

and they knew you, where you could make a stand against the swirling, fearsome tides of the sea of life, only the very old, too poor to move, still lived, almost barricaded in their freezing apartments. As for the rest of the people who had lived there, they were gone.

39. The Highwayman

ON JULY 3, 1945, with the end of the war obviously near, flashbulbs popped as a gray two-door sedan, the first civilian passenger car to be produced in the United States since February 1942, was driven off the assembly line at the Ford Motor Company's River Rouge plant to signal the resumption of automobile production. Within the month, River Rouge and a dozen other giant assembly lines were debouching 25,000 cars per day onto the nation's highways. And on the very first weekend after V-J Day, gasoline rationing ended and America took to the road, with editorial writers cheering "the seemingly endless procession of automobiles" as a welcome return to normalcy.

It took just two weeks for the cheers to turn to groans. Streets and highways, so empty for forty-four months, filled up with astonishing speed; mounting day by day, by the end of those two weeks traffic was back practically to its December 1941 levels. Nowhere did it mount faster than in New York, and New Yorkers who may have forgotten that in December 1941 traffic jams had ceased to be a joke had their memories harshly jogged. The city's consternation was echoed by its press, which detailed the jams in the type of page-one scare headlines that for forty-four months had been reserved for war bulletins (AVENUE TRAFFIC IS TIED UP BY CROSS-STREET CONGESTION, read one *Times* headline. "North-South Arteries Jammed 3 Times in 2 Hours as Lines of East-West Vehicles Extend Across the Intersections"). By August 23, the *Herald Tribune* was demanding to know why the city had not, during the long breathing space afforded by the war, come up with congestion "remedies."

Moses' response—a letter, four times longer than the editorial, sped to the *Tribune* by limousined secretary—accused the newspaper of "ignoring and playing down what in other less busy and sophisticated communities would be hailed as great achievements."

What has New York done about street congestion? Bless your little journalistic hearts—a hell of a lot. And why sit we idly by without further plans for the big jam singing "Who Threw the Whiskey in the Well?" while up in the Roaring Forties editors are cutting up tires into rubber heels? Tush, tush! The blue-prints are oozing from our files and spilling over the floors. Every day sees visiting firemen in New York not only from the hinterland of America but from the four corners of the emancipated globe, examining our work and asking for copies of our plans. Why are they here if there is nothing to see?

Let's see. We have built and are building wide parkways and expressways, bridges and tunnels, without crossings and lights, with service roads for local use and parking, belt and crosstown systems which take through traffic off ordinary streets and enormously cut down congestion. . . . Then we have great new parking spaces in parks, at beaches and along parkways. . . . We have eliminated railroad grade crossings which blocked traffic for miles on Atlantic Avenue and Rockaway, and substituted boulevards for tracks. Trolley tracks are being ripped up all over town to promote the flow of traffic. . . .

Stick around, Mr. Editor, and continue to give us your support. Traffic will run pretty smoothly here within three years, the time needed to carry out our plans.

Soon Moses was documenting the extent of those plans. Blueprints were ready, he said, for widening the city's old boulevards—Horace Harding, Queens, Conduit, Northern, Eastern—and his old parkways—the Belt, the Gowanus, the Cross Island, the Laurelton—and for building close to a hundred miles of new, broader roads, "expressways" to carry not only automobiles but trucks and buses. Soon New York's newspapers began to be filled with names like "Bruckner," "Van Wyck," "Major Deegan,"* "Cross-Bronx," "Brooklyn-Queens," "Harlem River," "New England," "Richmond," "Willowbrook," "Clove Lakes." Also on the agenda, he disclosed, were three monumental "crossings" of Manhattan Island: "Lower Manhattan," "Mid-Manhattan" and "Upper Manhattan" elevated expressways. And that was just within the city. On Long Island, the old parkways whose names were synonymous with his—the Southern State, the Northern State, the Wantagh, the Ocean—were to be widened and extended, the Northern State deep into Suffolk County, and new parkways—the Meadowbrook, the Captree—were to be built. In Westchester, the Cross County and Sprain Brook parkways were to be built, the Taconic, Bronx River and Saw Mill widened. The blueprints may, indeed, have been spilling over the floors. What Robert Moses was proposing was the widening or construction from scratch of no less than two hundred miles of roads. And the agenda did not include merely roads. There were also the facilities to carry traffic under and over the waters that divided the city. While completing Ole Singstad's huge Brooklyn-Battery Tunnel, he had begun preliminary planning for two huge bridges, a "Throgs Neck" span two miles east of the Bronx-Whitestone, and a "Narrows Crossing" to Staten Island.

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During the 1930's, Robert Moses had announced a program—of New York City bridge and arterial highway construction and park reconstruction—which, taken as a whole, as the single, coordinated system it was, dwarfed

* Major William F. Deegan was City Tenement House Commissioner and a former state commander of the American Legion. He died in 1932.

any public work or coordinated system of public works built in any modern city, and, perhaps, in any ancient city as well.

The program Robert Moses was announcing now—during the 1940's—would, if completed, dwarf those earlier programs. And, he said, there was no reason why it shouldn't be completed; it was, he said, no mere visionary dream; not only blueprints but money—mostly state and federal money, reserved during the war years through his efforts in Albany and Washington—were largely in hand; "the postwar highway era is here."

But, strangely, the troops did not respond to this ringing trumpet call as they had to his trumpet calls of the past.

Even before the war, of course, some urban planners had begun to see—largely because of the effects of Moses' creations—that building more traffic facilities would not in itself cure traffic congestion.

These planners had said—the Regional Plan Association had been saying it since 1929 and, after the opening of Moses' creations during the 1930's, with increasing urgency—that the movement of people and goods in a great metropolitan region required a *balanced* transportation system, one in which the construction of mass rapid transit facilities kept pace with the construction of roads. During the last two or three years before the war, a few planners had even begun to understand that, without a balanced system, roads not only would not alleviate transportation congestion but would aggravate it. Watching Moses open the Triborough Bridge to ease congestion on the Queensborough Bridge, open the Bronx-Whitestone Bridge to ease congestion on the Triborough Bridge and then watching traffic counts on all three bridges mount until all three were as congested as one had been before, planners could hardly avoid the conclusion that "traffic generation" was no longer a theory but a proven fact: the more highways were built to alleviate congestion, the more automobiles would pour onto them and congest them and thus force the building of more highways—which would generate more traffic and become congested in their turn in an inexorably widening spiral that contained the most awesome implications for the future of New York and of all urban areas. The only remedy that could check that vicious spiral was the coordination of new highways with new mass transit facilities—and not only was New York's Coordinator not planning any such facilities himself; his monopolization of construction funds and his hold over the city's government were making it impossible for anyone else to plan them either. He was, in fact, destroying some of the old facilities, not only the trolley tracks which he was boasting about "ripping up all over town" but the Third Avenue elevated mass transit line, which he was moving to have torn down. Viewed in this light, tearing tracks up and elevateds down was not an achievement but a disaster. And tearing them down was only one method of destroying mass transportation facilities. Moses—whether by design or out of ignorance of the effect of his policies—was employing other methods with equal effect. Highways competed with parallel mass transit lines, luring away their customers. Pour public investment into the improvement of highways while

doing nothing to improve mass transit lines, and there could be only one outcome: those lines would lose more and more passengers; those losses would make it more and more difficult for their owners to sustain service and maintenance; service and maintenance would decline; the decline would cost the lines more passengers; the loss in passengers would further accelerate the rate of decline; the rate of passenger loss would correspondingly accelerate—and the passengers lost would do their traveling instead by private car, further increasing highway congestion. No crystal ball was needed to foretell such a result; it had already been proven, most dramatically perhaps in New Jersey, where the Susquehanna Railroad had lost over two-thirds of its passengers in the ten years following the opening of the George Washington Bridge, but also in New York, where the New York Central had been hit hard by the Triborough Bridge, and the Long Island Rail Road had watched more passengers drift away each time a new Moses parkway opened. No crystal ball was needed, therefore, to foretell the end result of Moses' immense new highway construction proposal, coupled as it was with lack of any provision whatsoever for mass transit: it could not possibly accomplish its aim, the alleviation of congestion. It could only make congestion, already intolerable, progressively worse. His program was self-defeating. It was doomed to failure before it began. It just didn't make sense.

It made less sense still, these planners felt, because of certain implications peculiar to the Moses style of highway building.

Roads opened new areas to development. (Moses' prewar parkways had caused a vast upsurge in population on Long Island before the war, both in Brooklyn and Queens, and in the suburban counties of Nassau and Suffolk.) Subways opened areas to development, too, but development in a different pattern. Because people arrived home from the subway on foot and didn't want to walk too far after they reached their stop, subway-inspired development was development close to subway stations: high-density, predominantly apartment-house development. There were suburban-type, single-family-home communities in New York City served by the subway—Sunset Park was one—but the single-family homes in these communities had been placed on small plots by developers who knew that to make these homes attractive to prospective purchasers, they would have to keep the radii of the communities, and the required walking distance within them, reasonable. People arriving home on parkways arrived home in automobiles. It was relatively easy for them to travel far longer distances from their "stops," the parkway exits. Realizing this, developers were able to take advantage of people's growing desire for open space to build on larger plots of land, to spread out the communities in which people lived. Even in Queens and southern Brooklyn, communities created by the opening of Moses' Cross Island and Belt parkways were characterized by larger lot sizes and lower population densities than those created by the opening of subways. Development beyond the city line, freed from the inhibition against large lots inherent in the city's rigid gridiron block pattern, spread more loosely—and widely—still, and as the open spaces of Nassau began to fill up and developers looked for fresh stretches of land to subdivide, they found themselves looking

—and building new communities—much farther away from the center of the city than would have been the case if the impetus to such development had been not roads but railroads. Once, growth in the New York metropolitan region had been, to a great extent, upwards—people being piled on top of people in apartment houses. Now the growth was outwards. Not only was the population of the region growing rapidly (9,000,000 in 1920, it was 11,000,000 in 1930, and, despite the braking effects of the Depression, 12,000,000 in 1940), but it was spreading away from the traditional center of the region even more rapidly.

Had jobs followed the people out into the suburbs, the implications of this spread might not have been so serious. Given the advantages of "open space," they might in fact have been desirable. And normally, because land was relatively so cheap on Long Island, businesses and industries *would* have followed the people out.

But Moses' policies made it impossible for them to do so. Most roads foster commercial as well as residential development, but his parkways were barred to commercial traffic. His behind-the-scenes persuasion of Long Island politicians to zone residential almost all the adjacent land may have kept the parkways pristine and beautiful, but it also kept the land most desirable for commercial development on Long Island closed to such development. Industries and businesses which could have imported raw materials and shipped out finished products by rail instead of truck shied away from Long Island because the Long Island Rail Road, whose lines should have formed the hub of industrial development, was a rickety "Toonerville Trolley" line, and because without a rail connection to New Jersey the rail lines which brought the goods and commerce of the nation into New Jersey could transport it to Long Island only by expensive lightering. So industry and business stayed back in New York City.

In the decade after Moses opened the Southern State Parkway in Nassau County, 200,000 new residents—about 50,000 families—moved into the county, but only 12,000 new jobs were created in the county. This meant that about 38,000 family breadwinners plus tens of thousands of others from the parkway-opened areas of Brooklyn and Queens had to come back into the city to win that bread. Hardly had the war ended when the surge to the suburbs resumed its prewar pace, leaped beyond it and soared to hitherto undreamed-of proportions, spilling beyond Nassau into rural Suffolk. Every projection made by planners showed that hundreds of thousands of families would be moving to Long Island within the next few years. The vast majority of the family breadwinners were going to have to travel into the center city every day to work. To the drivers who had already crammed to capacity and beyond capacity all Moses' roads would be added tens of thousands of additional drivers. How could you possibly build enough roads to accommodate them?

And what about city streets? Once these tens of thousands of additional cars reached the center city, how were they supposed to move around in it? Above the streets? The blighting effect of elevated structures had long since been documented; "We did not tear down the . . . elevated [mass transit]

lines to have them replaced with a maze of overhead motor highways which would rob the city of light and air," said Manhattan Borough President Edgar J. Nathan, Jr., a reformer. Below the streets? The maze of underground subways and utility lines made underground construction prohibitively expensive. On the streets? The streets were already crammed with all the vehicles they could possibly hold.

And where were these cars supposed to park? To Moses' highway trumpet call Nathan quickly added a low-key but penetrating counterpoint: "Mr. Moses explains everything beautifully but not where the motorists are going to put their cars." Planners and reformers picked up the theme. Curbs in the city's central business district were already crammed bumper to bumper—and so were off-street private parking garages. Long Island, of course, was not going to be the only source of additional cars. What about the cars that would be attracted into the city by the new roads Moses wanted built in Westchester County—and by the new roads being built in New Jersey, roads leading to the Lincoln Tunnel, to which the Port Authority was planning to add a third tube, and the George Washington Bridge, to which it was planning to add a second deck? Moses' answer was municipal construction of off-street, multistory parking garages; the answer caught the fancy of headline writers, but planners, costing them out, saw at a glance that no expenditure the city—or even a new public parking authority—could possibly afford could build enough garages to accommodate more than a small fraction of the load Moses was planning to dump on them.

Planners and reformers were raising other questions about Moses' policies.

The Coordinator's proposed highways and garages were designed to help automobile-owning families. But in 1945 two out of three residents of New York City belonged to families that did not own automobiles. Many of these families did not own them because they could not afford to. The Coordinator's subway-fare-increase proposals being advanced at that very moment in Albany would force poor New Yorkers to devote more—in many cases, more than they could afford—of their slender resources to getting around the city. The Coordinator's grabbing of the lion's share of public funds for highways and garages meant that public resources would be poured with a lavish hand into improving the transportation system used by people who could afford cars. Only a dribble of public resources would go into the transportation system used by people who could not—and who therefore rode subways and buses. While the city and state were providing car users with the most modern highways, they would be condemning subway users to continue to travel on an antiquated system utterly inadequate to the city's needs. While highways were being extended into "suburban" areas of the city in which highways were needed—and, in fact, into areas of the city in which highways were not needed, in which the need for highways would be created by the highways—subways would not be extended into areas of the city in which subways were needed. There were subway plans, too, just as there were highway plans; some, such as the proposals for a Second Avenue subway (for Manhattan's far east side and the Bronx) and the Hillside

Avenue subway extension (for northeastern Queens), were advanced enough so that construction could have been begun immediately if funds were provided. But the Coordinator's monopolization of public funds made subway construction impossible. By building transportation facilities for the suburbs, he was insuring that no transportation facilities would be built for the ghettos. Therefore, planners saw, in the transportation field, the portion of the public helped by the use of public resources would not be the portion of the public that needed help most.

For the well-to-do residents of the "suburban" areas of northeastern Queens, not having a subway nearby meant having to take a bus or drive a car to the end of the line in closer to Manhattan or having to drive all the way into Manhattan and back every working day. This was a hardship. But for the impoverished residents of the southeastern Bronx, not having a subway nearby and not owning a car meant taking a bus to the subway and that meant paying a double fare each way—twice a day, five days a week—and that meant paying money that many of these residents simply could not afford. And *that* meant that often these residents walked to the subway, walked a mile or more, in the morning and home in the evening when they were tired. And it meant that on weekends, families that would have liked to take their children on trips—to a museum or a movie downtown or Coney Island or some other park (particularly to a park, since Moses had built few in "lower-class" neighborhoods) or to visit a friend who lived in another neighborhood—stayed home instead. The Coordinator's policies were doing more than simply not helping these people. They were hurting them.

They were even limiting their freedom to choose a place to live. His denial of funds for the extension of mass transit lines into outlying sections of the city and into the suburbs meant that the new homes and apartments there would be occupied only by car-owning families. Whether by design or not, the ultimate effect of Moses' transportation policies would be to help keep the city's poor trapped in their slums. They were in effect policies not only of transportation but of ghettoization, policies with immense social implications. "We knew we had to do something to halt this trend," reformer Leigh Denniston said in a letter-to-the-editor. "And we were asking how best to do it."

The answer to all the questions raised about Moses' transportation policies was, of course, mass transportation. The problems involved in moving tens of thousands of commuters into and out of the center city in a couple of peak hours every weekday—problems so unmanageable in terms of highway lanes whose peak capacity was 1,500 cars per hour—were reduced to manageable size by rapid transit lines, a single track of which could carry between 40,000 and 50,000 persons per hour, and could bring them into the city without their cars, so that they wouldn't require parking spaces.

Mass transportation was, moreover, the *only* answer. New highways had a vital function to fulfill: the transportation of people and goods that, for whatever reason, had no choice but to use highways, at a reasonable rate of

speed. If you had a viable mass transit system in the region—fast, clean, reasonably inexpensive, modern subways and suburban commuter railroads—you would attract to it a substantial share of the traffic that *did* have a choice, and by removing it from the highways, you would free the highways so that they would be able to fulfill this function. If residents of the region, particularly commuters, did not have a choice, if they were forced by the inefficiencies, inadequacies of service and high fares of mass transit to use highways whether they wanted to use them or not, the highways would never be able to fulfill their function. Build railroads at the same time that you were building roads, and solving the metropolitan transportation problem would be greatly simplified. Pour all available funds into roads without building railroads, and that problem would never be solved.

Public exposure to this point of view was limited. Editorials such as the one in the *Herald Tribune* that so aroused Moses' ire were rare—nonexistent in the two newspapers most decisive in shaping public opinion in New York, the *Times* and *Daily News*; the *News* cheered Big Bob the Builder's "greatest highway plan." Watching traffic pile up in the city, New York's press was screaming for action—and Moses' plan promised plenty of what it considered action.

The public, conditioned by prewar decades of acclaim for road building, accustomed to equating the value of a public work with its size, unaccustomed to critical analysis of public works programs, desperate for action, showed no greater understanding, no comprehension that there might be drawbacks to the biggest road-building plan ever. Writing in *PM* in May 1946, Lewis Mumford tried to explain some of the social implications of building without planning. "A large part of the money we are spending on highways right now is wasted because we don't know whether we want people where the highways are going," he said. But Mumford confessed to despair that the public would understand. "Highways are an impressive, flashy thing to build. No one is against highways."

One did not have to be a Mumford, however, to grasp the fact that Moses' policies might be self-defeating. All one had to do was think about those policies for a while. And, sitting in their cars day after day in ever-lengthening traffic jams, New Yorkers were finding themselves forced to indulge occasionally in that activity. While Moses' plans enjoyed public support through the 1940's, there were signs that it was not as unanimous after the war as it had been before. Denniston's letter was only one of many in which people were trying to articulate new, disturbing thoughts. Within two months after the war's end, editorial pages—not the editorial columns but the letters-to-the-editor columns, in a number which strongly suggests that on this issue the public was ahead of the press—began to contain suggestions like that published on October 22, 1945, in the *Times*: "Why not bar all private cars from Manhattan?" By 1946, such letters were common.

The more informed sections of the public—businessmen exposed at their weekly Rotary or Kiwanis or Chamber of Commerce luncheons to guest speakers familiar with the problem, for example—were even better

exposed to analyses of Moses' policies. It was no longer unusual to find in the back pages of the *Times* or *Tribune* articles like the one reporting that on January 23, 1947, Leslie Williams, of the American Transit Association, had, in an address to the New York City Safety Council, expressed the view that "it would be a whole lot cheaper for a community to subsidize public transit than to spend enormous sums for downtown expressways with no assurance even then that these expressways will relieve congestion."

Rebuffed by O'Dwyer, who summarily referred their inquiries and suggestions to Moses, and forced to admit to themselves that they could suggest no immediate method of financing new mass transit lines, these planners pleaded for the city to take at least one simple, inexpensive step that would make construction of new lines possible in the future.

Building transit lines underground was wildly expensive. Building them at ground level was cheap, so far as construction costs were concerned. It was only when the ground was filled with people that the cost of acquiring it became financially and politically prohibitive. And, planners said, there existed at that very moment an opportunity for obtaining the right-of-way for train tracks quickly, cheaply and with an absolute minimum of public hostility.

The city was about to begin acquiring close to a hundred miles of strips of land between 150 and 250 feet wide, the right-of-way for the Coordinator's new highways. Some of these highways were to run through areas either empty or containing only single-family homes, in which land was relatively inexpensive; in 1945, 21 percent of the city was still undeveloped. Simply obtain another fifty feet of right-of-way, add it to the center malls of Moses' highways, and there would be enough room on those malls for a double-track surface mass transit line, a subway running at ground level. Build the six-lane highways just as you had been planning to do, they urged Moses, but make the center mall wide enough to accommodate those tracks. Then when, sometime in the future, the city was ready to build the subway lines, there would be no problem in acquiring the right-of-way. It would be already available, just sitting there waiting for the tracks to be laid atop it.

Seizing this opportunity would slash at a stroke the Gordian knot of difficulties in the way of providing mass transportation in New York.

Residents of adjacent buildings naturally opposed the construction of noisy, dirty rapid transit lines, often in numbers sufficient to make construction a political impossibility. Build rapid transit lines in the middle of highways, and there wouldn't be any adjacent buildings. The nearest buildings would be cushioned from the trains' impact by a good hundred feet of space—and in the case of expressways depressed in open cuts, by their location below ground level as well. Highways caused noise and dirt and objections, too, of course, but the highways were going to be built anyway; trains on their center malls would add to such inconveniences only minimally. As long as the city must be provided with new mass transportation facilities, and as long

as these facilities could not be built underground, building them on highway center malls was surely not only the cheapest way to build them but the easiest way to minimize political and aesthetic fallout.

If there was any long-range prediction that could be made with any certainty about a city as volatile as New York, these planners felt, it was that such an opportunity would never come again. Expressways spawned intensive development—apartment houses, factories, office buildings—where there had been before only open fields or private homes. The city could afford to acquire open fields or private homes, even the long miles of fields and homes required for Moses' highways. It would probably never be able to afford to acquire long miles of apartment houses, factories and office buildings. And even if it were in some future decade to find the cash to do so, would it be able to find the will? Would not the protests of thousands of voters make the acquisition politically unfeasible? Acquisition of rapid transit right-of-way, so easy in conjunction with the current expressway program, would never be easy again. It might, in fact, be impossible. Fail to grasp the present opportunity and the city might never be able to build sufficient mass transit to significantly improve transportation.

There were no logical reasons not to grasp this opportunity. No federal approval was necessary; the cost of land acquisition was split by state and city. The state was leaving absolute discretion over the design of Robert Moses highways to Robert Moses. The city's share would be so small that even impoverished New York would be able to afford it. The suggestion was not even revolutionary: plans were already under way for the placing of a mass transit route down the center mall of the proposed Congress Street Expressway in Chicago. The suggestion was so logical that it did not even require much imagination to grasp it. All that was required was common sense.

F. (for Francis) Dodd McHugh asked Moses to grasp it in planning the Van Wyck Expressway.

McHugh, a little, bright-eyed Scotsman, had, as chief of the Office of Master Planning of the City Planning Commission, previously aroused Moses' hostility by objecting to his refusal to make provision for schools, libraries and transportation facilities for the residents of his huge housing projects. Calling McHugh a "smart aleck," and his objections "stupid, long-winded, contentious and impractical," Moses told his boss, Edwin Ashley Salmon, "We had better get rid of staff work of this kind." But McHugh had declined to take this subtle hint. Assigned to draw up a *pro forma* "Master Plan of New York City Airports," he ventured beyond the assignment and asked himself how people were going to get to these airports—and came up with some rather striking figures.

By the most conservative estimates, when the immense new airport under construction on the marshes at Idlewild Point in southeastern Queens was in full operation, 40,000 persons would be employed there, and 30,000 passengers would pass through it every day—most of them during morning and

evening "peak period" rush hours. If traffic patterns conformed to those at other major airports, during peak periods 10,000 persons would be trying to get to Idlewild every hour, some of them in multi-passenger buses but enough of them in taxis and private automobiles so that they would be traveling in 3,220 separate vehicles. And heading for Idlewild at the same time would be hundreds of trucks carrying air mail, express and freight.

Most of these vehicles would undoubtedly be using the Van Wyck Expressway; Moses' stated purpose in proposing it was to provide a direct route to the airport from mid-Manhattan. But the Van Wyck Expressway was designed to carry—under "optimum" conditions (good weather, no accidents or other delays)—2,630 vehicles per hour. Even if the only traffic using the Van Wyck was Idlewild traffic, the expressway's capacity would not be sufficient to handle it.

And Idlewild traffic was going to be only a fraction—a small fraction—of traffic using the Van Wyck. The new expressway would be the most direct route not only to the airport but to all southeastern Queens and to the Southern State Parkway leading to fast-growing Long Island. During highway rush hours—which coincided with airport rush hours—the Van Wyck was going to be flooded with thousands of cars heading for *these* destinations. The new road Moses was building could not—even under optimum conditions—possibly come anywhere near fulfilling the purpose for which Moses was building it. And McHugh, who estimated all this traffic conservatively, could not help knowing that his conservatism was not realistic. The air age was just beginning: air traffic was obviously going to boom to immense dimensions. If the Van Wyck Expressway could not come anywhere near handling Idlewild's traffic when that traffic was 10,000 persons per hour, what was going to happen when that traffic increased to 15,000 persons per hour? To 20,000?

Moses' answer was that he was going to widen two other routes to southeastern Queens, the Belt Parkway and Conduit Boulevard. But parkway and boulevard were already jammed far beyond capacity; widen the two roads and they would still be jammed—even without Idlewild traffic. Widening roads could not possibly solve the Idlewild access problem. You'd have to pave over most of southeastern Queens to do that. Building the Van Wyck Expressway was going to cost \$30,000,000. The principal result of the expenditure of that staggering sum would be the condemnation of most of the drivers using the Van Wyck—of generation after generation of drivers using it—to the frustration of being trapped, some of them twice a day for every working day of their lives, in staggering traffic jams.

Building the Van Wyck would raise other questions. Once the cars using the expressway got to the airport, how were they supposed to get around in it? An internal road network of enormous cost and size would be required—and even then congestion inside Idlewild might be even worse than the congestion outside. Where were they supposed to park? Parking lots covering hundreds of acres, *thousands* of acres, expanses of concrete stretching endlessly over the marshland, would be required. Since the marshland would have to be filled in before it could be paved, the construction of such lots would be enormously

expensive. If the lots stretched for miles, parts of them would be miles from the airline terminals. How were the drivers—and their luggage—supposed to get to the terminals after they parked?

Only by building the Van Wyck with rapid transit could all these questions be answered. Three lanes of this particular expressway (not engineered up to later design standards) could, under optimum conditions, carry each hour 2,630 vehicles, most of them bearing a single passenger. One lane of rapid transit could, under optimum conditions, carry 40,000 persons per hour. And with rapid transit, conditions would be optimum far more often than on a highway, whose capacity was reduced far more severely by rain or snow or fog or by blockage by an accident or breakdown. Build the Van Wyck with rapid transit, and you would be insuring that, for generations, persons traveling to Idlewild would be able to get there with speed—an express trip from Pennsylvania Station in mid-Manhattan to the airport would take exactly sixteen minutes—and comfort. And, since the long lines of cars would melt off the expressway, those drivers who still wanted to get to Idlewild by car would also be able to get there with speed.

Building the Van Wyck with rapid transit would, moreover, be easy. The north-south expressway was going to cross Queens Boulevard in Kew Gardens. A subway—the IND east-west line running out from mid-Manhattan eight miles away—crossed that very intersection. When it reached the intersection, moreover, it slanted south—by coincidence, toward Idlewild—for about a mile before heading east again. During that mile, its tracks lay almost precisely beneath the right-of-way that Moses was even then acquiring for the Van Wyck. For a mile of its four-mile length, therefore, the expressway would be running almost right on top of the subway. All that was needed to complete a rapid transit link between mid-Manhattan and Idlewild was to bring that subway up to the expressway's center mall and extend it for another three miles. Nine miles—nine expensive miles—of rapid transit link between mid-Manhattan and Idlewild were already completed. All that was needed to complete the link were three miles—three inexpensive miles—more. Moreover, another subway—the IND's Fulton Avenue line, coming out from lower Manhattan through downtown Brooklyn—ran close to Idlewild's western edge. Build a branch of *that* line into the airport, a simple, inexpensive job, and travelers from lower Manhattan—including the Wall Street business district from which would come so large a proportion of the airport's users—would also be able to reach it by train.

Within the airport, McHugh noticed, the two subways would be running within a few hundred feet of each other—in fact, might even intersect. This, he saw, would enable the city to solve a problem which had plagued it for generations: providing a subway link between downtown Brooklyn and central and northern Queens, two areas connected only by automobile. Link up the two subways within the airport, and the connection between the two areas, so long sought but so long despaired of because of the large expense, would be accomplished at small expense. Rapid transit on the Van Wyck Expressway would solve not only the Idlewild access problem but a host of other transportation problems.

And it would be so easy to make provision for that rapid transit.

Building rapid transit on the Van Wyck would provide advantages not only for New York City but for all Long Island.

The expressway ran right underneath the Jamaica Terminal of the Long Island Rail Road; it was that terminal that Moses was planning to hold aloft while he slid the highway beneath it. Put rapid transit on the Van Wyck and Long Island residents would be able to get to Idlewild simply by taking the Long Island Rail Road to Jamaica and transferring to the rapid transit line below.

Perhaps the city could not afford at the present time even the relatively small cost of the construction of three miles of surface rapid transit. McHugh doubted that this was true; the cost would be no more than \$9,000,000; it made no sense to say that a city that was planning a \$280,000,000 expressway program—of its own money, not counting federal and state contributions—could not afford \$9,000,000 for an improvement that would make the expressways so much more pleasant to use. But even if it was true, he said, even if the city did not construct the rapid transit lines now, at least make provision for their future construction.

The cost of providing the additional fifty feet of right-of-way would be less than two million dollars—about \$1,875,000, McHugh estimated. The Van Wyck Expressway, whose function was to provide reasonably fast, convenient access to Idlewild Airport, was going to cost \$30,000,000, anyway. For that amount, that road would probably never be able to fulfill its function properly. For less than two million dollars more, it would.

Spend the two million now, McHugh saw, and the right-of-way would be available whenever the city wanted to use it. Don't spend it now, and if the city should want to acquire the necessary right-of-way for rapid transit in the future, after the expressway opened, the land would be many times more expensive than it was now. Nor would the cost be limited to the price of the land needed for the right-of-way. Because the land the city would have to acquire would no longer be within the expressway, it would abut three miles of buildings. Their owners would be entitled to substantial damages to compensate them for the noise and dirt of the trains. And land would have to be acquired not only for the tracks but for stations. If provision was not made now for right-of-way along the expressway center mall, the cost of that right-of-way would be not two, but tens of millions of dollars—so high that even if the city were to resolve to bear the enmity of thousands of protesting voters and build a rapid transit line, it might be financially unfeasible for it to do so. Reserve those three miles of right-of-way now, and it would be possible in future years for the city to solve the enormous problem of congestion on the Van Wyck Expressway—and a host of other transportation problems—quickly, simply and cheaply. Fail to reserve it now, and those problems might never be solved.

McHugh was planning to include his suggestion in the airport "Master Plan," but he made the mistake of mentioning it first to his boss, Planning Commis-

sion chief of staff Colonel William J. Shea, from whom Moses always received close cooperation.

"I was called into [Shea's] office, and Spargo was there raising hell, that I was impeding progress, that this thing had to go through and stop this crap, that I was going to cost the city millions in federal money. The whole effect was, 'Why don't you shut up?' I was asked not to write any memo."

Declining to accept that recommendation, McHugh wrote that rapid transit access should be provided for Idlewild and predicted what would happen if it wasn't. But his statements had been deleted when the commission approved the "Master Plan of New York City Airports." The only future on which his memo had any effect was his own. Although he was under civil service protection, there was a salary range to his position, and he had been at its upper limit. When the next city budget was adopted, he found he was at its lower limit: his salary—previously, he says, "just about enough to get by on"—had been reduced. He had, moreover, been fighting Moses for eight years now, and he was well aware he wasn't getting anywhere. His report on the rapid transit reservation might as well have not been written. He resigned.

As for the Mumfords and other farseeing planners, Moses treated their predictions of disaster with the disdain he felt they deserved. Opponents who charged that he was unaware of the social implications of his transportation policies—that the ghettoization they caused and the commercial development they prevented on Long Island, for example, was inadvertent—underestimated him. He knew precisely what he was doing. He had formed his own vision of Long Island long ago, and all he was doing now was holding true to it—and that vision did not include poor people or jobs. In a 1945 speech before the Nassau Bar Association, which included most of the county's political leaders, he said:

There seems to have been a good deal of sentiment in Nassau in favor of attracting more industry and business into the county. Let me warn you against too much enthusiasm for commercializing what nature has given you. Nassau should always be largely residential and recreational. Your land lies between the Bay and the Ocean. [These] are your greatest natural assets. Figure out what sort of people you want to attract into Nassau County. By that I mean people of what standards, what income levels and what capacity to contribute to the source of government.

He did not give the slightest indication of understanding that his transportation policies were doomed to failure.

His thinking had been shaped in an era in which a highway was an unqualified boon to the public, in which roads were, like automobiles, sources of relaxation and pleasure. Changing realities could have changed his thinking, but he was utterly insulated from reality by the sycophancy of his yes men; by his power, which, independent as it was of official or public opinion—of, in fact, any opinion but his own—made it unnecessary for him to take any opinion but his own into account; by, most of all, his personality, the personality that made it not only unnecessary but impossible for him to

conceive that he might have been wrong; the personality that needed applause, thereby reinforcing the tendency to repeat the simplistic formula that had won him applause before; the personality that made it possible for him to relate to the class of people that owned automobiles and that was repelled by the class of people that did not own automobiles; the personality whose vast creative energies were fired by the vision of cleanliness, order, openness, sweep—such as the clean, open sweep of a highway—and were repelled by dirt and noise, such as the dirt and noise he associated with trains; the personality that made him not only want but need monuments and that saw in highways—and their adjunct, suspension bridges ("the most permanent structures built by man")—the structures that would have a clean, clear in-eradicable mark on history; the personality that, driven now by the lust for power, made him anxious to build more revenue- (and power-) producing bridges and parking lots (and highways to encourage their use) and that made him either indifferent or antagonistic to subways and railroads which would compete with his toll facilities not only for users but for city construction funds. He was insulated from experience. Most of the millions who used his roads were now using them primarily not for weekend pleasure trips but back and forth to work twice a day, five days a week, and driving was therefore no longer a pleasure but a chore; but for Moses, comfortable in the richly upholstered, air-conditioned, soundproofed rear seat of his big limousine, driving was still as pleasurable as it had always been. Robert Moses, who had never had to drive in a single traffic jam, really believed that his transportation policies would work. "Traffic will run pretty smoothly within three years," he had said in 1945. During those three years—and afterward—he repeated that prediction often, repeated it without hedging or qualification, spread it on the public record with the assurance of a man sure that he was right. He was confident that his roads would earn him applause now as they had always earned him applause before. Writing on "traffic relief" in a *New York Times Magazine* article, he said, "If we give this to our people, we shall deserve their gratitude." Applause not just of the age but of the ages; he was confident that his roads would bring him immortality. He had read Statius. He knew that, "in gratitude for the benefits bestowed upon them by" the construction of the Domitian Way, the Senate and the people of Rome had raised a triumphal arch to Domitian. He knew that the Via Appia had brought immortality to its builder, the blind Censor Appius Claudius, who, when public funds to build the road ran out, had advanced the difference from his private fortune. Democracies raised no triumphal arches to road builders. The Wantagh Causeway was still named the Wantagh Causeway, despite the fact that *its* builder had also advanced funds from his private fortune, or at least from his mother's. But he was confident history would remedy such oversights. In 1949, *Times* Sunday Editor Lester Markel commissioned him to forecast the city in the year 1999. "The great arteries . . . will stand out," he wrote.* On another occasion, he wrote: "Those who aim and plug away

* The 1949 article was brief—1,140 words—but it provided ample evidence of the extent to which Moses identified his own works with the city as a whole. To the

at limited, near-by objectives and reach them, may in fact build better than they know. Their works may even last longer than those fashioned by more ambitious geniuses for immortality." If he was capable any longer of rethinking his policies, he gave no evidence of it. And because of his power, of course, there was nothing that could force him to rethink.

Within weeks of the opening of the Van Wyck Expressway—at which Moses proudly boasted that "no network of major urban vehicular arteries comparable to the one on which we are busily working here in New York City . . . will be found anywhere else on this or any other continent"—the road was as jammed as F. Dodd McHugh had predicted. At rush hours, when—as McHugh had predicted—10,000 travelers trying to get to Idlewild were forced to share the road space with tens of thousands of commuters trying to get home, the four miles of roadway which Moses had hacked across Queens looked like a four-mile-long parking lot, so closely were the vehicles on it packed together and so slowly were they moving. "Traffic will flow freely," Moses had promised. Inappropriate adverb. Drivers were chained to the Van Wyck; men who, commuting daily to jobs at the airport or in New York, had taken twenty minutes to cover the four miles paralleling the Van Wyck, had looked forward to the opening of the publicized new road; now, clocking their first trips on it, they could hardly believe their watches; where it had taken twenty minutes to cover the four miles on local streets, it took thirty minutes on the expressway—if conditions were good. And, so often, they were bad. The new road had not freed them from the trap of daily travel; it had closed the trap on them more firmly than ever, for new traffic, generated by the new road, was also jamming the local streets.

With every passing year, congestion on the expressway worsened. Mc-

question "What Will New York City Look Like in the Year 1999?" he replied mainly by listing his own works, writing: "Nature, not man, will still be predominant, and the air photographer in his blimp or helicopter will still see the rolling ocean, the relatively unspoiled ocean beaches, Jamaica Bay, the Long Island Sound, the lordly Hudson, and their tributaries, and Liberty guarding the magnificent harbor. The great arteries of travel will stand out. The hills of Revolutionary fame will still boast their monuments and citadels; the parks, large and small, will still be conserved for all the people. The great Palisades reservation will still be five times as large as all of Manhattan Island; Jamaica Bay and its shores, reclaimed and dedicated to recreation and air travel, will constitute one-third of Brooklyn; a fourth of the Bronx will remain field, forest and stream. Queens will still be suburban, and Staten Island largely rural. . . . In ten years, one person out of ten will be living in public or other subsidized housing. In fifty years, it may be one out of six or seven—not an altogether pleasant prospect for those who must pay not only their own way but that of their less fortunate or hard-working brothers. Traffic will flow freely in 95 per cent of the city and suburbs. . . ."

The article also provided ample proof that Moses was failing utterly to comprehend that his policies might not be working for the city. "As to the spirit, the enterprise, the magnetism which made the metropolis great," he wrote, "there is not a shred of evidence that their force will lessen. There is no sign of decrepitude, decay or resignation."

Hugh had calculated that during "peak periods" 10,000 persons would be trying to reach Idlewild every hour. As air traffic burgeoned, that figure became 15,000, and then 20,000. New parking fields were built within the airport at a frantic rate: 500 acres of marshland were paved over, then 1,000, then 2,000, then 4,000, then 8,000. And still there was never enough room to park. At peak periods, the paved space within Idlewild—parking fields and internal roadways—was often so jammed that the torrent of vehicles oozing down the Van Wyck could enter the airport only at a trickle; sometimes, the airport had to be closed to new traffic—it was not infrequent for vehicles waiting to get into Idlewild to be backed up on the expressway for a solid mile.

Inside the airport, of course, the scene was chaos. Drivers searching for parking spaces milled around and around on the roadways, mingling with drivers trying to get to the airline terminals. By one estimate, at a normal weekday rush hour, a traveler arriving at Idlewild by private car had to allow a full thirty minutes for travel *after* arriving at the airport.

Other roads were jammed, and created by their opening more traffic than had existed before. The Brooklyn-Battery Tunnel opened on May 25, 1950, with blessings from Cardinal Spellman ("one of man's greatest achievements!"), what may have been the longest cavalcade of official limousines ever assembled outside Washington (338 long black Cadillacs), the highest toll ever charged on a Moses project (thirty-five cents)—and a traffic count almost twice as high as Madigan-Hyland had predicted. Moses' engineers had forecast that the tunnel would carry 8,400,000 cars during its first year of operation. By the end of a month, it was carrying traffic at a 13,000,000-vehicle-per-year rate, 64 percent above their predictions. George Spargo explained that the count had been swelled by an influx of tourists who had come from all over the eastern seaboard to see this new wonder of the world, and that the influx was over now. By the end of three months, the tunnel was carrying traffic at a 14,000,000-vehicle-per-year rate. At the end of six months, it was carrying traffic at a 15,000,000-vehicle-per-year rate, and not only the increase but the rate of increase was increasing every month. "Another pleasant surprise," Spargo said. But the tunnel was engineered for a capacity, rush hour, load of 2,000 vehicles; by 1952, it was being asked during rush hours to handle 5,000, even 6,000 vehicles per hour. Traffic backed up for blocks at its entrances. Moses had expected it to draw off traffic from the parallel Queens-Midtown Tunnel and three free East River bridges. But traffic on the bridges remained "normal," which meant jammed. And traffic through the Queens-Midtown Tunnel, fed now by the widened Queens-Midtown Expressway, increased instead of decreasing. In 1951, while the Brooklyn-Battery Tunnel was carrying cars at a rate of 79.3 percent above estimates, traffic through the Queens-Midtown Tunnel was 26.3 percent higher than ever before. Previously, 10,967,000 cars per year had been trying to use one tunnel. Now there were two tunnels—and 28,445,668 cars were trying to use them. The situation at the southern portion of the East River was duplicated at the northern. In Triborough's annual report for 1951, Spargo wrote

happily, "The Triborough Bridge had its fifteenth birthday on July 11th. There were no birthday cakes, presents or ceremonies, just more automobiles." In 1946, the first postwar year, the bridge had carried 13,000,000 vehicles. In 1947, it had carried 16,000,000 vehicles; in 1948, 19,000,000; in 1949, 23,000,000; in 1950, 27,000,000. The count in 1951 had been 32,000,000. And the trend was more striking than the figures. The increase had been two million in 1946, three million in 1947 and 1948, four million in 1949 and 1950, five million in 1951. And this situation was being duplicated on the Bronx-Whitestone Bridge, which Moses had built to drain off traffic from the Triborough. While traffic was increasing 138 percent on the Triborough between 1946 and 1951, it was increasing 129 percent on the Bronx-Whitestone. And traffic volume on the free Queensborough Bridge was also increasing. In the last prewar year, cars had been crossing the East River into Manhattan at the colossal rate of 122,500 per day; in 1951, they were pouring across the river into Manhattan at the rate of 135,000 per day. And what of the roads leading to and from these facilities? Four lanes of Belt Parkway had been jammed before the war. Now six lanes of Belt Parkway were jammed. Prewar congestion on old Atlantic Avenue had been intolerable. Postwar congestion on a new—widened, modernized—Atlantic Avenue was more intolerable. And it wasn't only bridges and highways that were jammed. As seen from the air, at rush hours, every street in neighborhoods near the approaches to the East River crossings was a crawling mass of cars. (On the other side of Manhattan, where, since 1930, the Port Authority's George Washington Bridge and Holland and Lincoln tunnels had been opened to vehicular traffic while New Jersey railroads had been allowed to deteriorate, this situation was being duplicated. Since 1930, railroad commutation from Jersey had declined slightly; commutation by motor vehicle had quadrupled. In the evenings, when 80,000 daily commuters were heading home to Jersey, all of Manhattan between 175th and 181st streets was solid with cars, trucks and buses moving toward the George Washington Bridge. Downtown, the typical line of cars waiting to enter the Holland Tunnel plaza was, at 5 P.M., eight blocks long. The *Times*, clocking travel time to the Lincoln Tunnel, found on one evening that it took a truck twenty-seven minutes to make a one-block-square circuit to the entrance plaza.) Within the city, it seemed that there was not a crevice into which cars did not cram; traffic was piling up everywhere; on the crosstown side streets in midtown Manhattan, the *Times* found, motorists frequently spent forty minutes traversing the two and a half miles from one side of the island to the other.

The clockings themselves were of less significance than the fact that the *Times* was making them. "We learn to tolerate intolerable conditions": press and public reaction to motor-traffic congestion in New York City documents the truth of Barbara Ward's statement. It was during the early 1920's that such traffic first overwhelmed New York; in 1924 and 1925 and 1926, the public reacted with indignation and protest against the jams in which—seated in the vehicles that had promised them new freedom—they found themselves imprisoned instead. Traffic was news, big news; clockings were a

front-page staple. By the late 1920's, however, a kind of numbness—measurable by a slackening in angry letters-to-the-editor and campaign statements by both-ears-to-the-ground politicians—was setting in. Psychologists know what happens to rats motivated by mild electric shocks or the promise of a food reward to get out of a maze when the maze is made excessively difficult to get out of; for a while, their efforts to find an escape become more and more frantic, and then they cease, the creatures becoming sullen, then listless, suffering apathetically through shock or hunger rather than making further efforts that they believe will be useless. People caught in intolerable traffic jams twice a day, day after day, week after week, month after month, began after some months to accept traffic jams as part of their lives, to become hardened to them, to suffer through them in dull and listless apathy. The press, responding to its readers' attitude, ran fewer hysterical congestion stories, gave fewer clockings. A city editor seeing a couple of reporters with their feet up on their desks on a slow Friday afternoon found other make-work than sending them out to discover how long it took to get from the Queens-Midtown Tunnel to the Lincoln Tunnel. Only in editorial columns—written, it sometimes seems, by men selected through a Darwinian process in which the vital element for survival is an instant and constant capacity for indignation and urgency—did the indignation and urgency endure. Traffic was still news, but it was no longer big news.

The same process was repeated during the middle and late 1930's, not because a new wound had been inflicted but because the scab on the old one had been ripped off. Moses' unprecedentedly ambitious traffic devices, together with his highly publicized promises that they would solve the traffic problem (and the easing in that problem that occurred for a few months every time a new facility was opened), raised hopes; with hope, motorists dared to look again at what they were being subjected to. And when, a few months after each new facility opened, the jams began to build up again, their consciousness, newly reopened, was rubbed all the more raw. In the last two or three years of that decade, with the Triborough Bridge and the West Side Highway and the Interborough and Grand Central parkways open and congestion worse than ever, there was another howl of public anguish.

In contrast to the Twenties, however, in the Thirties the anguish was beginning to be coupled with awareness. As new bridges jammed up without easing the jams on the old, as every lane of gleaming white concrete was filled with cars as soon as it was opened to traffic, Lewis Mumford and the Regional Plan Association were no longer lone voices crying that no number of bridges and highways could alone solve the traffic problem. Before World War II, the numbness set in again. The howls died down. Motorists sank back into apathy. But before they did, letters-to-the-editor, speeches and articles by urban planners and resolutions of civic associations revealed a greatly increased understanding that something more—something different—was needed.

The war kept people off the roads. It made them forget the pain. And when, after gasoline and rubber rationing ended, New Yorkers took to the

highways again, the numbness had worn off. When the pain returned, it seemed sharper than ever. Even in late 1945 and early 1946, when it was no worse than it had been in 1941, people were complaining, and editorial writers calling for "action," far louder than they had in 1941.

After a short while, they had, in fact, more to complain about. The pain didn't only *seem* worse; it *was* worse. Postwar traffic congestion was congestion escalated to an entirely new level. The problem was so immense now that it was difficult even to comprehend its dimensions. How come to grips in one's imagination with a situation in which a mighty expressway, a gigantic superhighway of dimensions literally almost unknown to history, could be opened one month—and be filled to absolute capacity the next, in which expressways opened in 1952 were by 1955 carrying the traffic load that had been forecast for 1985, in which, in this city and metropolitan area already congested to the breaking point, every indicator of traffic—auto registrations, commuting trips per day—was increasing in more than arithmetical, *in almost geometrical*, progression? The press did not in general come to grips with it, at least not in its deeper implications, but it did report thoroughly on its more superficial—and more dramatic—manifestations. Traffic was news again. The *Times*, which had once sent its reporters over the West Side Highway so that it could tell its readers how incredibly fast it made travel, now sent its reporters onto it to report that "at a peak period of evening travel, northbound vehicles took thirty-four minutes to cover four-and-a-half miles." Editorials argued in the *Times* and *Tribune* and screamed in the *News* and *Mirror* for "Action!"—now! As for the individuals caught in this colossal traffic trap twice a day, any psychologist knows that if he turns up the voltage of the electric shock enough, the rats will be shocked out of their apathy and begin frantically scurrying back and forth through the maze again, searching desperately for a way out; newspaper stories of this period document an almost frantic search by drivers for a way out of *their* trap; grim U-turns in the face of oncoming traffic to avoid huge jams seen ahead (reporting on one at the Third Avenue Bridge on a hot summer Sunday, in which "hundreds of cars were backed up over a two-mile radius," the *Times* reported that "the snarls were intensified as motorists tried to make U-turns to get out of the jam"); frantic lane switching that drove up accident rates on all major routes; attempts to find new ways through the maze (reported *The New Yorker*, never one of Moses' favorite publications, anyway:

We've become increasingly aware that the best way to avoid highway congestion is to duck the proud network of parkways in Westchester and Long Island and take to the traffic-lighted, non-cloverleaf-intersected roads of our youth. . . . What have man and Moses wrought? Answer? A boomerang).

With the numbness not yet having had a chance to set in again and the pain, still fresh, more intense than ever, there was an upsurge in the question of how best to alleviate it. Awareness was escalating, too. Now there was general awareness among urban planners and some segments of the public that something else might be just as important as roads—might, in fact, be

more important. By 1952, there was in at least three New York newspapers, the *Times*, the *Tribune* and the *Post*, at least the beginning of emphasis on the need to improve and add mass transit facilities as well as roads. There was even a beginning of the realization that the construction of highways alone might be "boomeranging," defeating its own ends, a realization Lewis Mumford was later to summarize in a 1955 series of articles in *The New Yorker*, "The Roaring Traffic's Boom": "The prevalent conception" is that "the main purpose of traffic is to enable a maximum number of citizens to derive all possible benefits from the use of automobiles," Mumford said. But that isn't the purpose of transportation at all. "Transportation—I blush to utter a truism now so frequently ignored—is a means and not an end. . . . Like any other tool, it must be used for some human purpose beyond the employment of the tool itself. . . ." He said that "before we cut any more chunks out of our parks to make room for more automobiles or let another highway cloverleaf unfold, we should look at the transformation that has taken place during the last thirty years in Manhattan."

Ever since the nineteen-twenties the municipal and state authorities have been plunging blindly from one grandiose traffic scheme to another, without showing any striking understanding of the problems they were trying to solve. . . .

For a whole generation, New York has become steadily more frustrating and tedious to move around in, more expensive to do business in, more unsatisfactory to raise children in, and more difficult to escape from for a holiday in the country. (The subway rides grow longer and the commuting trains carry their passengers from more distant suburbs, until as much time is spent in transporting the human carcass as is gained by diminishing the work week . . . the distant dormitory areas of New York describe ever wider arcs.) By 1975 . . . it will be impossible to build enough highways to accommodate the weekend exodus, just as it is already impossible to provide enough internal traffic arteries to handle Manhattan's present congestion. . . .

But your one-eyed specialists continue to conduct grandiose plans for highway development, as if motor transportation existed in a social vacuum, and as if New York were a mere passageway or terminal for vehicles, with no good reasons of its own for existence. To these experts, a successful solution of the traffic problem consists of building more roads, bridges and tunnels so that more motorcars may travel more quickly to more remote destinations in more chaotic communities, from which more roads will be built so that more motorists may escape from these newly soiled and clotted environments. . . . Instead of curing congestion, they widen chaos.

. . . the private motorcar [is] a method that happens to be, on the basis of the number of people it transports, by far the most wasteful of urban space. Because we have apparently decided that the private motorcar has a sacred right to go anywhere, halt anywhere, and remain anywhere as long as its owner chooses, we have neglected other means of transportation. . . . The major corrective for this crippling overspecialization is to redevelop now despised modes of circulation—public vehicles and private feet. . . . An effective modern city plan would use each kind in its proper place and to its proper extent.

Mr. Robert Moses . . . uses the word "regional planning" as a swearword, to indicate his abiding hatred of . . . comprehensive and forward-looking

policies, just as he invokes the term "long-haired planner" to designate anyone who turns up with a proposal that does not fit into his own set of assumptions, most of them by now manifestly inadequate and badly out of date. . . . *Think!*

A handful of thinkers like Mumford were even beginning to venture a revolutionary opinion: that automobiles—and highways—should be barred from certain central areas of the city, that some congested avenues and streets should, instead of having their roadways widened for cars, be closed to cars and turned into "pedestrian malls." Some, in fact, were beginning to postulate a more revolutionary opinion still: that major arterial through highways had no place in the interior of a city at all, that a city could not endure as a good place to live if they were built in any number within its borders.

This awareness was by no means pervasive. If the *Times*, the *Tribune* and the *Post* were beginning to emphasize the importance of mass transit vis-à-vis highways, little of the same emphasis could be found in the city's other daily newspapers. For several of these, in fact, a frequent practice when the need for a transportation analysis was felt was to ask Moses to write it, his articles appearing in the *News* and *Journal-American*, for example. (The *Journal-American* was, of course, part of the Hearst chain, and in 1952 Hearst newspapers were conducting a nationwide campaign for "new and better roads.")

But the awareness was spreading. After July 1951, when the Regional Plan Association published the results of "investigations . . . to determine the amount, extent and trends of commuting . . . to central New York," facts and figures were available to document the effect of two decades of neglecting mass transit facilities in favor of highways. A few months earlier, Moses, issuing a lavish four-color brochure, had boasted that in "our reports in milestones of progress . . . issued on important occasions . . . when something has happened which is worth telling about," "we rely on illustration rather than technical explanations" which "are bound to be dull, statistical [and] boring." The RPA's "Bulletin Number 77," black-and-white, was statistic-crammed—but to anyone interested in why New York's congestion was really increasing so rapidly, it was not boring but startling. The common assumption—previously held not only by Moses but by press, politicians and many urban planners—was that congestion was increasing because the population around New York was increasing at a tremendous rate, and therefore commuting into New York must be increasing at a tremendous rate. Estimates of the number of commuters had ranged from 500,000 to 1,500,000. The fact—a fact documented for the first time in Bulletin 77—was that although the population was increasing just as fast as people thought it was (the number of families in the counties surrounding New York had increased by 50 percent between 1930 and 1950), the commuting wasn't. There had been 301,000 commuters coming into the city daily in 1930; in 1950, there were 357,000—an increase of only 19 percent. The difference was not in the number of people coming into and out of New York every day, but in *how* they were coming. The number of rail commuters had actually de-

clined, from 263,000 in 1930 to 239,000 in 1950; 38,050 persons had commuted by automobile in 1930, 118,400 persons commuted by automobile in 1950. While the number of commuters was up 19 percent, the number of automobile commuters was up 321 percent. And, the RPA statistics showed, the trend was continuing—and accelerating. The gap between use of rail and road was widening month by month. The failure to maintain existing railroad lines in a condition that would persuade even their present riders to keep using them, much less to attract new ones, the failure to construct new lines into newly developed areas, while building new highways into those areas, was driving more and more commuters off the railroad and onto the highway. The effect on the city of the widening gap could only be disastrous.

The automobiles required to transport the equivalent of one trainload of commuters use about four acres of parking space in Manhattan, eight times the area of the Grand Central main concourse.

Every trainload of commuters shifting to automobiles requires automobile parking space about equal to the effective parking capacity of one side of Fifth Avenue from Washington Square to Sixty-eighth Street [3 miles].

The lesson to be gleaned from the statistics was clear even though they did not include statistics on the intracity shift in subway to automobile use, statistics that would have made the lesson even more dramatic. The trend must be reversed. Emphasis must be shifted from road building to railroad building. The lesson was scanted by most of the press—the RPA report received one-day play in most of New York's papers—but in 1954 it was repeated in more popular form by a *Times* series, and thereafter there was at least a general awareness of it in most of the more detailed transportation stories in the New York press. And, as in the previous decade, it sometimes seemed—from the sharp tone of letters-to-the-editor compared to editorials—that awareness was growing faster among the public than in the media supposed to educate the public or among the politicians supposed to lead the public: almost as if the people of New York and its suburbs—forced to spend hours daily being exposed to the harsh lessons of urban transportation, trapped daily in a classroom on the realities of urban transportation, a classroom in which the reality of what was being taught was worsening so fast that numbness had not yet caught up to it—were learning the lessons for themselves. Mumford was not the only person pleading with public officials to *Think!* Many men and women who had never opened a planning textbook in their lives were, by the early 1950's, repeating in their own words the great planner's plea. People were learning for themselves. By 1940, most urban planners had come to understand that roads were not good *per se*, that a highway was not an unqualified boon for mankind. By the early 1950's, much of the general public appeared to understand this, too, even if the press did not. There was general awareness of the need for a dramatic change in the region's transportation policies. Mumford, unsatisfied though he was at the rate of mobilization of public opinion ("The majority of the American people . . . remain strangely quiet and passive about the matters

that should concern them most"), saw hope now that Moses' "irrational" plans could be changed. Pointing out that "the things that spoil life in New York and its environs were all made by men, and can be changed by men as soon as they are willing to change their minds," he now saw hope that men would do so.

But for New York, only one mind mattered, and that mind would not change.

As Moses' first postwar mileage had been opening, he had been as confident of the wisdom of his policies as he had been when he announced them in 1945. "Today we are well underway to a solution of the traffic problem," he had boasted in 1948. Now, in 1954, with considerable new mileage open, the problems were worse than ever, but the confidence was diminished not a whit. All that was necessary, he said—and believed—was more of the same.

The roads he had been building had all been conceived by him in 1930. Now, for the first time, he expanded his highway plan. New arterials should be built paralleling old arterials already built, he announced—a Sheridan paralleling the Major Deegan and Bronx River and Harlem River and Hutchinson River and Henry Hudson that already ran down through the Bronx, a Nassau paralleling the Van Wyck southeast through Queens. Arterials should be built into sections of the city into which no arterials now ran, a Prospect and Cross-Brooklyn Expressway into the teeming heart of that borough, for example. And arterials should reach out from the city into its suburbs, a Long Island Expressway all the way out deep into still-rural Suffolk, for example. And, of course, the "series of east and west crossings in Manhattan" which he had so long advocated should be begun; it was during this period that he was forcing the Port Authority to start the Lincoln Tunnel link that would give him a wedge on the Mid-Manhattan Crossing along Thirtieth Street. As to what to do with the cars when they got to the city, he had no doubt that his proposed multistory, "off-street" parking garages—"two, three, four stories or whatever height they have to be"—would solve *that* problem; the "success" of the first "publicly financed" off-street garage in the city's history, Triborough's seven-story Battery Park Garage—it was filled to capacity almost from the day it opened—proved that. "When we get the expressways . . . you will see how they will take care of most of this through or cross-town traffic," he said in a lengthy 1952 question-and-answer session with *U. S. News & World Report*, which identified him as the "recognized authority" on the future of America's cities. ("Q. But in city streets . . . are off-street garages the answer? A. Yes . . .") As for the use of city money for mass transit construction, he fought such proposals to their death, and when, in 1952, some state legislators suggested that Triborough take over the city's subways and use its surplus to improve them, Moses rushed back from a Virgin Islands vacation to declare that there was no surplus because "all our future revenues are pledged to our bondholders"—who, he said, would never permit the Authority to be-

come involved in deficit-producing operations. (In that same year, the General Electric Company announced that its Urban Traffic Division had "costed out" rapid transit on auto-highway center malls and that if provision for tracks was made in the original highway design their cost would be one-tenth of providing them later. Moses' reply? "The cost of acquiring additional width and building for rapid transit would be prohibitive and hundreds of families would be dislocated.")

Not all planners fully understood yet that if Moses' proposals were carried out, New York would become a place not for people but for cars, spread out by the hundreds of acres on monstrous parking fields, cars piled up seven stories high or more—to "whatever height they have to be"—cars that would bring their roar and the fumes of their "foul exhausts" into its every corner. But they did understand fully—by 1952 there was a general understanding among urban planners, an informed consensus—that Moses' plans made no sense unless they were supplemented by mass transportation.

There was some applause in the press for Moses' proposals—these were the years in which he was enjoying general editorial support for a proposal to create a City Parking Authority with unprecedented power over the city's streets—and a rather remarkable lack of understanding of some of the subtleties of transportation politics. A *Herald Tribune* editorial said that Triborough's 1951 annual report

ought to give every citizen of New York a bit of a thrill. Business is booming. . . . Traffic is everywhere exceeding the experts' predictions. . . . If the present volume keeps up, all the bridge bonds will be retired by 1957 and all tunnel bonds by 1963. When that happens, every bridge and tunnel so successfully built and operated by the Triborough Authority will become the free and unencumbered property of the people of New York City. . . . Good work, gentlemen.

Only the *Post* gave more than scant attention to the problems of the thousands of tenants being evicted for Moses' highways. While press applause was by no means as enthusiastic as it would once have been, and editorials more and more frequently expressed doubt about the city's transportation policies, they never linked those policies with the man responsible for them. There was no direct attack on Moses, no threat of any real seriousness to his power. And with that power, he laid out the new routes, obtained the state and federal commitments for them, had the blueprints drawn—started them down the road to completion.

And in 1954 he took a further step—one that sealed the city's future.