How Public Health Influenced the Creation, Purpose, and Design of Central Park

By Marie Warsh Jun 26, 2020

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The coronavirus crisis has spurred <u>newfound appreciation for New York City's parks</u> and the myriad ways they can benefit our health, both mental and physical. These turbulent times have also inspired historians, journalists, and others to look back at the history of public health in New York, specifically at other epidemics, such as cholera, tuberculosis, and the <u>Spanish flu</u>, to understand how the <u>City has</u> responded.

Past outbreaks spurred major changes to sanitation and urban design, which often led to the development of critical public health infrastructure. These innovations enabled the City to not only rebound but, in many cases, thrive. In the aftermath of the cholera epidemic of 1832, which was caused by polluted water and killed 3,500 residents (then 1.5% of the population), the City constructed the Croton Aqueduct System to supply its residents with fresh water from upstate New York. This was arguably one of the most important factors in allowing the City to become the metropolis it is today. Although this and other advancements do not diminish the suffering and loss that occurred, they do offer a valuable (and perhaps hopeful) perspective on the City's resilience and creativity.

The City's water supply system had a big presence in Central Park. In the middle of the Park were two large receiving reservoirs holding tanks for water that was piped downtown. But Central Park didn't just provide a home for a piece of this infrastructure; the Park *itself* functioned as critical public health infrastructure. Prevailing theories about disease and the urgent need to address public health directly informed the creation, purpose, and design of Central Park.



The rectangular reservoir, built in 1842, pre-dated the Park. The organic-shaped Reservoir that still exists today, mid-Park, was constructed in the 1860s. (New York Public Library).

'Lungs of the City'

While there were many motivations to create a large park in center of the City, public health was front and center. Sanitary reformers and park advocates commonly referred to parks as the "lungs of the city" and "breathing spaces." As open spaces they provided invaluable relief from the congestion of the growing City. Many also believed that parks could function more specifically to address health concerns by purifying disease-ridden air (which we now know was based on an erroneous understanding of the origins and spread of disease).

Congested urban areas — where overcrowded cemeteries, polluting industries, and densely packed residences all existed in close proximity and with limited access to fresh water and proper sanitation — were certainly breeding grounds for disease. But until there was widespread acceptance of the germ theory of disease, formulated by Louis Pasteur beginning in the 1850s, it was commonly believed that disease was caused by miasmas, gasses that emanated from decomposing matter. Following this understanding, fresh air and open space were believed to disperse and sanitize these harmful gasses.

This was the public health context in which Central Park co-designer Frederick Law Olmsted, who had lost his first child to cholera, began to formulate his theories about the health benefits of public parks. In one of his <u>most well-known essays</u> he declared that one purpose of parks was to provide "Opportunity and inducement to escape at frequent intervals from the confined and vitiated air of the commercial quarter" and to "supply the lungs with air screened and purified by trees and recently acted upon by sunlight." Even though Olmsted didn't totally understand how vegetation improved air quality — believing that foliage and sunlight "disinfected" the air — his emphasis on fresh air as one of the foremost health benefits of a park was accurate.



The Mall, lined with rows of overarching American elm trees that create the effect of an open-air cathedral, was an ideal space for experiencing fresh air. (Library of Congress Prints and Photographs Division).

Guidebooks and newspaper articles extolled the Park's "pure" air as a health benefit but also a pleasure — more than just the "lungs of the City" — demonstrating an early understanding of the link between mental and physical health. A passage from an <u>early guidebook</u> is telling: "The fresh air, that smells of field and woodland; the quiet of some solitary nook, or the festive atmosphere of any denser crowd; the decorative architecture, the pleasure-boats . . — all these influences have a strangely powerful force. They compel the soul. It is almost impossible to do anything in the park but rest, breath sweet air, and enjoy." This restorative power of the Park was a holistic and even intoxicating experience of fresh air, landscape, people, architecture, and recreation.

Water everywhere

While the Park's pure air was all-encompassing, it was somewhat intangible. A more prominent and visible statement of Central Park's role in benefiting public health was the presence of water and the abundance in which it appeared. In addition to the massive reservoirs holding the City's drinking water, the Park included ornamental fountains, drinking fountains, natural springs, and numerous water bodies, streams, and waterfalls. All these features combined to make water a primary feature of the Park's landscapes and an expression of its purpose to provide a healthful escape from urban life.

Bethesda Fountain was created to symbolize the role of fresh water in the City and its connection to the Park. The fountain, by the sculptor Emma Stebbins, celebrates the creation of the Croton Aqueduct System through its depiction of a biblical verse: an angel touching the waters of Bethesda in Jerusalem, which was famous for its healing properties. To Stebbins, and many others, New York's fresh water had a similar effect. She wrote, "We have no less healing, comfort and purification freely sent to us through the blessed gift of pure, wholesome water, which to all the countless homes of this great city comes like an angel visitant." This fountain, prominently located in the heart of the Park, was the only work of art to be commissioned as part of the Park's design, clearly highlighting the value and importance of fresh water.



Located just a mile south of the two reservoirs located in the Park, Bethesda Fountain, also known as the Angel of the Waters, celebrated the City's aqueduct system and its presence in the Park. (New York Public Library).

The fresh water ended up in people's homes, but it also coursed through the Park and was available for drinking in numerous fountains. Before the creation of the aqueduct system, residents drank from wells and small reservoirs — or if they could afford it, purchased bottled water. Drinking water in a public park was a completely novel experience. One <u>guidebook</u> encouraged the public to "drink our fill, for the great reservoirs yonder are our inexhaustible cisterns." Drinking pure water was the ideal accompaniment to breathing in pure air.



Many of these drinking fountains were ornately designed. This one, located near the Mall, boasted water cooled by blocks of ice, which were located underground. (New York Public Library).

Angel of the Waters is located at the edge of the Lake, which forms a stunning backdrop. The largest of the Park's naturalistic water bodies, the Lake was part of the first section of the Park to be opened to the public in the winter of 1858. And so New Yorkers' first experience of the Park was of water, through the scenery of the Lake, with its undulating, rocky shoreline and the activity of ice skating.



People were drawn to visit the partially constructed Park in the winter 1858 by the promise of ice skating, which was becoming a popular urban activity. In Central Park, part of the enjoyment was skating in what looked like the country. (New York Public Library).

Across the Lake, visible from Bethesda Terrace, is the Ramble, the Park's most well-known woodland landscape, in which water also plays a significant role. The stream known as the Gill meanders through this area — expanding into small pools, tumbling down cascades, and crossed by rustic wooden bridges — before emptying into the Lake. The Ramble was inspired by the upstate landscapes of the Catskills and the Adirondacks and the Gill is a big part of what transports visitors there.



The Gill is completely artificial. The flow of water, from the City's supply, is controlled by a valve. Yet it's one of the features that heightens the sense of the Ramble as an escape into the woods. (New York Public Library).

Like the water supply system, Central Park was a sign of the City's commitment to public health and planning for its future. During the COVID-19 pandemic, many of us have discovered a newfound appreciation for Central Park — from the fresh air that greets us as we escape our homes and the City streets to the beauty of the Park's landscapes and the respite and recreational experiences they offer. New Yorkers may also have taken a moment during these difficult months to appreciate our access to clean water, necessary for preventing the spread of disease. By looking back to the origins and history of Central Park, we can deepen our appreciation of the Park and recognize it as one of the first places to enjoy fresh air and water — as essential to our health and well-being then as they are now.

How Central Park Keeps New York City Healthy

https://www.centralparknyc.org/articles/park-city-healthy By Jessica Sain-Baird, Apr 25, 2017

"Just living is not enough... one must have sunshine, freedom, and a little flower." *Hans Christian Andersen*

We know parks make us healthier and happier, but how does Central Park contribute to the wellbeing of New York City's people, plants, and wildlife?

Trees provide cleaner air

Central Park is home to more than 18,000 trees, including one of the country's largest and last remaining stands of American elms, along the <u>Mall</u> and Fifth Avenue. These trees are not only picturesque, but also help New Yorkers breathe a little easier. In one year, a mature tree will absorb more than 48 pounds of carbon dioxide from the atmosphere, converting it into oxygen. That adds up to roughly one million pounds of carbon dioxide removed from the city's air each year by Central Park's trees.

Trees keep cities cooler

The Park's trees not only decrease carbon dioxide levels, but



also help keep New York City cool in the summer heat. Metropolitan areas like New York City often constitute "urban heat islands," which are hotter than surrounding rural areas due to heat-absorbing materials like concrete and glass. Trees work as natural air conditioners, not only providing shade for the people sitting under them, but cooling the city as a whole. These trees also absorb water that evaporates in the heat, cooling the air temperatures around them.

A few more things about trees

Trees have countless other environmental benefits, including capturing air pollutants, filtering rainwater, and reducing the amount of toxins flowing into water bodies, but Central Park's trees have an added role in maintaining the landscapes. Roughly 3,000 cubic yards of leaves and 5.000 cubic yards of other tree waste each year find a



second life at the Park's composting operation, the <u>Mount</u>. Wood chips are used in flowerbeds or ground into fine mulch, and leaves are turned into compost. On occasion, leaves are transformed into "<u>compost tea</u>," which is used on the Park's newly planted trees and flower gardens as a natural fertilizer. (Contribute your own trees to this effort at NYC Parks' annual <u>Mulchfest</u>.)

Healthy parks make healthy people

Access to open spaces for physical activity results in a 25 percent increase in exercise, three or more days a week. This is great news for the millions of New Yorkers who live near Central Park. More than half a million people live within a 10-minute walk from the Park, and roughly 1.2 million more are within a half-hour bus or subway ride. With ballfields, tennis courts, handball courts, playgrounds, ice skating rinks, boat rentals, swimming pools, running trails, and more, Central Park offers New Yorkers a variety of ways to stay active. For those looking for some relaxation, newly renovated areas like the North Woods and the Hallett Nature Sanctuary offer an opportunity for quiet and solitude amid the bustle of New York City.

Parks build communities

Dubbed the "people's park" by Park designers Frederick Law Olmsted and Calvert Vaux, Central Park was <u>originally intended as a democratic space</u>, open to people of every background and economic status. The Park continues in that vein today, providing a free public space for millions to enjoy artistic, cultural, and other major events each year, or to just sit on a bench and people-watch. The Park serves as the finish line for the TCS New York City Marathon; the setting for a free, annual performance by the New York Philharmonic; and the host to many other festivals and events that bring New Yorkers and visitors together.



Parks provide urban habitat for wildlife

Among the City's skyscrapers and apartment buildings are few places that New York City's wildlife population can call home, so Central Park is a welcome retreat. The Park counts turtles, ducks, fish, squirrels, and chipmunks among its permanent residents, and more than 230 different species of birds rely on the Park's landscapes and water bodies throughout the year. Central Park is also an important stopover for many bird species, providing ample space for rest and feeding during spring and fall migrations.

Healthy cities need healthy parks. Our work at the Conservancy creates sustainable landscapes that provide environmental benefits to all New Yorkers, but our work is never complete. While our dedicated staff keeps the trees and landscapes healthy for visitors, we also empower the Park's next generation of stewards with volunteer opportunities and student internships. By embracing sustainability in our work, we ensure that Central Park will give back to New York City for generations to come.