Beyond Habitat

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23 The city that could be

One day about two years ago I walked from my office to my house in Montreal, a distance of about thirty blocks. I met George Challies, a young architect who used to work in my office. I met a girl I knew at Expo and whom I hadn't seen for two years, and I met Bill Sofin, a Montreal druggist who is a friend. I met Harold Spence-Sales, who taught me planning at McGill. He told me that he was writing Central Mortgage that they were absolutely stupid the way they were running Habitat; they had a moral responsibility to Canada's reputation. One block farther on I met Arthur Erickson, the Vancouver architect, who had just flown in from Japan, was in Montreal for the day, and was then flying home. He told me all about Japan and the Canadian pavilion which he was designing for Expo 70 at Osaka.

That was just walking home from my office at 5:30. Had I not lived within walking distance, had I lived six miles from downtown, I would have got into my car and driven there and I would have met no one.

You may say, "So what? Does that matter when the cities are exploding beneath our feet? Is the quality of your city life relevant when compared with the very immediate issues of slums, of pollution, of congestion, of the things that we read about every day in the paper?"

I believe that our society can and will come to terms with the quantitative problems in the environment. I know that this is a big assumption and that this isn't what recent history indicates. But, the fact is that people are coming to understand the violence of pollution, the destruction of the equilibrium of nature. And they are slowly coming to understand that it will take a great deal of energy, of funds, a high percentage of our entire national income to deal with these problems, to clean the waters and the skies, to impose on industry the additional cost of controlling waste. (I don't think subsidized housing is likely to get such solid support because everyone suffers from pollution, but not everyone suffers from bad housing.) There is a wide gap between the earning

power of a substantial portion of the population and the kind of housing they require, and it is understood that whatever the means, whether by subsidies or redistribution of income, or by change of the tax structure, a great part of our national income will have to be diverted to the construction of decent housing and urban services for the entire population. This should in no way minimize the magnitude of the task or the means that must be devoted to dealing with it.

We are overwhelmed by the fact that we must build millions of dwellings, that we must stop pollution, that we must construct miles of expressways and mass transit, but we also assume that if we spend enough money, the results will be guaranteed. On one hand this obsession with the immediate problem encourages many in a policy-making position to adopt the "quick fix" attitude, to alleviate as fast as possible with the least possible means each of the problems mentioned above. On the other hand, those same people assume that if at one point sufficient funds are devoted to their needs, there will be no problem to getting the kind of city we want to live in. This is the most dangerous assumption of all. It is possible that with all the funds in the world devoted to reconstructing the city, the end results would be as disastrous as what we have today.

The city has always been shaped by cultural and personal values. The form of a city is an expression of what Jung called the "collective unconscious." It is necessary to clarify to ourselves what we want of our cities, how we want to live in them, the kind of cities we aspire to build.

I prefer San Francisco to Los Angeles, I prefer Montreal to Toronto, and I prefer New York to Philadelphia. Why? The kind of concentration that is achieved in them creates certain choices, an openness of society that is not possible in the lower-density environments. I want my children to be able to meet and play and communicate with many other children on their own, not only when they are driven somewhere. I want them to grow up in an environment that is not just a place where people sleep, but where people work too, and where people enjoy themselves, or as Goodman says in *Communitas*: "The city must be the integration of work, love and knowledge." I see the seeds of these possibilities in a city like San Francisco, I do not see them in a city like Los Angeles. You don't meet people passing them at sixty miles an hour on an expressway; you have to decide you want to see someone and make the effort of driving to see him. It is the difference between a city that makes possible random social association and one in which encounters are predetermined and therefore rigid. Los Angeles is of so low a density that it will never be able to provide public transportation, it is caught in a bind.

Solving our pollution problems, building more expressways, building good housing, urgent and essential as all this may be, will not give us a city that generates social interaction, that allows a child to grow up in an environment in which every aspect of life is experienced, that enriches the individual's

experiences and expands his growth, nor will it give us an unstratified society. All these have to do with the basic structure of the city.

We rarely pause to state what *kind* of city we want. We usually state what we do not want. Critics respond to positive statements by calling them utopian thinking. They say that a positive statement cannot consider the many realities and forces that have to be coped with, all of which would compromise the ideal image.

But society today has the means, in terms of resources and productive capacity, to build whatever environment we choose, just as we obviously have the resources and the capacity to feed the whole world. We underestimate the real volume of potential food production we are capable of; just as we underestimate our capabilities in making our environment. Buckminster Fuller has been constantly reminding us what we could do in terms of productivity if we used our resources properly. Fuller has been saying, in the context of an extrapolitical reality, unique to our time, that environmental systems must be applicable to the total global population. To provide more for more with ever decreasing natural resources, we must rely on the potential of technology. I would add that fulfilling this "bare maximum" also creates the welcome burden of having to establish city structures that can give fulfillment to all.

I think people want space to live in, generous space. Individuals want private space. The family unit wants to be able to function with a fair amount of privacy. We want a house which has indoor spaces and outdoor spaces. We like the idea of a garden, I think, regardless of our cultural background. We like to be able to do whatever we want in our own dwelling, whether it is to have a party or listen to or play music, without being heard or hearing others. These things are independent of whether we live in a house, an apartment, a row house, or a cliff dwelling.

We want two extremes. We want the intensive meeting place, the urban environment, the place where everybody is together, and we want the secluded open space where we are alone in the country in nature. We need and want both. Suburbia is an expression of those desires – needing the city and wanting the country – but it provides neither. We also want great variety in our life, in what is available to us to choose from or to take part in. The average North American's ideal is to go shopping in New York, to have a choice of going to theaters, concerts, opera, museums, restaurants, discotheques, in London or New York – anything you can think of, available at any time, so concentrated that you can get to it with ease. And yet Manhattan is certainly not ideal environment. Because of the great concentration of people, it denies so many other things. The ideal environment would have the variety of Manhattan's amenities and the recreation space of the seacoast or the open spaces of New England as part of daily experience, close enough so that you could enjoy both every day; to live in a community of maybe thirty thousand people where you

feel you can make decisions and participate in decision-making, but to share the life of twelve million people.

This is the contradictory desire in our utopia. We want to have our cake and eat it too. We want to live in a small community with which we can identify and yet we want all the facilities of a city of millions of people. We want to have very intense urban experiences and yet we want the open space right next to us.

The paradox of suburbia also grows from this conflict. In a certain sense, many of the virtues or amenities that people want are available in the single family house in the countryside. The isolated house in the country is ideal in one way and yet it's not ideal in another. It's ideal from the point of view of private needs in one's own house, but from the point of view of one's relationship to the community, it's not. The ideal environment is the integration of both.

For me it is a foregone conclusion that low-density dispersal cannot combine the advantages of the single isolated house with the numbers of people and opportunities that the urban environment provides. We can't handle the communication problems, and that means that people spend half their time travelling. This is not to say that this is a permanent conclusion. It may totally change in the next thirty or forty years, when technology gives us the means of flying as individuals.

Frank Lloyd Wright was very concerned with the individual's environment when he designed Broadacre City. You need, he stated, one acre per family – a homestead. Yet, if you need two or three or four million people to support the quality of life you want, at an acre per family, that means a kind of spread that we cannot handle physically in terms of communications, and I don't think we will be able to for a long time. Toronto or Montreal would need a thousand square miles of housing, and when you disperse families at that rate you have a compounding effect which creates a situation where forty per cent of the real estate is taken up with transportation facilities.

The fundamental question of optimum density must be answered and this is only possible in the context of a regional city. Metropolitan New York is approaching a population of fifteen million, and so is Keihin, the metropolitan area that encompasses Tokyo and Yokahama. We can say that most cities are evolving toward populations of that size. Even so, we will still desire open space within easy reach – I might say, even more will we desire open space.

What could an ideal city of fifteen million be like?

Assume that the city is no more than three miles wide, so that one can walk from anywhere in the city to the open space on either side of it in half an hour or less, or drive in just a few minutes. Now let us accept the concept of Frank Lloyd Wright's Broadacre City; each family on its own acre, with additional acreage for services. On these assumptions we will have a city three miles wide

and four thousand miles long. Well, four thousand miles is not a workable entity. If we double the width of the city to six miles, then it's two thousand miles long, and it's still not a working organism.

If we increase the density to ten families per acre, which is double that of suburbia, we would get a city four hundred miles long. Four hundred miles is the kind of distance that could possibly be covered in a single hour's travelling, so we could have a single urban region at about twice current suburban densities. If we take another jump and consider a gross density of a hundred families per acre, a very high density, it would mean that our city would be forty miles long and three miles wide and have fifteen million people living together.

Obviously a city of that population and compactness could offer great variety, tremendous vitality, unique urban services. I have said that I look for a balance between community and privacy. So I must ask, if we build at ten times suburban density, must the dream Frank Lloyd Wright embodied in Broadacre inevitably be lost? I believe not. Many of the things, maybe all of the things Frank Lloyd Wright thought of in a Broadacre house are achievable in a denser environment. Not in the form in which we presently build them, but they are achievable.

When we think of Broadacre City, what immediately comes to mind is the possibility of privacy – that you have enough space to lead your own life. However privacy in the family sense is not the same as solitude. Suburbia, or better still super-suburbia with one family per acre, does give you space for your family to live privately, but if it spread for many square miles without any break in it, then the open country where you can really have solitude would not survive. A Broadacre City house would have to be a year-round place.

I think this was Wright's understanding of the rhythm of life, whereas I feel that we are moving toward a rhythm of life in which you alternate between the intense urban places and the open country, where great concentration and the open country are both ingredients of daily life. We are now experiencing wholesale migrations of people, like birds, to the warm climates in winter and vice versa. Fifty years from now new forms of transportation could change that completely, but we must not think of the far future, we must think of now, the immediate operation.

The commonest contemporary method for dealing with this issue is to build more and more high-speed expressways, and improve and automate them, enabling people to live at a great distance from the heart of the metropolis and still reach it quickly. But this has not worked, because you cannot bring half a million people on highways, automated or otherwise, into the city and store the vehicles, as Manhattan has already proven. What you could probably do is let them use private vehicles to a certain point, transfer them to mass transit where you have accumulated sufficient numbers, and then go on to the central city.

And what about the city core, the meeting place itself? If the city is purely a commercial-recreational center, without people living in it, then it's really a dead place too. It would be very busy during the day because people work there, but it would be dead at other times. But if people live there and work there and also come there for pleasure, then you have a much richer environment, a much more integrated life – a better place. It could mean that the place where three or four pedestrian pathways meet would become a museum or a gallery. A natural science museum could be a transportation terminal. We could let public libraries be situated anywhere along the streets. We could de-institutionalize and integrate these services.

The metropolitan city is a new scale city. Parts of it have existed in earlier cities but the problems were different because the numbers were different. Very few cities before this century exceeded one million people. Imperial Rome was one of the rare exceptions. If the qualities of life which obviously existed in the small town with its piazza and the shops on the piazza and houses over them and city hall and church are of value, and to be preserved, then the metropolis also needs a hierarchy. There should be places on the scale of a thousand families and on the scale of a million people and maybe there should be meeting places on the scale of ten million people. That hierarchy is very important. It's the lack of hierarchy that really makes our cities so unworkable. It's the fact that you are a part of ten million people often, but you are not part of five families or a hundred families or twenty thousand people, which are workable communities in which you can function with a quite different kind of participation and control over your environment than you can with ten million people.

In today's huge metropolises people have lost even the urban qualities they had in small towns before the beginnings of this century. If the man who lives in Brooklyn goes to Manhattan only maybe once in two months and to Atlantic City and the Adirondacks once a year, then the fact that he's living in an urban organism of twelve million people is quite meaningless. Let me put it differently. If we draw cities as plans on paper they appear to be something quite different from what they would be if we only drew a plan of the city as it is experienced by a single individual. Conventionally we draw New York, Manhattan, Brooklyn, the whole region, highways, rivers, and so on, extending over seventy miles. If we then make a list of all the things contained in the plan it will be rather impressive. But, if we draw New York as seen through the eyes of a man who works in the navy yards in Brooklyn and lives in Brooklyn, it would be a totally different thing, much less exciting, and in fact it might be quite limited.

I think the meaningful way of drawing city plans is what I call "one man's environment." This is the only way to assess what real mobility and variety of experience he has. If this man who lives in Brooklyn experiences Atlantic City and Manhattan and the Hudson Valley and the East River and Times Square as a daily routine, then the environment has really expanded to offer him much more than his ancestors had. As long as it doesn't, then he is a loser, which may even mean that the contemporary city has changed life for the worse. If we

traced the path of the individual from his home to work and to his places of recreation and to the various places he would go in his daily life, we would have a drawing of what the city is to him, which in the final analysis is the only meaningful description. And if we traced similar paths for two million individuals, we would have two million city plans, and the sum total of these two million master plans would be the plan of the city. If in drawing these plans we discovered that there were many people in the city who were much limited in their experience as compared with others who enjoyed a greater range of activities, then that in itself would tell something about the nature of that particular city and its social and economic life. The master plan that you would draw for a man living in a Washington, D.C. ghetto would be quite different from the master plan that you would draw for a senior civil servant who lives in one of the suburbs in Virginia or Maryland and works in Washington. That in itself may indicate something about the structure of the city of Washington, including some of its problems.

All this pivots on the subject of mobility; people do want to physically fly. How wonderful it would be to take off anywhere you wanted into space, not tied down to the ground. You want to go home, you just walk out of the window and fly. If you want to go for a walk in the park, you fly there. The whole history of human mobility has been a development toward that moment. In the meantime the car is not a bad compromise. Any planner's talk that the car imprisons us and ought to be banned completely is utter nonsense, because the car has given us more personal mobility than we ever had before and we'll never give it up until it is replaced by something that gives us even more mobility.

Mobility is the central and most critical question, with the greatest influence on the form of cities. Increased mobility is the tool that will make it possible for us to have our cake and eat it too. Expressways have expanded the car's range, but we are finding one of two problems in our cities today. In cities such as New York or Montreal, where there is a concentration of urban activity, the car becomes a statistical impossibility. It is not possible for everyone to drive on the highways because there is not enough space for them. The car which has given us mobility in one context gives us no mobility at all in the concentrated environment. In desperation we resort to subways and taxis and buses, which partially alleviate the statistical problem by moving more people in less space but at the price of limiting freedom: you have to go by the timetable, you have to follow major routes, and you wait. The other trend, as in Los Angeles or Toronto, is that in the desire to keep the vehicles mobile the city has been continually dispersed. In avoiding the density or concentration that would eliminate the car the planners have so spread things around that an essential quality of urban life is lost. In Los Angeles the average person may spend two or three hours in his day just moving from one place to the other. Notwithstanding expressways and dispersal Los Angeles demonstrates that in rush hour the road system can't handle the traffic and yet the people are by now so dispersed that mass transportation is impossible, the density is too low to make it economically feasible.

What is the next development? I think the distance we can travel in an hour, which has traditionally limited the size of a city, is going to expand very substantially. The horse and buggy gave us a city with a radius of ten miles, and then the car made it thirty miles, and then we built expressways and made it fifty miles. The next step is going to be an enormous jump. The airplane hasn't affected the city at all, hasn't expanded the one-hour travel limit. The next step will be transportation on the ground at four or five hundred miles an hour. You can't have five-hundred-mile-an-hour trains going in all directions, and they can't be stopping every couple of miles, they don't work that way. By their nature, they will become a forming element for the city. You have to find a way in which a system like that can load and unload people without stopping, so that the system moving at five hundred miles an hour may slow to one hundred miles an hour while another system, which may be the equivalent of today's bus or subway, accelerates to a hundred miles an hour and people get on and off in motion. It would be like a system of gear wheels all turning at different speeds at the same time without ever coming to a stop, transportation systems maintaining very high average speeds by eliminating waiting time completely in the transfer from one system to another.

There must be a whole hierarchy of systems – the speed of an elevator, the speed of a pedestrian, the speed of a car, all the way to five hundred miles an hour, and all synchronized to exchange passengers in motion. These could be designed so that in the lower density range, people could use personal vehicles and then at the edge of the denser area, with some very easy transition, switch to a public system.

This idea of continuous systems in motion is just one possibility, but whatever the technical solution fast transit would have significant impact. It could create linear system with loops generating out of it, like a necklace. Toronto-Montreal or Toronto-Detroit would become one urban region – and we would create a situation in which ten or twenty million people are within a one-hour travel limit of each other and therefore within one metropolitan area, sharing all the facilities a population of that kind can support. There would still be points of greater and lesser importance. This regional city would not be homogeneous. There would be potential for growth along the necklace. It would be a necklace of communities, hundreds of communities each with a measure of identity but interdependent. It could almost be limitless. It could permit the integrating of agriculture and industry into a single environment, an optimum environment where the rural and urban become one, the concentrated and dense and the totally open space become a single environment, so that the Adirondacks or the Laurentians or the lake areas north of Toronto become part of the daily experience of the environment for the people in this regional city.

The linear pattern creates possibilities for growth that do not exist in the radial city. If we consider southern Ontario, the region around Toronto, linked by a linear spine, then existing centers, such as Kingston, Oshawa, Windsor, and Hamilton, become part of the necklace city. Toronto, though, would probably

stop growing radially and growth would be re-channeled into new centers on the necklace somewhere between Windsor and Kingston.

This would completely liberate our thinking about the country's land resources. It would also deal with the artificial issue of new cities vs. satellite towns vs. the expansion of existing cities. The expanded city integrates all three. We could decide which areas we would open up for recreation by making the transport system give access to them, which areas ought to be forest reserves, which areas we want to preserve as open space, either for agriculture or for park land. It would give us an environment that constantly provided the contradictions we want – urbanity and the open country; great numbers for variety and small communities we can identify with; a great deal of personal mobility, notwithstanding the kind of concentration that makes mobility so difficult to achieve.

I am suggesting that the intensive growth of places like Toronto and Montreal could be deflected into new and less problematical areas. But at the same time this would actually expand the sphere of influence of these present great cities by increasing the potential population that lies within easy reach of their attractions. What New York has to offer is highly desirable, and it is understandable that so many want it. But with a new transportation system such as I describe they would not all have to live within spitting distance of the Empire State Building to have what they want. Cities the size of New York could usefully shrink while regional New York expands.