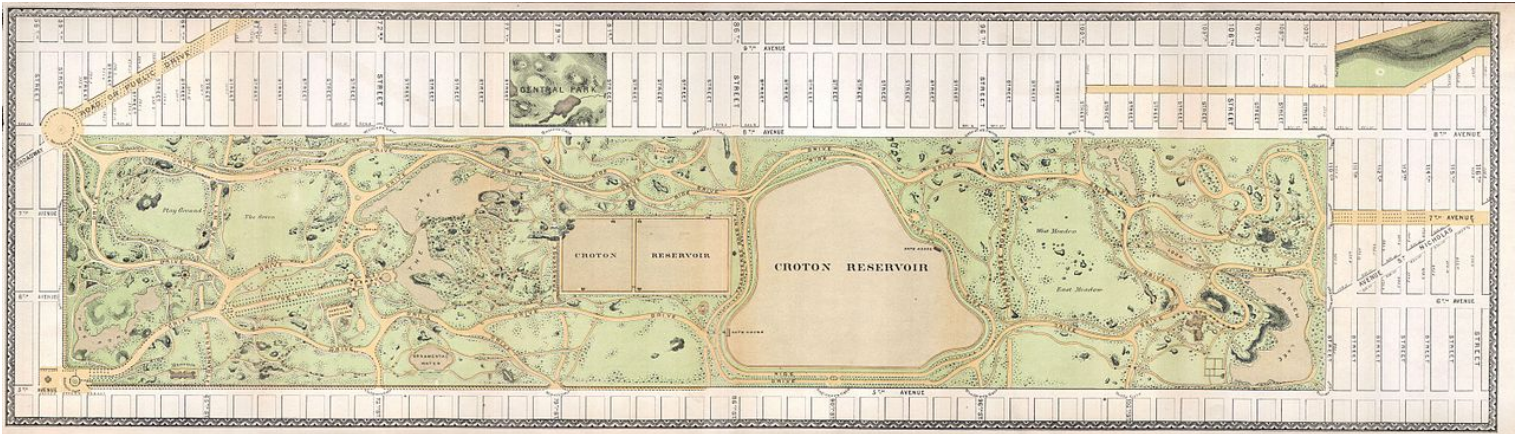


New York City's Central Park Considered a Marvel of Civil Engineering



During the first half of the 19th century, there was little open space where New York City's booming population could go to escape the chaos. In 1853, after the city's elite began campaigning for a large park open to all city residents, the state legislature set aside a 778-acre site situated between Fifth and Eighth Avenues and 59th and 106th Streets (the park would be extended north to 110th Street in 1860).

A design competition was held in 1857 by the new Central Park Commission and won by landscape architects Frederick Law Olmsted and Calvert Vaux for their Greensward Plan. Civil engineer Egbert Viele, who conducted the topographical survey of the area in 1856, was appointed engineer-in-chief for the project.

The ambitious project began in late 1857, and construction would not be an easy task. The rocky land had been almost entirely denuded of trees during the Revolutionary War by British soldiers who used them for ships and fuel, and swampland covered much of the southern area. Dense vegetation was cleared and a drainage tile system was installed to drain swampy areas and direct stormwater runoff. Dynamite hadn't yet been invented, so laborers had to use gunpowder to remove rock outcrops of Manhattan schist. All in all, around 18,500 cubic yards of topsoil were carted in from New Jersey and Long Island to fill in the swamps and sustain more than 4 million new trees, shrubs, and other plantings.

Work moved along quickly. The Drives, a winding network of roads, arches, and bridges flanked by footpaths, were graded and built to accommodate pedestrians and horse-drawn carriages. A 20-acre manmade body of water known as the Lake was opened to the public in late 1858, and an estimated 8,000 residents turned out on Christmas Day to ice skate. The Ramble, a 36-acre wooded area between 74th and 79th Streets with winding paths, rustic bridges, and a meandering stream, was completed in June 1859. Four transverse roadways, sunken eight feet below grade to minimize visual impact, were built to allow city traffic to cut across the park.

Construction of various other ponds, fountains, meadows, terraces, bridges, sculptures, walls, and buildings including Belvedere Castle and a sheepfold that would later become Tavern on the Green, continued until 1876 when the park was declared to be officially completed. In all, more than 20,000 workers helped build Central Park, handling and moving an estimated 10 million cartloads of material. The project was remarkably safe for the era, with few lives lost during construction.