

DESIGNER / *builder*
A JOURNAL *of* THE HUMAN ENVIRONMENT

ENTRY

HOME

WHO ARE WE?

**WHAT ARE THEY SAYING
ABOUT *DESIGNER/builder*?**

HOW TO SUBSCRIBE

SAMPLE STORIES

Sidewalk Living Rooms

A Critical Urbanist Looks
At The Global City

Radical Builders In The Bronx
Gulf Coast Blues: FEMA's
Botched Plans For Emergency
Housing After Katrina

Viewpoint (March-April 2006)

Lower East Side Blues

Healing The World,
One Artist At A Time

Viewpoint (Sept/Oct 2006)

Nicodemus

Made In Chicago

URBAN LANDSCAPE



Elevated structure at Wells and Adams Street, looking north. (Courtesy of the Chicago Transit Authority)

MADE IN CHICAGO

BY EDWARD TENNER

It has been said that the profession of children is play, and once it was mine. I played with blocks, I played with Tinkertoys and Erector Sets and O-Gauge model trains. I played building. I had a rubber saw and a little wooden hammer, and I remember the satisfaction of pounding stout pieces of colored wood through holes. I played building and assembling things and saw a city that was not yet quite built out, where structures and machines were still being assembled.

I grew up in the last generation to celebrate construction and production, not defensively and retrospectively, but naively and spontaneously, as something that a great city did. My

impressions were not, as it turned out, complete. Chicago's industrial prowess was never its reason for being, and even during my childhood, labor-intensive industries like furniture were expanding elsewhere.

But Chicago was the center of commerce and agriculture as New York was of communications and fashion and Washington of politics and Los Angeles of entertainment. Chicago was a capital, as the towering Board of Trade and the main public library with its Tiffany mosaics and the lofty ground floor and white-gloved elevator operators of Marshall Field all proclaimed. The safe-deposit rooms of the First National Bank were our Fort Knox. Even our neighborhood movie houses had Baroque décor, uniformed ushers, and lights that twinkled in the ceiling like stars. The Art Deco façades of parts of North Michigan Avenue looked almost Parisian. Chicago then was to New York City what Yale was to Harvard, the proud and stylish also-ran that never directly contested primacy but flaunted what it considered superior style and vigor. Even as I played, I was aware that I was part of a grand enterprise, even if it turned out to be one of persuasion more than of production.



The Chicago Board of Trade, 1931. (Courtesy of the Chicago Transit Authority)

Astrologically I may be a Leo, but geographically I was born under Mars, arriving in a metropolis that had emerged from the Depression into a military-industrial renaissance. In December 1942, less than two years before my birth, Enrico Fermi had produced the first self-sustained nuclear reaction in a University of Chicago squash court. By June 1945, the federal government had poured \$926 million into Chicago's industries. Without my realizing it, the outcome of the war would shape my early years.

For all of Chicago's elegant lakefront, its museums and concert halls, it was a tough city further hardened as well as enriched by the war effort. Neighborhoods once stylish or at least respectable had become segregated and blighted. In the better ones, too, countless houses, including the apartment building where I spent the first nine years of my life,

were still heated with soft coal that soon left its sooty stippling on each layer of winter snow. Even after we moved to a small co-op in a greener area when I was nine, there was a coal depot beside the elevated tracks at the station we used a few miles away.

Chicago was nonetheless darkly enchanted. My building's coal bin was a grimy netherworld, granular quicksand threatening suffocation of curious children, or so we were warned. Ruling it from his basement apartment was a taciturn old-world janitor named Adam; no ogre, but an earthy enigma. In the alleys on the way to school high wooden fences concealed cluttered backyards.

Yet the mild sense of menace was thrilling more than intimidating. We were one of the last generations allowed the full and innocent exploration of our surroundings. The capacious Green Hornet streetcars still glided along thoroughfares like Clark Street. And these roomy cruisers expressed a technological style: massively reassuring, windows barred against waving hands, staffed with a cashier collecting fares in the back with an authoritative mechanical chunk, a municipal ship of state clanging its way among lesser craft.

Industrial modernism had also planted itself firmly in the home. Our dining room may have been conservative mahogany, but the indispensable kitchen table and chairs were tubular steel, a 1930s innovation delayed by the war and thereafter produced in vast quantities by manufacturers in Chicago and elsewhere.

Considering today's child safety standards, it is a wonder that my Chicago generation survived to adulthood. The swing seats in the playground at Le Moyne Elementary School a few blocks from my house were still hazardously solid wood, not the canvas straps later adopted. On the side there were steps to a vertiginous slide consisting only of two parallel bars, one fitting under each arm. Below, there was cushioning, but not much. We played, in other words, with steel industrial equipment a world apart from the womblike redwood-and-plexiglass zones that have prevailed since the 1970s. We sat unbelted on the front seats of automobiles. Family visitors filled our living room with clouds of smoke that lasted for hours after their departure. And there were the weekly sounds of air-raid sirens.

Nevertheless, for all the later meditations of psychologists and scholars on the anxiety of growing up facing nuclear destruction, we – or at least I – still had an unshakable sense of safety deriving from a salutary ignorance. Whatever adults might have known, school air raid exercises meant little more than shipboard lifeboat drills. I never visited Commonwealth Edison's Dresden nuclear power plant, opened proudly in 1960, but the outline of my bones in the shoe store fluoroscope was a source of delight rather than alarm. Even as a graduate student at the University of Chicago in the 1960s and user of the gym, I never wondered what had happened to the radioactivity from Fermi's nearby experiments.

The military apparatus of the Cold War was almost entirely invisible to us. It was the family automobile, ultimately the nemesis of the Green Hornet, that represented

patriotism, and not only because a car assembly plant could so readily produce tanks and vice versa. The car was an encyclopedia of American industries and skills, including Chicago's as well as Detroit's. I do not recall being aware of car assembly plants in the city, but their presence would hardly have surprised me. The odor of the refineries that powered our vehicles was apparent on the southeast margin of the metropolis. One of Chicago's largest factory complexes (and former war plants) was the Stewart-Warner speedometer works on Diversey. My family rarely traveled far enough into the countryside, say to northern Wisconsin or Michigan, to have a concept of wilderness. But the end of the war was starting to extend our horizons: on the site of a former Douglas Aviation plant, about ten miles from my home, the future O'Hare Airport was being built. Flying was once more a civilian pursuit, benign and glamorous, yet also an industry buoyed by the orders and research programs of the Cold War.

Yet if the automobile summarized American achievements in the arts and sciences, there was one kind of car that stood apart: the Cadillac. There must have been Rolls Royces cruising in Lake Forest and Mercedes snug in their garages in Kenilworth, but the Cadillac was the vehicle of civic substance, the measure of automotive technology. As a schoolboy I never looked under the hood of one. But that seemed to be the ideal vantage point for contemplating the vehicle.



Green Hornet at Clark and Halsted Streets, mid-1950s. (Courtesy of the Chicago Transit Authority)

My young eye went unfailingly to the shield on the front of the hood. Other brands had their emblems – the Pontiac Indian head, the Oldsmobile rocket – but the Cadillac arms were different. They were proudly complex, a symmetrical array of stripes and wildlife (little heraldic birds called merlets, I now understand) hinting at mysteries like those in which high-ranking Freemasons like the fez-capped Nobles of the Mystic Shrine, the

tricycle-pedaling Praetorian guard of Chicago conventioners, had been initiated. Chicago's own Zenith Radio, then the world's largest maker, had almost equally magnificent if less European-looking arms. It was evident that the simpler shield with the bold, angular cross adorning the Chevrolet signified a more plebeian straightforwardness.

The tail fins of late 1940s and early 1950s Cadillacs were masterpieces of serene balance inspired by World War II aircraft. The cultural historian Bevis Hillier has observed that postwar design sought to absorb and neutralize military symbols like balloons, spotlights, and camouflage patterns, and so it was with rudders. But I did not perceive them that way at the time. What impressed me was the bold wrapping of the red plastic shells covering the taillights and the ingenious hinge that revealed the fuel cap when one of the enclosures was lifted. In all, the Cadillac was a majestic sea creature, riding softly on its great whitewall tires.

If the Cadillac was the nobility of transportation, the Checker taxi – a Chicago brand, though manufactured in Michigan – was its labor aristocracy, proudly utilitarian and minimalist, with the exciting addition of the jump seats that we coveted. The taximeter, with its squarish numerals, the reflected glare of its tiny light, the authoritative drop of its flag, its solemn lead seal and colored inspection stamps, was our earliest computer.

For ourselves, there was the Schwinn bicycle. Already other brands were known, but hardly any self-respecting Chicago child seemed to have one. The sturdy frame with its curved lines, chrome-trimmed horn inset at knee level, the solid springs under the seat, the balloon tires gamely absorbing the insults of curbs and detritus, and the ubiquitous single-speed coaster brake (in the nearly level Chicago landscape, who needed more?) all made the Schwinn the exemplar of Chicago's forthright and rugged technological style. Even after English bikes with three-speed Sturmey-Archer hubs arrived in the late fifties, Chicago kids still had no idea of Peugeot panniers or Campagnolo derailleurs. We were in love with a self-contained system that had its own idea of luxury: the black Phantom, the costly top of Schwinn's line, much admired and seldom actually seen.

When we had our hair cut we were still invariably seated in the regal embrace of a Chicago-made Emil J. Pavidar barber chair, with its leather seat and padded arms, its gleaming hydraulic cylinder controlled by a handle that matched its porcelain base, and its adjustable ratcheting headrest. European critics, I later learned, had also marveled at this populist throne. The sitter could rest his feet on a padded footrest, which pivoted at its midpoint to reveal its logo. As I flipped it to and fro over the course of a haircut, the design impressed itself indelibly into my mind, as the company's founder had no doubt intended.

The older I grew, the more I could move around the city, the more its productivity astonished me. To young people of my place and generation, there seemed no opposition between industry and information. To the contrary, Chicago with its satellites and suburbs was the heartland of an earlier age of calculation and communication. Here was the proud Victor Company, with its rugged manual Comptometers and costly electric adding machines. Beside the elevated tracks at the Fullerton stop the Dietzgen Company

made some of the world's most precise slide rules, fitting the cursors with hairlines of spider's silk spun by resident arachnids. (I was not aware of it, but Chicago had once even made its own typewriter, the Oliver.) In neighboring Cicero was the Hawthorne complex of Western Electric, where 48,000 people had worked during the war. At one time it had supplied virtually all of America's telephone instruments. Here were the R. R. Donnelley & Sons Lakeside Press printing plants just south of the Loop, where many of the country's telephone books were printed, along with magazines like *Life* and *Time*, still at the height of their influence. Abutting the Illinois Central tracks was the flagship building, seen by few but railroad workers and rail commuters, its Tudor Gothic façade adorned with the colophons of historic publishers.

Chicago was a capital of the graphic arts as well as transportation. From the El I could see not only anonymous loft buildings with print shops but the red brick complex of the Curt Teich Co. on the Near North Side, with its signs as delightfully boastful as the heavily retouched postcards it still printed by the million. Downtown there was a school tour of the new, modern Sun-Times building with its awesome press room. (Probably the Gothic tower-cathedral-factory of the Tribune, which still proclaimed itself "World's Great Newspaper" on its front page, would have been even more absorbing, but for our teachers and school administrators it no doubt was hopelessly Republican.) Even archaic skills survived. A few advertisements for Wrigley chewing gums, another classic Chicago company, were still set using the 150-year-old technique of wood engraving, practiced by a handful of shops in the city fifty years after the advent of the halftone. Some of our school supply catalogues also had superbly detailed cuts of pen nibs, inkwells, and rare styles of paper clip, all cut in this way. And in the northwestern suburbs the cartographers at Rand McNally were preparing the country's maps: some distributed gratis at filling stations, others bound in commercial atlases rented by the year at high fees.

Chicago no longer had feature film studios, though local companies like Coronet produced scores of didactic features for the classroom, the multimedia of the 1950s. I learned the magical whir of sprockets from running my schools projectors, at least some of which were made by the north suburban giant Bell and Howell. Before the first dry photocopiers arrived from Xerox in Rochester, New York, the mimeograph was the engine of self-publication. A Chicago lumber merchant named A. B. Dick had licensed the patent from Thomas Edison in the 1880s. I still recall the façade, football fields long, of Dick's descendants' factory in Niles.

Before Wal-Mart and Amazon.com and eBay, there was our own Sears Roebuck and its omnipresent catalogues and retail stores, not to mention its older rival Montgomery Ward, and Spiegel. It was Ward's and Sears that had urged American farm families to question their local merchants and to rely on their central purchasing and customer service staffs for quality assurance and fair pricing – in other words, that had helped establish the patterns reborn a century later as Internet marketing. Avidly since grade school days I pored through Sears catalogues, glorious summations of nearly all things adult, promising a future bounty that would be Good, Better, and Best as it classified many of its lines. The locally produced World Book Encyclopedia abounded with stylized

pictographs of human figures and objects displaying the increase of populations, products, and commodities. And Chicago's own Encyclopaedia Britannica adopted the motto of its major shareholder, and my mother's alma mater, the University of Chicago. It read "Crescat scientia, vita excolatur" with the poetic translation "Let knowledge grow from more to more, and thus be human life enriched."

If the Britannica was a monument to the theoretical and practical knowledge of humankind, accompanied by a guide for truly earnest purchasers who could build a whole reading program around it, the city itself was a reference book, one that distributed goods as well as knowledge. Everywhere there were railroad tracks, not just of the Chicago and Northwestern and the Illinois Central, the most Chicagoan of the lines, but of most of the glamorous northeastern and western companies: the Pennsylvania with its magisterial keystone, the Chesapeake and Ohio with its homey sleeping kitten, the Santa Fe with its white cross – and the less picturesque but equally distinctive insignia of the New York Central, Rock Island, Burlington, Southern Pacific, Union Pacific, and gritty midwestern lines like Grand Trunk and Nickel Plate. A young Chicagoan felt instantly linked to the entire nation's geography. Each company emblazoned its viaducts as it did its rolling stock. According to legend, the city received a tax or advertising fee for each of these little signs. Sprayed graffiti on railroad property, as opposed to discretely scratched hobos' marks (which I never saw), would have been sacrilegious even to the coarsest delinquents of the age. Chicago had the awesome responsibility of shifting and coordinating the nation's goods and passengers. Just as true New Yorkers of the day gloried most of all in the global connections of their port, Chicagoans were constantly reminded of their continental, inland centrality.



The R. R. Donnelley Building, 1955. (Courtesy of the Chicago Transit Authority)

Model railroads thus had a special magic for us; they miniaturized part of our own landscape. And they also taught an emerging generation how technical dreams could exceed any budget. A simple oval track layout was supremely boring, and the whole point of the hobby seemed to be to increase the number of switches and the power and complexity of transformers and controllers with their throttles and little glowing red and green lamps, not to mention accessories like loading stations with tiny, magnetized milk cans.

Even the representation of railroads could be engrossing. My father was often absent on business trips, but he brought home the thick timetables of the lines he traveled. The European Cook timetables with their spidery lines are pallid, bureaucratic exercises by comparison. As the maps that my father brought home unfolded, the lines of the tracks pushed across state borders and time zones as bold black ribbons punctuated by white dots, claiming sovereign control of the landscape, as the rail barons themselves once had. From descriptions of Pullman accommodations – then still run by Chicago’s intact Pullman Company – I learned how the industry compressed space as miraculously as its overnight service shrank time, making sinks and beds and sofas vanish and reappear with nickel-plated, spring-loaded fittings that clicked and snapped a little world into order. Railroad accommodations, like the Cadillacs and Buicks, followed hierarchies: from the berths that had been the wonder of European visitors in the nineteenth century but had become the stuff of film comedy, through snug roomettes and compartments, to lordly drawing rooms. As I ventured downtown I could peer into the Santa Fe ticket office, with

its panoramic mural of the Grand Canyon. I recall its gorgeous purple accents, and the chromed steel armchairs provided for customers in the gleaming terra-cotta-faced Railway Exchange Building on Michigan Avenue.

Not all Chicago businesses were industrial or transportation giants. All through the city I could see evidence of small plants. And I could share supposed insider talk of industrial realities. One of my father's colleagues in public administration, a Ph.D. and attorney, had become an executive with a manufacturer of steel strapping. The family of my brother's best friend ran chemical factories that supplied products packaged under well-known labels. The father of one of my own high school friends was an inventor with a factory that made plastic bathtub enclosures. My friend told chilling tales of the mayhem caused by falling through the elegant glass products of the competition. He also enlightened me about the impressive profits of the hula hoop business and of the alleged multiplier effects of small changes in the cost of plastic bottles on pharmaceutical prices.

Countering these revelations were the patriotic broadcasts of the National Association of Manufacturers whose weekly short feature, *Industry on Parade*, remains one of the finest documentary series ever to appear on television. Each program consisted of three segments of five minutes or so on some factory or research program, quite a few in the Chicago area, introduced with the image of an enormous and slowly rotating gear, as though from a Lewis Hine photograph. The metamorphosis of raw materials into finished products on assembly lines and the mechanical ballets of canning and packaging operations were enthralling spectacles. The intellect and discipline required to synchronize so many moving parts and to make substances amenable to such rapid and uniform handling took my breath away. All these scenes were presented as evidence of the superiority of American free enterprise. Only later did I learn that Communist states had shown similar scenes to show their own young the fruits of scientific socialism.

We dreaded the Reds as little as we feared traffic accidents. War was, for us, a producer of surplus, a cornucopia of bargains engineered to ferocious Army and Navy specifications: not just clothing and tents but beautifully milled gear trains, impeccable mirrors, little switches like shiny metal bats, and even whole bombsight assemblies released to the taxpayers and their offspring for cents on the dollar. My younger brother picked through bins of such treasures, but even for those who did not disassemble and rebuild, there was something inspiring in having the building blocks of hegemony spread out before us. It had to be the grandest of all societies that could virtually give away such riches.

Chicago even had a temple of industry, the Fine Arts Building of the 1893 World's Fair (originally designed by Charles B. Atwood of D.H. Burnham & Co. to display paintings and sculpture), which had survived and was rebuilt in stone and marble as the Museum of Science and Industry during the Depression with a \$6 million bequest from the philanthropist and Sears Roebuck founder Julius Rosenwald. As a collection the museum may not have been in the same league as the Science Museum in London or the Deutsches Museum in Munich, but it was and remains the most visited museum in the city, with a vast model railroad layout, a chick hatchery, a captured German submarine,

and a convincing replica of a southern Illinois coal mine, with a scary elevator ride into darkness. One display case offered dozens of beautiful combinations of gears. It offered no indication of what each was good for, but it was still my favorite.

In fact, just about all my knowledge of industry had come not from a shop floor but from a window: of a Green Hornet or bus, of an elevated train, an automobile. The mid-twentieth century was a grand time for the American tradition of watching such things work through windows – the operational aesthetic, as the historian Neil Harris called it in his study of P. T. Barnum. After my father's death one of my uncles taught me bowling, and I admired the graceful precision of the new pinsetting machinery, boldly sweeping and faultlessly replacing the clattering hardwood with a single dip. Bowling may have been codified in New York in the 1890s, but it had become the great Chicago sport, combining participation with spectatorship, exercise with beer. Somewhere between athleticism and vice, too, was pinball, of which Chicago's Bally Manufacturing was a paragon. On one side it was the most abstracted of physical sports, played through a window; on the other, it was the most kinesthetic of mental games, operated with an interface not of logical circuits but of electromagnets, mercury-based motion detectors, rubber bumpers, and chrome-plated steel balls.

Despite the ubiquity of the window, technology could still be directly tactile. On Wabash Avenue, in the El tracks' shadow, there was still a white-tablecloth family restaurant, Harding's, to which my mother sometimes took me, and I marveled at the Electric Pen that transmitted the waitresses' orders to the kitchen. I could see the orders written in a lit opening on a continuous roll of paper and imagine them reappearing instantaneously to the cooks. Across the street, Marshall Field had its own pneumatic tube system, a kind of subway for information. I can't remember seeing it used, but I could not help wondering about the journeys that papers might take. In my father's downtown office I was allowed to play occasionally with the plugs and levers of the receptionist's old-style private branch exchange switchboard. Even the elevators were almost a thrill ride; like many in Chicago of the day, they had no interior gate between the passengers and the door but the operator's outstretched arm. And it was perfectly legal: early instruction in what was literally machine politics.

My high school taught other lessons. There was the typing class, which I embraced as a shortcut to speed writing, and in which I discovered that each model typewriter had its own touch: a machine could have a personality. And there was mechanical drawing, with its rigorous conventions. I had no idea what I would ever do with my knowledge, yet it fascinated me as an initiation into a graphic community. The course conveyed not just an appreciation for the beautiful drafting instruments we used and the superiority of center-wheel over side-wheel compasses, but a heady sense of power. We were learning a visual language that could be translated into immense three-dimensional objects. I still can't get over the chaste elegance of a properly drawn dimensional arrow. And the instructor had an admirable pride of place; when we learned how to construct an organization chart he quietly but firmly cautioned us about its limits. It was only a structure of reporting, not of skill or responsibility.



Original 1940s headquarters and factory of the A.B. Dick Company, Niles, Illinois.
(Courtesy of A.B. Dick)

Drawing objects was one thing, building them another. For all the precision equipment pouring from the surplus stores, it was not so easy to find parts for Scouting projects. The handbooks assured us that we could find many parts in scrap, but we no longer knew where to look for a scrap heap. The 1920s generation had built crystal radios; the 1950s generation tested tubes (though the first transistor radios were arriving); and the children of the 1970s were forced to discard whole systems when one component of a circuit board failed. World War II had been won with chokes and clutches like those in our day camp vans. The counselors, who seemed to be veterans, pushed and pumped and shifted. But like most of my contemporaries before the Volkswagen and Honda waves, I learned automatic.

The limits of the scrap culture, and the dawn of television, convinced us that we were at the beginning of a new information age. But it would be more accurate to say that we were at the climax of a century-old one. The Harding Restaurant's amazing Electric Pen, really a descendant of the telegraph, was invented by an associate of Thomas Edison in 1875; Edison had invented the technology of the shoe store fluoroscope, too. When the new, electronic information age arrived, it would come from outside Chicago. The hundred-dollar pocket calculators that appeared at Marshall Field in the 1970s were made by Texas Instruments, not Victor or Dietzgen. Today's home video games are more likely to be from Sony, Nintendo, or Microsoft than from Bally, which found more money in hotels and resorts. Meanwhile the remaining major manufacturing, like Motorola's cellular telephone plants, generally shifted to places like Harvard, Illinois, seventy-five miles from the city, or to plants dispersed even further in the rural Midwest, where an older work ethic was said to survive.



Inland Steel Building. (Courtesy of Inland Steel Company)

The Pullman complex is now a burned-out ruin, the A. B. Dick site a shopping mall. The Stewart-Warner speedometer plant survives only as a tower in a residential development. And the Santa Fe murals vanished under Amtrak management. The imposing five-story Cadillac dealership/garage near my childhood elevated station was demolished a few years ago to make a parking lot. The marquee that once so bedazzled me has left the new generation of Cadillac buyers unimpressed by heraldry of merlets; it survives only in an abstracted form that would have mortified the original so-called Sieur de Cadillac, a resourceful and educated soldier-administrator named Laumet who assembled his crest adroitly from other families' arms, and who also founded Detroit in the process of extending France's empire in the Great Lakes region. Unintentionally Laumet had created the insignia of a now almost vanished species: the self-made Midwestern industrialist.

It is true that Chicago has reshaped itself from the crises and plant closings of the 1970s. Among metropolitan areas it actually ranks higher than New York as a hub of Internet business and an advanced technology center. Bell and Howell no longer makes photographic equipment but does sell information (including most of the nation's doctoral dissertations) online. Emil J. Paidar, battered by imports, turned to medical equipment. A. B. Dick manufactures advanced offset printing equipment in new factories, and Dietzgen remains a leading name in drafting. The former Donnelley headquarters, an official landmark, now houses banks of Internet servers. And the city has worked to retain manufacturing, for example by encouraging A. Finkl & Sons, a leading producer of specialty steels, to maintain its showcase plant along Clybourn Avenue in one of the few remaining, but attenuated, industrial corridors. A rail spur still delivers, across city streets, carloads of sugar to a remaining candy manufacturer, even if Field's no longer has its signature Frango mints made locally. Both Junkunc Brothers American Locks and Chicago Faucets continue the modernism of Paidar and Checker. Schwinn's new owners are reviving cycles with 1950s lines, and a descendant of the founder has his own company, building premium cycles under a new trademark in a small plant in southern Wisconsin. Ford still assembles cars within the city.

Still, factory demolitions remain common, and Chicagoans hardly seem to mourn their lost industrial world. There was little apparent outcry as the Hawthorne works was torn down in the late 1980s and early 1990s after the Bell System breakup. At the Chicago Historical Society in fall 2001, I found not a single book on the industrial landscapes of the city, such as exist for Philadelphia and Buffalo, among others. I asked a man at the cash register whether it was because none had been published or because there was no demand. He replied, Both.



The First National Bank of Chicago. (Courtesy of BankOne)

Why such indifference when Chicagoans do rally around their historic commercial and residential landmarks? Is it nothing more than forward-looking pragmatism? Perhaps the war and its aftermath were detours from an earlier role as the nation's greatest hub of trade. Chicago had once been a technological miracle in its own right. In the previous century its river had to be reversed to assure its shipping, sanitation, and water supply, and the grade level of its downtown raised, at immense cost. But as these projects were accomplished and the railroads built out, the city became a link between the world's greatest farming region and its markets, the classic host of the trade show and convention, the association headquarters of the nation's doctors and lawyers.

Mighty as its factories were, Chicago's true genius was not in production (like Manchester and Birmingham, Pittsburgh and Detroit). It was in distribution. This steel center had neither coal nor iron ore. It was not renowned for training in crafts, except for lettering and typography, with their roots in commercial display. Despite the distinction of the Northwestern and Champaign-Urbana engineering schools, the University of Chicago never established one unlike nearly all its Ivy League counterparts even though it was founded during a surge of technological optimism. William Rainey Harper would have liked one, but he could neither persuade the Rockefeller family's advisors nor local philanthropists. The U. of C.'s collegiate Gothic architecture, like the Beaux Arts temporary buildings of the Exposition, were invocations of past glory, in contrast to the bold commercial structures of Louis Sullivan and others that had risen in and near the Loop.

Much of Chicago's manufacturing was tied to its superlative transportation and distribution networks. When Henry Ward Beecher called the post-Fire city a merchant's *beau ideal* of paradise, he said nothing about the manufacturer. Its passion was "buying and selling, buying and selling, buying and selling" – evidently not making. Even the city's original Promethean industrialist, Cyrus McCormick, probably owed as much to aggressive marketing as inventive genius and had to fight patent infringement suits for decades. In the late nineteenth century the city's greatest wonder (and horror) for visitors was the Stockyards, a place of organized disassembly rather than fabrication. In the twentieth its most notable monument was the Merchandise Mart wholesale showroom center, with twenty-eight stories on two city blocks, and still the world's largest civilian office building. Even Chicago's steel plants served the railroads more than the automobile industry.



The Wrigley Building. (Courtesy of William Wright Jr. Company)

Chicago's vocation was partly in stamping things out, but even more in moving them, literally and metaphorically. There the Texas-born journalist Albert Lasker defined the modern advertising agency and became a multimillionaire with his unforgettable print and later radio campaigns. His successors refined commercial populism to create a Chicago low-falutin' style, which even had a locally designed signature font: Cooper Black. There Leo Burnett created the Marlboro Man, and Joe Sedlmaier filmed the former manicurist Clara Peller ad-libbing "Where's the beef?" It was to Chicago that Alvin Eicoff brought the nation's finest pitchmen to develop the late-night television commercial in the 1950s. The Popeil family came to Chicago from New York City to demonstrate gadgets on Maxwell Street and later on television, in the famed slicing, dicing Vegematic series of the 1970s. In Chicago John MacArthur and W. Clement Stone built fortunes by making insurance affordable for the poorest families. Even the city's innkeepers were apostles of leveling upward. In 1946, S. J. Perelman recounted a hotel managers' convention in which a Philadelphia proprietor argued for appealing to the "prestige guest," only to be reminded by a Palmer House representative that today's unimportant customer may be tomorrow's big spender, as indeed many turned out to be.

In the end what doomed the old Chicago plants was less the competition of imports as the very prosperity of the wartime and postwar boom, which raised the aspirations of the working class beyond their cramped apartments and assembly-line jobs to suburban homeownership and professional careers for their children. Chicago technology was often masterly. Still, one Cicero steelworker interviewed by Studs Terkel in the early 1970s asked readers to imagine what it would be like if Michelangelo had to paint the Sistine Chapel ceiling time after time, or if Leonardo had to produce the same anatomical drawings over and over. He wanted his son to be college educated, an effete snob (as he put it) who would call him a dummy. And I doubt that many of the small manufacturers expected their own children to continue their companies.

For the children of the owners and managers as for those of the workers, the future was in sales and marketing, the professions, and academia. As far as I know, none of my friends from Amundsen High School, at the edge of a still-vibrant manufacturing zone and offering strong science instruction, entered an engineering program. Most of those classmates whose careers I can trace are professors in the Northeast and California.

How can I blame my fellow Chicagoans for losing an industrial vocation they never fully embraced and one that I certainly did not? But I can't help thinking how many marvelous things, and people, I took for granted. And when I study the history of technology I am always surprised by the vividness and frequently by the pathos of the stories behind artifacts and structures. In the end the love of technology is born of the fascination with humanity. It is what remains of others' work and my play. 🍷

Edward Tenner is author of *Why Things Bite Back* (Vintage Books) and *Our Own Devices: The Past and Future of Body Technology*, to be published in June by Alfred A Knopf. Copyright Edward Tenner. A version of the text of this article appeared earlier in *Raritan*.

[back to top](#)