

## **GLACIAL ERRATICS**



Central Park

- Glacial erratics are found throughout the park; the stone pictured is 50 yards south of the carousel (mid-park at about 64th Street)
- Open from dawn to 1 am

the more impressive for being mostly artificial. The trees are planted and carefully tended, the hills are sculpted, the creek that flows through the Ramble can be turned on and off like a faucet. In the area



of bedrock, however, the park is the real deal. Geologists love this place. Glaciers slowly scraped and polished the earth down to the schist – the bones of Manhattan – and then melted back, leaving scars that tell the story of the deep past. Also left behind are curious boulders that were lifted by the ice and tumbled and transported from miles away. They're called glacial erratics.

The term "erratic" takes from the sense of its Latin root meaning "wander." A glance is enough to determine that the glacial erratics in the park are travelers from afar: they look completely different from the stone they rest on. The south side of the Sheep Meadow has a line of the alien boulders; stuck in layers of topsoil, many probably haven't moved since the ice muscled them into place thousands of years ago. Near the Heckscher playing fields stand the starkest erratics, particularly one 8-foot hulk perched directly on the bedrock just south of the carousel.

"You can tell that one is Yonkers gneiss," says Dr. Charles Merguerian, chair of the Department of Geology at Hofstra University and the foremost expert on the rocky past of Central Park. Erratics, he explains, are precision tools: by matching the boulder's composition to distant bedrock, you can determine where it got plucked up by the roving glacier. "You put two dots on the map: where they ended up and where they came from," says Merguerian. "Make a line, and that's the direction the glacier moved in."

Glacier movement is visible also in the scour marks, or striae, left in bedrock. These you'll find throughout the park; notice that they're all oriented roughly north-south. Where erratics have come to rest directly on the scarred bedrock you get the full picture: deposition and erosion, the two effects of glaciation. Merguerian notes that some of the erratics may have been moved slightly during the park's history, but it's tempting to imagine the moment, say 12,000 years ago, when after an eternity suspended in glacier, the boulder sank through the last sliver of melting ice and hit bottom with a modest *clunk*.