The Social Life of Small Urban Spaces

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This book is about city spaces, why some work for people, and some do not, and what the practical lessons may be. It is a by-product of first-hand observation.

In 1970, I formed a small research group, The Street Life Project, and began looking at city spaces. At that time, direct observation had long been used for the study of people in far-off lands. It had not been used to any great extent in the U.S. city. There was much concern over urban crowding, but most of the research on the issue was done somewhere other than where it supposedly occurred. The most notable studies were of crowded animals, or of students and members of institutions responding to experimental situations—often valuable research, to be sure, but somewhat vicarious.

The Street Life Project began its study by looking at New York City parks and playgrounds and such informal recreation areas as city blocks. One of the first things that struck us was the lack of crowding in many of these areas. A few were jammed, but more were nearer empty than full, often in neighborhoods that ranked very high in density of people. Sheer space, obviously, was not of itself attracting children. Many streets were.

It is often assumed that children play in the street because they lack playground space. But many children play in the streets because they like to. One of the best play areas we came across was a block on 101st Street in East Harlem. It had its
problems, but it worked. The street itself was the play area. Adjoining stoops and fire escapes provided prime viewing across the street and were highly functional for mothers and older people. There were other factors at work, too, and, had we been more prescient, we could have saved ourselves a lot of time spent later looking at plazas. Though we did not know it then, this block had within it all the basic elements of a successful urban place.

As our studies took us nearer the center of New York, the imbalance in space use was even more apparent. Most of the crowding could be traced to a series of choke points—subway stations, in particular. In total, these spaces are only a fraction of downtown, but the number of people using them is so high, the experience so abysmal, that it colors our perception of the city around, out of all proportion to the space involved. The fact that there may be lots of empty space somewhere else little mitigates the discomfort. And there is a strong carry-over effect.

This affects researchers, too. We see what we expect to see, and have been so conditioned to see crowded spaces in center city that it is often difficult to see empty ones. But when we looked, there they were.
The amount of space, furthermore, was increasing. Since 1961, New York City has been giving incentive bonuses to builders who provided plazas. For each square foot of plaza, builders could add 10 square feet of commercial floor space over and above the amount normally permitted by zoning. So they did—without exception. Every new office building provided a plaza or comparable space: in total, by 1972, some 20 acres of the world’s most expensive open space.

We discovered that some plazas, especially at lunchtime, attracted a lot of people. One, the plaza of the Seagram Building, was the place that helped give the city the idea for the plaza bonus. Built in 1958, this austere, elegant area had not been planned as a people’s plaza, but that is what it became. On a good day, there would be a hundred and fifty people sitting, sunbathing, picnicking, and shmoozing—idly gossiping, talking “nothing talk.” People also liked 77 Water Street, known as “swingers’ plaza” because of the young crowd that populated it.

But on most plazas, we didn’t see many people. The plazas weren’t used for much except work. The lunchtime crowds averaged 2,000 people—a number that was so dense that it was necessary to maintain a kind of discipline that was unaccustomed.

If plazas are the heart of the city, is the City a heart? Is it beating? If so, what is the rhythm? If the City were a living organism, the plazas would be its livers, the workshops where the work is done. But if the City is a machine, the plazas are its gears. They are the place where one luncheon crowd gives way to another. If we could count them all, I think we could come up with a total of thirty to forty. If we could count them all, I think we could estimate the number of people who could be accommodated by the space that we witnessed.

We see only a small part of it, a cross-section of a city that is vast and small, and not all its parts are connected. We have seen the plazas of the dead and the living, the good and the bad, the respectable and the respectable. If we could count them all, I think we could estimate the number of people who could be accommodated by the space that we witnessed.

The plazas have been, for years, a backdrop for the city. They don’t sound much like a city, but they are a place where people gather. For a moment of six minutes.

"..."
except walking across. In the middle of the lunch hour on a beautiful, sunny day the number of people sitting on plazas averaged four per 1,000 square feet of space—an extraordinarily low figure for so dense a center. The tightest-knit CBD (central business district) anywhere contained a surprising amount of open space that was relatively empty and unused.

If places like Seagram's and 77 Water Street could work so well, why not the others? The city was being had. For the millions of dollars of extra space it was handing out to builders, it had every right to demand much better plazas in return.

I put the question to the chairman of the City Planning Commission, Donald Elliott. As a matter of fact, I entrappeled him into spending a weekend looking at time-lapse films of plaza use and nonuse. He felt that tougher zoning was in order. If we could find out why the good plazas worked and the bad ones didn't, and come up with hard guidelines, we could have the basis of a new code. Since we could expect the proposals to be strongly contested, it would be important to document the case to a fare-thee-well.

We set to work. We began studying a cross-section of spaces—in all, 16 plazas, 3 small parks, and a number of odds and ends. I will pass over the false starts, the dead ends, and the floundering arounds, save to note that there were a lot and that the research was nowhere as tidy and sequential as it can seem in the telling. Let me also note that the findings should have been staggeringly obvious to us had we thought of them in the first place. But we didn't. Opposite propositions were often what seemed obvious. We arrived at our eventual findings by a succession of busted hypotheses.

The research continued for some three years. I like to cite the figure because it sounds impressive. But it is calendar time. For all practical purposes, at the end of six months we had completed our basic research and arrived at our recommendations. The City, alas, had other concerns on its mind, and we found that communicating the findings was to take more time than arriving at them. We logged many hours in church basements and meeting rooms giving film and slide presentations to community groups, architects, planners, businessmen, developers, and real-estate people. We continued our research; we had to keep our findings up-to-date, for now we were disciplined by adversaries. But at length the City Planning Commission incorporated our recommendations in a proposed new open-space zoning code, and in May 1975 it was adopted by the city's Board of Estimate. As a consequence, there has been a salutary improvement in the design of new spaces and the rejuvenation of old ones. (Since the zoning may have useful guidelines for other cities, an abridged text is provided as appendix B.)

But zoning is certainly not the ideal way to achieve the better design of spaces. It ought to be done for its own sake. For economics alone, it makes sense. An enormous expenditure of design expertise, and of travertine and steel, went into the creation of the many really bum office-building plazas around the country. To what end? As this manual will detail, it is far easier, simpler to create spaces that work for people than those that do not—and a tremendous difference it can make to the life of a city.
We started by studying how people use plazas. We mounted time-lapse cameras overlooking the plazas and recorded daily patterns. We talked to people to find where they came from, where they worked, how frequently they used the place and what they thought of it. But, mostly, we watched people to see what they did.

Most of the people who use plazas, we found, are young office workers from nearby buildings. There may be relatively few patrons from the plaza’s own building; as some secretaries confide, they’d just as soon put a little distance between themselves and the boss. But commuter distances are usually short; for most plazas, the effective market radius is about three blocks. Small parks, like Paley and Greenacre in New York, tend to have more assorted patrons throughout the day—upper-income older people, people coming from a distance. But office workers still predominate, the bulk from nearby.

This uncomplicated demography underscores an elemental point about good urban spaces: supply creates demand. A good new space builds a new constituency. It stimulates people into new habits—al fresco lunches—and provides new paths to and from work, new places to pause. It does all this very quickly. In Chicago’s Loop, there were no such amenities not so long ago. Now, the plaza of the First National Bank has thoroughly changed the midday world of people. A sudden demand for the unreal.

The best plazas are those with a high concentration of activities, where you find in groups, a mix of buys or exchanges, or the most-used portion of the day, late after noon. A high percentage of the activities is more groups is more people getting together, for a common purpose. In an otherwise empty area, they have become the accessible places for the group dynamics of the community.
midday-way of life for thousands of people. A success like this in no way surfeits demand for spaces; it indicates how great the unrealized potential is.

The best-used plazas are sociable places, with a higher proportion of couples than you find in less-used places, more people in groups, more people meeting people, or exchanging goodbyes. At five of the most-used plazas in New York, the proportion of people in groups runs about 45 percent; in five of the least used, 32 percent. A high proportion of people in groups is an index of selectivity. When people go to a place in twos or threes or rendezvous there, it is most often because they have decided to. Nor are these sociable places less congenial to the individual. In absolute numbers, they attract more individuals than do less-used spaces. If you

Above: Paley Park.
Below: A useful sculpture exhibit at Seagram's plaza.
are alone, a lively place can be the best place to be.

The most-used places also tend to have a higher than average proportion of women. The male-female ratio of a plaza basically reflects the composition of the work force, which varies from area to area—in midtown New York it runs about 60 percent male, 40 percent female. Women are more discriminating than men as to where they will sit, more sensitive to annoyances, and women spend more time casting the various possibilities. If a plaza has a markedly lower than average proportion of women, something is wrong. Where there is a higher than average proportion of women, the plaza is probably a good one and has been chosen as such.

The rhythms of plaza life are much alike from place to place. In the morning hours, patronage will be sporadic. A hot dog vendor setting up his cart at the corner, elderly pedestrians pausing for a rest, a delivery messenger or two, a shoeshine man, some tourists, perhaps an odd type, like a scavenger woman with shopping bags. If there is any construction work in the vicinity, hard hats will appear shortly after 11:00 A.M. with beer cans and sandwiches. Things will start to liven up. Around noon, the main clientele begins to arrive. Soon, activity will be near peak and will stay there until a little before 2:00 P.M. Some 80 percent of the total hours of use will be concentrated in these two hours. In mid and late afternoon, use is again sporadic. If there's a special event, such as a jazz concert, the flow going home will be tapped, with people staying as late as 6:00 or 6:30 P.M. Ordinarily, however, plazas go dead by 6:00 and stay that way until the next morning.

During peak hours the number of people on a plaza will vary considerably according to seasons and weather. The way people distribute themselves over the space, however, will be fairly consistent, with some sectors getting heavy use day in

and day out, others much less. In our sightings we find it easy to map every person, but the patterns are regular enough that you could count the number in only one sector, then multiply by a given factor, and come within a percent or so of the total number of people at the plaza.

Off-peak use often gives the best clues to people's preferences. When a place is jammed, a person sits where he can. This may or may not be where he most wants to. After the main crowd has left, the choices can be significant. Some parts of the plaza become quite empty; others continue to be used. At Seagram's, a rear ledge under the trees is moderately, but steadily, occupied when other ledges are empty; it seems the most uncrowded of places, but on a cumulative basis it is the best-used part of Seagram's.

Men show a tendency to take the front-row seats, and, if there is a kind of gate, men will be the guardians of it. Women tend to favor places slightly secluded. If there are double-sided benches parallel to a street, the inner side will usually have a high proportion of women; the outer, of men.

Of the men up front, the most conspicuous are girl watchers. They work at it, and so demonstratively as to suggest that their chief interest may not really be the girls so much as the show of watching them. Generally, the watchers line up quite close together, in groups of three to five. If they are construction workers, they will be very demonstrative, much given to whistling, laughing, direct salutations. This is also true of most girl watchers in New York's financial area. In midtown, they are more inhibited, playing it coolly, with a good bit of sniggering and smirking, as if the girls were not measuring up. It is all machismo, however, whether uptown or downtown. Not once have we ever seen a girl watcher pick up a girl, or attempt to.

Few others will either. Plazas are not
ideal places for striking up acquaintances, and even on the most sociable of them, there is not much mingling. When strangers are in proximity, the nearest thing to an exchange is what Erving Goffman has called civil inattention. If there are, say, two smashing blondes on a ledge, the men nearby will usually put on an elaborate show of disregard. Watch closely, however, and you will see them give themselves away with covert glances, involuntary primping of the hair, tugs at the earlobe.

Lovers are to be found on plazas. But not where you would expect them. When we first started interviewing, people told us we'd find lovers in the rear places (pot smokers, too). But they weren't usually there. They would be out front. The most fervent embracing we've recorded on film has usually taken place in the most visible of locations, with the couple oblivious of the crowd.

Certain locations become rendezvous points for coteries of various kinds. For a while, the south wall of Chase plaza was a gathering point for camera bugs, the kind who like to buy new lenses and talk about them. Patterns of this sort may last no more than a season—or persist for years.

Some time ago, one particular spot became a gathering place for raffish younger people; since then, there have been many changeovers in personnel, but it is still a gathering place for raffish younger people.

Self-Congestion

What attracts people most, it would appear, is other people. If I belabor the point, it is because many urban spaces are being designed as though the opposite were true, and that what people liked best were the places they stay away from. People often do talk along such lines; this is why their responses to questionnaires can be so misleading. How many people would say they like to sit in the middle of a crowd? Instead, they speak of getting away from it all, and use terms like “escape,” “oasis,” “retreat.” What people do, however, reveals a different priority.

This was first brought home to us in a study of street conversations. When people stop to have a conversation, we wondered, how far away do they move from the main pedestrian flow? We were especially interested in finding out how much of the normally unused buffer space next
to buildings would be used. So we set up
time-lapse cameras overlooking several
key street corners and began plotting the
location of all conversations lasting a min-
ute or longer.

People didn't move out of the main pe-
destrian flow. They stayed in it or moved
into it, and the great bulk of the conversa-
tions were smack in the center of the
flow—the 100 percent location, to use the
real-estate term. The same gravitation
characterized "traveling conversations"—
the kind in which two men move about,
alternating the roles of straight man and
principal talker. There is a lot of apparent
motion. But if you plot the orbits, you will
find they are usually centered around the
100 percent spot.

Just why people behave like this, we
have never been able to determine. It is
understandable that conversations should
originate within the main flow. Conversa-
tions are incident to pedestrian journeys;
where there are the most people, the like-
lihood of a meeting or a leave-taking is
highest. What is less explainable is
people's inclination to remain in the main
flow, blocking traffic, being jostled by it.

This does not seem to be a matter of in-
eria but of choice—instinctive, perhaps,
but by no means illogical. In the center of
the crowd you have the maximum choice—
to break off, to continue—much as you
have in the center of a cocktail party, itself
a moving conversation growing ever
denser and denser.

People also sit in the mainstream. At the
Seagram plaza, the main pedestrian paths
are on diagonals from the building en-
trance to the corners of the steps. These
are natural junction and transfer points
and there is usually a lot of activity at
them. They are also a favored place for
sitting and picnicking. Sometimes there
will be so many people that pedestrians
have to step carefully to negotiate the
steps. The pedestrians rarely complain.
While some will detour around the block-
age, most will thread their way through it.

Standing patterns are similar. When
people stop to talk on a plaza, they usually
do so in the middle of the traffic stream.
They also show an inclination to station
themselves near objects, such as a flagpole
or a statue. They like well-defined places,
such as steps, or the border of a pool.
What they rarely choose is the middle of a large space.

There are a number of explanations. The preference for pillars might be ascribed to some primeval instinct: you have a full view of all comers but your rear is covered. But this doesn’t explain the inclination men have for lining up at the curb. Typically, they face inwards, toward the sidewalk, with their backs exposed to the dangers of the street.

Foot movements are consistent, too. They seem to be a sort of silent language. Often, in a shmoozing group no one will be saying anything. Men stand bound in amiable silence, surveying the passing scene. Then, slowly, rhythmically, one of the men rocks up and down: first on the ball of the foot, then back on the heel. He stops. Another man starts the same movement. Sometimes there are reciprocal gestures. One man makes a half turn to the right. Then, after a rhythmic interval, another responds with a half turn to the left. Some kind of communication seems to be taking place here, but I’ve never broken the code.

Whatever they may mean, people’s movements are one of the great spectacles of a plaza. You do not see this in architectural photographs, which typically are empty of life and are taken from a perspective few people share. It is a quite misleading one. At eye level the scene comes alive with movement and color—people walking quickly, walking slowly, skipping up steps, weaving in and out on crossing patterns, accelerating and retarding to match the moves of the others. There is a beauty that is beguilingly to watch, and one senses that the players are quite aware of it themselves. You see this, too, in the way they arrange themselves on steps and ledges. They often do so with a grace that they, too, must sense. With its brown-gray monochrome, Seagram’s is the best of settings—especially in the rain, when an umbrella or two spots color in the right places, like Corot’s red dots.

How peculiar are such patterns to New York? Our working assumption was that behavior in other cities would probably differ little, and subsequent comparisons have proved our assumption correct. The important variable is city size. As I will discuss in more detail, in smaller cities, densities tend to be lower, pedestrians move at a slower pace, and there is less of the social activity characteristic of high-traffic areas. In most other respects, pedestrian patterns are similar.

Observers in other countries have also noted the tendency to self-congestion. In his study of pedestrians in Copenhagen, architect Jan Gehl mapped bunching patterns almost identical to those observable here. Matthew Ciolek studied an Australian shopping center, with similar results. "Contrary to expectations," Ciolek reported, "a lot of people don’t go into the traffic, especially to the traffic. People hate to get into the traffic, and they stay away. There’s a form of congestion.”

The sense of congestion among the pedestrians in New York does not stem from the high densities of the Plaza’s inhabitants. Its counterparts in the Plaza’s low nations are a reflection of the city’s self-congestion, a product of New York’s vertical order. At the Park, the pedestrian’s tendency to stop, to pause, to sit, is an accident of the bus- and theend
“Contrary to ‘common sense’ expectations,” Ciolek notes, “the great majority of people were found to select their sites for social interaction right on or very close to the traffic lines intersecting the plaza. Relatively few people formed their gatherings away from the spaces used for navigation.”

The strongest similarities are found among the world’s largest cities. People in them tend to behave more like their counterparts in other world cities than like fellow nationals in smaller cities. Big-city people walk faster, for one thing, and they self-congest. After we had completed our New York study, we made a brief comparison study of Tokyo and found the propensity to stop and talk in the middle of department-store doorways, busy corners, and the like, is just as strong in that city as in New York. For all the cultural differences, sitting patterns in parks and plazas are much the same, too. Similarly, shmoozing patterns in Milan’s Galleria are remarkably like those in New York’s garment center. Modest conclusion: given the basic elements of a center city—such as high pedestrian volumes, and concentration and mixture of activities—people in one place tend to act much like people in another.
In their use of plazas, New Yorkers were very consistent. Day in, day out, many of them would sit at certain plazas, few at others. On the face of it, there should not have been this variance. Most of the plazas we were studying were fairly comparable. With few exceptions, they were on major avenues and usually occupied a block front. They were close to bus stops and subway stations and had strong pedestrian flows on the sidewalks beside them. Yet when we rated plazas according to the number of people sitting on them at peak time, there was a very wide range—from 160 people at 77 Water Street to 17 at 280 Park Avenue (see chart 1).

How come? The first factor we studied was the sun. We thought it might well be the critical one, and our initial time-lapse studies seemed to bear this out. Subsequent studies did not. As I will note later, they showed that the sun was important, but did not explain the difference in the popularity of plazas.

Nor did aesthetics. We never thought ourselves capable of measuring such factors, but did expect our research to show the most successful plazas would tend to be the most pleasing visually. Seagram's seemed very much a case in point. Here again, the evidence proved conflicting. Not only was clean, elegant Seagram's successful; so was the fun plaza at 77 Water Street, which some architects look on as kitsch. We also noticed that the elegance and purity of a building's design seems to
workers were not, many of them, few at the time should not be comparable. They are on major blocks with stops and traffic, and pedestrian flow them. Yet we studied them at peak times—eighteen hour, from 8 a.m. to 7 p.m.—and studied peak periods, important, in the morning and afternoon. We thought such factors would tend to Seagram's point. Here Seagram's success at 77 Water Street took on as a guide to elegance in design.
have little relationship to the use of the spaces around it.

The designer sees the whole building—the clean verticals, the horizontals, the way Mies turned his corners, and so on. The person sitting on the plaza may be quite unaware of such matters. He is more apt to be looking in the other direction: not up at other buildings, but at what is going on at eye level. To say this is not to slight the designer's eye or his handling of space. The area around Seagram's is a great urban place and its relationship to McKim, Mead & White's Racquet Club across the street is integral to it. My personal feeling is that a sense of enclosure contributes to the enjoyment of using the Seagram plaza. But I certainly can't prove this with figures.

Another factor we considered was shape. Urban designers believed this was extremely important and hoped our findings might support tight criteria for proportions and placement. They were particularly anxious to rule out "strip plazas"—long narrow spaces that were little more than enlarged sidewalks, and empty more often than not. Designers felt a developer shouldn't get bonuses for these strips, and to this end they wanted to rule out spaces the length of which was more than three times the width.

Our data did not support such criteria. We found that most strip plazas were, indeed, empty of people most of the time. But was the shape the cause? Some square plazas were empty, too, and several of the most heavily used places were, in fact, long narrow strips. One of the five most popular sitting places in New York is essentially a long and narrow space that is rarely empty. The other four are square or rectangular and, although they are in high traffic areas, they are never likely to fill up completely.

If now the designers want to see the last of the long strips, they won't get it. People are not the same as the traffic patterns they designed for. The "strip plaza" can be a most satisfactory place for the right kind of audience—people who want to be a part of an urban scene. To the trafficconscious designer who is also interested in people, these are pleasant places to see and to know are used. It is to his advantage to have people around him, for their interest is the Including the number of people to whom the squares are.

Once numbers are included, the relationship of people to architecture takes on a new meaning.
sentially an indentation in a building—and long and narrow. Our research did not prove shape unimportant or designers' instincts misguided; as with the sun, however, it did prove that other factors were more critical.

If not shape, could the amount of space be the key factor? Some conservationists were sure this would be it. In their view, people seek open spaces as a relief from the overcrowding they are normally subjected to, and it would follow that places affording the greatest feeling of light and space would draw the most. If we ranked plazas by the amount of space, there surely would be a positive correlation between the size of the plazas and the number of persons using them.

Once again, we found no clear relationship. As can be seen in chart 2, several of the smaller spaces had lots of people, several of the larger had lots of people, and several of the larger had very few people. Sheer space, it appears, does not draw people. In some circumstances, it can have the opposite effect.

What about the amount of sittable space? Here we begin to get close. As chart 3 shows, the most popular plazas tend to have considerably more sitting space than the less well-used ones. The relationship is rough. For one reason, the amount of sitting space does not include any qualitative factors: a foot of concrete ledge counts for as much as a foot of comfortable bench space. We considered weighting the figures on a point basis—so many points for a foot of bench with backrest, with armrests, and so on. This would have produced a nicer conformance on the chart.
It takes time and money to make place. Ledgers, bulky; rail seats, bulky; money can buy more things, and no one wants to be an assembler.

This is a chart by Philip John van der Rohe showing ledges, how he never dreamed architects had to use no fussy modern, artless, useful, untidy chair. An addition to club table might seem made easy. But it’s all eminently practical:

The periphery leads to ledge and bench; the edge for sitting, the edge for use all of it.

So ledges should be made and the ledge made sure. It is also amendable, to sit and to indicate.

Integral Sitting

Ideally, sitting should be physically comfortable—benches with backrests, well-contoured chairs. It’s more important, however, that it be socially comfortable. This means choice: sitting up front, in back, to the side, in the sun, in the shade, in groups, off alone.

Choice should be built into the basic design. Even though benches and chairs can be added, the best course is to maximize the sittability of inherent features. This means making ledges so they are sitable, or making other flat surfaces do double duty as table tops or seats. There are almost always such opportunities. Because the elevation changes somewhat on most building sites, there are bound to be several levels of flat space. It’s no more trouble to make them sitable than not to.
It takes real work to create a lousy place. Ledges have to be made high and bulky; railings put in; surfaces canted. Money can be saved by not doing such things, and the open space is more likely to be an amenable one.

This is one of the lessons of Seagram's. Philip Johnson recounts that when Mies van der Rohe saw people sitting on the ledges, he was quite surprised. He had never dreamt they would. But the architects had valued simplicity. So there were no fussy railings, no shrubbery, no gratuitous changes in elevation, no ornamentation to clutter spaces. The steps were made easy and inviting. The place was eminently sittable, without a bench on it. The periphery includes some 600 feet of ledge and step space, which is just right for sitting, eating, and sunbathing. People use all of it.

So ledges ought to be sittable. But how should this be defined? If we wanted sittable ledges in the New York City zoning amendments we thought we would have to indicate how high or low ledges should

Most ledges are inherently sittable, but with a little ingenuity and additional expense they can be made unsittable.
be, how deep, and, since there were adversary proceedings ahead, be able to back up the specifications with facts.

The proceedings turned out to be adversary in a way we hadn't expected. The attack came on the grounds that the zoning was too specific. And it came not from builders, but from members of a local planning board. Rather than spell out the requirements in specific detail, the board argued, the zoning should deal only with broad directives—for example, make the place sittable—leaving details to be settled on a case-by-case basis.

Let me pause to deal with this argument. It is a persuasive one, especially for laymen, and, at the inevitable moment in zoning meetings when someone gets up and says, “Let’s cut through all this crap and get down to basics,” everyone applauds. Be done with bureaucratic nipping and legal gobbledegook.

But ambiguity is a worse problem. Most incentive zoning ordinances are very, very specific as to what the developer gets. The trouble is that they are mushy as to what he is to give, and mushier yet as to what will happen if later he doesn't. Vague stipulations, as many cities have learned, are unenforceable. What you do not prescribe quite explicitly, you do not get.

Lack of guidelines does not give builders and architects more freedom. It reinforces convention. That is why so few good plazas were built under the 1961 zoning resolution. There was no law preventing builders from providing better plazas. There weren't any guidelines either. And most builders do not do anything far out of the ordinary. A few had sought special permits for amenities not countenanced by existing regulations. But the time-consuming route to obtain special permits makes the builder and architect run a gauntlet of city agencies, with innovation as likely to be punished as rewarded.

**Sitting Heights**

One guideline we expected to establish easily was the matter of sitting heights. It seemed obvious enough that somewhere around 17 inches would probably be near the optimum. But how much higher or lower could a surface be and still be sittable? Thanks to the slope of sites, several of the most sat-upon ledges provided a range of opportunities.

People, starting with 17 inches, might be sitting as high as the ledges of the ledges provided a range of opportunities.

But considerations of comfort, summed to the comfortable sitting heights, found to be some 18 inches or so, with remarkable agreement. The range of heights that people can sit at comfortably was 17 inches at the range of the sites.

People will sit at lower heights if they are comfortable conditions.

Another factor is the human ability of architects. If you give them enough, they aren't going to
range of continuously variable heights. The front ledge of Seagram's, for example, started at 7 inches at one corner, rising to 44 at the other. Here was a dandy chance, we thought, to do a definitive study. By repeated observation, we could record how many people sat at which point over the range of heights; as cumulative tallies built, preferences would become clear.

They didn't. At a given time there might be clusters of people on one part of the ledge, considerably fewer on another. But correlations didn't last. When we culminated several months of observation, we found that people distributed themselves with remarkable evenness over the whole range of heights. We had to conclude that people will sit almost anywhere between a height of one foot and three, and this is the range specified in the new zoning. People will sit on places higher or lower, to be sure, but there are apt to be special conditions.

Another dimension is more important: the human backside. It is a dimension architects seem to have forgotten. Rarely will you find a ledge or bench deep enough to be sittable on both sides; some aren't deep enough to be sittable on one.

Most frustrating are the ledges just deep enough to tempt people to sit on both sides, but too shallow to let them do so comfortably. Observe such places and you will see people making awkward adjustments. The benches at General Motors plaza are a case in point. They are 24 inches deep and normally used on only one side. On Sundays, however, a heavy influx of tourists and other people will sit on both sides of the benches. Not in comfort: they have to sit on the forward edge, erectly, and their stiff demeanor suggests a tacit truce.

Thus to another of our startling findings: ledges and spaces two backsides deep seat more people comfortably than those that are not as deep. While 30 inches will do it, 36 is better yet. The new zoning provides a good incentive. If a ledge or bench is 30 inches deep and accessible on both sides, the builder gets credit for the linear feet on each side. (The 30-inch figure is thoroughly empirical; it is derived from a ledge at 277 Park Avenue, the minimum-depth ledge we came across that was consistently used on both sides.)

For a few additional inches of depth, then, builders can double the amount of sitting space. This does not mean that
double the number of people will use the space. They probably won’t. But that is not the point. The benefit of the extra space is social comfort—more room for groups and individuals to sort themselves out, more choices and more perception of choices.

Steps work for the same reason. The range of space provides an infinity of possible groupings, and the excellent sightlines make virtually all the seats great for watching the theater of the street. The new zoning ordinance does not credit steps as sitting space. It was felt that this would give builders too easy an out and that some plazas would be all steps and little else. But the step principle can be applied with good effect to ledges.

Corners are functional. You will notice that people often bunch at the far end of steps, especially when an abutting ledge provides a right angle. These areas are good for face-to-face sitting. People in groups gravitate to them.

One might, as a result, expect a conflict, for corners are also the places where pedestrian traffic is heaviest. Most people take short cuts, and pedestrian flows in plazas are usually on the diagonals between the building entrance and the corners of the steps. We see this at Seagram’s. As mentioned previously, the main flow to
The steps at Seagram's are well used, particularly at the corners where pedestrian flows are highest. 

and from the building cuts directly across the step corners, and it is precisely there that you will find the heaviest concentration of people sitting, sunbathing, and picnicking. But, for all the bustle, or because of it, the sitter seem to feel comfortable. The walkers don't seem to mind either, and will carefully negotiate through the blockages rather than detour around them.

We find similar patterns at other places. All things being equal, you can calculate that where pedestrian flows bisect a sittable place, that is where people will most likely sit. And it is not so perverse of them. It is by choice that they do. If there is some congestion, it is an amiable one, and a testimonial to the place.

Circulation and sitting, in sum, are not antithetical but complementary. It is to encourage both that the zoning stipulates the plaza not be more than three feet above or below street level. The easier the flow between street and plaza, the more likely people are to move between the two—and to tarry and sit.

This is true of the handicapped, too. If circulation and amenities are planned with them in mind, the place is apt to function more easily for everyone. Drinking fountains that are low enough for wheelchair users are low enough for children. Pedestrian paths that are made easier for the handicapped by ramps, handrails, and steps of gentle pitch are easier for all. The new zoning makes such amenities mandatory, specifying, among other things, that all steps along the main access paths have treads at least 11 inches deep, closed risers no higher than 7.5 inches, and that ramps be provided alongside them. For the benefit of the handicapped, the zoning also requires that at least 5 percent of the seating spaces have backrests. These are not segregated for the handicapped, it should be noted. No facilities are segregated. The idea is to make all of a place usable for everyone.

**Benches**

Benches are artifacts the purpose of which is to punctuate architectural photographs. They're not so good for sitting. There are too few of them; they are too small; they are often isolated from other benches or from whatever action there is on the plaza. Worse yet, architects tend to repeat the same module in plaza after plaza, unaware that it didn't work very well in the first place. For example, Harrison and Abramowiz's plazas at Rockefeller Center are excellent in many respects, but the basic bench module they've stuck to is exquisitely wrong in its dimensions—7.5 feet by 19 inches. A larger rectangle
would be proportionately as good but work vastly better, as some utilitarian benches in the same area demonstrate.

The technological barriers to better bench design are not insuperable. The prime specification, that benches be generously sized, is the easiest to meet. Backrests and armrests are proved devices. The old-fashioned park bench is still one of the best liked because it provides them; of the newer designs that also do, some of the stock ones of the play- and park-equipment manufacturers are best. Architects have had a way with chairs; for some reason they seem to come a cropper with benches.

They do worst when they freeze their bench designs in concrete permanence. If some of their assumptions prove wrong—that, say, people want to sit away from the action—it will be too late to do much about it. This has been a problem with a number of pedestrian malls, where all design bets were made before the mall was opened. If some of the sitting areas go unused, there’s no easy way of heeding the lesson, or, indeed, of recognizing that there is one.

Why not experiment? Some features, like ledges and steps, will be fixed, but benches and chairs don’t have to be. With sturdy wooden benches or the like, some simple market research can be done to find out where and in what kind of groupings they work best. People will be very quick to let you know. We have found that by the second day the basic use patterns will be established, and these won’t change very much unless the set-up is changed. And it will be clear in what direction the changes should be made.

If one looks. This is the gap. Rarely will you ever see a plan for a public space that even contemplates the possibility that parts of it might not work very well; that calls for experiment and testing, and for post-construction evaluation to see what does work well and what doesn’t. Existing spaces suffer a similar fate. There are few that could not be vastly improved, but rarely is an evaluation undertaken. The people responsible for the place are the least likely of all to consider it.

Chairs

Now, a wonderful invention—the movable chair. Having a back, it is comfortable; more so, if it has an armrest as well. But the big asset is movability. Chairs enlarge choice: to move into the sun, out of it, to make room for groups, move away from them. The possibility of choice is as important as the exercise of it. If you know you can move if you want to, you feel more comfortable staying put. This is why, perhaps, people so often move a chair a few inches in it, with the implication that it is where it was supposed to be.
few inches this way and that before sitting in it, with the chair ending up about where it was in the first place. The moves are functional, however. They are a declaration of autonomy, to oneself, and rather satisfying.

Small moves say things to other people. If a newcomer chooses a chair next to a couple or a larger group, he may make some intricate moves. Again, he may not take the chair very far, but he conveys a message. Sorry about the closeness, but there's no room elsewhere, and I am going to respect your privacy, as you will mine. A reciprocal move by one of the others may follow. Watching these exercises in civility is itself one of the pleasures of a good place.

Fixed individual seats are not good. They are a design conceit. Brightly painted and artfully grouped, they can make fine decorative elements: metal loveseats, revolving stools, squares of stone, sitting stumps. But they are set pieces. That is the trouble with them. Social distance is a subtle measure, ever changing, and the distances of fixed seats do not change, which is why they are rarely quite right for anybody. Loveseats may be all right for lovers, but they're too close for acquaintances, and much too close for strangers. Loners tend to take them over, placing their feet squarely on the other seat lest someone else sit on it.

Fixed seats are awkward in open spaces because there's so much space around them. In theaters, strangers sit next to each other without qualm; the closeness is...
a necessity, and convention makes it quite tolerable. On plazas, the closeness is gratuitous. With so much space around, fixed-seat groupings have a manipulative cuteness to them. The designer is saying, now you sit right here and you sit there. People balk. In some instances, they wrench the seats from their moorings. Where there is a choice between fixed seats and other kinds of sitting, it is the other that people choose.

To encourage the use of movable chairs, we recommended that in the zoning amendment they be credited as 30 inches of sitting space, though most are only about 19 inches wide. The Building Department objected. It objected to the idea of movable chairs at all. The department had the responsibility of seeing that builders lived up to requirements. Suppose the chairs were stolen or broken and the builder didn't replace them? Whether the department would ever check up in any event was a moot point, but it was true that the fewer such amenities to monitor, the easier the monitoring would be.

Happily, there was a successful record at Paley and it was not necessary to have the chairs stay in any fixed standard area, the maintenance man lent. Movers in chairs thought, even without adding more. The provider is Museum Art. Along the Kid pediatric up to 200 chairs, put them out, four to a week. The move is essentially expensive, the replacement, guards great. That is the limit of the little value.

How Much?

A key question is how much the provider can acquire. We are talking of much too small. I am tempted to say,
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Paley and Greenacre parks to point to,
and it was decisively persuasive. The
chairs stayed in. They have become a
standard amenity at new places, and the
maintenance experience has been exell-
ten. Managements have also been putting
in chairs to liven up existing spaces, and,
even without incentives, they have been
adding more chairs. The most generous
provider is the Metropolitan Museum of
Art. Alongside its front steps, it puts out
up to 200 movable chairs and it leaves
them out, 24 hours a day, seven days a
week. The Met figured that it might be
less expensive to trust people and to buy
replacements periodically rather than have
guards gather the chairs in every night.
That is the way it has worked out. There
is little vandalism.

How Much Sitting Space?
A key question we had to confront was
how much sitting space should be re-
quired. We spent a lot of time on this—
much too much, I now realize—and I'm
tempted to recount our various calcula-

tions to demonstrate how conscientious we
were. The truth is that almost any rea-
able yardstick would work as well as ours.
It's the fact of one that is important.
This said, let me tell how conscientious
we were. We measured and remeasured
the sitting space on most of the plazas and
small parks in midtown and downtown
New York. As sitting space, we included
all the spaces meant for people to sit on, such as benches, and the spaces they sat on whether meant to or not, such as ledges. Although architects' plans were helpful, we did most of the measuring with a tape, on the ground, in the process stirring inordinate curiosity from passersby and guards.

Next, we related the amount of sitting space to the size of the plaza. As chart 3 shows, the square feet of sitting space on the best-used plazas ran between 6 and 10 percent of the total plazas. Site figures, usually around 10 percent of the minimum.

For other, it was clear that an average of sitting and the very exceptions, more revealed some ceiling arrangements, such as one or two. In the exceptional square, center very narrow, one surface that was clear of edges that had been used.

For a better look, a number of the site. Since none of the houses building, and the area to the bulk of the site surrounds of the site should the whole area of it. On the other hand, there were almost as many that, as a result, they asked to use the space.

Even if even this could have been traced, how much of the exceptional space was provided of the site, the original, did not make much, nor did there seem a lot of benefit there that would cost.

In most cases, it was much a case of the plaza, for the warmer than the other, and very the different, for the plaza, for the warmer than the other, and very the different, for the plaza, for the warmer than the other, and very the different, for the plaza, for the warmer than the other, and very the different, for the plaza, for the warmer than the other, and very the different, for the plaza, for the warmer than the other, and very the different, for the plaza, for the warmer than the other, and very the different, for the plaza, for the warmer than the other, and very the different, for the plaza, for the warmer than the other, and very the different.
percent of the total open space. As a ballpark figure, it looked like somewhere around 10 percent would be a reasonable minimum to require of builders.

For other comparisons we turned to linear feet. This is a more precise measure of sitting space than square feet, and a more revealing one. As long as there's some clearance for one's back, the additional square inches behind one don't matter very much. It is the edges of sitting surface that do the work, and it is the edges that should be made the most of.

For a basis of comparison, we took the number of linear feet around the total site. Since the perimeter includes the building, the distance is a measure of the bulk of the project and its impact on the surrounding environment. Amenities should therefore be in some proportion to it. On the most popular plazas, there were almost as many feet of sitting space as there were perimeter feet. This suggested that, as a minimum, builders could be asked to provide that amount of sitting space.

Even on the best plazas, the architects could have done better. To get an idea of how much better, we calculated the additional space that could have been provided on various plazas rather easily, while the original plans were being made. We did not posit any changes in basic layout, nor did we take the easy way of adding a lot of benches. We concentrated on spaces that would be integral to the basic design.

In most cases, it was possible to add as much as 50 percent more sitting space, and very good space at that. The Exxon plaza, for example, has a fine pool bordered by two side ledges that you can't sit on. You can sit on the front and back ledges, but only on the sides facing away from the pool. With a few simple changes, such as broadening the ledges, sitting capacity could have been doubled, providing some of the best poolside space anywhere. All in all, these examples indicated, build-

ers could easily furnish as many feet of sitting space as there are feet around the perimeter of the project.

The requirement finally settled on was a compromise: one linear foot of sitting space for every thirty square feet of plaza. This is reasonable, and builders have been meeting the requirement with no trouble. They could meet a stiffer one. The exact ratio is not as important, however, as the necessity of considering the matter. Once an architect has to start thinking of ways to make a place sittable, it is virtually impossible not to surpass any minimum. And other things follow. More thought must be given to probable pedestrian flows, placement of steps, trees, wind baffles, sun traps, and even wastebaskets. One felicity leads to another. Good places tend to be all of a piece—and the reason can almost always be traced to a human being.
The Street

Now we come to the key space for a plaza. It is not on the plaza. It is the street. The other amenities we have been discussing are indeed important: sitting space, sun, trees, water, food. But they can be added. The relationship to the street is integral, and it is far and away the critical design factor.

A good plaza starts at the street corner. If it's a busy corner, it has a brisk social life of its own. People will not just be waiting there for the light to change. Some will be fixed in conversation; others, in some phase of a prolonged goodbye. If there's a vendor at the corner, people will cluster around him, and there will be considerable two-way traffic back and forth between plaza and corner.

A corner of Wall Street is a great place for business conversations.
One of New York's best corners is 49th Street and the Avenue of the Americas, alongside the McGraw-Hill Building. This corner has all of the basics: sitting space, a food vendor, and a heavy pedestrian flow, the middle of which is a favorite place for conversations.
Paley Park (left and below) is a superb space for many reasons. One of the most important is its cordial relation with the street. The vestibule is used in its own right. The many passersby greatly enjoy the park. Another of New York's most heavily used sitting spaces (above) doesn't even have a name. Like Paley, it has an excellent relation to the street. It is virtually a part of it.

As a contrast to the development of the 1950s, and in at least 50 blocks of the Manhattan frontage, the front of the new New York City Market provides an interesting working model of the values of our study. The contrast between ground-floor use and an upper floor, storage and banks having no visual relationship to the street, is clearly visible. But it does provide open space.
The activity on the corner is a great show and one of the best ways to make the most of it is, simply, not to wall it off. A front-row position is prime space; if it is sitable, it draws the most people. Too often, however, it is not sitable and sometimes by an excruciatingly small margin. Railings atop ledges will do it. At the General Motors Building on Fifth Avenue in New York City, for example, the front ledge faces one of the best of urban scenes. The ledge would be eminently sitable if only there weren't a railing atop it, placed exactly five and three-quarter inches in. Another two inches and you could sit comfortably. Canted ledges offer similar difficulties, especially in conjunction with prickly shrubbery.

Another key feature of the street is retailing — stores, windows with displays, signs to attract your attention, doorways, people going in and out of them. Big new office buildings have been eliminating stores. What they have been replacing them with is a frontage of plate glass through which you can behold bank officers sitting at desks. One of these stretches is dull enough. Block after block of them creates overpowering dullness. The Avenue of the Americas in New York has so many storeless plazas that the few remaining stretches of vulgar streetscape are now downright appealing.

As a condition of an open-space bonus, developers should be required to devote at least 50 percent of the ground-floor frontage to retail and food uses, and the new New York City zoning so stipulates. Market pressures, fortunately, are now working to the same end. At the time of our study, banks were outbidding stores for ground-level space. Since then, the banks have been cutting back, and economics have been tipping things to stores. But it does not hurt to have a requirement.

The area where the street and plaza or open space meet is a key to success or failure. Ideally, the transition should be such that it's hard to tell where one ends and the other begins. New York's Paley Park is the best of examples. The sidewalk in front is an integral part of the park. An arborlike foliage of trees extends over the sidewalk. There are urns of flowers at the curb and, on either side of the steps, curved sitting ledges. In this foyer, you can usually find somebody waiting for someone else — it is a convenient rendezvous point — people sitting on the ledges, and, in the middle of the entrance, several people in conversations.

Passersby are users of Paley, too. About half will turn and look in. Of these, about half will smile. I haven't calculated a smile index, but this vicarious, secondary enjoyment is extremely important — the sight of the park, the knowledge that it is there, becomes part of the image we have of a much wider area. (If one had to make a cost-benefit study, I think it would show that secondary use provides as much, if not more, benefit than the primary use. If one could put a monetary value on a minute of visual enjoyment and multiply that by instances day after day, year after year, one would obtain a rather stupendous sum.)

The park stimulates impulse use. Many people will do a double take as they pass by, pause, move a few steps, then, with a slight acceleration, go on up the steps. Children do it more vigorously, the very young ones usually pointing at the park and tugging at their mothers to go on in, many of the older ones breaking into a run just as they approach the steps, then skipping a step or two.

Watch these flows and you will appreciate how very important steps can be. The steps at Paley are so low and easy that one is almost pulled to them. They add a nice ambiguity to your movement. You can stand and watch, move up a foot, another, and, then, without having made a conscious decision, find yourself in the park.
New York's Bryant Park is dangerous. It has become the territory of dope dealers and muggers because it was relatively underused by other people. Bryant Park is cut off from the street by walls, fences, and shrubbery. You can't see in, You can't see out. There are only a few entry points. This park will be used by people when it is opened up to them.

The steps at Greenacre Park and at Seagram's plaza are similarly low and inviting. A slight elevation, then, can be beckoning. Go a foot or so higher, however, and usage will fall off sharply. There is no set cut-off level—it is as much psychological as physical—but it does seem bound up with how much of a choice the steps require. One plaza that people could be expected to use, but don't, is only a foot or so higher than two comparable ones nearby. It seems much higher. The steps are constricted in width, sharply defined by railings, and their pitch is brisk. No ambiguity here; no dawdling; no drifting up.

Sightlines are important. If people do not see a space, they will not use it. In the center of Kansas City is a park just high enough above eye level that most passersby do not realize it is there. As a result, it's lost. Similarly lost is a small, sunny plaza in Seattle. It would be excellent and likely quite popular for sitting—if people could see it from the street, which they cannot.

Unless there is a compelling reason, an open space shouldn't be sunk. With two or three notable exceptions, sunken plazas are dead spaces. You find few people in them; if there are stores, there are apt to be dummy window displays to mask the vacancies. Unless the plaza is on the way to the subway, why go down into it? Once there, you feel rather as if you were at the bottom of a well. People look at you. You don't look at them.

One of the best students of spaces I know is the dancer Marilyn Woods. With her troupe, she has staged stunning "celebrations" of public places across the country. These celebrations are an intensification of the natural choreography of a place. The best places, not too surpri-
ingly, make for the best performances, the most appreciative audiences. (Seagram’s and Cincinnati’s Fountain Square are at the top of the list.) Significantly, the only places where her celebrations didn’t work were sunken plazas. They felt dead. Woods recalls, as if a wall had been put between the dancers and the audience.

What about Rockefeller Plaza? It is a very successful place, and it has a sunken plaza in the middle. So it has. Those who cite it, however, are usually unaware of how it works. The plaza is a great urban space, but the lower plaza is only one part, and it is not where most of the people are. They are in the tiers of an amphitheater. The people in the lower plaza provide the show. In winter, there is skating; in summer, an open-air café and frequent concerts. The great bulk of the people—usually about 80 percent—are up above: at the railings along the street, along the mezzanine level just below, or on the broad walkway heading down from Fifth Avenue.

What gets copied? Some cities have dug near facsimiles of Rockefeller Center’s lower plaza, in one case to the exact dimensions of the skating rink. What they haven’t copied is the surrounding space. They wind up having a stage without a theater, a hole without the doughnut. And they wonder what went wrong.

The plaza of the First National Bank of Chicago is also quite sunken—some 18 feet below street level. And it is the most popular plaza in the country, with well over 1,000 people at lunchtime on a nice day. It is successful because just about everything has been done to make it successful—there is plenty of sitting space, a splendid outdoor café, a fountain, murals by Chagall, and usually music and entertainment of some kind at lunchtime.

The First National Bank plaza has an excellent relationship to the street. The sidewalks are part of its space, and there is a strong secondary use by the thousands who pass by. Many pause to look at what’s going on. Some will drift down a few steps, then a few more. Again, an amphitheater—with several tiers of people looking at people who are looking at people who are looking at the show.