Seasons in the City

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Before the widespread adoption of comprehensive ventilation, heating, and cooling technologies in the mid-twentieth century, New Yorkers lived far more attuned—and exposed—to their city's climate. What was that life like? *Seasons in the City*, examines how urban form created seasonal climatic challenges in pre-"climate-controlled" New York. This project will unearth the weatherrelated environmental challenges of America's largest city at the turn of the twentieth century. Urbanites face overlapping environmental challenges due to seasonal change, long-term climate variations of rising global temperatures, and the urban heat island effect (the phenomenon of significantly warmer temperatures in metropolitan areas due to concentrated development and human activities). Thus, the history of human responses to weather unfolds along two timelines: the annual cycle of seasons and the decades-spanning progression of climate variation. These histories must be told concurrently to understand their mutually-reinforcing influences on urban life.

This project is organized by season to consider the impact of each on New York City's physical fabric—its infrastructure, buildings, and open spaces—and the behavior and bodies of residents. New York is situated in the northernmost section of North America's humid subtropical climatic zone. This climate provides four distinct seasons. In its seasonal nature, as in so many metrics, New York is a city of extremes. Seasonal challenges taxed New Yorkers before mid-twentieth century technologies offered environmental control indoors and civic reform projects reconfigured the environment outdoors. *Seasons in the City* opens with the urban reform movements of the late nineteenth century. In this era, public health experts who advocated for street cleaning, housing reform, and bacteriology reframed understandings of the urban environment and working-class experiences of it. This starting point allows me to examine the reforms and technologies intended to mitigate environmental burdens like humid factories, snowy streets, and dark evenings. This research concludes in the late 1930s with the commercialization of temperature-regulating technologies that promised to overcome environmental weather challenges to create a "weatherless" modern city for rich and poor alike.

While all four seasons shaped New Yorkers' experiences of urban space at the turn of the twentieth century, summer produced, and continues to produce, the most extreme threats. Urban heat island effects were evident in New York by the late 1800s. The city's staggering urbanization transformed the percentage of land covered by roads, buildings, water, and green space. Pavement and brick buildings heat more quickly and store solar radiation in greater quantities than plants, soil, and water. New York came to absorb more heat and cool at a slower rate than its suburbs, especially in the summer. Urbanization subjected New Yorkers to higher temperatures with fewer accessible reliefs. The urban heat island developed just as humans invested in the technology of centralized ventilation, and air conditioning controls that often elided this environmental change for those able to pay. A greater understanding of New Yorkers' historical experience of weather will underscore the long-standing impact of climate on urban living. It will help residents and planners reconceptualize the connections between technologies that elide weather and climate challenges, urban-environmental inequalities, and daily behavior.