



Brighton Beach Boulevard in 1996
(© Erik Huber)



Third Avenue Elevated Railway at 18th Street (Marjorie Collins, 1942)

1. Quoted in James Blaine Walker, *Fifty Years of Rapid Transit* (New York: Law Printing Company, 1918).

2. William D. Middleton, *Metropolitan Railways: Rapid Transit in America* (Bloomington: Indiana University Press, 2003), 26–27.

3. Quoted in Middleton, *Metropolitan Railways*, 26.

4. Robert M. Fogelson, *Downtown: Its Rise and Fall, 1880–1950* (New Haven and London: Yale University Press, 2001), 50.

5. *Ibid.*, 53.

6. "The Elevated Railway's Critics," *New York Times*, June 21, 1878.

7. "The Never-Tiring Edison," *New York Times*, July 12, 1878.

8. "Elevated Railway Noises," *New York Times*, June 3, 1879.

9. "Third Rail on Elevated," *New York Times*, August 4, 1900.

The Spatial Ecology of the New York Elevated

by Thomas J. Campanella

No piece of urban infrastructure creates a more complete ecology of place than the elevated railway. Skyscrapers and bridges may soar and leap, but they are machines for work and conveyance alone. Elevated highways are almost always a blight in the city, for they were built to get people in and out of town and offer little but darkness and pigeon excrement to the streets below. The el is enmeshed in the rhythms and pulse of the city. It embeds in a place rapid transit, moving passengers above but within the urban landscape. In contrast, the subway strips you of your bearings, swallowing you underground in one place and releasing you in another with no connective spatial tissue between. Moreover, an entire urban-social ecosystem comes to life in the protective shade of the el, like the rich and teeming understory beneath a canopy of forest trees.

The demesne of the elevated—I'll call it "el-space" here—is neither tranquil nor serene, but it is not without poetry. The root of its allure is the close juxtaposition of human life and heavy industrial infrastructure. The elevated railroad is a relic of a muscular age before zoning, OSHA, and the nanny state, when people—especially the immigrant poor—were forced to live in hazardous proximity to the factories and mills in which they worked. In the Progressive Era, reformers and city planners fought to separate—for good reason—home and workplace, getting helpless flesh away from heavy machines and hazardous industry. They tried to purge New York of the "el evil," too, and succeeded in Manhattan, where no such steel remains except as impelled by topography—along upper Park Avenue, on Nagle and 10th Avenues in Inwood, and in the Manhattan Valley, where a spectacular arched structure still carries trains over 125th Street. But as with so many things, reformist zeal waned with distance from City Hall. Most of the "outer borough" els survived the demolition campaigns of the 1930s and 1940s.

These els in Brooklyn, Queens, and the Bronx are still heavily used. Even in this era of smartphones and Instagram, the century-old infrastructure is as essential to getting around Gotham as it was in 1914. There are 168 miles of elevated track throughout the city, fully one-fifth of the entire MTA system total. (Chicago has a mere 36 miles; Philadelphia, less than five; Boston demolished its last el in 2004.) The lines run deep into the soul of New York City, for nowhere in the world has the el secured a more important place in the history, culture, and artistic life of a metropolis. That is as it should be; the el, like the teddy bear and the manhattan, is a Gotham original. The world's first true elevated railroad was built by Charles T. Harvey in 1868 as a short, one-track run above Greenwich Street, powered "by means of propelling cables attached to stationary engines."¹ Harvey's attempt to extend his West Side and Yonkers Patent Railway up Ninth Avenue raised

a howl of protest from merchants and property owners. But rising demand for rapid transit—and the immense profits therein—eventually gave its advocates the upper hand.

By the 1870s, America's downtown streets were being choked to death by traffic. It became clear to officials that growth could be sustained only by building rapid transit systems unfettered by street-level congestion—operating in exclusive rights-of-way underground or overhead. Given the immense cost of tunneling or trenching, lifting the tracks above the street became the favored solution—at least for a time. In New York, politically well-connected entrepreneurs formed companies to build more than 80 miles of elevated track along Second, Third, Sixth, and Ninth Avenues in Manhattan. By the 1880s, some 2,000 trains a day were speeding around the city in the world's first rapid transit system. In September 1883, cars began rumbling over the Brooklyn Bridge. The first el on the Brooklyn side—the Lexington Avenue Line—opened two years later, running from Fulton Ferry to East New York.² Though the line was shut down in 1950, a section between Alabama and Van Siclen Avenues is still in use today, the oldest in the city.

Despite William H. Vanderbilt's claim that "[n]obody will go upstairs to take a train," New Yorkers took quickly to skimming above the city on the rooftop railway.³ El ridership jumped from two million in 1876 to 60 million in 1880, tripling to 180 million by 1890. Put another way, in a year New York's els were moving three times the population of the United States at the time.⁴ For all the el's popularity, of course, no one wanted it in their front yard. With each new line came fresh opposition from residents and businesspeople, who claimed the els plunged streets into perpetual darkness, created a constant din and dropped soot and coal dust on everything below. Reformers like Charles Stover—father of the American playground movement—argued that public health impacts would be grievous, that the noisome trains might even "stunt the growth of children and cause hysteria, deafness, and paralysis in adults."⁵ One critic claimed that the Sixth Avenue el was a "fearful plague" that rendered any attempt at sleep "a ghastly dream in which the roar of Niagara, the wild shriek of the tornado, and the war-whoops of a thousand Indians mingle in one fearful diapason."⁶ Its racket even attracted the attention of Thomas Edison, who conducted a series of experiments using a "self-registering phonometer" that he developed specifically for measuring sound levels along the line.⁷ Across town, the Third Avenue el was hardly better, where the "constant puffing of the high-pressure engines ... could be heard fully a mile away."⁸

Ingenious proposals were brought forth to quiet el-space—filling the support columns with sawdust; lining the rails with rubber, wood, and felt; casing the wheels with paper. Nothing worked. Electrification—first in Brooklyn and citywide by 1900—eliminated the el's worst offender, the steam locomotive, with its noisy pistons and smoke and soot. As the *Times* put it in 1900, the Sixth Avenue el's new electric trains would "move smoothly, with little noise, and without jolts and cinders; heat slopping and odors will be nuisances of the past."⁹ In New York, compensating

affected property owners became the law after 1882, but that did little to counter resistance from those along chosen routes. What muted protest there was from the business community was proof that—far from scaring off trade—the el delivered a flood of new customers to shops along the way. For “wherever travel goes,” admitted a Sixth Avenue shopkeeper in 1878, “there goes trade.”¹⁰

Others opposed els out of fear, and not without reason. El-space was replete with hazards, and collisions, fires, and falling cars were commonplace. Electrification only increased the number of mishaps, which now included electrocutions. The worst accident on a New York el occurred on September 11, 1905, when a crowded six-car train took a curve too fast at Ninth Avenue and 53rd Street. The motorman braked hard, hurling one car into a building and another to the street below. Twelve passengers were killed and more than 40 severely injured. The city’s deadliest mass transit disaster, on November 1, 1918, also involved an elevated train. That night, a Brighton Beach local train operated by a driver just hired to replace striking workers (and given a mere two hours’ training) descended too fast into Brooklyn’s Malbone Street tunnel near Prospect Park, derailing the cars and killing 93 passengers. (Malbone Street was renamed Empire Boulevard to forget the tragedy.)

Nor were streets beneath the els particularly safe, what with double-parked trucks and pedestrians jaywalking between columns. The vertical supports themselves were often the cause of terrible accidents. As a young man in 1920s Brooklyn, my grandfather witnessed just such a tragedy beneath the Culver Line on McDonald Avenue. A group of boys had been racing streetcars on their bicycles, the challenge being to zip ahead of the car just before it reached the next pylon. It was a perilous game of chicken, for the streetcars would pass these columns with only inches to spare. But dodging streetcars was old Brooklyn sport, namesake of the borough’s most beloved team—originally the Brooklyn *Trolley Dodgers*. One boy made a fatal misjudgment of time and space, reaching the column just as the streetcar got there; he was crushed to death in an instant.

The obstacle-course hazards of el-space could make for thrilling cinema. The white-knuckle car chase in *The French Connection* (1971) is routinely listed as one of the best chase scenes in Hollywood history. It was as recklessly filmed as the scene it depicts, shot without permits, training, or safety precautions. Essentially a “stolen shot,” it featured Bill Hickman, king of Hollywood stunt drivers and the man also responsible for the chase in Steve McQueen’s *Bullitt* (1968). In *The French Connection*, Gene Hackman’s character—a renegade cop named “Popeye” Doyle—pursues a criminal on a northbound D train above him. The movie was filmed under a 26-block stretch of elevated track in Brooklyn, Hickman leading Doyle’s commandeered Pontiac at speeds of up to 90 miles per hour—dodging pylons, mounting sidewalks and causing several accidents, and even colliding with a city bus. The chase ends with Doyle gunning down his quarry on a staircase at the New Utrecht Avenue–62nd Street station.¹¹



1923 BMT crash on Atlantic and Flabush Avenues (Osmund Leviness, via stuffnobodycaresabout.com)

Filmmakers were hardly the only artists enthralled by the el and its urbanism. Poets, painters, and writers had come to see the el as the rolling essence of city life. Childe Hassam, Reginald Marsh, Charles Sheeler, Guy Pène du Bois, Edward Hopper, and many artists of the Ashcan school—Bellows, Sloan, Shinn, Beal, Reiss—all painted the el, captivated by this machine-age magic carpet clattering above the urban fray. John Sloan was the painter laureate of the New York el and its muscular romance. In *Election Night* (1907), *The City from Greenwich Village* (1922), and the magisterial *Six O’Clock, Winter* (1912), Sloan’s elevated trains thunder like rail-bound comets above the tumult of crowded city streets. Sloan and other artists were captivated by the contrasts of el-space—especially between the priapic thrust of the trains and the receptive warmth of domestic space only yards from the tracks. Equally alluring was the latent voyeurism of el-space, the glimpses it afforded into the passing lives of strangers. The el created a form of mechanized intimacy not unlike that of the anarchic, sexualized rides of Coney Island.

On summer nights, especially, open windows exposed a hidden private world to all but the weariest el rider. They might even expose a crime. In Reginald Rose’s 1954 teleplay *Twelve Angry Men*, a jury deliberates a murder case hinging on the testimony of a woman who claims to have witnessed the killing through the darkened windows of an empty passing elevated train. Among the most nuanced depictions of el-space and its public-private tension are those in Edward Hopper’s paintings. Hopper



The City from Greenwich Village (John Sloan, 1922). © 2014 Delaware Art Museum / Artists Rights Society (ARS), New York + National Gallery of Arts

11. *The French Connection* car chase sequence: <http://www.youtube.com/watch?v=u9nrlPRCw04>

10. “Rapid Transit and Trade,” *New York Times*, June 16, 1878.



Six O'Clock, Winter (John Sloan, 1912).
Oil on canvas, 26 1/8 x 32 in.; 66.3575 x
81.28 cm. Acquired 1922, The Phillips
Collection, Washington, D.C.



Night Windows (Edward Hopper, 1928).
Oil on canvas, 29 x 34" (73.7 x 86.4
cm). Gift of John Hay Whitney, The
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would ride the city's trains at night, peering into passing buildings, catching "flashes of unearned intimacy," writes David Apatoff—"lonely people staring at the walls ... desperate couples ... people whose privacy was protected only by their anonymity."¹² His most evocative work in this genre is *Night Windows* (1928). In it, Hopper creates a powerful contrast between the dark masculinity of the elevated and the tender sexuality of the domestic realm passing so close and yet so far away in an adjacent building.

The work depicts a woman in a pink slip as she bends just out of view, perhaps over a washbowl, her body sculpted erotically by a raking light. Writing in a review of Hopper's 1933 show at MoMA, Mary Morsell noted that the picture "crystallizes superbly that momentary sense of the mystery and intensity of the thousands of lives pressing close to each other, all oblivious to the revelations of undrawn blinds."¹³ In New York City today, a postmodern replay of this urban erotics is enabled by that gentrified scion of the Gotham el in gilded Chelsea, the High Line. Strollers on the once-rusting hulk, now a feted linear park, are subjected to a nightly "window show" by affluent exhibitionists at the Standard Hotel, who strut and hump against the plate glass for all to see.

El-space is almost universally described as dark and oppressive, an inaccurate cliché. Unlike elevated highways, which do blot out the sky and plunge everything underneath in darkness, the quality of light beneath elevated tracks is often exquisite. It comes

down combed and filtered through the ties, and strikes pavement and facades below like the dappled light of elmshade. This, and the sense of enclosure created by columns on either side, yields an effect reminiscent of an avenue of mature trees, a kind of sturdy steampunk Elm Street. This, I think, is one of the reasons the city's remaining el corridors are such vibrant places: Roosevelt Boulevard through Woodside and Jackson Heights (7 train); 86th Street through Bensonhurst and Bath Beach (D and F trains), and, arguably the finest example of el-space anywhere, Brighton Beach Boulevard between Coney Island Avenue and Ocean Parkway (B and Q trains). This last stretch pegs the meters of good, walkable urbanism. It is one of the densest neighborhoods south of Prospect Park, and yet a stone's throw from the sea and one of the most storied beaches in the world. The mix of ethnicities here is among the richest in the city—Azerbaijanis, Ukrainians, Georgians, Latinos, and Chinese. The shopfronts are cluttered with signs in Cyrillic script, advertising cheap calling cards, Russian tchotchkes, or the latest CD from a Georgian boy band. On a late Friday afternoon, an elderly woman wrapped in black sells fresh-baked *pide* from a sidewalk stall; across from her, by the corner, a man hawks a load of cheap Chinese sweaters. Sunset comes fast; the Sephardic matrons rush about to shop before Shabbos. Overhead the silvered cars of the Q train, gilded pink and purple by the setting sun, roll back and forth from the city to sea, a mechanized magic carpet whose rumble-roar of steel-on-steel is as comforting as a locomotive whistle on a deep rural winter night.

¹³ Mary Morsell, "Hopper Exhibition Clarifies a Phase of American Art," *The Art News* 32 (November 4, 1933), 12.

¹² David Apatoff, <http://illustrationart.blogspot.com/2007/10/edward-hoppers-version-of-internet.html>

Going Home Near Bloomingdales (Lionel S. Reiss, 1946). © Collection of The New-York Historical Society

