzon Borglum died. His son, Lincoln, continued to work on it until funds were exhausted later the same year. Since then, no additional carving has been done on the mountain and there are no plans to add other figures to the group.

#### MOUNTAIN "CARVING"

The word "carving" used in connection with Mount Rushmore is only a figure of speech, since very few conventional sculpturing methods were employed. "A unique engineering accomplishment" better describes the work performed in creating the memorial.

Gutzon Borglum used engineering techniques at Mount Rushmore that he had developed earlier during his work on Stone Mountain. His first task was to design a Presidential grouping that would conform to the mountain's granite cap. Deep cracks and fissures required nine changes in his basic design. Next he made individual working

models of each President to guide the workmen on the mountain. The models measured 5 feet from chin to the top of the head.

Measurements of the models were made with a plumb bob from a horizontal bar and transferred to the mountain through a 30-foot movable boom. One inch on a model equaled 12 inches on the mountain. Once a reference point was located, such as the tip of the nose, excess rock could be removed with dynamite. More than 450,000 tons of rock were removed by this method.

Drillers, suspended over the face of the mountain in "swing seats" controlled by hand-operated winches, used jackhammers to drill holes for the dynamite. Blasting removed excess rock to within 3 to 4 inches of the final surface. Holes were then drilled over the surface at intervals of about 3 inches. The remaining rock was wedged off with a small drill and, in some cases, with a hammer and a wedging tool. The sculpture was brought to a smooth finish with a small air hammer, by a process known as "bumping."

The faces were carved to a scale of men 465 feet tall. On an average, the heads measure 60 feet from chin to top, with each nose 20 feet long, each mouth 18 feet wide, and the eyes 11 feet across. Borglum did not intend for Mount Rushmore to become known only for its gigantic proportions; rather, he believed that "a monument's dimensions should be determined by the importance to civilization of the events commemorated."