

I went to Expo 67 partly because I was very interested in working on a real plan on a large scale, but mostly because of the possibility of a housing exhibit. I felt I would have the opportunity to realize it in some way there.

At first I worked on the exhibition master plan, which was still in a state of flux. A year and a half earlier I had done some work in van Ginkel's office on a preliminary master plan, in anticipation of the exhibition. It was a combination of three sites, all of them in the city, and in that early plan I had designed a housing exhibit as the central feature of one of the three sites. It included MacKay Pier – where Habitat was eventually built.

The work on the Expo master plan was for me the next evolutionary stage of ideas that began with Meadowvale, continued with theoretical work in Philadelphia on the master plan for Tel Aviv, and the refugee city of Giza.

But the Expo 67 master plan was specific; it wasn't just theoretical. There were four main areas of concern. One, there was the location of the exhibition itself and the relation of each part to the others. Two, relating very closely to the first, there was the exhibition's transportation system, within the site and in relationship to the city. Three, there was the problem of urban design. (How do you relate buildings designed by different people? Were you or were you not going to have national pavilions? What was the place of the theme pavilion within the whole exhibition?). Four, there were the details of making the thing work on the site.

There had been considerable excitement over the decision to have an exhibition in Montreal in celebration of Canada's one hundredth birthday. Groups were formed to discuss what kind of exhibition it should be. This culminated in a conference at Montebello, Quebec, where men and women from various parts of Canada, a kind of task force of the intelligentsia, came together and tried to establish guide lines for the exhibition. Among other

things, they decided to avoid the symbolic vertical structure that had become a cliché of world fairs, and they felt that nations should exhibit together according to certain themes and that national pavilions should either be eliminated or played down. There was vibration in the air. This was to be a very special exhibition.

Sandy van Ginkel had put together a group of about eight architects and planners. We were all in our twenties or early thirties; we all had in the past worked either with him or with colleagues of his. There were Jerry Miller and Adèle Naudé who had just come out of Harvard, Steve Staples who had more of a planning background than any of us, Tony Peters who was then in Sandy's office, and several others.

When I came back to Montreal in August 1963 there was a great deal of discussion about the actual location. By that time, Guy Beaudet, the harbor manager, had suggested building islands in the St. Lawrence river between the island of Montreal and the South Shore, and Mayor Jean Drapeau had agreed. They had decided to build Ile Notre Dame and to extend Ile Ste. Hélène north and south. But they had not decided whether there would be any exhibition on the mainland itself. Our first effort was to extend the exhibition back to MacKay Pier and so assure the long range benefits of the exhibition to the city as a whole. There was a great deal of controversy and it took a number of weeks before the extension was agreed upon.

There still remained the big question of what was to go where. Opinions were flying in the air. For example: Commissioner General, Pierre Dupuy, I believe favored—at least it was expressed in one particular plan—the “noble nations” (that is, Canada, the U.S., Britain and France) being on Ile Ste. Hélène and the “others” on Ile Notre Dame. The planning group felt that the amusement park should not penetrate the exhibition, it should be off by itself. It kept longer hours and it was a permanent installation. We felt that the Canadian pavilion, the pavilion of the host country, should not be at the entrance, it should be at the end of the circulation path. In the same way, more or less as if we were designing a shopping center, we said the U.S. and Russian pavilions ought to be at opposite ends of the circulation pattern, like two big department stores, with all the small pavilions in between like small shops.

For a long time we continued to hope that the theme pavilions would form the major spine of activity, straddling the transportation stops, with fingers radiating out to other pavilions. A plan was drawn in detail on that basis. For the sake of the city's future on the waterfront and for the sake of Habitat, I suggested that all the permanent buildings (the administration building, the stadium, the broadcasting center, anything that could remain permanently) should be placed on MacKay pier as the beginning of a future community. Eventually, after considerable discussion, this was agreed, and at that point MacKay Pier became part of the exhibition proper. From our point of view, this was essential if the city was to establish a beach-head of development on the river front for the future.

I felt transportation in the exhibition should go beyond the problem of just getting people around – it should be part of the exhibition, it should be an exhibit in itself of how a city could function, and we had a miniature city to deal with. There were four different areas, all of which had attractions that people wanted to see. This created a tremendous volume of traffic between the four points. In the end, we built a train that had five stops and ran as a shuttle service. In the planning stages, however, I proposed a system that was based on two assumptions: first, that the mobility of the individual was the most important thing in an exhibition – the more mobile he was, the more he could see; and second, that the exhibition ought to be experienced by movement at a variety of speeds. Some things should be seen moving at thirty miles an hour, some when you were strolling at two miles an hour. Yet, they ought not to be considered as separate systems, but as part of one overall system.

I proposed a miniature model of a three-part urban transportation system based on the Giza plan: the “C” system, moving through and around single buildings at two and one half to five miles an hour; the “B” system, a number of loops each serving an area at five to ten miles an hour; and the “A” system, moving at ten to thirty miles an hour and linking the city and the islands. You could call them moving sidewalks, horizontal elevators, and trains – all accelerating and decelerating but none ever coming to a stop. You could transfer from one system to the other in motion, you could constantly move through all parts of the exhibition without ever coming to a stop, you had total mobility.

I managed to arouse considerable interest for the proposal in the Expo management and it became apparent that the only way to assess its feasibility was to discuss it with the leading manufacturers of transportation and control systems on the continent. We were authorized to do so. Joe Kates, who was then the prime transportation consultant to Expo, Jerry Miller, and I were to go and visit the major transportation corporations, particularly American Machine and Foundry in Connecticut, Westinghouse Transportation and Research Division in Pittsburgh, and Stevens Adamson Moving Sidewalk Division near Chicago.

Our most interesting meeting was with Westinghouse. They were very excited by the idea and felt they could build it in the time available. They thought the approximate cost would be forty-five to fifty million dollars for the total system, including the computers that would run it. They wanted a contract to make a more comprehensive feasibility study.

We returned from the trip enthusiastic and encouraged. Westinghouse wanted fifty thousand dollars for the feasibility study and we tried to get it authorized. But, at that point we were confronted with one of the problems of an exhibition undertaken with public funds. One could not just give a contract, even for a feasibility study, to one company – there had to be public bids. Expo management insisted the public bids be for any transportation system that could handle the anticipated volume of visitors. It would be up to the bidders to

determine the nature of the system. Needless to say, that ruled the whole thing out.

I felt it could have been one of the great attractions of Expo. There would be buildings, and exhibits within the buildings, but the actual structure and arrangement of the whole exhibition would have been the main exhibit. It tied in with the idea of Habitat – that you build an exhibit that is a living community.

As a last resort, I proposed a compromise system. We would have separate “A”, “B” and “C” systems, but the stops would be combined and the systems synchronized so that when “A” train came to a stop, so “B” system would simultaneously come to a stop in the same station. People would then get off one system and on to the other without having to wait. Even this modest improvement would double the average speed of the individual in the exhibition. This also proved too demanding for the cumbersome procedures of government contracting. Bids on the “A” system were to be called immediately, as it would be part of the Expo budget, but the “B” and “C” systems, if they were to exist, would be concessions. In the end, the “A” system survived as the Expo Express and the Minirail was installed as a secondary system.

We had proposed that the system should be totally free. That was accepted for Expo Express and worked very well. It became clear seeing it in action that this was the way the city should function, with public transportation as a service you don’t pay for except as a taxpayer.

As the theme pavilions shrank (they became Canadian rather than international) the spine dwindled and the site became more and more a collection of miscellaneous buildings. What could be done to give the whole thing unity? We were of course fortunate in having a magnificent site. Building the islands in the St. Lawrence River was the responsibility of the City of Montreal as part of the Tri-Government Agreement (i.e. an agreement between the City of Montreal, the Province of Quebec, and the federal government of Canada). The City had dug enormous holes in the islands, quarrying rock needed to build the dikes to extend the area. These holes were a hundred and fifty feet deep and the City was increasingly concerned about how to get enough fill for them. It was at that point that I suggested – an idea born out of desperation – filling them with water. There would be series of, not so much canals as *spines* of water with the buildings on either side, connecting the lakes formed in the holes. Water would become the visual link and the unifying element for all the diverse buildings.

We went a step further in drawing up this plan. The river level fluctuates from spring to fall by about twenty feet. I proposed that we not water-proof the bottoms of the canals and lakes so that the level of water in the islands would fluctuate with the river – it would go up and down twenty feet. That was a very exciting thing. You could build a series of terraces, the buildings being at the top terrace, which was the high water level in spring; and throughout the summer the water would slowly recede, revealing more and more terraces. We

expected more visitors as time went by too. The highest number of visitors and the lowest water level were expected in July, August, and the beginning of September, so we would have more space as the number of visitors increased. The Expo site engineers were quite concerned about the technical problems this would pose and eventually opted for partially waterproofed bottoms for the lakes, and pumps and dams to keep the level constant.

By then I was no longer working on the master plan. Work had started on Habitat and I could clearly not continue with both. This was a painful decision, for you become possessive – you have that uncontrollable urge to stay with something until it becomes a reality. In developing the plan further Adèle Naudé, Miller, and Staples had modified the scale of the large bodies of water. They had become more like the canals in scale, relating to the scale of the roadways and the walkways. I had always been concerned about this question of scale because I felt that the hierarchy of scales, especially the larger bodies of water, was what would give the entire exhibition a sense of location, telling a person he was in one spot and not in another. I was concerned with the implications of a gridiron plan of roads and canals all the same size. But then, the essential elements of my initial plan had been preserved and it was rewarding as Expo took form to see to what extent it had succeeded in tying together the multitude of buildings into a continuous unified urban entity.

Expo was in quite a turmoil in those days, with the eight or nine of us young architects and planners working under Sandy in the midst of the rumpus. Then the resignations started flying; first the commissioner general's and deputy commissioner's, then Robillard's followed.

With the resignations came new appointments: Pierre Dupuy as commissioner general, Robert Shaw as deputy commissioner general, Colonel Edward Churchill as director of installations taking over and extending Robillard's role, and Edouard Fiset as chief architect. Pierre Dupuy, the commissioner general, had been Canadian ambassador to France for a long period. One day shortly after his appointment I came across a confidential memo in which he proposed that Beaudoin, the Beaux-Arts planner in Paris, should design the Expo master plan. He would come to Montreal with a group of assistants and take over.

We young planners got very upset. We felt that a man from Paris who did not know our city and who was out of touch with contemporary thinking was inappropriate. Our group prepared a carefully worded letter that stated our objections to having Beaudoin and his staff undertake the master plan. It was addressed to commissioner general Dupuy, and stated that we would resign unless the whole idea was abandoned. That was a pretty tough move to make and so we thought at that point we had better go see a lawyer. We contacted Claude-Armand Sheppard, whom we had known as a vocal McGill law student and a defender of underdogs, and had a meeting with him that night. He wasn't very encouraging. He asked, in a cold matter of fact way: "How many of you have French names?" Well, Adèle Naudé had a French name, but she was

South African, and the one French Canadian on the staff didn't sign the petition. Sheppard said, "You don't have a chance, they'll just let you go." He felt we were taking a big risk. But for us there was no other way. We felt like the protectors of the realm. We had to save the exhibition.

But Churchill was rather impressed with our move, while Sandy was right in the middle, hanging loose between management and us. Since he hadn't threatened to resign with us, management was looking to him to settle the dispute. That Saturday, two days after our ultimatum was submitted, Sandy asked us all to come up to his country house in the Laurentians to discuss the whole subject. We arrived and told him that our position was unalterable; if Expo was going to hire Beaudoin to make the master plan, this was the end of the exhibition so far as we were concerned.

Sandy got Churchill on the phone and they started negotiating. At one point the situation was so tragi-comic that I doubted Churchill was on the other end of the line. I thought Sandy's sense of ceremony was rising to the occasion. But Churchill was on the other end, and a settlement was negotiated. Beaudoin would be allowed to go through with his presentation, we would withdraw our letter as if it had never been written, and the Beaudoin submission would be phased out politely and slowly.

Beaudoin arrived a few days later with a scheme that displayed such a lack of understanding of the city, in terms of where people came in and where people left, where the subway alignment was and other such mundane facts, that it just came to a natural end.

A positive thing came out of what Churchill came to call "The Palace Revolt." Shaw, Churchill, and the rest of the new management were impressed; they had a group of people with strong ideas and they had better find out what work we had done to date. They took three days off for us to brief them and we conveyed in a marathon presentation everything that had gone on – the master plan, theme pavilion, Habitat, transportation, urban design, graphics, street furniture, landscaping.

In retrospect there was something charming about a group of young and quite naive designers working away at the Expo offices while all the political storms were thundering around us: English-French; Ottawa-Quebec-Montreal; industry-dominated or theme-dominated; profit-making or subsidized. It is to the credit of the country that at that moment the enormous task of planning the exhibition was not just sliced up into two or three big chunks, and farmed out to the great consultant establishments, as most government work is in the end.

In those early Expo days the organization was loose; there was little hierarchy. As a group we were all working together, and, as in all group or team work, relationships and responsibilities evolved as part of the dynamics between us. I found myself in a special position. On one hand I had pretty clear ideas about

the basic planning of the exhibition. It had become an extension of the work I had done in the past three or four years. On the other hand I was the only one of the group who had previously worked very closely with Sandy. We had a *modus operandi*. He trusted me, in fact, even demanded and expected me to produce, and what I produced was compatible with his images. Because of that I found myself in the first eight weeks working practically continuously, and apart from the group, in Sandy's office, while Sandy was storming in and out of the room, bringing news of the latest meetings and negotiations between the powers that were.

It was the first time that I had given any thought to the whole question of team work. As students we all talked of team work as a positive thing, in the tradition of the Bauhaus. Out of that came the attitude that teams do better than individuals. Here I learned that when teams were made up of unlike individuals of different disciplines they complemented each other, but that the design process did not always lend itself to a homogeneous sort of team. Ten hands could not hold one pencil and push it in the same direction. I found myself latching onto that pencil with much pleasure and some sense of mission.

Soon after his appointment Fiset, the chief architect, appointed three Montreal architects, Guy Desbarats, André Blouin, and Fred Lebensold, to consult on the master plan. The motivation of Churchill and Fiset in taking this step was to gain broader support for the master plan from outside the corporation so that it could withstand whatever attacks might be launched against it when it was submitted to Parliament and the other agencies. But Sandy felt it personally as an expression of non-confidence. In any case, Sandy was finding it increasingly difficult to function within the new management. From his point of view the situation was intolerable; he felt his authority was being infringed. The new management felt that the loose organization through which the exhibition had functioned so far could not continue and a much more rigid hierarchy had to be established.

After a spell of continuous tension Sandy resigned. This was on December 3rd, 1963. The next day the three consultants came and joined the team of eight. The first step was to review all that had been done. The final master plan had to be submitted to the federal cabinet by December 20th. There were fourteen days to finalize all the loose ends. On December 6th, 1963 following a series of meetings, I consolidated the ideas and plans into a charcoal sketch that formed the basis for the formal presentation.





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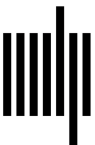
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