

# Consolidation

## 1878–1899

In the winter of 1893 a London reporter filed a feature story on Baltimore, noting how different were visitors' impressions depending on whether they arrived by B&O or by Pennsylvania Railroad. Those who approach by the B&O, he wrote, are "apt to think it a dirty, dreary, ramshackle sort of place. The Royal Blue trains . . . pass along scores of dirty streets with shabby little one and two story dwellings, largely inhabited by Negroes, with plentiful supplies of pigs, chicken coops, and swarming children." But arriving through the Pennsylvania's tunnels,

one emerges into the Union Station, and passes out into a fine street, full of character, and giving evidence of a luxurious population—large, massive, well-built houses with an air of solidity, suggestive of high rents, dividends and bank stock, and with a certain Southern aspect very picturesque to one coming from the more commonplace Northern towns.

From the Union Station he drove down Charles Street, over its handsome bridge, to Mount Vernon square: "Elegant ladies slip out of great spacious doorways into roomy family carriages driven by old colored servants in livery. Colored men are also sweeping the stone steps of the houses and washing the large fine windows." He drove past the Washington Monument: "A little park surrounds it, with spacious houses, some of them even approaching a certain massive grandeur, standing round. You feel that it is always afternoon here . . . thankful so quiet a city is to be found in the same country which contains New York and Chicago."<sup>1</sup>

Like modern travel pages and popular geographic magazines, the *London Chronicle* was satisfied to describe the incongruity, without wondering whether one image was necessary to explain the other, without wondering how such contrasts emerge or how they come to seem so natural, so solid, so timeless. In fact, Baltimore was infinitely more complicated. The reporter had not yet seen the bustling new department stores, the new garment factories that stocked them, or the new factory suburbs of Sparrows Point and Brooklyn, or the new trust and insurance buildings on South Street. The city was still possessed of a lifelike energy. The railroad station was new, the elegant bridge was new, the houses he passed along Charles Street and Mount Royal Avenue were new, the asphalt paving and the electric rapid transit were new that year. The B&O was

digging its own tunnels to spare its passengers the shabbier view. The tranquillity of Mount Vernon Place was illusion: Baltimore was boiling with conflicts, and was at that moment coping with sudden massive unemployment. The reporter was in fact on his way to interview the cardinal archbishop on labor. But he scarcely realized that the cardinal's international reknown as a man of social concern was rooted in his Baltimore pastorate. From the moment he was made archbishop, on the heels of the B&O Railroad strike, the city had experienced a succession of crises, each seeming to threaten, but ultimately solidifying, the social order that impressed the man from the *Chronicle*.

The census suggests a rather steady growth, at 25 percent per decade since the Civil War. Baltimore had a population of half a million. But to see into the economic growth and the social changes taking place, one should see the city as Cardinal Gibbons must have seen it—its ups and downs, its moods and seasons. The country's best brickmakers and bricklayers erected thirty-five hundred houses a year at the peak (1885-87), as in the previous generation. Summers were a round of boisterous picnics, gorgeous parades, impassioned revivals, from Labor Day (1 May) to Artisans Day (1 September). But during the wet and cold seasons the brickmakers and construction workers were laid off, and in the slumps of 1878-79 and 1893-94 construction slowed to nine hundred or one thousand dwellings, and the charities opened their stoneyards, where men stood in line to break rocks for fifty cents a day. Just as summer and winter were inseparable parts of nature's growing cycle, so the boom and slump of building and the quicker pulse of manufacturing crises were part of the city's growth process—the ring of new houses and streets, the massing of people, and the accumulation of wealth. To grasp this rhythm of growth, I shall concentrate on three turning points: the boom year of 1886, the depression winter of 1893, and the year of business concentration of 1898. Each of these turning points of construction and trade also marked a crisis in the relations of capital and labor.

The parades in honor of Baltimore's 150th birthday (1880) showed a revival of the role of labor in municipal undertakings.<sup>2</sup> The assertions of pride of craft, identity of the firm, and the rights of free labor recalled the Fourth of July parade of 1809 and the B&O cornerstone laying of 1828. The reassertion crescendoed in 1886, when labor organized its own parades. Just by watching the parades go by, one can discover important changes in the economy and organization of the labor force.

The new parades were bigger. Eleven thousand marched in the eight hour demonstration on 1 May 1886. Whole new industries had been created. Five hundred B&O shop workers marched. The hundreds of canmakers, cigar makers, and piano makers were new, as well as the horsecar drivers, a hundred electric light employees, and the window-glass blowers, "strongly organized." The marchers of 1886 were no longer mainly craftsmen, but factory workers. The old-time parades highlighted shop organization—a master tailor surrounded by six journeymen at work, a complete hatshop, two master shoemakers with two journeymen and two apprentices, a master cooper with four journeymen and a

"Einigkeit Macht  
Stark"

boy. But in 1886 the shoemakers, hatters, the cigar makers, piano makers, and can makers were all factory labor. They worked for enterprises that employed five hundred or a thousand people in a single plant. Instead of tinsmiths there were now hundreds of employees of Matthai, Ingram. Instead of independent cabinet makers like Finlay, there were some six hundred furniture makers from steam-powered mills. The box makers carried a huge wood model of a circular saw.<sup>3</sup>

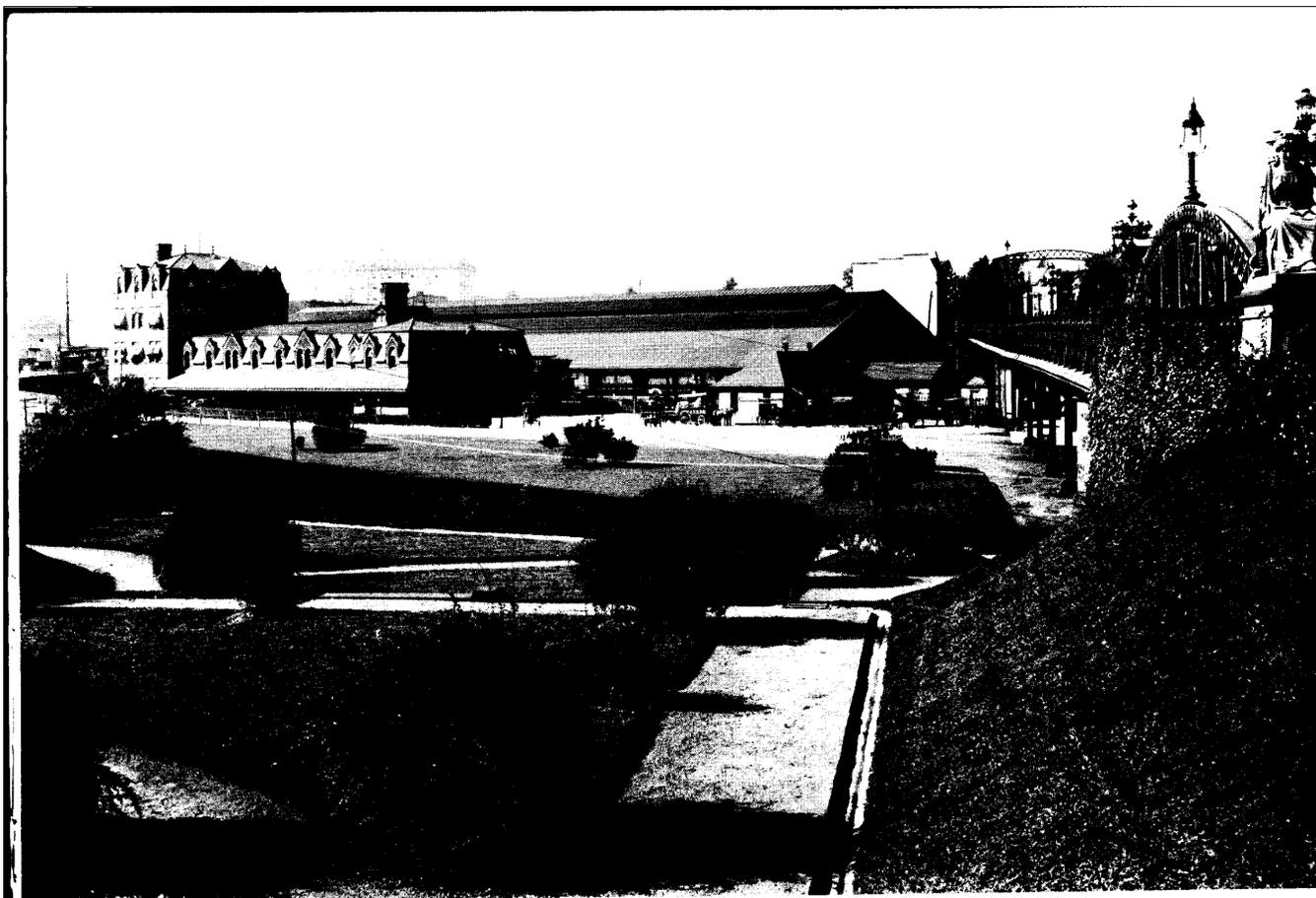
The parades also reveal a new complexity in the division of labor, and changes in the matching of ethnic identities with particular occupational roles and ranks. The B&O shop workers were heavily Irish. The three hundred journeymen butchers were mostly German. They no longer wore their aprons and carried meat cleavers. Instead, they rode in carriages or on coal-black horses, while their black employees carried the meat cleavers in the rearguard. The new labor parades usually had a German division of at least a third of the contingent. They made up the masses of furniture makers, cigar makers, piano makers, brewers, and saloon keepers. A much remarked upon aspect of the parade was the fraternization of the two thousand black and white brickmakers. The blacks were a majority. Their union had branches in Locust Point, Mount Clare, and Canton. Said to be the hardest worked men in any trade, they were heartily cheered.

The parades reveal the trends, but there were other less visible elements in the labor force, yet unorganized, sometimes feared. Many of them were immigrants despised by the last generation of immigrants. A German-American organizer for the Knights of Labor expressed afterward a common sentiment:

I think that we owe a great deal to the class of immigrants that came over to this country—the sturdy Irish and the sturdy Germans—up to 1875 or 1880, after the war. When the lower classes—that is, the scum of society in Europe—commenced to come over here in large hordes. . . . I think that they did not add so materially to the wealth of the country.<sup>4</sup>

On Locust Point the Bohemians pushed coal cars on the wharves and shoveled coal down the chutes into vessels, while Irish, German, and black gangs of coal trimmers worked in the vessels: "Coal trimmers work stripped naked to the waist, covered with coal dust, the sweat pouring off them in the black holds of the vessels, where the hot air is so thick with the dust that the lights of their lamps can scarcely be discerned by the unaccustomed sight."<sup>5</sup>

The adjacent immigrant piers supplied labor recruits and even strike breakers. In 1882 six thousand German miners struck the Consolidated coal mines near Frostburg, to protest wage cuts. John Garrett, interested in the Consol and the B&O loss of coal traffic, shipped German immigrants direct from the Bremen steamships to guarded camps on the Consol mine property. They were known as "the boxcar hunkies." Italians were beginning to arrive, "the scourgings of humanity"<sup>6</sup> recruited on New York piers for construction camps on the Baltimore and Annapolis Short Line, the Catonsville Short Line, and the B&O extension at Principio Creek and the Big Gunpowder. Their wage was \$1.50 a day, but they kicked back twenty-five or fifty cents to the contractor. None of



these men appeared in the labor parades. Neither did the four thousand oyster dredgers, largely blacks and Germans recruited or shanghaied directly off the wharves in New York. Abused, sometimes mutilated, or suffering from painful "oyster hand" from icy water, they were put ashore on isolated necks without pay, sometimes without water. They often ended up in the city hospital at Bay View. In the winter of 1884 a young German crewman was spiked, kicked, and beaten with a rope. The captain planted his heel on his throat, had him hauled up by the armpits, repeatedly ducked him in ice water, then unloaded him at Lower Fairmount, pounded him with an iron bar till he died, and reported him drowned. Two of the terrorized crew reached Baltimore on Christmas Eve and told their story to the German consul. That captain was convicted of murder, but new incidents occurred every winter.<sup>7</sup>

Also invisible were the gangs of black labor shipped out of Baltimore for fifteen-month stints at eight dollars a month to dig guano out of pits and crevices on the barren island of Navassa. They were undernourished and brutalized to a point that caused a rebellion in 1889.<sup>8</sup> One hundred thirty-nine black laborers dug among the coral rocks or loaded rail cars with dirt under eleven white officers, mostly Irish. The men had to walk barefoot along an inch-and-a-half-wide iron rail. "The hot sun made the work very unpleasant to the feet." "Officers were accustomed for any violation of the rules, to trice them up by rope, tied around their wrists, with the arms outstretched above their heads, and to fasten them in that position with their toes only touching the ground." Half the men had just been notified of their debts to the company store. They protested. The protest ended with the white overseers drawing guns and the

Near the Pennsylvania Railroad's "Union Station," the Jones Falls flowed through Victorian gardens. The bridge carried St. Paul Street over the Jones Falls and the tracks. The flower gardens rapidly proved vulnerable to railroad smoke.



Sweatshops such as this one of 1904 offered indictment of the economic system and were targets for social reformers.

laborers throwing stones. "What do you want?" "Stop cursing us, stop working us to death, stop Mr. Roby threatening us at the mines, and give us suitable food." Five of the overseers were killed. The case was tried in Baltimore. An all-white jury condemned three blacks to hang, fifteen others to hard labor. Meanwhile a new crew was shipped, and work conditions continued as before.

The labor parades also understated the presence of women and children in the labor force because they were unorganized. Of sixteen thousand clothing workers in Oldtown and Fells Point, two-thirds were women, working twelve hours a day, "universally underpaid and overworked . . . buried out of sight in the privacy of the working people's homes."<sup>9</sup> The labor commissioner referred in particular to "Polish Jew labor, the most squalid and unprogressive that comes to the state."<sup>10</sup> Also out of sight were six thousand laundresses and twenty thousand other domestic servants, mostly black, mostly women. Although the can makers were prominent in the labor marches, the cannery labor force was not displayed. It was known as family labor—several thousand women and children, sometimes old men. They were largely Bohemian and German, some Polish and Negro and Irish, who shelled the peas and filled the cans in the great sheds at Canton.<sup>11</sup> The only recorded strikes of women workers were fourteen pottery decorators at the Chesapeake Pottery and sixteen chair caning girls. The only ones who marched were a group of sewing girls who called themselves the Unknown Assembly and about twenty in the Frauenbund of the Socialist Labor Party.

The changes in the pecking order at this time were geared to technological changes. The advances of machinery, capital, and productivity meant the replacement of skilled with unskilled workers, men with women, and mature journeymen with teenage boys who formerly would have been apprentices. In one industry after another these changes were taking place, and each swing of the business cycle squeezed one group or another. The female labor force in manufacturing increased fourfold (from an eighth to a quarter of the labor force), while the male labor force merely doubled. The use of the cigar mold, for example, changed the hiring pattern in cigar factories from mostly skilled German men in the mid-'80s to half women, both white and black, in 1900.

Machinery favored the introduction of women into cake and cracker baking, confectionery, and sewing straw hats. Estimates of child labor are unreliable, but all suggest that the numbers increased in this generation. The state agency figured there were several thousand, chiefly the sewing girls ten to fifteen years old, the cannery children with their mothers, a swarm of four hundred glasshouse boys in South Baltimore, and a large number over ten years old in the cotton duck mills. When machines were introduced to make common brick, more young boys were hired.

The fast-growing canning industry illustrates the way in which changes in the several social sectors were geared into the economic growth. "The Shore has become a great garden," and canning seemed Baltimore's vocation among American cities. A machine to make cans was first widely adopted in 1880, but the Can Makers Mutual Protective Association resisted vigorously. It replayed the shoemakers' scenario and moved to the forefront of organized labor. A machine for soldering the can required only one man and a boy, instead of five craftsmen can makers. By 1890 a machine could produce the whole can, and by 1896 the mechanized factories employing mostly young boys and girls outnumbered the handmade can shops. Union membership fell. At the same time, machinery was replacing the unskilled labor in the canning operations. A machine for filling cans was tried out before 1880; it had to be guarded to keep workers from destroying it. A corn-cutting machine was introduced in 1885, a capping machine in 1887, and a label machine. In 1890 the big factories were using pea-hulling machines that displaced hundreds of women and children.

The parades reflected fairly accurately, therefore, differences in the bargaining power of various branches of the labor force. As a result, over the generation, skilled workers such as window glass blowers, by their efforts to "organize, educate, and agitate," were able to increase their wage rates from about \$1.75 to \$3.00 a day, while unskilled labor stayed at \$1.25, with boys and women still lower. In a number of industries—shoes, cigars, furniture—the skilled workers were replaced by machines or by unskilled workers to such an extent that the average wage and the aggregate number of workers in those industries declined. In spite of the greater product of canning and clothing, the number of workers did not increase. And in spite of the higher product per worker, the average worker's pay did not increase.

During 1886 the labor movement mushroomed in a way that amazed everyone. It had, as Professor Richard Ely of Johns Hopkins observed, deeper roots. It was sensed by people in many walks of life as an expression of powerful forces, and was recognized instinctively as a turning point of some kind. But fifteen years later, as J. C. Schonfarber looked back, he simply situated it as one of a series of crises. Referring to the unions, he said, "My experience as a local organizer is that it is like the tide, it has ebbs and flows; all of them do."<sup>12</sup> Schonfarber figured there were in Baltimore at the flood tide of 1886 twenty-four thousand full members of the Knights of Labor. As I shall show, the ebbs and flows, like the interfering solar and lunar cycles in the tides, reflect the complex rhythm of the short-swing business cycle and the long-swing construction cycle.

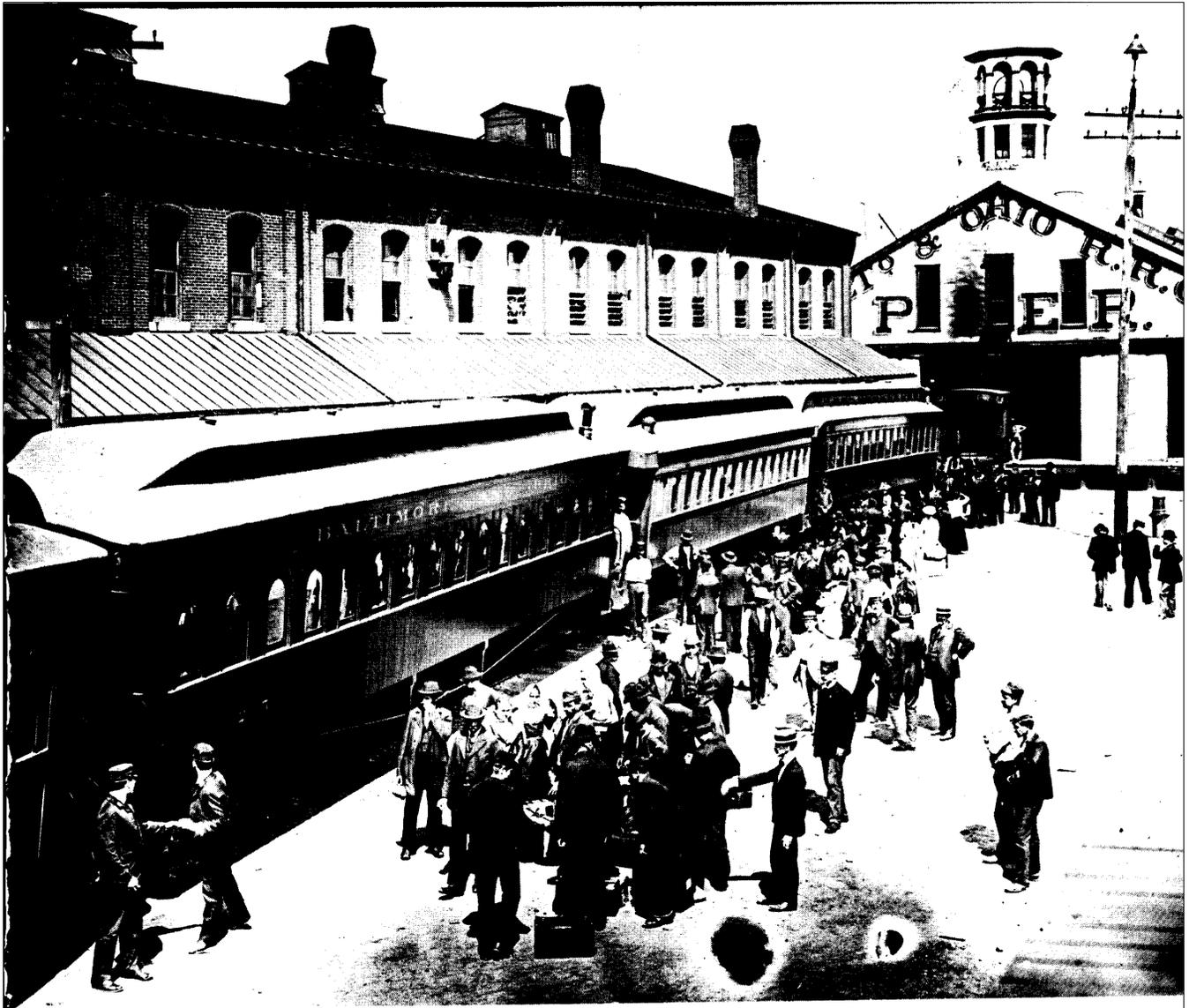
"Organize, Educate,  
and Agitate"



People were the chief cargo shipped from Bremen through the port of Baltimore over the immigrant piers at Locust Point. They were off-loaded onto the B&O Railroad, headed for the prairies.

A groundswell of the Knights of Labor movement began with 450 ship carpenters and caulkers who struck in August 1885 to protest a cut in wages, and with the German coal miners at the Consolidated mines in Frostburg. About the same time, Stieff's piano workers objected to his offhand dismissal of their grievance committee. They waited from August to December, then struck. "Very well," said Mr. Stieff, "boycott. I'll have to experience it." In March he had the police arrest strikers who were intercepting his scab workmen at the factory near Camden Station. With sixteen men, under police protection, he continued to sell and deliver pianos, although the strikers accompanied the piano wagons with their circulars.<sup>13</sup>

In February, the twenty-five or thirty brickmaking bosses were invited to a meeting and were "well received by their men," who wanted higher wages at uniform rates. The two groups appointed committees and scheduled negotiations "in the best of feeling." But in March, as the countryside leafed out, a spring fever of participation set in. Baltimore still loved a meeting—flights of oratory,



earthy common sense, intimate caucus, quarrelsome palaver, and delegations to Annapolis. The construction season looked promising, and the building crafts spearheaded the eight-hour movement. Many employers were willing to contemplate an eight- or nine-hour day, but at a corresponding reduction of wages. Thus, the hours issue cannot be distinguished from the wage issue. Much of the wage pressure was an attempt to restore the wage cuts of the hard years of 1884-85. "All we want is justice and our old wages," read the signs in the parades. The Central Committee of United German Working Men visited the tobacco factories to find out how the bosses felt about the eight-hour day at present wages. They were cordially received by Gail and Ax. The employers said they were glad to see the union, and they, too, opposed child labor, but competition had forced them to it. They would cooperate on lobbying for a child labor law. A crisis of competition was felt from the point of view of employers and consumers, as well as workers. It was expressed in unreliable product quality and false measures, as well as layoffs, piece rates, and working hours.

The hours movement tended to spill over beyond the manufacturing sector. The ice drivers determined to deliver enough ice on Saturday to last over Sunday, and the barbers resolved not to work on Sunday. The oyster shuckers lobbied in Annapolis for a standard measure, and the saloon keepers wanted a standard beer glass. Five hundred retail clothing salesmen met to discuss early closing for stores (6 p.m.), and the tea and provision dealers joined them. "Many employers are in favor."

The issue that mobilized public opinion and won the sympathy of the newspapers and the archbishop was the cause of the horsecar drivers, who were on duty seventeen or eighteen hours. Like Philadelphia and New York drivers, Baltimore's "Midnight Assembly" demanded \$2 and twelve hours. A twelve-hour law was passed at Annapolis, but in some companies the drivers were locked out by the employers, who claimed they could not redesign their systems overnight to operate on any other shift basis. The lockouts and layoffs meant the men were working for sixty-six cents a day. A baseball game between the union men of two lines raised \$700 for the strikers. Even the schoolboys near Light and Poultny streets got the fever, held a secret mass meeting, and nailed up the gates of several schools.

All the unions endorsed an eight-hour rule to go into effect on 2 May. They held a torchlight parade to announce their solidarity. The can makers sponsored a May Day holiday, parade, and picnic at the Schuetzen park. "The weather was fair. The police arrangements were perfect." But their hard-won solidarities were drenched by the front page news of 5 May: "Night of terror in Chicago." Foreign anarchists were blamed for the Haymarket explosions, and public outrage was fanned nationwide by the trial. The labor movement began to ebb; in Baltimore within a few days the carpenters had begun to settle for nine hours instead of eight. The builders were making no new contracts; some recognized the union and some locked the men out. The ship carpenters settled their twenty-month strike, and in the end did not get their old wages. The concrete gains had been limited, yet the agitation had polarized the city and marked each individual.

Certain pathological events indicate the social nightmares of 1886. The imaginings of the insane, as in 1831, mirrored a social reality. During the horsecar strike, a young and esteemed German box maker committed suicide, expressing fears, altogether groundless, that he would be thrown out of the Boxmakers Assembly of the Knights. He slashed his neck with a razor in front of his two-year-old child.<sup>14</sup> The newspapers reflected also a public imagination hungry for the exotic in religion and race. On the day of the Haymarket explosions, the *American* reported in melodramatic terms the taking of the veil at the Convent of the Visitation by Miss Edgar, "who is young, wealthy, and beautiful." She sang, they reported, from under the burial pall with a wonderfully touching effect, then appeared in wedding dress, and as the nuns with lighted candles chanted "weird and jubilant strains," she passed out of sight into the cloistered life.<sup>15</sup> Most bizarre was the fascination with the Chinese. There were between 150 and 300 Chinese in Baltimore. Half were Masons, nearly all men, operators of laundries, who had the "unAmerican habit of living within their means." They

represented no significant competition in the labor force, even for the six thousand black laundresses, yet a preoccupation by black unions and white newspapers suggests that a "yellow peril" appealed to deep anxieties and racist imaginations. When Wong Chee, a young respected Chinese laundryman, died of tuberculosis, a crowd of eight thousand followed the hearse and the twenty-two carriages of Chinese mourners. The crowd climbed trees, jeered, and threw eggs and mud. The newspapers passed quickly over this embarrassment, but recounted every detail of the "heathen funeral in a Christian land"; how the face was washed with rice paper wetted with whiskey and five coins were put in his mouth, how his countrymen produced "music of doleful and unmelodious character," and how they burned all of Wong Chee's belongings on his grave. "After the fire was burning, nearly every one in the group lighted a cigar or cigarette and began to smoke."<sup>16</sup> Several weeks later the police raided an alleged opium den at Calvert and Saratoga streets and marched the company to the station house. "Their complexions were of a pale and yellow hue."<sup>17</sup> A month later "distinguished residents" of Harlem Square, including the proprietors of two newspapers, demanded the eviction of Tong Sing's Chinese laundry from a back building of the handsome row known as Latrobe Place.<sup>18</sup>

The labor movement in Baltimore forced the development of the social thought of men of national stature, Richard Ely and Cardinal Gibbons. Ely, who had studied in Germany and come to teach at the young Johns Hopkins graduate school, had been an enthusiast of the Knights in their aim to promote all of the labor force. Ely in 1886 published an account of the great national labor movement; he perceived it as part of the process of urbanization, and Baltimore events marked every strain of thought and every stage of the struggle toward a national movement. The ten-hour day, he reminded us, originated in the shipyards of Baltimore in the 1830s.<sup>19</sup> In 1850 the Baltimore Turnverein was the first large group in the nation to espouse socialist principles: "Organized labor is labor in its normal condition. Association is so natural to man, and its benefits so great, that it is ever sought, and, indeed, more and more sought with the progress of civilization. Isolation is weakness, but union is strength."<sup>20</sup> Ely rejected anarchism and radical socialism; he also rejected as un-American the paternalism of Pullman, Illinois. He explored the Rochdale community and argued strongly for cooperative enterprise. His most telling examples of cooperation were also Baltimore experiences: the women's cooperative shirt factory, the blacks' cooperative shipyard, and the cooperative commission house of the Maryland Grange, "a brilliant success" grossing half a million dollars a year. "Yet the ground is strewn with the fragments of wreckage." Deeply disappointed in the ebb of the labor movement, Ely directed his attention toward the analysis of wealth and the political privileges that preserved wealth and constrained labor. The relation between wealth and political privilege was visible and personal in Baltimore, and Ely found a key to the relation between those different social landscapes that baffled the *Chronicle* reporter. Pigtown, Locust Point, and Mount Clare were B&O fiefdoms. Directly and through the B&O, John Garrett owned the coal lands in western Maryland and West Virginia. He bought townhouses on Mount Vernon Place for himself and his heirs, where it was "always

Mechanical toys enticed passers-by in the Christmas season of 1897, as hucksters, street hawkers, and vendors vied for street space.



afternoon." He died leaving \$5.6 million, the largest estate in his generation (1884). The ownership of all these properties structured the relation of Garrett to the inhabitants of those landscapes.

Meanwhile, the archbishop was in a more influential position, in fact, caught in the middle. The week of the Haymarket crisis, in a letter to the archbishop of Cincinnati, the archbishop of Baltimore described his own personal style and what might be called his Baltimore strategy: "A masterly inactivity and a vigilant eye on their proceedings is perhaps the best thing to be done in the present juncture."<sup>21</sup> The expression, "a vigilant masterly inactivity" was a phrase he had used before with respect to secret societies and labor organizations. James Gibbons believed the Knights should be rebuked for their persecution of nonunion men and their custom of boycotting. "But we should be careful not to be too hard on them, otherwise they would suspect us of siding with the moneyed corporations & employers. . . . Labor has rights as well as capital. We should not condemn labor and let capital go free."<sup>22</sup> As the archbishop of Quebec had just persuaded the Holy See to outlaw the Knights of Labor in Quebec, the archbishop of Baltimore was determined to do all he could to prevent a similar turn of events in the United States. On 28 October in his Charles Street residence the archbishop met with Terence Powderly, the national leader of the knights, and then drafted his position for Rome. He would regard condemnation of the knights as disastrous to the church: "We have a controlling influence over them; if they are condemned, a secret organization will follow in their wake, and over that we will have no control."<sup>23</sup> This position, effectively lobbied in Rome, identified the archbishop with the Catholic social movement in Europe. Gibbons perceived the connection between the Holy Name societies with their parish banners and the German Workers Central Committee. Not only did he know Powderly, but he knew the Baltimore knights—their generosity, their reasonableness, and their dependability. It was the German workers who were

most affected by mechanization and the demotion of craft into factory labor. Thanks to the church they also possessed instruments of solidarity, through their massive participation in the Catholic men's societies, the German parish beneficial societies, and the new building and loan associations. Beyond the parish there were the workers' choral groups, a reactivated Turnverein, and gymnastic societies. Their awareness of the social insurance legislation of Bismarck and European working-class political movements provided them with a common set of ideas for unions.

Born in Ireland, James Gibbons is more often remembered for his concern for the new immigrant nationalities. In 1880 he had created an Italian parish, St. Leo's. He was building a larger church for the Bohemian parish of St. Wenceslas. He dedicated three new Polish churches in East Baltimore: Sacred Heart, St. Stanislas Kostka, and Holy Rosary. But it was the German experience in Baltimore that stamped his views of American society. As he watched the rapid expansion of Redemptorist churches (St. Michael's, St. Alphonsus, St. James, and Holy Cross), he saw their German parish schools become Americanized. Both his social concern and his intense patriotism were part of the loyalty and development of East and South Baltimore.

The swell and ebb of union activity, its popular emotion, its action in the streets, were followed by an equally sudden physical transformation of the city in 1893. A belt of twenty-three square miles on the north and west of the city was annexed in 1888, and cable railway companies were incorporated. These events jointly provoked a wave of speculation and a sharp increase in the sales of real estate, which bore fruit in 1893. The horse railways were rapidly shifted to electric rapid transit. Housing was developed in the belt and the new suburbs beyond it. There was a reshuffling of elements in the population, and at the center a recrystallization of the downtown area for the greater metropolis.

The reconstruction in 1877 of the fire alarm telegraph with its 169 miles of wire running over the housetops to city hall was a preview of electrification—its centralizing property and its extension of tentacles. The same year an experimental telephone "concert" was presented at Masonic Temple. Despite interference from rain, the audience heard sung "Sweet Bye and Bye" and a cornet rendition of "Old Folks at Home" from New York and Philadelphia. Baltimore's first telephones allowed the mayor and two coal dealers to talk to their offices, the police chief to call the station house, and Mr. Booz to call his shipyard on Thames Street. The *Sun* installed a phone and was the first business house lighted by electricity. The first electric arc street lamps were installed. Within five years of these pilot operations, the modern structure was in place. The phone company and Brush Electric were organized, messenger boys were supplanted by women operators, and national technological monopolies were assured. AT&T, by controlling the patents and long distance lines, began taking a tribute from local telephone companies that enabled it to pay 15 to 18 percent annual dividends for the rest of the century.

Overhead wiring immediately created serious problems for firefighters. In the sleet storm of 20 December 1884, telephone wires fell across the fire alarm

## The Electrification of Baltimore

telegraph wires and shorted out alarm boxes. The B&O telegraph line to Bay View Station interfered with the fire department phone line to the Bay View asylum. On 30 April 1886, a business block at the corner of Howard and Baltimore streets became a "colossal furnace." Awnings were consumed. Barrels of china on sidewalks in the next block cracked to pieces. Firefighters threw out smoldering rolls of carpet, which fell across telegraph and electric light wires and burst into flame. Brush Electric had the current cut, then cut all the wires to relieve firefighters of danger.<sup>24</sup>

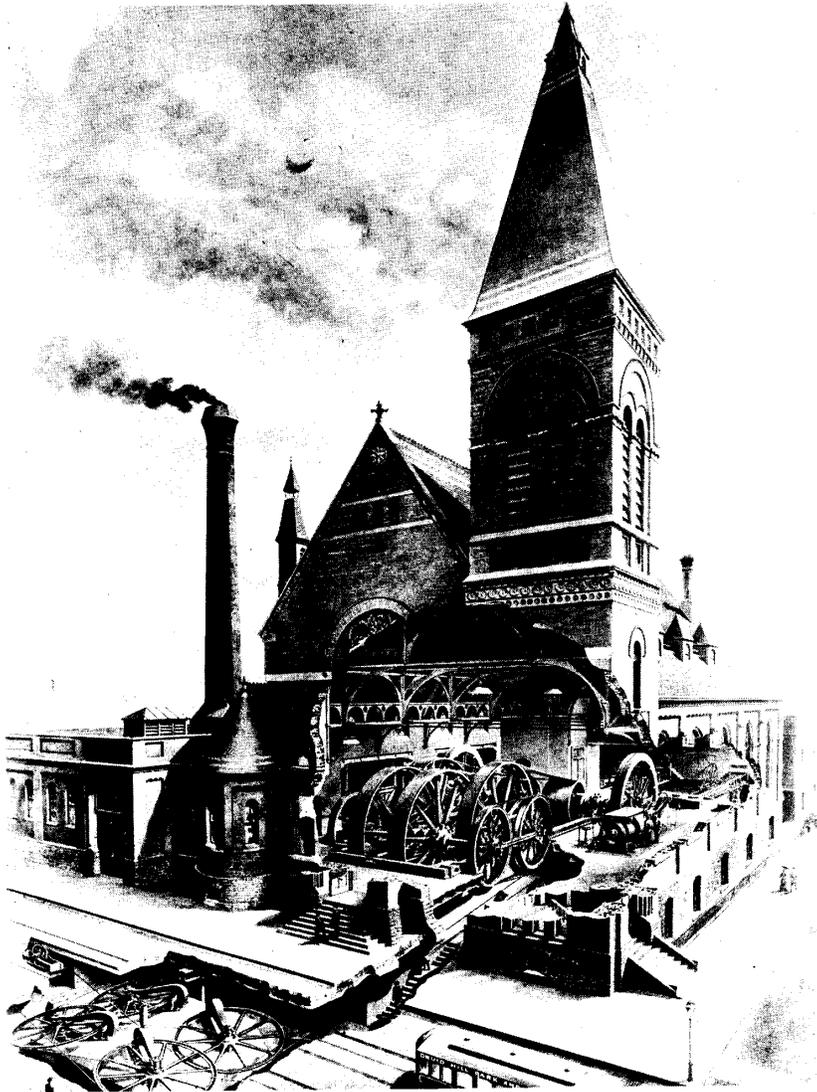
In rapid transit, Baltimore was at once first and last. Leo Daft's experiment on the Baltimore & Hampden, between 1885 and 1889, is considered the first successful electric railway operation in the country. He used a third rail and operated on grades up to 6.5 percent. The B&O was the first steam railroad to operate an electric locomotive. (This simplified ventilation problems in the mile-long Howard Street tunnel.) But before Baltimore entrepreneurs finally adopted electric streetcars and overhead wires, they first plunged into cable railway technology. In 1893, Baltimore was among the last cities in the country to bring into operation new cable lines, which within three or four years had to be converted to electric overheads.<sup>25</sup>

Either system, cable or overhead, required sizable new capital and intensification of operations. Therefore, electrification involved financial consolidation of companies and fostered the entry of Philadelphia and New York capital. Mergers and acquisitions were as devious, as intensely political, and as much talked about as the original horsecar franchises before the Civil War. But they involved much larger sums of money. The investment in electrification amounted to \$15 million (1889-95).

The new Baltimore Traction Company was capitalized at \$5 million, from mergers of Citizens and Peoples, under the presidency of James McLane. It began operating cable systems along Gilmor Street and Druid Hill Avenue on 25 May 1891, and took in nickels faster than anyone could count them. The cars were heavy—seventeen thousand pounds—and the company had to lay heavier rail, more like steam railroad, modify the grades, rebuild gutters and sewers—indeed, virtually rebuild the streets. Its two hundred cars were built in Philadelphia.

McLane was also involved in the Lake Roland Elevated, which built the North Avenue railway and the Guilford Avenue elevated between Lexington and Chase. Their "ride in the sky" was devised to avoid the stretch where the Northern Central tracks ran at grade in Guilford Avenue. The technology of steel was essential for the viaducts, built by the Pennsylvania Steel Company, parent company of the new Maryland Steel works at Sparrows Point. Lake Roland Elevated eventually merged with City and Suburban Railway (made up of the older Union Passenger or Perin lines) and was involved in the York Road turnpike company. It had a Gilmor Street route and overhead electrics on York Road. It added lines in Wilkens Avenue, Maryland Avenue, and Eastern Avenue to Highlandtown.

Bowie's line, City Passenger, built a cable system. Its blue, red, and white lines all opened in 1893. Rope speeds were calculated at six, eight, and eleven miles per hours in various parts of the system depending on grades and traffic,



This architectural rendering shows in cutaway the proposed power plant for the Gilmore Street cable car.

which cut running times over horsecars by half. The *Sun* recounted "baby's evening ride": "The cars whirl past and create a fine breeze, which seems to put new life into little forms drooping under summer's heat. They want to see the wheels go round."<sup>26</sup> At the end of the summer there were thirty-three miles of cable lines and eighty miles of overhead electrics. "The horse-cars looked lonely and deserted." Unable to compete, they were rapidly converted to overhead electrics, and the cable cars were in turn converted in 1895 and 1896.

Electricity created new environmental hazards, to which people were not accustomed. In the first year the *Sun* recorded forty transit fatalities. While coal oil and gasoline accidents had been significantly reduced by inspection acts, electrical accidents appeared.<sup>27</sup>

William Brown, colored, was accidentally killed at Brush Electric when he stepped on a live wire with his heel, at the same time touching an iron water pipe.

George Gamble, colored, was killed at Fayette and Green, by a "dead" electric wire which had crossed a live one.

New applications of electricity were nevertheless all the rage: "A patient at City Hospital before an audience of 400 students swallowed an electric light bulb . . . floating in water, to light up the stomach wall, for diagnosis."<sup>28</sup> William Keyser built the Electric Refining Company at Canton in conjunction with his copper rolling mill. By importing copper from Cuba, then from Anaconda, purifying it of gold and silver, and selling a high-quality product to Europe, Keyser made himself a millionaire.<sup>29</sup> The operation was predicated on the demand for copper electric wire, as well as the technology of electrolysis.

The stringing of wires continued to transform the town. By 1893 the phone company had four thousand phones, by 1899 seven thousand. There were 1338 arc street lamps. The streets were lined with plantations of nineteen thousand electric poles. The fire commissioners complained bitterly about "the network of all kinds of wires which festoon the streets, electric, telegraph, trolley and telephone." Engelhardt described the city as "a dull red maze of roofs and towers, domes, pinnacles and steeples, flagstuffs, fire walls, chimney pots; and all, Gulliver-like, bound down in meshes of electric wires."<sup>30</sup>

#### The City Expands

**B**altimore's expansion was channeled by the combination of electric transit with annexation. One can distinguish three rings of growth. I shall deal first with the more distant suburban ventures developed on the car lines. Then I shall discuss the belt or annex, often referred to as "outside property," where dramatic growth took place from the year of annexation, 1888. Last, I shall focus on the "inside property," inside the old city limits: how was it affected by the annexation? I shall show that changes in the three zones were related.

#### The Suburbs

**S**uburban communities were small. The largest concentrations were still the mill villages along the falls, such as Woodberry. But the modest suburbs of this generation were models for a new way of life for a hundred years to come. They were of two principal types, the commuter village and the industrial suburb. One was associated with the piedmont, the other with tidewater.

On the rolling hills of the piedmont north and west of the city were created comfortable middle-class suburbs of single-family homes, frame or brick. Electric or steam railways permitted conversion of communities of summer homes into year-round commuter villages. By the mid-'80s Mount Washington had a population of two thousand; Catonsville was slightly larger. Electric rapid transit enabled others to develop in the '90s. Engelhardt described Roland Park, Walbrook, and West Arlington as "large and stylish." Sudbrook, on the Western Maryland Railroad, was small and stylish. They were invented hand in hand with rapid transit schemes, and entrepreneurs hoped to profit from both land sales and the farebox. But a village with full services was an expensive proposition, designed for an upper middle class. All development costs—water supply, street building and lighting—had to be planned and financed by the development company. The difference between profit and loss depended on the rapidity with which lots could be sold off to home owners. West Arlington, for example, was "a model suburban town" accessible by Western Maryland Railroad and the Edmondson Avenue electric cars. Its 257 acres were to be sold on the installment



The *Lord Baltimore*, developed as a promotional symbol of corporate boosterism, was one of the plushiest streetcars. As shown in this photograph, it was pressed into regular service after the 1904 fire.

plan. The houses were individually designed and built, with streets laid out in curves. Lurman commented in 1892 that wide straight streets were "a blot on the landscape."

Roland Park was Baltimore's important suburban model for the future. Financed by English capital (the Lands Trust Company), the Roland Park Company was incorporated in 1891 and assembled some hundreds of acres by buying Woodlawn, Oakland, and other large estates. The panic of 1893 bankrupted the Kansas City management firm, but did not interrupt development. The local manager, Edward Bouton, involved the firm in the financing and construction of the North Avenue electric and the Lake Roland Elevated, and sold its bonds to Baltimore investors, notably McLane, Bartlett, Semmes, and Carey. Bouton offered free transit tokens and went into building houses, priced at \$2600 to \$3000, in order to hasten the sale of lots. Harry G. Schalck claims the company was never a great financial success, but Bouton had both a grand vision, "to catch the whole of the better class suburban development of the city" by gradual land acquisition and an incredible attention to detail that has made Roland Park to this day a suburban ideal.<sup>31</sup> The first portion was designed by George Kessler, with curving streets following the contours of the land. In 1897 Bouton brought in the Olmsted sons as planning consultants, and thus involved them in the whole planning of the Baltimore region, leaving a profound mark on the city of Baltimore (see chapter 10). Bouton touched base continually with his consultants, his Kansas City bosses, his residents, neighbors, and local bond holders, even on such details as the form of gutters, the street names, and the oiling of the roads. His relatively modest advertising, discreet landscaping, house exteriors that fit into the landscape, and the new golf club and country club, were consistent with the creation of a whole new style of living for the elite—a low public profile, exclusive, and secluded.

On the low-lying coastal plain south and east were laid out industrial suburbs such as Brooklyn and Sparrows Point. Their populations were self-contained, but they required efficient transport of industrial materials. Here, too, town building was undertaken by a corporation, with no investments or services from the county. The corporation created joint values and profited from them in various ways, on the model of the Canton Company. They were conceived in relation to steam railways to insure the industrial metabolism, but promptly added electrics to connect them with downtown Baltimore.

The city bought the rights to the privately owned Light Street bridge (1878), eliminated the tolls, and rebuilt it. It was nearly a mile long, on wood piling, with a steam draw. This caused a rapid increase of population and business on the county as well as the city side of the river. It set the stage for the first important expansion of Baltimore capital and enterprise into Anne Arundel County. The South Baltimore Harbor and Improving Company bought the old Patapsco Company lands at Brooklyn, which had about five hundred residents (1882), and the B&O built its Curtis Bay branch. The same capitalists involved in the Improving Company and the B&O created the South Baltimore Car Works to build cars for the B&O. Chappell's fertilizer company abandoned its Hughes Street plant after a fire and built the nation's most modern fertilizer factory (later Davison Chemical) near Hawkins Point. The electric cars ran to Brooklyn in 1892. Construction of the Baltimore and Annapolis Short Line and a scheme for the Drum Point Railroad allowed another group of investors to acquire three thousand acres and lay out Glen Burnie.

Sparrows Point was the most swiftly developed and complete example of a new-type company town.<sup>32</sup> This time the object was not to sell or develop real estate but to make iron. The eleven-hundred-acre site was fourteen miles out of Baltimore and originally accessible only by boat, but it was ideal, since the Pennsylvania Steel Company, incorporated here as the subsidiary Maryland Steel Company, wanted tidewater shipment of ore from its Cuban iron mines. The company planned to send the pig iron up to the parent works near Harrisburg. It first built a causeway and a settlement of fifteen hundred employees. By 1892 it had a \$10 million investment: four blast furnaces with a capacity of three hundred tons a day, rail and bloom mills, and a coke plant and shipyard, with fourteen miles of internal railroads.

The layout of the residential districts of Sparrows Point reveals the company's conception of the relation of the various classes of workers. It described the labor force as one-third black, one-third recent immigrants, and one-third "of a mixed character." A residential village was designed with streets 60 and 70 feet wide, lots 125 feet deep, and "neat frame and brick structures." The village was equipped with underground sewers, sidewalks, electric lights, and piped water from deep wells. By 1904, eight hundred houses had been built. Trees and hedges were planted. For the supervisory employees, office and technical staff, and school teachers, there were two dozen "commodious" detached frame houses on lots 28 feet wide. Such houses had seven rooms, bath, furnace, and cellar, and were plastered inside. The construction cost ran \$2500 to \$3100 each, comparable to the first group of Roland Park homes. For skilled workers there were three hundred "comfortable cottages" of duplex type, also on 28-foot lots, and several hundred row houses, 14 feet wide, of brick (\$1350) or frame (\$1100). They had six rooms, stove heat, and cold water. A village of similar homes for black workers was separated by an 800-foot bridge across Humphrey's Creek.

But this was not the whole labor force. Half the workers in the plant commuted from Canton by electric car or steam railway, and about two thousand of the unmarried, unskilled immigrant and Negro labor lived in the barracks.

One group of barracks was in back of the Negro section of the town, inside a high barbed-wire fence with a guarded gate. The other set of barracks was inside the yards, entirely surrounded by the iron works. These sections had dirt streets. The barracks were built of rough pine boards roofed with tarpaper in rows of ten one-room shanties. Each room was ten feet by fourteen feet and had two double bunks, arranged so a man of ordinary size could "crawl in." The shanties cost fifty dollars each to put up, and when fully occupied by four men, their rent paid for the shanty about three times over in the year. The men provided their own mattress, stove, and fuel, and brought their water from outside hydrants. After 1904 a shower house and cookhouse were supplied to the barracks.

Overall, the town was not a profitable operation. It was run on a break-even policy whose object, as expressed by the company in 1891, was to insure a settled labor force, whose wage averaged \$1.75 a day. Pullman, Illinois, was a model of the general strategy of creating a total environment consistent with company goals. Sparrows Point had a free kindergarten, a clubhouse, and a manual training school. Sites were offered for churches and a savings bank. The only store was the company store, cash only. "If a man wants a glass of beer, he must go to Baltimore to get it." The company collected the garbage, provided fire and police protection, plants from their hothouses, and prizes for family gardens. It prohibited the keeping of animals. "We own everything. The men have better homes, better comforts, greater happiness."

A third type of suburban site consisted of recreational environments, the "parks" and "shores" to which electric transit brought a great flux of city people on summer evenings, Sundays, and holidays. The private amusement parks were created at the ends of the car lines. The North Avenue railway was extended beyond Walbrook to Ridgewood amusement park, near Mount Holly Casino. City and Suburban Railway developed Riverview Park beyond Canton. Baltimore Traction organized Shore Line Park and a special rail line from Westport.<sup>33</sup> The Baltimore & Curtis Bay electric line extended from Brooklyn to Jack Flood's Curtis Creek resort. The Lake Roland Elevated terminated at its own Lakeside Park, fourteen acres of wooded ground with pavilion and merry-go-round, seven miles or thirty-five minutes from city hall. The whirlwind ride added to the attractions, and the nickel fare allowed the development of new recreation habits. Families joined gay but anonymous people-watching masses, and no longer depended on organized picnics and festivals of close-knit groups. Courting habits changed with the new range of cheaper entertainment for young adults.

The electrics and commuter railways made the camp meetings a yet more popular activity. The summer of 1893 was a high-water mark of combined fervor and sociability. All the nuances of class, identity, and life style in Baltimore were expressed in the tent geography. Emory Grove, twenty miles out on the Western Maryland Railroad, used by the Methodist Episcopal churches, was said to be the largest and most prestigious. The *Sun* published its annual list of "tent holders." At Wesley Grove (Dorsey's Station), fourteen miles out on the B&O, the Southern Methodists had 130 tents and a hotel. Their central



Worker housing provided a bed and blanket but few other conveniences.

tabernacle held fifteen hundred. "A straw floor makes kneeling easier for the worshiper." The *Sun* reporter described the "cozy interior" of a tent assigned to six young ladies:

At the entrance are lounging chairs, circular Japanese mats and hassocks, with birds and flowers hanging outside. Further inside are parlor tables, upon which are Bibles, hymnals, the *SUN*, and magazines. Pinned around the white canvas walls or fastened to the fall in the center of the tent are autumn leaves and ferns, Japanese fans, silken tidies, artistic groups of cattails, and colored Japanese lanterns.<sup>34</sup>

At Summit, a thousand resided in the tents and thousands more came out daily by special train. In addition to prayer meetings, the young men and maidens played tennis and strolled in the woods. "Baseball was played," and families spread the "snowy cloth." Washington Grove, twelve hundred acres on the B&O, had "more pretentious habitations." One had to be a stockholder in the association to buy one of the comfortable summer cottages. At Wildwood Park near Mount Airy, an eleven-day Methodist Protestant camp meeting was thronged with six or seven thousand people and declared "a religious and financial success." The annual convention of the prohibition and cold water party was held at its own circular tabernacle at Glyndon. The black community held camp meetings at Asbury Grove on the Western Maryland Railroad and Greenwood Park near Catonsville. The Colored Union met at Calverton Grove. At Hurley's Grove the Allen African M.E. Church and Carroll circuit laid out twenty-four tents in the form of a horseshoe, and more people arrived by the Wilkens Avenue electric. "The singing was spirited. Within the meeting-tent the flickering lights at night made grotesque shadows of the swaying bodies and nodding heads of the penitents or worshipers."<sup>35</sup> The *Sun*, always ready to amuse at the expense of the colored community, reported the preacher's text, "Arise, Peter, kill and eat," along with the consumption of chickens, watermelons, and ice cream. For Baltimore in 1893, the eating, drinking, making merry, and repenting were all electrified and suburbanized. An innovation was the trolley party. The employees

of City Passenger Railway made it a tradition. With their wives, sisters, and sweethearts, eight hundred strong, they rode over the city, with a brass band in the first car. All the cars blazed with electric lights concealed under flags and bunting, "an immense fiery serpent creeping up the track."<sup>36</sup>

The annexation urged for ten years was accomplished in 1888. A referendum was held by districts, and the east border of the city—Highlandtown and Canton—refused, but a broad band was added on the north and west. The twenty-three squares miles nearly tripled the area of the city and added only 8 percent (forty thousand) to its population. By the turn of the century the annex population rose to sixty thousand, or one-eighth of the city total.

Annexation "boomed" land in the annex. The year after annexation the number of real estate transactions doubled. The massive transfer of property was a sign of the scramble to capture the sudden increase of land values. It provided commissions for more middlemen, with legal, financial, and sales skills and inside information. The new Real Estate Exchange had a hundred members who met daily. Naturally, they interested themselves in portfolios well balanced among the three zones of property. One of the largest, Graham and Co., dealt in ground rents and mortgages, in the sale and subdivision of large estates; they developed several tracts themselves, and managed the suburb of Mount Washington. Smith & Schwarz developed fashionable rows on North Calvert and West Baltimore streets; that was "outside property." Twenty-eight acres in East Baltimore and an expensive row on Mount Royal Avenue were its "inside property." In the suburbs it acquired Venture Gwynn Oak, 486 acres, formed the Walbrook, Gwynn Oak, and Powhatan electric railway, and assigned 25 acres to the Gwynn Oak amusement park.<sup>37</sup>

Public streets and public parks defined the locus of housing development. In the northwest, terraces were built on Auchentoroly, and the Mount Royal area was rapidly built up near Druid Hill Park. Development of the northwest was described as "superinduced" by construction of the North Avenue electric to Walbrook and the extension of Fulton Avenue northward into the annex. To connect Druid Hill Park with annex property to the east, the Cedar Avenue bridge was built, as designed by C. H. Latrobe, and developers instantly put up a hundred houses. On the southwest the city purchased the old Schuetzen Park, redeveloped it as Carroll Park, and renovated the Mount Clare mansion. To eliminate grade crossings in the approaches to Carroll Park, it built the Russell Street bridge and the Monroe Street bridge over the B&O. Again private construction followed immediately. On the northeast, the city bought Clifton Park, Johns Hopkins's estate, from the university, and the university acquired Homewood. On the southeast, Patterson Park was extended. The four parks in the four corners of the city were embellished in this period thanks to the park tax on the transit nickels. Thanks also to electric transit, they were intensely used.

Annexation was a critical political event. In the several waves of growth between 1816 and 1888, as the city gradually filled its large territory, the redistribution of property values seemed a simple matter. The line of direct taxation was moved outward every few years: people inside the line received more city

## The Annex

services, chiefly fire and police protection, and paid a higher property tax rate. City water was paid from water rents on connected houses, and pumps and repaving were assessed on the fronting owners. But the annexation of 1888 posed the explicit problem of the role of public investments in creating wealth. Public services had become capital-intensive and highly visible. The questions had to be faced: who would benefit from the land values created? Who would pay the interest and sinking funds? How would older parts of the city be affected?

Under the Maryland constitution, annexation had to be negotiated, and in order to annex, the city had to sell out its tax privilege. It agreed to a twenty-two-year grace period on raising taxes in the annex. In other words, the county rate of 1887 was to apply until 1910 in the annex. No reassessment of land value was made in city or county for twenty years (1876 to 1896), so that the city tax basis did not change much. These two political "nonevents" generated an ever wider gap between tax rates in city and annex—sixty cents on \$100 of property in the annex, \$2.25 in the old city. Taxes collected in the annex were earmarked for improvements in the annex only. The annex taxpayer couldn't lose. In fact, spending in the annex often reached as high as twice the level of annex tax receipts, without counting water board investments.<sup>38</sup>

Indeed, the annex needed everything. Many of its wells were polluted, and there was no adequate water supply for putting out fires. The county volunteer fire departments were ineffectual, and city fire fighters had long complained of the "good neighbor runs" they made out of town because of wear and tear on their horses and steam engines: they had to race uphill over rutted roads and draw silty water from farm ponds. Baltimore inherited nine country schoolhouses and seven firehouses, plus certain bridges, culverts, and roads "most unsafe, all in need of repair," and built to low standards. It had actually paid \$100,000 compensation to the county for this endowment. Improvements were urgent. The school budget illustrates the importance of the shift toward a more capital-intensive city-building process. By 1897 the school commission was spending 14 percent of its operating budget in the annex, in proportion to its pupil population, but half of its capital budget. It built eleven schools in the annex. Walbrook got a firehouse and a schoolhouse. The neighborhood between North Charles Street and Greenmount Avenue got a new storm sewer. The city built the Guilford high-service reservoir, so that the Gunpowder water supply could be distributed to higher elevations in the annex.

Included in the special tax regime was a privilege for the street railways: in the annex they were not subject to the park tax. They were even allowed to calculate their ratio of tax relief on the basis of mileage in annex or city, rather than their farebox receipts or passenger volume. Not only did this deprive the park board, but it skewed corporate balance sheets, making extension of the electrics into the suburbs seem profitable. It favored building up the annex rapidly, and offered a hidden subsidy to the rise of annex land values. In other words, the growth process had a feedback, insuring a stream of benefits from the public to the private sector and from overtaxed residents of the old city to undertaxed residents of the annex.

Tax structure also fostered a tendency to invest in buildings rather than

manufactures. Ground rents and municipal bonds were privileged, untaxed investments. Baltimore was not keeping pace with the industrial growth of other big cities of the nation, especially in its ability to attract manufacturing capital. To counter this, the city government began chasing its own tail: it removed municipal taxes from manufacturing inventory and machinery, and lowered industrial water rates. This threw a yet greater burden on the older districts, which paid the full city property tax. An important but hard-to-measure effect of annexation was the diversion of public investment from the old city. The fire department was nervous because no new fire stations were built in the inner city in this era. Private construction in the city peaked in 1885 to 1887, and the municipal investment that should have followed was diverted into the annex of 1888.

The generous favors to certain classes of land holders stimulated development, and the high rate of investment in house construction had certain economic and social advantages. Forty thousand houses were built in this generation. The total number of houses in the city nearly doubled. Tax benefits favored a wave of building in the annex in 1898 and 1899, and Baltimore suffered less of a drop in construction than other cities in the '90s; at the end of the century it had the most favorable housing supply conditions of any large city in the country. The number of persons per house fell to 6.5, the lowest of the large cities. Baltimore had no multistory tenements such as were built in New York and Chicago in the 1880s. It had a higher percentage of home ownership and a lower average rent than other cities. The housing advantages benefited a much larger "middle class" than formerly, including most skilled and steady labor. More than two-thirds of new construction consisted of two-story row houses, twelve or thirteen feet wide, "respectable working class homes," whereas in the last generation less than half were of this type. House building employed a large force, most of whom could afford this type of housing for themselves. There were at least 1900 carpenters, 2500 bricklayers, and 850 stonecutters, earning \$500 to \$850 a year.

The scale of construction, its standardization, and new techniques cheapened and improved the row house. A high standard of excellence was reached that lasted till World War I. Baltimore brickmakers and bricklayers were world famous. (A particularly fine example of their skills was the Bryn Mawr school near the Richmond Market.) All woodwork was delivered from the mechanized sash and door mills, no longer carpentered on the site or in the shop. Whitecoat finish on plaster became less fashionable, and it was customary to paper the walls of new houses. Most houses had cold water, only a fifth had bathtubs—enough to provide a growth market for McShane's—and few had water closets. Most were built with dirt floor cellars.

The shift to a mass market in good housing depended on effective financing. Advance or bonus building was still prevalent in the '80s. Meanwhile, ground rents became a favored form of investment, as they were safe and tax free.<sup>39</sup> While ground rent originally meant the right of the landowner to collect an annual rent on the land from the developer or owner of buildings on it, the market value of the ground rent rights was generally greater than the actual

market value of the land. This meant the ground rent owner was, in fact, making a loan to the owner of the house (leaseholder). The house owner had to pay the property taxes on both house and land, and the ground rent owner was well secured: if the house owner failed to pay either ground rent or taxes, the ground rent owner could claim the house. The leaseholder could not demolish his building or rebuild without permission from the ground rent owner. Houses were sometimes built "ahead of demand" merely to create these ground rents or loans. The financing incentives stimulated building and brought ownership within the reach of more people.

While it hastened and facilitated new development of urban land, the ground rent tended to hinder or retard its redevelopment. This was recognized in the '80s with respect to downtown property. As buildings depreciated or became obsolete, the fixed charge seemed "disproportionately great." Confusion of land titles arose as ground rents were divided among heirs. Reconstruction was trammled in a web of legal technicalities, with numerous parties to a single lot. Leasehold owners found it hard to sell their buildings subject to these handicaps on redevelopment. To ease the problem in the future, laws of the '80s required that all new ground rents created could be "redeemed" or bought out by the leaseholders after five years. These redemption acts fixed the relation between the annual rent and the amount that would have to be paid to buy it out: ground rents were to be capitalized at 6 percent. The ground rent remained attractive for seventy-five years, so long as 6 percent was well above the market interest rate.

While an investor class and institutions such as churches held the ground rents, the working class contributed the largest share toward financing the houses, through the building and loan associations. At least half the houses put up in this generation were financed by them, by 1895 two-thirds. The societies were incorporated in waves that matched the building cycle, peaking in 1886-88.<sup>40</sup> About this time the savings banks of the city reduced their interest rate to 3 percent, and many of their hundred thousand depositors withdrew their savings to pay for small houses. (The average deposit was \$300, compared with \$1025 for the twenty-one thousand depositors of the large banks.)<sup>41</sup> By 1899 a thousand societies had been incorporated, of which 250 or 300 were active. The typical association had fifty to two hundred shareholders and made loans of \$100 up to \$1500. Their capital was entirely local and often very small. Their members were chiefly artisans and mechanics, mill and factory hands, sometimes laborers, often women. Some associations were based on ethnic solidarities: there were several dozen in the chains of German-American building and loan societies, especially the Germania and the Bohemian (St. Wenceslas), and there were several Polish and Hebrew associations organized in the '90s, and curiosities such as the "William Tell" and "Our Fritz." Some were associated with a craft or shop, as the employees of the B&O and the Northern Central. Others were organized by developers to encourage mutual financing of home buyers on a certain street of East or South Baltimore. Organizations like the South Bond Street Bohemian Workingmen's Building Association Number One were the cornerstones of a hundred neighborhoods. The building and loan

societies reconciled the contradictory goals of different classes of society: an improved standard of living for a majority, expansion of capital, a stable labor force, and preservation of the elaborate system of social classes and ethnic groups. Their names reflect the ideology of the movement: Perseverance, Harmony, Enterprise, the Bee-Hive, the Log Cabin, and all of the Peripherals, Perpetuals, and Progressives.

City space can be divided into building space and street space, the one essentially private, the other public. Frederick J. Brown set forth a vigorous argument in 1894 against certain street-opening projects, on the grounds that they would produce "overstreeting," or small blocks and buildings of small value. He argued the importance of what he called municipal geography, "the *wastefulness or economy of space* with which a city is laid out, the shape and size of the blocks, the proportion which the area of the streets bears to the area of blocks."<sup>42</sup> Washington, D.C., Brown claimed, was laid out "very extravagantly" as the nation's show place, but Baltimore must strive for a golden mean. His notion locates for us the growth stresses of his generation: maintaining a certain ratio in the development of building space and street space, of private and public enterprise. In the private space, private values could be captured or capitalized by private persons, but they could only be developed to the extent that street space was improved and furnished with services such as street railways, gas mains, water mains, wires, and drains. Extension of streets and services raised land values in the belt. In the center city likewise, raising private land values required a higher degree or greater efficiency of downtown streets and services. The amount of business activity in the streets was increasing dramatically, in particular, livery stables and delivery of milk, bread, and beer to homes and corner stores. To some extent flows or speeds could be increased; this was the meaning of electric transit and telephone lines. As these channels multiplied, people began to see the streets as three-dimensional spaces. Just as private owners built taller buildings with passenger elevators and pneumatic mail chutes for more intense vertical circulation, so the public corridors became three-dimensional labyrinths. The city commissioner complained in 1894, "Nearly all the space under the surface of the streets is now occupied. This is particularly true of the immediate center of the city."

Accelerated investment in street spaces was politically important in three ways. First, it meant that the municipality became involved in franchising and contracting to private corporations to build and supply street services. Second, new problems arose in the coordination and integration of the new functions. The sudden growth was often ill managed, and larger-scale inefficiency provoked demands for reform. Third, a redistribution of income occurred (as with annexation), depending on who could manipulate public investments, who could capture the private values generated, and how those private values were taxed for public investments. Most of the political disputes of this period were expressed in terms of street-space privileges.

As total residential construction was about equal to that of the last generation, one should find at least a comparable increase in the public utilities. In

## Street Space

fact, it exceeds expectation, because the interactions tend to multiply, increasing faster than the population or area of the city. I have already noted the \$15 million investment in rapid transit. In much the same way, gas service expanded, by alternate periods of competition and consolidation. The original Gas Light of Baltimore had come under the control of Brooklyn, N.Y., interests. People's had built a coal gas plant at the foot of Scott Street and drawn a line separating their territories. Consumer's Mutual introduced the water gas (Lowe) process in 1878 at Lancaster Street and Harris Creek. In 1880 the three were consolidated (and named the Consolidated Gas Company of Baltimore) and reorganized at a new level of plant efficiency. But a new set of competitors came in with New York capital. Equitable built at Severn and Bayard streets, and the Chesapeake Company built nearby on Bayard Street at Wicomico. In 1888 there was consolidation once again. The several companies had built more than two hundred miles of gas mains, which had to be reintegrated into a single network. The volume of gas sold had tripled, and the price was cut in half.

The same argument can be extended to nonresidential activities. Accelerated investment in private industrial spaces in this generation also required new public investments in the connecting utilities, railways, and ship channels. Over the same five years when rapid transit was created, the B&O spent at least \$7 million on its Curtis Bay branch, its belt line, and the Howard Street tunnels (see below), and the city made direct loans of \$8 million to the Western Maryland Railroad. In the harbor, the enlarged Brewerton Channel stimulated sizeable private investments in warehouses, piers, and elevators on the waterfront. It tended to silt rapidly, so in 1881 the federal government began work on the \$1.25 million Craighill Channel, which followed the natural channel and was deeper (27 feet) and wider (450 to 600 feet). In the '90s another \$2 million worth of work was done on the channels.

Meanwhile, Baltimore borrowed \$15 million for making new streets, mains, and drains. Municipal employment reached 4700 in 1898, and annual construction contracts and purchases indirectly employed thousands more, varying from year to year. The council attempted to impose local contractors and union labor. As the municipal sector grew, there were more and more defects of coordination among municipal departments. A city schoolhouse had no city water and an infected pump. The new city hall drained its sewage illegally into the Jones Falls. Inadequate garbage collection on Harrison Street meant that the offal was being removed by dredging the falls and basin. Many of the interferences appeared in the form of public nuisances in street spaces. The introduction of the Gunpowder water supply (1881) favored the installation of plumbing fixtures in houses and an increase in water consumption. A plumbing law was promptly passed, and four hundred plumbers were licensed. New dwellings were ordered equipped with bathrooms. But most of the new bathrooms and kitchen sinks simply emptied into the gutters. Interior water closets of elegant homes were discreetly connected to the city storm sewers or to streams. In other words, the Gunpowder water supply was used, dirtied, and turned into the streets of Baltimore, producing a demand for attention to sewers.

As usual, that comedy of errors, Harford Run, provides examples of the



In the 1970s a \$15 million storm sewer was the most recent attempt to control flooding in Harris Creek, now buried under Kenwood Avenue.

chain reaction of public improvements. In 1828 the "wash" had been diverted from Ann Street and Washington Street into Harford Run by rearranging the street grades, and in the last generation Harford Run had been canalized along Central Avenue. In the 1870s it was covered. It tended to flood because of the rapid building up of its watershed. In 1879-81, Harford Run itself was diverted, near Ann and Eager streets, into Harris Creek. This one-mile drain cost \$150,000. The consequences were unfortunate in every part of the system. The Ann Street diversion sewer itself proved too small and overflowed, requiring a new ten-foot diameter sewer. The old channel, which ran through private property and then under Bond Street and Central Avenue, became more dilapidated; diversion of the water made it stagnate and stink all the more. Finally, the extension of the city eastward and the development of Patterson Park required that Harris Creek in turn be properly graded and covered. Thus, the charade of Harford Run was repeated at Harris Creek. When the commissioners began sewerage the section between Lancaster and Boston streets near the Abbott iron works at the waterfront, they found that to get a large enough capacity drain, "the arch crops out the tops of the streets." They would have to raise the grades of Hudson and Patapsco streets at least three feet and relocate numerous water and gas mains. Much of the investment in Patterson Park extension consisted of a transformation of the swamp into a lake and esplanade, an attractive solution after sixty years of moving the problem.<sup>43</sup> Flash floods were still a subject of complaint in the area in 1975, as the drainage proved inadequate to carry the storm water from the streets and rooftops that replaced the green areas to the north of Patterson Park. The Lakewood Avenue Drain Project currently under way to eliminate flooding in the Patterson Park area by increasing the capacity of the underground drain for Harris Creek is the largest storm drainage project in Baltimore's history. It is expected that by the time the project is finished, it will cost about \$21 million. In addition, because the old streets are narrow and the excavation is large, adjacent homeowners contend that the project is causing walls and foundations to crack.

It was difficult to distinguish between incompetence, a lack of vision or system, and sheer greed. In Jacob Hollander's estimation, Baltimore in the '80s

and '90s was not the target of wholesale graft or election fraud as in the '50s, nor the sleight of hand and systematic robbery that characterized New York City in the '80s. But he felt that inefficiency and torpor were just as costly because they lulled the voters, and it took fifty years for inefficiency to become a public issue. One can interpret the demands for reform as a response to the growth of the enterprise and its new scale of inefficiency. In each public enterprise were introduced new levels of management, parallel with what was happening in large corporations such as the B&O and Standard Oil.<sup>44</sup> Fire, police, and water departments had been rationalized and professionalized in the 1850s. Now new levels of middle management were introduced into the schools, the courts, and the fire department, in private charities and public welfare services. Even in the structure of politics itself, one sees the enhanced roles of professional intermediaries like Isaac Rasin, Sonny Mahon, Frank Furst, and the "b'hoys" who held no elective office. In the public construction sector, the first step was the reorganization of the harbor board in 1876. A full-time engineer was hired and bids required. Dredging costs were miraculously reduced to a third of their former level. This indicates the scale of inefficiency at stake. Street cleaning became a burning issue in 1886: "The people are inexpressibly aggravated." The health commissioner had a yearly budget of \$250,000, but no control over hiring. Costs of paving and repaving also became an issue. The municipal reform of 1895 (defeat of the Gorman-Rasin machine) permitted a degree of professionalization of paving, grading, repair, and cleaning of streets.

The uproar over the condition of the streets was an expression of a more fundamental dissatisfaction with the redistribution effects—who paid and who benefited. Despite the public interest rhetoric, there was little information about the redistribution achieved by the various policies and franchises in the streets. These were the questions to which Richard Ely and Jacob Hollander addressed themselves. Ely participated in the taxation commission of 1888 and pointed out the relation between the development of private capital and public finance:

Taxation may create monopolies or it may prevent them; it may diffuse wealth or it may concentrate it; it may promote liberty and equality of rights, or it may tend to the establishment of tyranny and despotism; it may be used to bring about reforms, or it may be so laid as to aggravate existing grievances and foster dissension and hatred between classes.<sup>45</sup>

Ely recognized that taxation was a rather new phenomenon, and municipal taxes were rising because of the need to provide new municipal services, just as state taxes had been introduced (1841) to provide canals and railroads. But taxes were resented and avoided, and Ely recommended instead municipal ownership of all the natural monopolies—streets, bridges, railroads, canals, ferries, gasworks, electric-lighting works, waterworks, harbors, and streetcar lines.

Private monopolies are odious. They are contrary to the spirit of the common law and of American institutions, and wherever or whenever they exist, are a perpetual source of annoyance and irritation. Public monopolies, on the other hand are productive of vast benefits, when confined to their own proper sphere.<sup>46</sup>

Above all, private entrepreneurs should be offered no perpetual rights, which "squander the rights of those who are to come after us." They might be offered fifteen-year leases. Mayor Swann's horsecar franchises were to expire in 1889, and Ely suggested that the street railway franchises be auctioned to the highest bidder for another short period.<sup>47</sup> The object would be "to exact from every natural monopoly using public property full compensation." After all, if a private citizen owned absolutely the streets of Baltimore, how would he manage the streetcar business? Certainly not by a perpetual grant.

Ely also recognized land as a natural monopoly, whose increases of value arose from the growth of the whole city.

Wealth is only possible in a community, and in this community no one lives for himself alone. . . . There are certain fundamental conditions of our future prosperity which no individual as such can supply, but which must be provided by us in our organic capacity as a city and as an important part of a commonwealth, or not at all. Society lives in a condition of solidarity.<sup>48</sup>

Ely urged, therefore, that Baltimore, like Savannah, acquire the acreage around the city, annex it, provide streets and services, and lease the lots for twenty-five-year terms. Municipal ownership of land would thus provide a future revenue to the city; the public would own the ground rents. This would be a more elastic and less resented source of revenue than taxation. To Ely's regret, the city ignored his tax proposals and his suggestions for auctioning streetcar franchises and for a municipal land bank and ground rents. Ely left for the University of Wisconsin, but many of his ideas bore fruit after his departure, influencing the reform campaigns of the '90s, and the leaders of the business elite in the Progressive party.

The basic issues of redistribution were, like all political issues in Maryland, clouded by being expressed as a conflict between the city and the rest of the state. "Baltimore should have full control over its own streets" was the refrain. In 1884 the argument was over telegraph poles, "an almost unendurable nuisance on our sidewalks; where the extraordinary legislation obtained at Annapolis some years since enables telegraph companies to locate them at pleasure." In 1885 there were objections to a gas company, "a foreign corporation," tearing up the pavements. The state legislature permitted incorporation of new utilities and took over the entire privilege of awarding franchises. Exgovernors appeared as presidents of assorted gas and transit companies. The city was not paid anything for the use of its streets, and the street railway tax of Mayor Swann's time was whittled down from 20 percent to 12 percent, then to 9 percent. With the cable cars and electrics the nuisance became more acute. The streets were continually dug up. Egged on by the bicycle craze, people began demanding the new "smooth paving." It created wonderful entrepreneurial opportunities. In 1895 Isaac Filbert had three hundred men and one hundred teams of horses at work. Only forty-nine miles of city streets were laid with improved pavements (granite block, sheet asphalt, and asphalt block), about three hundred miles were cobbled, and another three hundred miles unpaved.

The trends toward public investment in street space and its greater engineering complexity can be seen in the transformation of a stretch of the Jones Falls valley near North Avenue. Today it is an archaeologist's puzzle of footings, bridges, tunnels, and sewers. The physical labyrinth is an accurate representation of the inextricable public and private interests. Since the Civil War, the B&O had been using the Philadelphia, Wilmington and Baltimore Railroad to send passengers and goods from Washington and Cumberland on to Philadelphia. They were ferried from Locust Point or hauled by horses through Pratt Street to the President Street Station and north over the PW&B. In 1881, when the Pennsylvania bought the PW&B from its Boston owners, Garrett saw the threat. Bold as ever, he proposed to counter the Pennsylvania by creating a competing main line through from Washington to New York. By 1886 the B&O had built a ninety-five-mile track from Baltimore to Philadelphia. By 1889 it reached New York harbor, but it had yet to be threaded through the developed parts of Baltimore, to connect the Washington branch with the line to the north. The B&O management considered an elevated connection parallel with Pratt Street, and even began buying private property for such a scheme. Then it reached an understanding with the Baltimore Belt Railroad Company (originally intended to serve the Lehigh Valley) for a system of tunnels. Samuel Rea was appointed engineer and contracts awarded in 1890; the Royal Blue trains began running over the whole New York to Washington line in 1895.

The scheme to traverse Baltimore had three distinct parts. The first was a 7341-foot tunnel under Howard Street from Richmond Market to Camden Station. It would be a steady grade, so southbound trains could coast downhill through a masonry tube 21 feet tall and 27 feet wide. The second part was the Baltimore Belt rail line, which would connect the B&O from Bay View junction through open cuts along Twenty-sixth Street with short tunnels between Oak and Charles streets and between St. Paul and Calvert streets. The third part, connecting those two, was a curved grade running on a viaduct and partly through tunnels. This "crossover" had to be threaded across the Jones Falls and the Northern Central tracks, under North Avenue, and across the Pennsylvania's line (the B&P) in the very mouth of its tunnel. Negotiation with the rival Pennsylvania line was toughest. The curve had to be introduced, and ideas for a principal station at Maryland Avenue were abandoned because the PRR would not let the B&O cross right at its new Union Station. A peculiar bridge arch construction had to be devised so that the Belt line would not rest its weight directly on the B&P tunnel.<sup>49</sup>

To complicate the negotiations further, the city was undertaking the North Avenue sewer<sup>50</sup> and a new North Avenue bridge.<sup>51</sup> The bridge would have to be raised higher and cost more, to cross over the Belt Railroad's crossover! The one-mile sewer had to run under the Belt line's railroad and bridge pier. The sewer, "one of the most valuable and intricate public works in the city's history," was a \$200,000 project running from the old Druid Hill Avenue sewer, through Laurens Street, Park Avenue, and North Avenue to the Jones Falls. The project was essential to the development of Bolton Hill and Mount Royal, the vicinity of the new Friends' School at Park and Wilson, and the terraces in Park

Avenue. It was a fine example of the new sophistication of civil engineering under C. H. Latrobe (the third generation of his family to work for Baltimore City) and of the technical problems of coordinating the new public and collective works in three-dimensional street space. The grade of North Avenue itself was so steep that for the sewer under it they introduced several drops or waterfalls of 6 feet, 18 feet, etc.: "If the surface grade had been followed, it is said the water would have attained such a great velocity as to tear the sewer to pieces in a few years." Half the work was done by tunneling. A shaft was sunk 40 feet below the level of the Northern Central railway, and the last 179 feet were tunneled from the bottom of that shaft to the Jones Falls, while trains were constantly passing above. The sewer also ran under the passing ten-ton cars of the Lake Roland Elevated. The tunnel bore the weight of the western abutment of the Belt Railroad bridge over the falls. Farther west it would support the future retaining walls for the western approach of the North Avenue bridge. "At such points the sewer looks as if it would bear a mountain on its back."

The next phase in rationalizing the three-dimensional street space got under way just as the B&O tunnels, the North Avenue sewer, and the electric elevateds were completed. Two sensible proposals were sketched out under Mayor Ferdinand Latrobe and pursued vigorously under the reform administration that followed: the electrical subway commission and the topographical survey. The electrical subway was a solution to the problem of overhead wires. The plan was to place under the streets a system of channels in which the city would lay a complete set of fire and police telegraph alarms, with additional channels for the private telephone and telegraph companies to lay their circuits. The scheme addressed itself to the problem of coordinating public and private monopolies. Topographical Survey was the offspring of the Sewerage Commission. The storm drainage plan of 1862 was implemented very gradually, piecemeal. A major defect was the failure to prevent its use for sanitary disposal. A new sewerage commission in 1880 recommended a dual system of separate storm drains and sanitary sewers.<sup>52</sup> An 1893 plan was more elaborate, considered all of the engineering alternatives, and recommended a dual system with pumping station to permit draining the harbor areas and disposal of the human wastes into Chesapeake Bay. The plan naturally appeared costly, but the real political stumbling blocks were the objections of the oyster industry and the night-soil contractors, who talked up the dangers of typhoid from pollution of the oyster beds. So the construction of a sewer system was postponed for another twenty years. Nevertheless, enough momentum was developed to do the three-dimensional map, postponed since Poppleton's time. It was the first step to building sewers, and it would provide a thoroughly new planning perspective.

In its earliest deliberations, the survey abandoned the hope of reviewing or adjusting the Poppleton plat as a base map. By rigorous triangulation, accounting for error, they discovered the extent of previous errors in both private and public spaces. Private land surveyors had taken little account of variations in the departure of magnetic north from true north. Therefore, streets laid out at different times were out of line. The difference of angle between Charles Street and its extension, Charles Street Avenue, is a measure of the extent of this



In 1889 these Mount Royal Avenue rowhouses, between Charles and St. Paul streets, were not yet occupied and the street was unpaved.

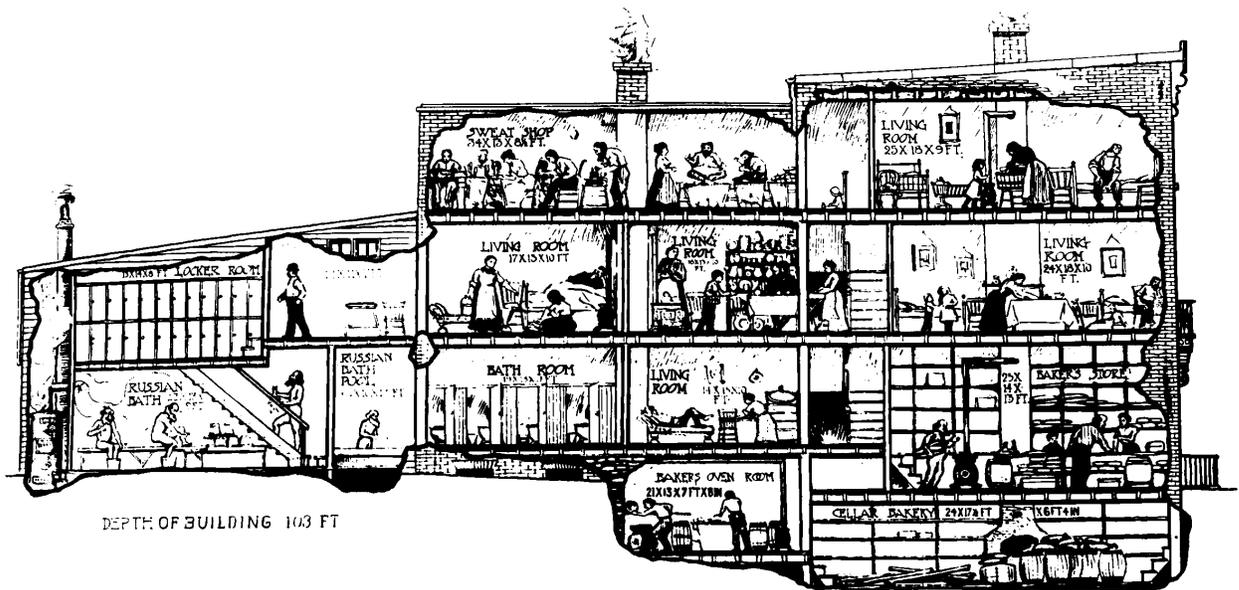
accumulated difference. A perceptible curvature of Edmondson Avenue is an indication of how gradual block-by-block extensions of a street reflected the gradual divergence of the magnetic declination.

With the consultation of the U.S. Geological Survey, the U.S. Coast and Geodetic Survey, and the young and ambitious Maryland Geological Survey, the Baltimore Topographical Survey selected a base line and made elaborate preparations for measuring it along Fort Avenue with a specially manufactured steel tape in the light of the moon, to minimize its expansion from the heat of the sun. The selection of highly visible points for triangulations gives us some idea of the landmarks of greater Baltimore: the head of George Washington on his monumental pedestal, the cupolas of Hopkins Hospital and Bay View. At last the city had recognized the three-dimensional character of its municipal geography.

### The Crisis of 1893

The summer of 1893 was the kind of summer that must have given the Gay Nineties their name. The newspapers reported day after day, weekend after weekend, a succession of camp meetings, picnics, and parades. But the good-natured crowds and Old Country and workers' solidarities did not include everyone. The same summer there was another rash of suicides, mostly by Germans. One died of opium poisoning, two took laudanum, another drank chloral. A woman lay down in front of a locomotive at Sparrows Point. Two men shot themselves. One swallowed Rough on Rats in Patterson Park, and still another plunged a six-inch shears into his abdomen. Troubles afflicted whole communities. Even in good times men in the building trades could put in only 200 working days a year. The black brickmakers in the clay field could work only 155. Some turned to oyster packing in winter. Women made ends meet by working at the needle trades in winter and the packing houses in summer. Even at the height of the construction boom of 1892 and the summer of 1893 the Bay View almshouse and hospital were overflowing. The trustees attributed it to the "sequels of prosperity." Eighteen ninety-three turned out to be a bad year, a year of financial panic, spreading outward from bank crashes to railroad bankruptcies and layoffs, the collapse of farm prices, and foreclosures nationwide. In Baltimore the winter was colder than usual: oyster catching shut down at Christmas, and construction workers were laid off. Men on city contracts begged to be kept at work and take their pay later. By 28 December observers estimated that seventy-five hundred residents were out of work. The most careful estimates suggest ten thousand by New Year's Day, then thirty thousand.<sup>53</sup> Several of the craft unions had unemployment benefits, but their resources ran out quickly. A quarter of the cigar makers were unemployed, a third of the carpenters, bricklayers, can makers, and store clerks, half the musicians and shoe lasters, and three-quarters of the painters and iron molders.

The institutions were overwhelmed. Three hundred destitute were housed in the police stations every night. Instead of the floral tribute traditional for New Year's, the postal workers offered their chief five hundred loaves of bread to distribute in the station houses. A Central Relief Committee was formed. "It is the resident poor whom we wish to reach, and the best way to relieve them



DEPTH OF BUILDING 103 FT

is providing work for them."<sup>54</sup> The committee opened a stoneyard on Edmondson Avenue and another on Falls Road. Next morning there were nine hundred applicants, half skilled workers, half unskilled laborers. "They were all respectable-looking." The committee organized a second Friendly Inn with adjoining woodyard, "to sift the professional vagrant from those who want to work, by offering work as part of the relief."<sup>55</sup> The city's Light Street paving project was hastened, and hundreds stood around city hall, waiting to learn who would be the fortunate ones hired.

Among the hardest hit were the clothing workers in Oldtown. Here the depression of the market was reflected in the drop of piece-work prices. There were three to four hundred sweatshops between Central Avenue and the Jones Falls, on both sides of Lombard Street. The majority were Jewish, with a number of Catholic Lithuanians and Bohemians. Master tailors (at one time many were Irish) were less necessary than formerly, and the contractor system had reached its peak. Before the business crisis, the task or day's work of a sewing machine operator was \$3.00, the baster \$2.50, the presser \$1.00, and "the girls" from fifty cents to \$1.00. Among the Lithuanians the workers were paid a cut, subcontracting down the line through the shop: of whatever the wholesaler paid for the finished shirt or pants, the contractor paid his tailor 24 percent; the tailor paid the baster 33 percent from his share, and the baster in turn paid his assistant 40 percent. But during the season of 1893-94 prices fell by half, and all wages accordingly. Operators were working fifteen or sixteen hours a day, six days a week. There was not so much unemployment as extreme exhaustion.

A large proportion of these people are upon the verge of starvation, and were it not for the well known benevolence of the Hebrew people, many would be constantly slipping over it. They have reduced their standard of living to such a point that any further reduction involves death.<sup>56</sup>

A *Sun* reporter walked through Albemarle, Front, Exeter, High, Lombard, Fayette, and other streets where clothing shops were numerous. "Outside there is little, if anything, to indicate the destitution within." The Hebrew Relief Committee organized a food distribution center in what was once an elegant parlor in Lombard Street. The sign outside read, "Who is short of food shall come inside

A cross section of a 1903 Lombard Street rowhouse shows a sweatshop on the third floor, a Russian bath at the rear, a cellar bakery, a bakery shop in the front, and five "living rooms." The house is about 18 feet wide, the back building 13 feet wide, and the full depth of the building 103 feet.

and get it." The shelves were piled with loaves of bread, and the mantle laden with packages of tea, sugar, and coffee. In a corner was a big pile of small sacks of flour. Smoked and fresh meats were on the table.<sup>57</sup>

The working environments were investigated by health officers and indicate the acute competition in the industry. In David Harris's small shop on Low Street, six persons were employed in a room ten by twelve by nine feet, rented at \$3.00 a month: "Cooking, washing, and in fact, all the domestic work is carried on in close proximity to the tailoring work. A terrible odor pervades the whole house, and the only entrance is through a filthy alley." Coats that formerly paid \$1.25 now pay only fifty cents. "It is of such shops as these that so much complaint is heard and which, so it is complained, tend to bring down prices."

It was an exceedingly complex industry. "The conditions prevailing among the pants and vest makers are much worse than that of the coat tailors," evidently associated with a larger share of female labor. Wages were reduced more severely. Some workers lost their tools or furniture. The contractors were "little, if any, better off" while there was little work. They paid for the fuel, thread, and rent, and furnished the sewing machines, which they bought by weekly installments. "It is only by constant self-denial and hard labor that they can even live." Andrew Rochuba was making letter carriers' uniforms at 1631 Shakespeare Street. "It would be difficult to conceive a more filthy and unwholesome place." Simon Silbert, 622 South Charles, carried on trade in two third-floor rooms, with eight persons. He paid \$13 a month for the whole house. "Bags of clippings are standing about, and the floor is literally covered with those which they have not taken time to gather up. The smell of gasoline pervades the whole house. . . . The paper on the wall hangs in shreds." At Simon Schapiro's in North Exeter Street eleven persons worked in one room. Altogether six families lived in the house. Each hallway was filled with baby carriages and furniture. "None of them appeared to pay any attention to their surroundings, but seemed to think that their very life depended upon the speed they exerted while at work."<sup>58</sup>

The solution to the cut-throat competition and environmental horrors of the small sweatshops was already sketched in the arrangement of the large clothing factories by 1895. Among the earlier factory-style operators, Sonneborn employed as many as two thousand in Hopkins Place, Wise Brothers a thousand in a new six-story building in West Fayette Street. Wise also participated in the Chesapeake shirt factory (six hundred employees) in West German Street. Langfeld and Holzman had five or six hundred employees each. Together they defined a garment district close around the University of Maryland. The buildings, of massive and elegant exterior with plenty of window area, required several lots. They were several times larger than the warehouses of 1851 or 1871. They competed for the large contracts (Rosenfeld, for example, made police uniforms), and increasingly dispensed with subcontractors. The factory was more vulnerable to labor organization. In 1889 Ulman's factory was struck; the cutters demanded a nine-hour day: "Take your scissors and go home." Ulman brought strikebreakers from New York. They joined the strikers, but the movement petered out, and little was accomplished. In 1893, however, the bitter depression in the clothing industry generated organization, in much the same way as the

wage cuts had produced a railroad strike in '77, a coal miner's strike in '82, a shipbuilders' strike in '85, and the horsecar drivers' strike in '86. Prosperous conditions generally favored union gains, as in 1886, but the depths of depression set the stage for a terrible resistance, usually ending in demoralization. The crucial issue in the clothing strike was the blacklist: the shirt manufacturers attempted to exclude agitators from the industry by sharing blacklists among firms.

The clothing workers' crisis illustrates the interplay of class conflict and ethnic estrangement emerging in the Jewish community. While cut-throat competition in the garment shops brought the east European immigrants to the verge of starvation, an older generation of German Jews, who had peddled and pinched and starved in the '50s, owned the large garment factories and department stores on Lexington and Howard streets. Hutzler's new building of 1886 was the height of elegance. The Friedenwalds, the Sonneborns, Greifs, Hutzlers, Hochschilds, Kohns, and Gutmans all moved out of Oldtown and Southwest Baltimore to Eutaw Place, newly embellished, halfway between downtown and Druid Hill Park, admirably served by the new electrics. Naturally, they took with them their synagogues. The four principal German congregations over three years moved into a six-block radius.<sup>59</sup> The competition for handsome and opulent buildings was a status competition, rehearsing the religious and political disputes of the '50s. They sold off their temples in Oldtown to the new struggling congregations of east Europeans. In 1891 Baltimore Hebrew Congregation built at Madison and Robert streets, and sold its Lloyd Street temple to Shomrei Mishneres. In '93 Oheb Shalom built in Eutaw Place at Lanvale. The prominent church architect of the moment, J. E. Sperry, designed it, and the pews were sold at several hundred dollars each, much to the distaste of retiring Rabbi Szold. Its old Hanover Street temple was sold to a Litvak congregation. The new Har Sinai, also designed by Sperry, at Bolton and Wilson, had steam heat and electric light. The next year Chizuk Amuno built at McCulloch and Mosher, and sold its Lloyd Street temple to the B'nei Israel or "russische shul."

The moves of the synagogues are a design in stonework of the transformation of a value system, struggling between tradition and adaptation, and of a much larger struggle between values of class and kin. In this sense, what was happening within the Jewish community was a microcosm of what was happening in the adjoining Bolton Hill community along Park Avenue and Bolton Street, and also within the Catholic and Methodist communities. The stresses in the Jewish community—the debate over Yiddish, Jewish education, and the reception of Russian refugees—point to problems of education and welfare in the larger community.

In November 1881 seven refugee families from Russia arrived in Baltimore. Eight months later the Benevolent had sheltered 450 and exhausted its \$3000 fund.<sup>60</sup> It raised another \$3000 and resolved to "make known to the New York Committee that the Baltimore Hebrews have their hands full. . . . No more should be sent hither from New York."<sup>61</sup> But still they came. The just ones of their time, who tried to reach across the gap in various ways, are the only human measure of the aching contradictions of Baltimore. Henrietta Szold, the rabbi's

daughter, met the immigrant boats and attempted to find jobs, twenty-five-cent pieces, and food for newcomers. She organized the Russian Hebrew Literary Society and then the Russian night school, usually considered the original immigrant night school. Seven thousand passed through it. It was imitated by the Bohemians in 1898, and the idea was carried on thenceforth by the public school system. Samson Benderly founded a Hebrew kindergarten, and a Hebrew Free School (Talmud Torah) was organized to combat the raids of Protestant Sunday school missionaries.

Under the pen name of Sulamith, Miss Szold also criticized the older generation for their "ultraconservative life, so far as intellectual activity is concerned."<sup>62</sup> Of the arts and sciences "only music distracts them." She argued the need for public institutions to train "susceptible youth" through Jewish schools and a Young Men's Hebrew Association, by pointing to the drastic changes in Jewish life. For a first generation raised in the European ghetto, home was a sanctuary and Friday night a transfiguration, "all that was dearest combined." But since then, "the high walls of the ghetto have fallen. They have plunged themselves into a vortex of pleasure and business."<sup>63</sup> Her indignation was kindled by the charity banquet custom of "amusing one's self thoroughly, of dancing, of eating, of feasting" to tide the poor over winter. Givers' names were pompously read and applauded. "Is there not something intensely egotistic, no, more than that—something barbarous in this wide-spread custom?"<sup>64</sup>

Miss Szold was not only "her mother's daughter" and "her father's daughter," but a child of Baltimore. Charity reorganization was a larger movement. Reverend Lawrence moved into Parkin Street to pursue his settlement work among slum dwellers, and Mary Richmond was moving the Charity Organization Society toward a new thrust of professional social work, structuring the benevolence of volunteers. Miss Richmond, like Sulamith, wanted "humble, unobtrusive charity," a charity "purified and enlightened." She preached against "unwise philanthropy."<sup>65</sup> The society urged regrouping and redistricting the dispensaries for efficiency's sake, creating industrial celibate colonies for the epileptic and feeble-minded, and reducing Baltimore's "attraction" to crippled beggars. The Charity Organization movement emerged in precisely the same conditions as the Society for the Prevention of Pauperism and the Friends of the Poor in 1804 and 1822: on the heels of a severe depression with sharp increase in the cost of welfare. City costs for the care of the poor had tripled while population doubled. City subsidies were distributed to a miscellany of private organizations. The Trustees of the Poor were now replaced by Supervisors of City Charities, whose object still was "to assure the kindest possible treatment to the city's dependents with the least possible waste of the city's money." They founded Rosewood, created a system of juvenile probation, and returned to the plan of placing small children in foster families rather than orphanages: they were more likely to survive, and it cost less. The old contradictions inevitably surfaced: the preoccupation with classification and the distinction between deserving and undeserving. New ironies appeared in the efficient processing of the poor. The supervisors hired a permit clerk, a female clerical assistant, and a female investigator. "The result has been the adoption of suitable books of record and

blanks, the accumulation of much valuable experience and data, a well indexed mass of facts, and a remarkable diminution of the number of inmates usually supported by the city at this time of the year."<sup>66</sup>

What distinguished the new charity organization from that of Thomas Griffith's time was the shift toward a strong faith in education and new roles for educated women. Miss Szold graduated from Western High School for Girls, Miss Richmond from Eastern. Szold participated actively in the demand for more education for women, as well as in the development of Jewish schools and free night schools. She joined forces with Mary Garrett (John's daughter) and Martha Carey Thomas in raising \$100,000 for the Hopkins medical school, on the condition that qualified women would be admitted. With them she protested the continuing discrimination of The Johns Hopkins University against women and supported the founding of John Goucher's Woman's College.

Within the black community a resegregation was also taking place, similar to that in the Jewish community. Already visible in the '80s were new aspirations and new forms of degradation. This apparently reflected an in-migration of rural blacks and a promotion of the Baltimore born. The city had developed into a single elaborate plantation with its house niggers and its field niggers. Geographically, the resegregation produced ghettos, or neighborhoods of thousands, much more extensive than the alley environments of the '70s. The sharpest contrasts were between Pigtown and Northwest Baltimore. Pigtown, at the foot of Fremont Avenue, altitude twenty feet, was the home of the greatest number of country blacks. Around Camden Station, the market houses, and produce docks, black immigrants from the counties of Maryland and Virginia adjoined clusters of white immigrants, especially Russian Jews and Italians.

Open drains, great lots filled with high weeds, ashes and garbage accumulated in the alleyways, cellars filled with filthy black water, houses that are total strangers to the touch of whitewash or scrubbing brush, human bodies that have been strangers for months to soap and water, villainous looking negroes who loiter and sleep around the street corners and never work; vile and vicious women, with but a smock to cover their black nakedness. . . . That's Pigtown.<sup>67</sup>

The other extreme was northwest of St. Mary's Seminary, where the "respectable" class moved from the alleys out onto streets such as Biddle Street, altitude one hundred feet. On New Year's Day 1886 "a swell colored reception" was given on West Biddle Street at the home of Mrs. L. W. Lee, "assisted by about half a dozen young belles. The parlors were lighted dimly with gas, the shutters tightly closed." Celery and winter delicacies were served.<sup>68</sup> Another society event was a wedding at North Street Baptist Church. The bride's hairdo was decorated with a single ostrich plume, but she was upstaged by a light brown girl in a rich black dress, cut décolleté, and a black silk lace fascinator with orange dots.<sup>69</sup>

Between these extremes lay an elaborate system of social status, which felt every ripple in the job market or the housing market. In the job market, certain individuals and restricted classes of the black community were promoted, but

## Moving Uphill

the mass was not. Each unemployment crisis squeezed the unskilled blacks. In 1885 the Italians squeezed them out: "Great gangs of labor drifted from New York have dispossessed the colored and Irish labor on the railroads and waterfront, and filled the streets with fruit vendors, retailers of peanuts, and performers on harp and organ."<sup>70</sup> The black hod carriers lost their lawsuit to retain union shop rights with contractors for the North Avenue bridge in 1893. They were replaced, apparently, by white laborers. In 1898 "white help" displaced some of the "colored help" in the class of low-skilled servants.<sup>71</sup> During good times the black community acquired a little leverage in employment and the professions. For example, when street cleaning was reorganized, two colored brigades were added.<sup>72</sup> The city wage of \$1.66 a day was higher than other common labor.

All the black professionals listed in the census of 1890 amounted to perhaps 250 people, certainly under 1 percent. Twenty or thirty black doctors practiced in the black community and participated in public health efforts, and Dr. Whitfield Winsey was admitted to the Medical and Chirurgical Society, but they could not practice in the new hospitals. E. J. Waring and Joseph S. Davis were admitted to the Maryland bar; Waring took part in a constitutional test of racial clauses in the state's bastardy laws,<sup>73</sup> and both were among the legal defense of the Navassa guano laborers. Associated with them in prestige were the more successful dealers or businessmen and the best situated of the fifteen thousand domestic servants. Experienced servants had skills and job security, and they patterned their standards, aspirations, and manners on the wealthiest members of Baltimore society. Richard Macks, for example, born a slave in Charles County, came to Baltimore when Grant was elected and served four or five employers, each wealthier and more demanding than the last. Toward the end of the century, after being Tom Winans's and then Robert Garrett's butler for many years, he founded his own catering business.<sup>74</sup>

Semiskilled black workers formed assemblies of the Knights of Labor—the brickmakers, the Fells Point wagoners, three hundred grain trimmers, and the Montgomery Street stevedores.<sup>75</sup> Isaac Myers founded a newspaper, the *Colored Citizen*, and organized a Colored State Industrial Fair to set before the public the skills and development of the black community. But Isaac Myers had already lost his battle, outweighed by the divisive strategies that pitted the interests of race against the interests of class. In a speech at the Sharp Street Methodist Church, for example, at the height of the eight hours movement,

Mr. Waring advised the colored laborers not to join the white trades unions or take part in the present struggle of labor against capital. Until recently, the trades unions had refused to receive the colored men in their organizations, but now that they need all the forces they can muster they are asking them to come in. The speaker said the colored laborers were not interested in the fight. If the white laborers were worsted, the colored laborers could expect to be preferred by the capitalists.<sup>76</sup>

The effective exclusion of blacks from most of the skilled crafts had its reflection in the housing market. The building of extensive home owner neighborhoods of German and Bohemian mechanics had a corollary: the exclusion of

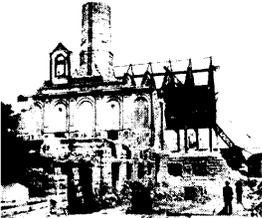
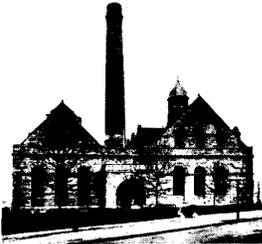
the black community. Despite the proliferation of corporations, beneficial societies, and unions among blacks, they had only one building and loan society by the turn of the century. They were effectively prevented from obtaining real estate or credit. Consequently, there was scarcely any new housing built for blacks in this period, there were only a handful of black home owners, and the rural immigrants aggravated a severe housing shortage.

What was within reach of hundreds, and soon thousands, of black families, was the expansion of the secondhand neighborhoods in St. Marys, Orchard, and Biddle streets, and in Jefferson and Caroline streets. These neighborhoods grew, pushing from the narrower streets to the wider ones, uphill, block by block. Critical events in the search for a path of upward mobility were the creation of the Colored High School (1887) and the employment of black teachers in a new colored primary school at Carrollton and Riggs (1888). The effects were swift, analogous to the breakthrough of the 1840s, when women were hired as teachers. Black school enrollments began to rise.

Schools of the 1840s in Druid Hill Avenue near Biddle Street, and Fremont near Lombard, had in the '70s become English-German schools; in the '90s they became colored schools. Other older schools were changed to colored schools "due to decreasing white populations," and the white pupils moved to new school buildings in newer neighborhoods—from Jefferson and Caroline streets to Patterson Park Avenue and McElderry, and from Mulberry near Fremont to Harlem Avenue and Monroe Street. Each community in turn—the Bohemians, the German Jews, the German Catholics, the blacks—followed a radial path, uphill, along the car line, outbound.

The simplest motive for all the reshuffling in this period was survival of the young of the species. Changes in social status can be evaluated in terms of infant survival. The process was ruthless: the family able to move left a vacancy; newcomers to the city filled the vacancies. In this generation both death rates and birth rates began to fall. Smallpox in 1882-83 was the last of the great epidemics. The 1881 Gunpowder Falls water supply made a real difference; it was relatively unpolluted and offered more people adequate volume and pressure. But the general progress conceals a selection of places and persons. The smallpox epidemic, for example, could be described in the same terms as in 1821-22: there were 1184 deaths, confined to the lanes and alleys where the poor lived. Of the white victims, 85 percent were minors, mostly children of recent immigrants—Polish Catholics and Germans, with a scattering of the poorest of the Bohemians, some Norwegians, Hungarians, Italians, and Russian Jews. More than half of them lived in two wards of the city, Fells Point and Canton. Similar conditions prevailed on the rim of Federal Hill and Locust Point, but their total numbers were smaller. Of 294 black victims of smallpox, two-thirds were minors, and more than two-thirds lived in South Baltimore between Camden Station and the waterfront.

The smallpox outbreak is a fair indicator of the general pattern. John S. Billings calculated death rates from all causes for 1886-90, with attention to differences of race and age.<sup>77</sup> He found infant death rates a sensitive barometer of environmental conditions. Infant mortality in Fells Point and parts of South



The prestige once accorded the water system is illustrated by the Mount Royal Pumping Station, at the west end of the North Avenue bridge. The elegant pumphouse, built in 1899, was removed in 1957 for the construction of the Jones Falls Expressway.

Baltimore was three times the city average. Black mortality ran nearly double the white average. Net growth of the black community occurred thanks to the high rate of immigration from rural Maryland and Virginia. The stream of immigrants and the housing squeeze aggravated environmental conditions, especially the risk of tuberculosis. In Billings's terms, "Making all due allowance for errors in the census data, these conclusions may be accepted as correct, and they point distinctly to bad sanitary conditions in and about the homes of the colored population, which conditions have become worse in 1890 than they were in 1880." In response, the black community began moving uphill into Northwest Baltimore, where death rates for colored and white were close together—twelve to fifteen per thousand as compared with thirty-five to forty in East Baltimore and forty-five to sixty in South Baltimore. Doctors and social workers were scandalized at the blacks' infant mortality and the apparent "negligence" of mothers, but the black community attached prestige and status to environments in exact proportion to their survival records. Except for a tardy vaccination campaign in 1882, there was no public attention to the environments occupied by blacks or by the new white minorities.

Since the water supply provided the chief cause of the general progress of health, one might also expect differences of water supply to explain the differential rates of survival. If we map the water supply options of various parts of town, we find the geographical matrix of the chances of dying young.<sup>78</sup> When the newer and safer external water supplies were introduced, especially the Gunpowder water in 1881, they were effectively provided to the newly developed areas—the high ground and the outer rim of the city. Water was piped to private properties on the streets (not the alleys), for a rent. In addition, two hundred free public fountains "for man and beast" were installed, chiefly in the new districts, in the public markets, and the east-west business streets of the downtown. But the inner city—Fells Point, Oldtown, and the sections west and south of Camden Station—still depended on public pumps from shallow wells, vulnerable to pollution from privies and street drainage. The infants of the black community of South Baltimore and the Polish community of East Baltimore were dying from acute intestinal disease, as in the cholera epidemic of 1832, because they were still dependent on the defective water supply of 1832. For want of collective action to solve the hydrologic problems of the low-lying areas of the city, the people continued to move uphill. Where Wynne figured a seventh of the population was living above the one-hundred-foot contour in 1850, Billings figured a quarter in 1890. The black community had shifted even more, in response to the more severe differential of death: a third were living above one hundred feet. For want of collective organization to isolate the sick and interrupt the spread of disease in the urban community, households and sub-communities struggled to isolate themselves one from another. An upper middle class began to consider the single-family dwelling attractive, and racial segregation appeared at a new scale of whole neighborhoods.

The general progress in containing epidemics meant that the public health no longer consisted of seasonal or sudden emergencies and threats of catastrophes, hasty clean-up campaigns and repentance. The Grim Reaper became

more predictable than the oyster harvest, the coal trains, or the B&O dividends. This required a decided shift in the whole conception of public health and a reorientation to targets of endemic disease, in particular, typhoid, pneumonia, and tuberculosis. The opening of Johns Hopkins Hospital in 1889 was an important step. It was founded on new principles of organization. John Billings, with his thorough experience of army hospital organization in the Civil War, laid out the pavilions with attention to engineering detail and materials. A system of flues, vents, and ducts, an aspirating chimney, and basement ventilating chambers supplied a scientifically calculated flow of air and prevented the exchange of germs.<sup>79</sup> When Dr. William Osler agreed to take charge of operating the new hospital, D. C. Gilman, the president of the university, met him at the Fifth Avenue Hotel in New York, where they spent a couple of days examining the hotel management. Gilman assured him, "There is no difference really between a hospital and a hotel." Everything was arranged in departments with responsible heads and a director over all. "The clinical unit of a hospital is the exact counterpart of one of the subdivisions of any great hotel or department store."<sup>80</sup> Good nursing care made differences of life and death, and nurses' training was wholly reorganized. Dr. Welch and Dr. Osler organized the Maryland Public Health Association, and tried to dramatize the steady sacrifice caused by the defects of the water system, the lack of sewers, and the lack of an infectious-disease hospital for isolating the sick.<sup>81</sup> Eight hundred and twenty-nine cases of typhoid were treated at Hopkins in its first ten years. Referring to typhoid, Osler said, "The penalties of cruel neglect have been paid for 1896; the dole of victims for 1897 is nearly complete, the sacrifices will number again above 200. We cannot save the predestined ones of 1898, but what of the succeeding years?"<sup>82</sup>

As in 1851, the growth of the urban organism meant changes in form and functioning—higher rates of exchange with its environment, more rapid circulation of materials within the organism, and the development of new specialized organs within it. In 1851 the swift growth was coupled with a new political status and sense of self-determination. But in 1898 the sudden expansion of industry and its metabolism destroyed the city's internal mechanisms of adjustment and threatened its identity.

From the bird's-eye views of 1869 and 1889 one can readily see the great chunks of capital built into the landscape in this generation: the Eutaw Street garment district, the great elevators on Locust Point, the post office and city hall. Just over the horizon were the massive works of civil engineering at North Avenue and the Jones Falls, the scores of buildings at Sparrows Point, and the expanded shops of the B&O and Bartlett-Hayward at Mount Clare. The 1889 Friedenwald view also conveys the relation of the concentration of capital to a quickened exchange with other cities. The angled railroad piers, the steamboats trailing smoke in the wind around the harbor rim, are part of that intense circulation. There was a radical increase in the bulky industrial raw materials shipped into Baltimore. By the turn of the century the copper refinery was bringing sixteen thousand tons a year of smelter copper from Anaconda, twenty-five

Going, Going, Gone!

hundred miles by rail. Export tonnages of copper tripled. The steel company brought a million tons a year of iron ore from Cuba. Monumental Sulfur works brought fifteen thousand tons of pyrite ores by rail from its mines in Virginia, and the fertilizer companies fifty thousand tons of phosphate rock from South Carolina and twenty-five thousand tons of ammonia from the Chicago slaughterhouses, as well as the schooner loads of guano from Navassa and potash from Germany. They exported half a million tons of fertilizer. The railroads brought down 10 million tons of coal to Locust Point for export or fueling steamships. Through Baltimore's heroic effort to develop its railroads, its seaport, and street system, it had overcome the underdevelopment Parkinson complained of in 1799. Baltimore was now an excellent location for cheap inland shipping as well as cheap ocean shipping. Labor, too, had become cheap, through the importation of human ballast, insuring job competition of black, immigrant, and native-born workers.

The physical lumps of capital were visible signs of financial concentration. Incorporation was the first step beyond the traditional family firm or partnership. In 1881 there were only thirty-nine industrial corporations in Baltimore; by 1895 there were two hundred, and by 1905 the corporations were producing half the value and employing half the manufacturing workers. The second step was cooperation or combination among corporations. In 1878, twenty-three canners formed an oyster-packing pool with \$300,000 capital, to abolish competitive price cutting and to guarantee quality and weight. For a year or two they were successful: their profits doubled. But such pools collapsed whenever one individual withdrew or started a new firm.<sup>83</sup> The third step, therefore, was permanent consolidation through corporate merger or through holding companies and trusts.<sup>84</sup> This occurred in a halting, experimental way in the '80s, then in a sudden flood in the winter of 1898-99. The American Can Company assembled the fourteen can factories. Sixteen of the twenty breweries in town were marshaled (Gottlieb-Bauernschmidt-Strauss) with \$14 million capital. The Baltimore Brick Company absorbed all the large brickmakers of the city. Mount Vernon-Woodberry cotton duck mills were brought under a trust agreement, together with several southern cotton mills; their owners aimed at an international monopoly of cotton thread as well. The rival utility companies were gathered into unified monopolies: the United Railways, the United Electric Light and Power Company, and the Consolidated Gas Company. The new powerhouse of United Electric on Pratt Street in the inner harbor in 1899 was a massive and even elegant symbol of the new technology and the new corporate monopoly.

Local mergers characterized the industries whose national production was concentrated in Baltimore, such as canning, can making, and cotton duck, or whose market was confined to Baltimore by peculiarities of transport or distribution, for example, brewing, brickmaking, mass transit, gas, and electricity. Although they paid a tribute to New York or Philadelphia financiers for capital and patents, Baltimoreans were able to retain control of their local monopolies, knowing that Philadelphia or New York producers could not supply Baltimore markets for beer and bricks and gas. Other Baltimore industries, however, competing in national markets, were absorbed into national pools and trusts.



"Baltimore in 1889," a lithograph by Isaac Friedenwald, records the enormous growth of the city and represents the related industrialization with dozens of smoke plumes.

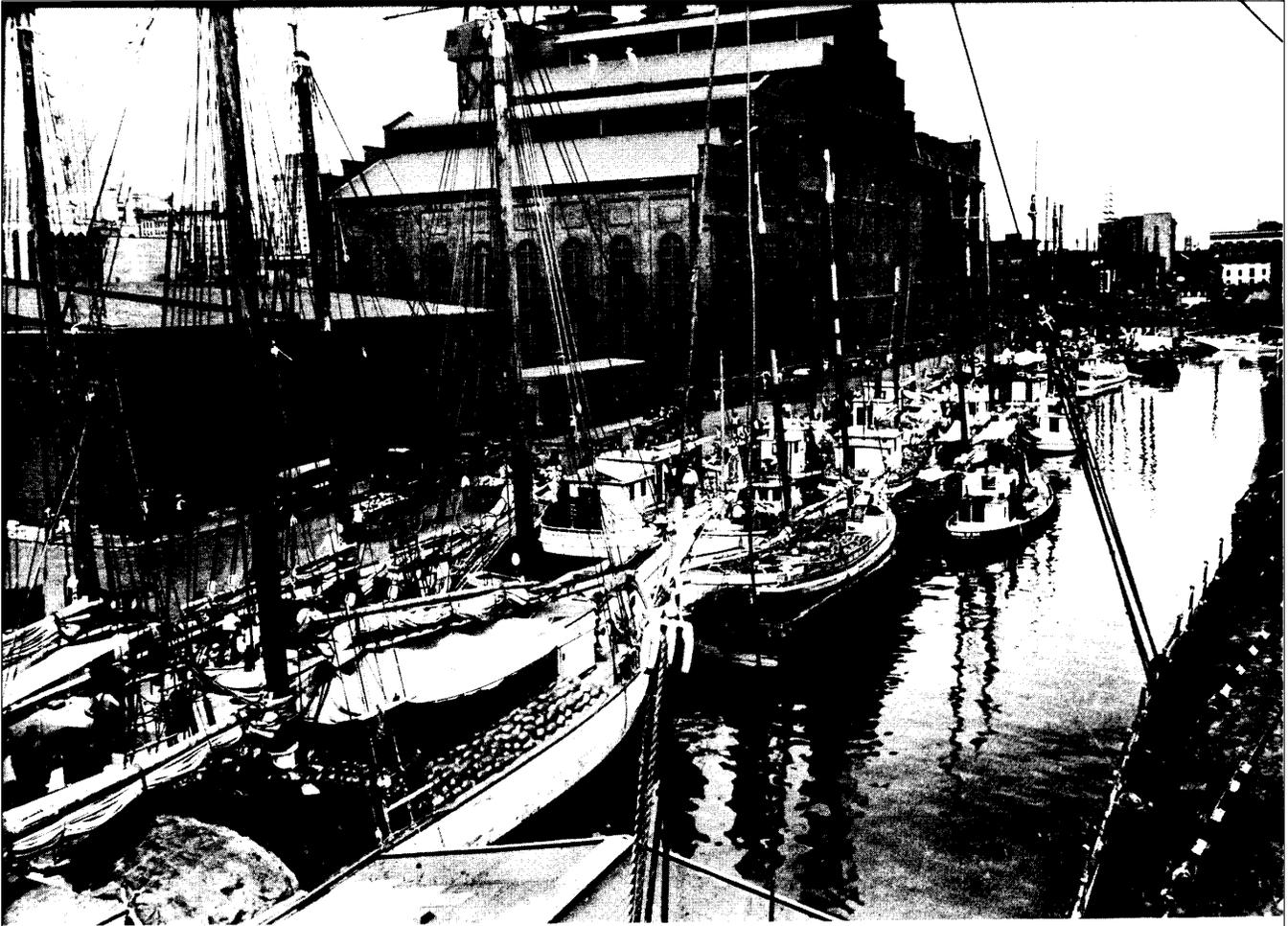
Standard Oil was the model. By thwarting the pipeline to Baltimore in 1877, Rockefeller had succeeded in merging all the independent refineries of Baltimore into the United Oil Company. He and Gould then developed Western Union into a monopoly, and in 1887 bought out the last holdout, the telegraph company of the B&O Railroad. They paid Robert Garrett \$5 million in Western Union stock plus a fifty-year rental. As the nationwide mergers accelerated, more Baltimore businesses were absorbed. The moment of truth came in 1898–99. Within the space of two years the industrial base of Baltimore was sold out of town—lock, stock, and barrel.

Baltimore had been a most old-fashioned town in terms of family ownership of industry. It was the last of the city-states of the East. Its diversified manufactures had grown out of local resources, family talent, regional demand, in-grown linkages, and the internal accumulation of capital. Over eighteen months Baltimore was converted, once and for all, into a branch-plant town. American Tobacco bought out both Marburg and Gail & Ax. American Sugar Refining, a national trust, bought a controlling interest in the Baltimore Sugar Refining Company. American Type Founders absorbed all the type foundries, and a New York company (later Nabisco) bought out Mason Bakery, the oldest and largest bakery south of New York City. American Agricultural Chemical Company bought out the eight big fertilizer companies in Baltimore. Matthai, Ingram was sold to a new \$30 million corporation, National Enameling and Stamping.<sup>85</sup> McShane and Regester, two of the city's largest foundries, were absorbed by Central Foundry Co., known as the soil pipe trust. The enamel and soil pipe trusts were relatively effective monopolies in their sectors of the economy. Produce merchants from Baltimore, New York, Philadelphia, and Boston orga-

nized a tropical fruit combine (United Fruit) with sugar, coconut, and banana plantations.<sup>86</sup> B. N. Baker's Atlantic Transport Line and Baltimore Storage and Lightering Co. were the backbone of J. P. Morgan's international shipping trust, which split the market, dividing European and American ports of call with the major German steamship lines. The Old Bay Line steamers, largest in the regional network, were purchased by the railroads in the Morgan group. Cochran-Oler sold out to the ice trust (Knickerbocker of Maine), Monumental distillery to the whiskey trust (Standard Distilling), Knabe to the American Piano Company, and Keyser's copper refinery to Rockefeller's Anaconda.

What made this swift sellout possible? The roller-coaster business cycle offered a toehold to outside financiers. An enterprise that needed capital urgently to take advantage of the boom economy in the early '80s or early '90s mortgaged its physical assets to New York bankers, chiefly banks associated with J. P. Morgan or John Rockefeller. In the depression years (beginning in 1893), the mortgage holders foreclosed or forced corporate reorganizations favorable to themselves as bondholders. In 1898 a higher tariff lessened foreign competition, but "just in proportion" it increased domestic competition. At that moment the Spanish-American War provided immense market opportunities—the sale of cans, ships, and shipping services to the army and navy, and the purchase of land in Cuba for iron ore, copper ore, sugar cane, and asphalt. The war also generated huge increases in the money supply and commissions on unprecedented war loans. Morgan's syndicate floated the federal war loans. The war boom thus allowed it to capture new enterprises and new sectors of the economy, forming gigantic national monopolies, the so-called industrial trusts. The legal trusts, developed out of the old family law protecting widows and orphans, was yet further developed in this generation. A trust was designed to protect the interests of several parties with different time horizons and risk preferences, that is, different conceptions of the relative values of income this year versus income ten or twenty years in the future. The trust was used to preserve wealth from generation to generation by limiting its dispersion or waste. It could also be used to concentrate control of the wealth of many individuals or corporations in the hands of a few, in particular, to insure control by mortgage or bond holders (financiers) in the management of railroads and industrial corporations. In the industrial trust, stockholders exchanged their stock for trusteeship certificates, leaving control of the corporation in the hands of two or three trustees. Such a trust could be set up to harmonize the management of competing corporations and achieve monopoly in a branch of industry. Again, the model was Rockefeller's Standard Oil trust. Used in this way, the trust was a mechanism of redistribution, designed for the concentration of wealth, both immediately and in the long run.

The formation of nationwide trusts to supply national markets from strategic large-scale plants depended, of course, on cheap, efficient transportation. Investment in railroads—more powerful engines and vast switchyards—made possible the intensification of exchange. The success of John Pendleton Kennedy's idea that Baltimore must extend its lines like the spider now made it possible to integrate the national economy and to rationalize production into

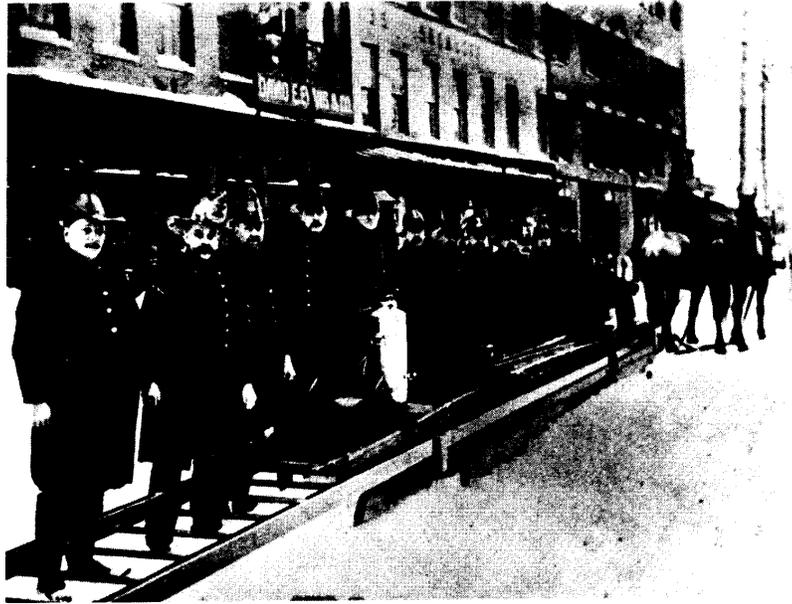


larger units. Kennedy had visualized a web by which the whole southeast and midwest would become tributary to Baltimore, but the traffic ran two ways. Some enterprises in Baltimore grew large, like the Sparrows Point steel plant and Bartlett-Hayward. Sparrows Point imported Cuban ore and manufactured a huge floating dry dock for Manila Bay. Bartlett-Hayward began exporting gasholders and sugar processing plants to Montana, Chicago, Cuba, and Venezuela, as well as to cities of the southern United States. Meanwhile, other Baltimore plants were sacrificed: the sugar refinery and McShane's and Regester's foundries were shut down soon after they were absorbed by the trusts. Local ties were loosened or broken as nationwide linkages were tightened and woven together. The Atlantic Transport Line ordered its ships built in Belfast, inside the trust group, instead of in Baltimore. United Fruit had its steamships built in Boston, the old Bay Line in Wilmington. The tin-plate trust, wholly outside Baltimore, succeeded in raising the price of tin plate, thus raising costs to the Baltimore can makers and the Baltimore-based canneries.

Financial centralization was also founded on the financial cohesion of transport. Just as Rockefeller had monopolized oil markets by his grip on railroads and pipelines, the other industrial trusts were also founded on privileged relationships with railroad and steamship lines. The great industrial trusts were all associated with the great railroad groups, aligned principally with either Rockefeller or Morgan. The depression of '93 bankrupted 210 railroads. Reorganizations engineered by Morgan allowed most of them to become solvent and self-directing again by 1899, but they were in new hands, paid higher tribute,

The massive generating plant that powered much of the electric street railway system reflected a complex technology that still coexisted with the watermelon boats of the bay.

A crippling snowstorm in 1899 prompted men of Fire Company No. 1 to devise a makeshift sled to get through the snow-choked streets.



and worked in closer cooperation with Morgan. In 1898-99 Morgan got control of all of the southern railroad systems, in particular, the Atlantic Coast Line, the Seaboard Air Line Railroad, the Southern, and the Central of Georgia. The tug of war among New York capitalists meant wresting control from Baltimore and other southern financial barons such as Henry Walters, John Cowan, and J. Skelton Williams. These events were followed closely by Baltimore investors, but strictly in dollar-and-cents terms or in individual fortune and prestige. Only one chain of events dealt a blow to their morale as Baltimoreans—the embarrassment of the B&O Railroad. Here Baltimore's men of wealth as a group seemed to sense a loss of identity and self-determination.

Events on the B&O reveal how Baltimore's identity was submerged in the demand for greater capital, the intensified exchange in the whole economy, and the rhythm of financial crisis. The B&O had refinanced in 1875 and 1877 through the house of Morgan. Then, to compete with the Pennsylvania Railroad (closely connected with Rockefeller), the B&O built its lines to New York and Chicago and its tunnels through Baltimore. These projects were gluttonous of capital. A "car trust" and mortgage allowed the company to buy Mogul engines and coal cars to handle the increased traffic of the boom years. But each boom was followed by a depression that cut back railroad revenues, while the interest on the immense loans had to be paid steadily. Like the municipal corporation, the B&O began depending on short-term loans, putting more and more debt-service strain on the operation and cutting down its flexibility for the next crisis. In 1890 the city sold its share in the B&O. So did the state. So did Alexander Brown. The university was constrained by Johns Hopkins's wishes and by Robert Garrett's presence on the board not to sell its B&O stock, but the board was unnerved enough to accumulate a building fund from the income. When the B&O failed to pay any dividends in 1887, 1888, and 1889, the university survived by paying salaries out of the building fund. The panic of 1893 was the last straw. It was precipitated by the failure of the house of Baring in London, who had been bankers to the B&O. The railroad ceased to maintain its tracks and buildings and its efficiency declined, till it mortgaged even its magnificent Central Building

at Charles and Baltimore streets. Finally, when a New York bank foreclosed on a loan in February 1896, the New York courts appointed receivers.<sup>87</sup>

The B&O was bankrupt. The reorganization, planned by John Cowan (earlier involved in reorganization of the Seaboard Air Line Railroad), was approved by J. P. Morgan and by Alexander Brown II, who had a large interest in the Belt Line bonds. The receivers generated a miniboom in Baltimore and Cumberland by ordering \$12 million worth of labor on track and equipment. Not all of this money was spent in Baltimore: the steel rail was manufactured by the U.S. Steel trust, and the two hundred engines by the locomotive trust, in Philadelphia and Lima, Ohio. Baltimore was no longer in a position to insist on its right to home investment. When the receivership ended (30 June 1899), the capital value of the B&O was restored. In fact, it was magnificently increased. But Baltimore had lost control of it. The new owners were a Chicago group—Armour, identified with Chicago beef; Field, with the Chicago department store; and Hill, with the northwestern railroads. The railroads Baltimore had built to make a region tributary to itself now made Baltimore and its region tributary to Chicago and New York.

The financial roller coaster stirred great changes of mood. Crisis gave way to euphoria. The mood of 1898 was that of a great "bubble." Nationalism and distant excitements fermented in all sections of society. The phosphate owners protested because Navassa Island had been seized by the Haitians. Landowners agitated for a navy yard. The saddle and harness merchants of Baltimore wanted to make the city a port of embarkation. Large and small lenders elbowed each other to buy government bonds. At Grace Methodist Church amid a profusion of flowers four hundred children dressed in white unfurled small flags and waved them high over their heads as they sang, "Then conquer we must."<sup>88</sup> The Colored High School graduates in their dress suits or white gowns and bouquets gave school yells while they waited for the curtain of Ford's Theater to rise:

Cuba, Cuba, bow, wow, wow!  
Libre, libre, chow, chow, chow!  
Vengeance, vengeance, down with Spain!  
Yankee, Yankee, remember the Maine!<sup>89</sup>

The sudden tide in national mood was the climate for the sellout of Baltimore industry. "The owners of great manufacturing establishments were seized with a mania for consolidation as if it were the true and only panacea for the ills under which they imagined themselves to be suffering."

The same national excitement influenced the style of reinvestment. As outside capitalists bought Baltimore industries, they paid off the Baltimore owners or stockholders. This meant a sudden conversion of wealth in Baltimore. The former owners often took as much as two-thirds of the payment in the form of common stock in the new or merged corporation. Their control was diluted in the trust or holding company. For many years Baltimoreans continued to hold large blocks of National Enamel and Stamping, American Agricultural Chemical, and American Tobacco. But they took the other third or two-fifths in cash. These

windfalls of cash at the turn of the century had to be invested. Baltimoreans sowed large sums in real estate, and overnight created a new superstructure of local trust companies to invest their ready money. Thirteen trust companies, with capital and surplus of \$40 million, were organized in this generation, half of them in a single year (1898/99).<sup>90</sup> Their stock was oversubscribed, and the shares sold at a premium of 50 percent "before even the office furniture had been procured." Through these financial holding companies, as well as directly, Baltimoreans consolidated their local monopolies and invested in similar enterprises in the South—streetcar, gas, and electric companies.<sup>91</sup> The *Manufacturers Record* estimated that Baltimoreans had \$100 million invested in the southeastern United States, half accumulated in that magic year. The Baltimore trust companies also favored bonds rather than stocks and saddled their utilities with heavy bonded debt and heavy fixed costs. Mercantile Trust (founded by John Gill and the Hambletons) participated in the B&O car trust, the related South Baltimore Car Works, and later the Baltimore brewery combine. The Realty Trust made loans to the Baltimore Brick Company, the suburban development of Walbrook, and a coal syndicate. Union Trust participated in street railway bonds and the cotton duck mortgage. Founders of Continental Trust, with \$2 million capital and \$2 million surplus, were the Warfields, Alexander Brown, George Jenkins, and Isidor Rayner. Local trusts like the brewery combine and the cotton duck and brick merger were also speculative: "The common stock was wind and the preferred three-quarters water." Within a year or two they had to be reorganized, "both wind and water being drastically pumped out of them."<sup>92</sup>

The new financial groups naturally invested part of their resources in monuments to finance, designed by the more distinguished church architects. The Mercantile Trust was one of the earliest. Farmers and Merchants National built a five-story brownstone building at South and Lombard streets. Joseph E. Sperry designed the Maryland Life Insurance Company building in South Street (1893), and Baldwin and Pennington the Merchants' National bank at the corner of Water and South streets. Seven stories high, it was in Renaissance style, with the interior of "variegated marbles, all handsomely carved and polished." It featured the ultimate in modern communications, three high-speed passenger elevators "enclosed by ornamental bronze screen work," and a Cutler mail chute. Uptown, the Equitable and the Fidelity trust companies built office buildings and located on high ground close to the new city hall and the courthouse. The buildings of the windfall of 1899 rose even higher, and introduced "fireproof" construction of steel and concrete, such as the Continental Building. Realty Trust built the Belvedere Hotel. George A. Fuller of Chicago built the ten- to twelve-story buildings of Atlantic Trust, Guardian Trust, and the Calvert Building. A massive courthouse was undertaken with immense marble columns.<sup>93</sup>

In spite of the new downtown monuments, in 1899 Baltimoreans looked at the city and felt it had not completed its superstructure. It was "the steeple without the spire." Its old-fashioned skyline and its business streets bound down with electric wire worried its businessmen. The spires and pinnacles of finance were in New York and Chicago.

### *Consolidation*

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19. Richard T. Ely, *The Labor Movement in America* (New York: T. Y. Crowell & Co., 1886), p. 56.
20. *Ibid.*, p. 34.
21. Gibbons to Elder, cited in John Tracy Ellis, *The Life of James Cardinal Gibbons, Archbishop of Baltimore, 1834-1921*, 2 vols. (Milwaukee: Bruce Publishing Co., 1952), pp. 447, 494.
22. *Ibid.*, p. 503.
23. *Ibid.*, based on a draft of minutes of the meeting at the cardinal's residence, 28 October 1886.
24. *American*, 30 April 1886.
25. Farrell, *Streetcars*.
26. *Sun*, 21 August 1893.
27. *Ibid.*, 3, 4, 6, and 10 July 1893.
28. *Ibid.*, 12 January 1894.
29. William Keyser, "Recollections of a Busy Life," 3 vols., Maryland Historical Society, Baltimore, Md., pp. 393, 414.
30. George W. Engelhardt, *Baltimore City, Maryland: The Book of Its Board of Trade* (Baltimore, 1895). Other useful details on turn-of-the-century industrial and commercial buildings can be found in *A History of the City of Baltimore, Its Men and Institutions* (Baltimore: *American*, 1902).
31. Harry G. Schalck, "Planning Roland Park, 1891-1910," *Maryland Historical Magazine* 67 (1972): 419-28. See also *Sun*, 26 September 1893.
32. G. W. W. Hanger, "Housing of the Working People in the United States by Employers," in U.S., Bureau of Labor, *Extension Bulletin*, no. 54 (1904), pp. 1191-1243. Leifur Magnússon, "Housing by Employers in the United States," in U.S., Department of Labor, Bureau of Labor Statistics, *Bulletin* 263, miscellaneous series (1920): 164-72. Maryland Bureau of Industrial Statistics, *2nd Biennial Report, 1886-87*. Report of the eighth national convention of bureaus of labor statistics, Maryland Bureau of Industrial Statistics, *Annual*

Report, 1891, pp. 124-25. J. Thomas Scharf (commissioner of Land Office of Maryland from 1 December 1885 to 1 January 1888), "Report to the Governor" (Annapolis, 1888).

33. Riverview Park is now the site of the Western Electric plant; Shore Line Park is the site of South Baltimore General Hospital.

34. *Sun*, 29 July 1893.

35. *Ibid.*, 8 August 1893.

36. *Ibid.*, 15 July 1898.

37. Engelhardt, *Baltimore City*.

38. Jacob H. Hollander, *The Financial History of Baltimore* (Baltimore: The Johns Hopkins Press, 1899).

39. Maryland Bureau of Industrial Statistics, *6th Annual Report* (Baltimore, 1897), pp. 82-89. See also Henry N. Bankard, "Some Mistakes in Taxation," *Addresses before Landlords Mutual Protective Association* (Baltimore 1889), pp. 22-42.

40. Building and loan association lists and lists of incorporations are found in Maryland Bureau of Industrial Statistics annual reports.

41. Francis T. King, cited in Richard T. Ely, *Taxation in American States and Cities* (New York: T. Y. Crowell & Co., 1888).

42. Frederick J. Brown, *Streets and Slums: A Study in Local Municipal Geography* (Baltimore: Cushing, 1894). Of the annual city budget, about a quarter was spent on streets and their maintenance, a quarter on schools, a quarter on water, and the last quarter on the traditional fire and police services. For an analysis of public investments, see Alan D. Anderson, *The Origin and Resolution of an Urban Crisis: Baltimore, 1890-1930*, (Baltimore: The Johns Hopkins University Press, 1977).

43. On the sequence of problems in Harford Run, see Baltimore City Council journal, 1st branch, 31 January 1843; *Sun*, 3 and 12 February 1848; 5 April, 30 May, and 8 June 1849; 22 January and 25 February 1851; and July 1852; annual reports of the city commissioner for 1877, 1878, 1881; annual reports of the board of health for 1854-56, 1860, 1861, and 1877; and mayor's messages for 1816, 1829, 1849, 1862, and 1879. On the diversion to Harris Creek, see city commissioner's annual reports, 1881-86, and "Report of the Sewage Commission, October 19, 1911," on storm of August 25.

44. Alfred D. Chandler, Jr., *Strategy and Structure: Chapters in the History of the American Industrial Enterprise* (Cambridge, Mass.: M.I.T. Press, 1962). Professional management was introduced in the reform of the Baltimore schools in 1880, the judges' campaign in 1882, the fire department in 1892, and private charities and welfare in 1895.

45. Ely, *Problems of To-Day* (New York: T. Y. Crowell, 1888), p. 55. The articles on tariffs, taxation, and monopoly originally appeared as articles in the *Sun*. See also Ely, *Land Economics* (reedited with George S. Wehrwein, 1940; reprint ed. Madison: University of Wisconsin Press, 1964).

46. Ely, *Problems of To-day*, p. 138.

47. *Ibid.*, pp. 173-74.

48. *Ibid.*, p. 160.

49. *Sun*, 21 November and 2 December 1889.

50. *Ibid.*, 3 August 1893.

51. City Commissioner, *Annual Report*, 1894.

52. C. H. Latrobe, "Report to the Mayor and City Council upon a Plan of Sewerage for Baltimore City, and Its Probable Cost" (Baltimore, 1881).

53. Maryland Bureau of Industrial Statistics, *Annual Report*, 1894.

54. *Sun*, 28 December 1893.

55. *Ibid.*, 25 January 1894.

56. *Ibid.*, 26 September 1893.

57. *Ibid.*

58. Maryland Bureau of Industrial Statistics, *3rd Annual Report*, 1894. See also idem, *10th Annual Report*, 1902, pp. 139, 152-67; *11th Annual Report*, 1903; *13th Annual Report*, 1904; and *17th Annual Report*, 1908, p. 243.

59. *Sun*, 17 August and 25 December 1893. The last to move was the latest created: the

indicated in Chaloner B. Schley, "Baltimore's Role in International Banking," *Baltimore Magazine* (December 1971), pp. 24-32; and Frank DeFilippo, *News American*, 17 and 18 December 1967.

13. Martin Millspaugh, *Baltimore's Charles Center*, technical bulletin 51 (Washington, D.C.: Urban Land Institute, 1965).

14. *Sun*, 17 and 26 April and 9 July 1945. Maryland Commission to Study and Report on the Transportation System Operated by the Baltimore Transit Company, "Report to Governor McKeldin, under 1951 Act of Maryland Legislature." See newspapers during transit strike, 30 January-5 March 1956, for discussions of transit company finances.

15. Portland cement shipped into Maryland rose from 1.5 million barrels a year in 1935 to 8 million barrels in 1973 (U.S., Bureau of Mines, *Yearbook*). About 1.5 barrels, or 550 pounds, of cement are used for a cubic yard of concrete in expressway construction. The yearly energy requirement to produce the cement alone would be about a million barrels of oil plus 100 kilowatt hours of electricity.

16. *Sun*, 4 April 1945; *Evening Sun*, 14 November 1952 and 20 November 1955; *Power and Fuel Pictorial* 85, beltway edition (December 1962); *Sun*, 29 August and 18 November 1971 and 27 August 1972. Marc Reutter, "The Thirty Years War" (Paper, The Johns Hopkins University, February 1972). Douglas H. Haeuber, *The Baltimore Expressway Controversy* (Baltimore: The Johns Hopkins University Center for Metropolitan Planning and Research, 1974). Urban Design Concept Associates, *Segment Area Reports* (1 November 1968) and *Point III Reports* (July 1970), prepared for Maryland State Roads Commission and Interstate Division for Baltimore City. On the highways and parks, see James Dilts, *Sun*, 29 September 1968; "A Study and Recommendations for the Recreational Development of the Patapsco River Valley Park" (Report to Mayor T. R. McKeldin, May 1946, in Enoch Pratt Free Library); BURHA, "Jones Falls Valley Woodberry-Hampden Study" (Baltimore, 5 April 1963); and "Plan of Municipal Art Society and Greater Baltimore Committee for a Jones Falls Valley Park" (Baltimore, n.d., ca. 1963).

17. See chapter 2, note 25, on the road building controversy of 1784, and chapter 4, note 16, on the controversy of 1804.

18. Joseph Albright, *What Makes Spiro Run* (New York: Dodd, Mead, 1972). See also Franklin L. Burdette, "Modern Maryland Politics and Social Change," in *Maryland: A History, 1632-74*, ed. Richard Walsh and William Lloyd Fox (Baltimore: Maryland Historical Society, 1974), pp. 881-83.

19. *Evening Sun*, 22, 28, and 29 September 1970; *New York Times*, 13 September 1970.

20. *Sun*, 23 May 1943; see also 13 November 1943.

21. *Ibid.*, 31 July-2 August 1943.

22. *Ibid.*, 18 October 1943.

23. *Ibid.*, 11 August 1944.

24. Joseph P. Healy, chairman, *Report of the Governor's Commission on Problems Affecting the Negro Population* (Baltimore, 1943). *Sun*, 12 February 1950. Baltimore Community Self-Survey of Intergroup Relations, *An American City in Transition* (Baltimore, 1955).

25. To situate Baltimore school integration in the national context, I relied heavily on Richard Kluger, *Simple Justice* (New York: Random House, 1977). The term "infant appellants" is attributed by Kluger (p. 645) to Charles Black, 1953. For Baltimore reactions to Supreme Court cases, see *Afro-American*, 14 November and 5 December 1953, and 29 May and 5 and 12 June 1954.

26. On Lillie Jackson and Thurgood Marshall, see vertical files, Enoch Pratt Free Library, Baltimore, Md.

27. *Afro-American*, 13 September 1952.

28. National Education Association, *Baltimore, Maryland, Change and Contrast: The Children and Public Schools* (Washington, D.C.: NEA, 1967).

29. *Ibid.*, p. 57.

30. *Milliken v. Bradley*, 94 S. Ct. 3112 (25 July 1974) applied to Detroit, as cited by Kluger, *Simple Justice*, p. 773.

union of two small Orthodox congregations in 1879 founded Shearith Israel; in 1903 they moved to McCulloh Street, near North Avenue. See Isaac M. Fein, *The Making of an American Jewish Community: The History of Baltimore Jewry from 1773 to 1920* (Philadelphia: Jewish Publication Society, 1971); Joseph A. Feld, "The Changing Geography of Baltimore Jewry" (Paper, The Johns Hopkins University, 1968); and *Jewish Social Register* (Baltimore, 1904).

60. *Jewish Messenger* (New York), 25 November 1881 and 30 June, 18 August, and 3 November 1882.

61. *Ibid.*, 16 June 1882.

62. *Ibid.*, 21 January 1881.

63. *Ibid.*, 27 December 1878 and 28 February 1879.

64. *Ibid.*, 25 February 1881. See also Rose Zeitlin and Henrietta Szold, *Record of a Life* (New York, 1952).

65. Mary E. Richmond, *The Long View* (New York: Russell Sage Foundation, 1930). The group of articles includes "What Is Charity Organization?" from *Charities Review*, January 1900.

66. Trustees of the Poor, *Annual Report*, December 1896; and Commission on City Charities, *Annual Report*, 1897.

67. *News*, 20 September 1892, as cited in James B. Crooks, *Politics and Progress: The Rise of Urban Progressivism in Baltimore, 1895 to 1911* (Baton Rouge: Louisiana State University Press, 1968), p. 20.

68. *American*, January 1886.

69. *Ibid.*, 7 April 1886.

70. Maryland Bureau of Industrial Statistics, *1st Biennial Report, 1884-85*, p. 144.

71. *Sun*, 18 October 1898.

72. Commissioner of Street Cleaning, *Annual Report*, 1896.

73. *American*, 6 June 1886.

74. George P. Rawick, general ed., *The American Slave: A Composite Autobiography* (1941; reprint ed. Westport, Conn.: Greenwood Press, 1972), 16: 56.

75. *American*, 24 February and 29, 30, and 31 March 1886.

76. *Ibid.*, 2 April 1886.

77. John S. Billings, *Vital Statistics of the District of Columbia and Baltimore Covering a Period of Six Years Ending May 31, 1890* (Washington, D.C.: Government Printing Office, 1893). See also the biographical article on Billings by Debra Shore, "John Shaw Billings: Hopkins' Forgotten Soldier," *Johns Hopkins Magazine* 26 (1975): 21-34.

78. I compiled maps of wells (groundwater) and fountains (Gunpowder water) from annual reports of city commissioners and commissioners of health, which list locations of new installations and removals.

79. American Institute of Mining Engineers, *Guide to Baltimore* (Baltimore, 1892).

80. Harvey Cushing, *The Life of Sir William Osler* (Oxford: Oxford University Press, 1925), p. 303.

81. *Ibid.*

82. *Ibid.*, p. 464.

83. Charles Hirschfeld, *Baltimore, 1870-1900: Studies in Social History*, Johns Hopkins Studies 54, no. 2 (Baltimore: The Johns Hopkins Press, 1941); Schonfarber, *Industrial Commission*; H. F. Going, canmaker, testimony in *Report of U.S. Industrial Commission* (1900).

84. Ida Tarbell, *The Nationalizing of Business, 1878-1898* (New York: Macmillan, 1936). John Moody, *The Truth about Trusts* (New York: Moody Publishing Co., 1904).

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86. *Sun*, 6 October 1898.

87. Edward Hungerford, *The Story of the Baltimore and Ohio Railroad, 1827-1927*, 2 vols. (New York: G. P. Putman's Sons, 1928); B&O annual reports; *Sun*, 21 and 23 June 1898; *American*, 28 January 1899.

88. *Sun*, 9 June 1898.

89. *Ibid.*, 23 June 1898.

90. Information on local trust companies is drawn from newspapers, corporate annual reports, and miscellaneous histories and pamphlets in the vertical files of the Enoch Pratt Free Library.

91. *American*, 26 and 31 January 1899.

92. Keyser, "Busy Life," pp. 13-14.

93. *Sun*, 9 and 21 June and 18 July 1898.