Chapter 12

Children's Spaces
Designing Configurations of Possibilities

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We used every kind of space, every different environment
available to us. The railin bound area under the front porch, in
which you could stand, though you had to stoop to get through
the doorway, was the jail. We played in the bushes, too. Behind
them, under them, we had names for each place. There were
always "forts": Fort This and Fort That. We dug six-inch deep
meats around a couple of them and tried to keep them filled with
water, to the despair of my father to whose lot it fell to pay the
monthly bill. We wore the grass clean off the backyard, which we
used for a baseball diamond and miscellaneous scrimmaging, all-
star games, etc. It took years to grow back.

We played games in the apple tree behind the garage. In fact
we each "owned" a tree, divided up by common consent, and had
a "fort" beneath it. There was almost always a place you could go,
depending on how you felt, depending on what you felt like doing.
We used the grounds and every cranmy of the house, including
closets and the spaces under the stairs, thoroughly.

When I was nineteen, and a visionary would-be poet in the
grand tradition of Rimbaud and John Keats, I announced boldly
one night to a group of friends, while we stood in the middle of a
street under the thrashing trees, that a place was not simply where
two roads meet, but a configuration of possibilities.

—Dennis Dooley, the ARC group, 1972
INTRODUCTION: BECOMING IMMERSED

Time is a luxury for a designer: only rarely does an architect have the time to become deeply involved with the users of a building. Yet, it is only by becoming immersed within a place (which takes time) that it is possible to create what we call "configurations of possibilities."

Since our work has often been supported with research grants, we have been able to take unusually long periods of time to do each of our projects. Doing research has accustomed us to having the time to practice architecture the way we choose [ARC, 1976].

Our approach has been to become immersed within the place where we are working, sometimes by moving in and setting up drafting tables and sometimes by building our own designs on site. Through participatory processes, we share the pleasure and work of doing good design [for example, see Bukos, Bozik, Chapin, & Neuman, 1980]. This open, empathic process has meant dropping some aspects of professionalized architectural practice, particularly the stance of knowing, always, the right answer. It has therefore meant making a more inclusive definition of who our client is, so that children—users—and housekeeping people also participate, along with administrators and professionals. It has, of course, also required the luxury of time.

Out of this process we have learned lessons, some to do with personal sensitivity, others to do with organizational relationships. Our thought is to pass some of this on, not as a substitute for immersion by others, but as an encouragement for others to become more immersed.

In this chapter we will describe two projects that we have worked on during the past few years: the Broadview playroom and the Heights playroom. Both are spaces that suggest many possible uses by children; they both represent configurations of possibilities. [For a rich view of how children explore the possibilities of places, see Holt, 1974.] Both are settings for play and both accommodate special needs of physically and mentally disabled children. Otherwise, they are very different.

THE BROADVIEW PLAYROOM

The Playroom as We Found It

The Broadview playroom is part of one ward within a large state institution in Ohio for mentally retarded children. The institution was a former tuberculosis hospital, built, as they all were, to isolate inmates from society and, internally, from each other. The result is cellular living spaces in remote locations, which is destructive to human community, a configuration of nonpossibility. [An environmental history should be written of how these buildings were put to new uses, once penicillin made their original intent obsolete. They certainly qualify as the worst imaginable environment for all children, but particularly so for those who are mentally retarded.]

The ward, which was then home to 27 children, included various sleeping rooms, hard-surfaced corridors, a virtually unfurnished dayroom, gang toilets, several staff offices, and a playroom. The playroom had formerly been a nursing station. It was an empty room with a few toys—balky, stuffy, stinky, and noisy—an undifferentiated space of about 480 square feet without even simple storage. There was no place for a child to get away to, to be quiet in, or from which to watch others; nor was there a space defined for active play. The room was so unaccommodating that one child was all that could be handled at a time. Unbelievable though it may seem, it was then the most stimulating environment available to the children; the dayroom was even more barren [see Rivlin & Wolfe, 1985].

A special play program had been operating in the playroom for about a year before we began our work to change the physical environment. Besides 9- to 16-year-old children, users of this place included line staff, teachers, psychologists, and volunteers. The play program worked toward advancing children up to a level of competence high enough so that they could get off the ward itself and begin to participate in other activities within the larger institution.

One component of the ongoing play program was evaluation of the children through use of a test adapted by center staff from standardized behavioral age tests. Staff were asked to rate children on items such as "puts socks on," "produces individual speech sounds," using a four-point scale ranging from "never" to "always." Answers to these questions formed a behavioral profile for each child which was compared to standardized norms to determine behavioral age.

Children in the play program had a very low behavioral age. Just before the new playroom was ready for use, the children, whose mean chronological age was 159 months (13 years, 3 months), had a mean behavioral age of 13.5 months, or a generalized rate of growth of one month in 12 months. Even when they had the opportunity, they did not engage in either parallel or cooperative play. Although physically they were preteens or teenagers, they were disruptive and acted out, could not participate in regular group activities, and in many cases were not toilet-trained.

Of all the children in the institution, these had the greatest need for the regular activity therapy program; yet, because they were "problems" they were excluded. Before they could join the regular program, the children had to learn to play. To begin, many needed to work at the basic level of simply responding to stimulation—sounds, textures, shape, and color.
In the playroom as we found it, the children typically had three one-half hour sessions a week. (More sessions and longer sessions were intended, but the room’s inability to accommodate more than one person at a time and the lack of volunteers combined to limit this.) Here, in a one-to-one relationship, an adult volunteer placed importance on making eye contact, focusing attention, and creating trust. A lot of this took place across a table using games. Other activities included development of gross motor skills through climbing, swinging, and balancing, all done using ordinary manufactured play equipment.

The Finished Room

The room, at 480 square feet, is only about half the size of an ordinary classroom, but within it there are three small defined areas (one with a table for play and testing and a larger, open area for more active play. The finished room is highly differentiated, with the whole made of parts defined by edges and boundaries, created through changes in levels and materials. Each of these differentiated parts has its own special qualities, each suggesting different activities, making the whole a configuration of possibilities. It is a lively, rich environment, there is nothing about it that would make it as being for children with special needs. However, it is the process that produced the room, as much as the room itself, that bears description.

The Design Process

Even before work on the playroom began, the process was atypical because staff people were involved in the conception of the project itself. At our invitation, they “bid” on the project and it continued to evolve from their initiative. Available resources included an allocation of a few thousand dollars for an environmental change research project, in-kind support from the institution, and administrative support from the superintendent and staff.

The project got underway through workshops for all staff people involved in the program, giving a general orientation toward environmental issues and sounding out interest. After these initial sessions, a design team was formed, including line staff, psychologists, activity therapists, and members of the ARC group.

In order to learn more of daily routines and the abilities of the children, we spent a good deal of time observing and interacting with them in both the undifferentiated, unfurnished dayroom as well as in the existing play program. We played actively with the children, using corrugated cartons and packing material; it was striking to see how they would gravitate to small “cozy” spaces. Also, without interacting, we observed them and the limiting environment they were in, trying to sort out one from the other.

The design team used a simple cardboard model as a tool to begin to see possibilities within the room. Time was spent talking about the goals of the play program, activities that were expected to happen, who was involved when, and what the problems were in the existing room. The team considered many issues: making the room workable for more than one child at a time, inclusion of regular ward staff in use of the room, connection to the rest of the ward, and so on. Over a period of two months, the design team continued to explore possibilities. Gradually, a design was evolved that included everything that seemed possible within the limited budget.

Construction of the room was also part of our responsibility. We built the room ourselves, step by step, always inviting staff people and children in to see the progress and for us to see reactions. Having this ongoing involvement allowed us to learn and to make modifications to plans along the way. A half-circle-shaped rainbow painted on the wall was changed, for instance, after we saw the apparent confusion of children in identifying individual colors. A psychologist in the play program suggested that the children were confusing color and shape, simpler horizontal bars of color would be less confusing. This was evidently true since after the change some of the children were better able to identify colors. Another example: we had thought that having handles at two heights on a sliding door would accommodate different-sized people; in fact, when we tried them we found that everyone shoved the door by its edge and did not use the handles at all.

Informal Evaluation

Ten months after the new room was completed, about half the children “graduated” into at least some of the regular activity programs, whereas none had done so before completion, despite the fact that the same program was in effect. This, after all, accomplished the intent of the program: to let kids get off the ward into regular programs. As an explanation of this, staff people noted a reduction in those disruptive behaviors that had previously kept children from this ward out of the regular programs. Volunteers, who had been difficult to attract and keep in what had been an unpleasant, smelly place, were now more readily available; there were, after changes, more volunteers for the program than were needed. This, coupled with the new room’s accommodation of several children at once, led to a dramatic increase in their participation in the program. The maintenance staff, who had also participated in the building process, took over care of the room with considerable pride. Whereas visitors had been steered away from the ward before, the new playroom became a regular stop on tours of the institution.

Changes in children’s behavioral ages were remarkable. Five months after completion of the playroom, the mean behavioral age had increased from 13.5 months to 15.7 months. Ten months after completion, it was
The Broadview Playroom. Several children can play in a room that formerly accommodated only one. The colors are warm and some wall surfaces are carpeted; the room is flooded with light and has circulating fresh air. The play "pit" has easily perceived boundaries that give it a sense of place within the whole of the room. There is a "here" and a "there." The round game table has a clearly defined edge; its single pedestal and bench accommodate both children and adults. The cabinet locks easily but keeps things always on display.
measured at 20.2 months. This represents a new generalized growth rate, during the period of measurement, of slightly over 6 months in 12 months. This is a clue to the general success of the playroom, but since the evaluation was not specifically targeted to characteristics of the room itself, it is not possible to sort cause and effect. The finished room facilitated an increase in the availability of volunteers and an increase in the time allocated to each child; this must have had an effect. We also assume that after their intimate involvement in the design process, the increased enthusiasm of the staff had a lot to do with these results.

THE HEIGHTS PLAYSTRUCTURE

A local high-school booster group in Cleveland Heights, Ohio, received federal funding to install new night lighting, build a running track, and resurface the football field. Funding was made conditional on inclusion of an area for integrated play which could be used by all children, including physically and mentally disturbed children. Although this project had no research component at all, the design contract was written to allow our involvement over an extended period of time, long enough to become immersed. The playstructure was built through a conventional architectural process of preparing contract documents (working drawings and specifications), advertising for bids, and hiring a contractor.

The site is on the edge of the high-school grounds next to a busy intersection. It is not the location that most adults would pick, but it is in fact the very sort of lively corner most people—children and adults—gravitate toward as a hangout. The best measure of the playstructure's success, perhaps, is that it is indeed used by a large number of children, constantly.

The completed structure is a continuous wooden ramp winding up and around a large open center space with a climbing net over it [see p. 278]. The four supporting corners, each defining several small, child-sized spaces, are fabricated from welded steel pipe. Overall, it is about 60 feet square and 16 feet high.

The playstructure works well as a framework for additions by users over time; in this sense it was intended that it never be finished. Users have taken in planks, ropes, and other scraps—and imagination—to add to the structure. The playstructure is truly a configuration of possibilities because (without dictating behavior) it suggests many different uses and also because it is added to and changed over time.

The Design Process

With the Broadview playroom, people who participated in the workshops were future users of the room and would benefit directly from the result of the process. With the playstructure there was no constituency, no committed user group, so, essentially, we created one.

To get participation by the local community (both to enhance the design itself and build a sense of community ownership), workshops were conducted in the local library. We gave ourselves a name—Playgroundwork—to convey to workshop participants the sense of being involved with something with momentum. We wrote to people who might, in turn, know other people who would be interested in participating.

To take these first steps, it was necessary to set enough direction for the project to make it interesting without setting so much of the direction that the workshops would not, in fact, have major decisions yet to make. Two decisions were fixed: the site and the budget. Beyond that, it was virtually true that the group could make any decisions it chose to make.

In every project involving participation, we have been amazed at the range of talented people, all available for the seeking. Workshop members included parents of disabled kids, special education classroom teachers, some children, and diverse individuals such as the city recreation director, a groundskeeper, a Ph.D. specializing in sports for disabled people, and a woman who testifies in playground accident cases. Participants in turn involved their neighbors and their children.

Some material was prepared ahead of time: a slide survey of all the play spaces then available for kids in the area; slide copies of various images of play including illustrations from a Sears catalog [as well as more inspirational sources—e.g., Lady Allen of Hurttwood, 1968; Dattner, 1974], and copies of some fairly accessible journal articles, all as food for thought.

Within the workshop sessions, an early exercise had each participant making sketches of memorable childhood play experiences. We did not ask for good experiences or for weird ones, but the results were some very lively images of kids at play: almost all included an element of risk or of the forbidden. Several people, for instance, described a game played by jumping from one garage roof to another from one end of the block to the other—the only rule being not to touch the ground. Since some garage roofs are quite a distance apart, this might require a great leap, the use of a handy tree branch, or even swinging on electrical wires; beside the risk of a nasty fall, being chased by police made it all even more exciting. One woman brought up almost primordial images of snakes in dark culverts. A boy drew a muddy ravine where he liked to ride his bike, an activity prohibited, of course, by his parents. This whole exercise was exciting because it appeared, at this point, that there would begin to be statements that would become part of the architectural program—statements about experiences and feelings that we could use to shape a design.
The Heights Playstructure. The continuous ramp spirals up 11 feet, forming a hollow "hill," limiting falls to short distances on the outside, and creating a "meeting place" on the inside.

Even though the 2 slides are the only conventional equipment, the space is attractive to children for play. There is a clear sense of inside and outside, up and down, around and through.
WHAT HAPPENED IN THE TWO DESIGN PROCESSES

Even in a conventional process the perfect step-by-step design flow charts prepared ahead of time rarely represent reality. In a participatory process this is all the more true; there are invariably false assumptions about who has bought into what and there are always mistaken paths. The people who participate are likely to be a diverse group who may have very different experiences of working in a creative design process. In a bureaucratic organization in particular, proposals to change the setting may touch on usually hidden issues of rivalries, power, and turf, issues that may become as important to the project as the design itself. This is not all unpredictable, however; there are some typically recurring situations which may be prepared for.

Using Analogies instead of Conventional Images

In writing about the Heights playstructure, we related the excitement we felt when participants in the workshops began to draw out their memorable play experiences. Something remarkable happened, however, as soon as the same people were asked to use the same means of expression to say what might happen in the new playground. Suddenly there were dozens of sketches of swing sets and teeter-totters! As soon as people stopped bringing out their own memorable experiences as kids and began to think about what should happen for kids, conventional images took over. Yet, the garage roofs and muddy ravines talked about earlier were much more exciting than these conventional images.

It is not that conventional images are bad—it is just that they are usually so limiting; they stifle insight. An exception, however, was one very nice image, which was conventional for the children who made drawings of it in this workshop and was called the “cheesehouse.” The cheesehouse was a 3- or 4-foot cube-shaped playhouse—which had recently been torn down—named for the holes in its sides which resembled Swiss cheese. This turned out to be a much loved, “friendly object” (Prangell, 1969) that many children recognized, had played on, and remembered fondly. A version of it was incorporated into the playstructure design, although it was later cut to meet the budget.

Sometimes, to keep from getting stuck in conventional images of swing sets and teeter-totters, we have asked people to speak in analogies (Hart, 1973): “This playroom ought to be like a circus. Three rings, each separate, but a lot of action.” This is an experiential statement that, at the Broadview playroom, helped along the design process. “What we’re really talking about here is a meeting place for children. This isn’t a playground, it’s a meeting place!” And, in fact, the central open space of the Heights playstructure is a meeting place, reinforced by the many small nooks ringing the central space.

Keep a sharp ear and you will hear people talking in analogies without prompting. After one playstructure workshop meeting had broken up, one man said, almost out of desperation, “You might just as well make a big hill. That’s about all the kids would play on without getting hurt.” In fact, this almost casual remark came right to the core of the matter. The complete design is like a big hill, getting smaller as it goes up and limiting the distance down that anyone can fall. It is interesting that this was said after a workshop meeting, as people were on their way out. The participatory workshop was a situation in which information evolved, but it did not evolve in a clearly predictable line. The process is certainly not linear, beginning to end.

Replacing “You Can’t” Statements with Statements of Conflicts

At the Broadview playroom we heard this: “You can’t have anything soft because the kids will eat it. We have to watch them all the time to make sure they don’t unravel their socks and eat the thread.” “You can’t keep any toys out in the open because they’ll be ripped off.” “The volunteers can’t work with more than one child at a time. With the noise and chaos around here, you wouldn’t believe how wild the kids get.”

At the Heights playstructure we were told, “Don’t put in anything movable because there won’t be any staff to supervise.” “You can’t have any cozy spaces since that will only attract rapists and dope smokers.” “Safety is important above all else. We’ll have a law suit over anything that isn’t safe.”

There is some institutional wisdom contained in each of these statements; on the fact of it, each one seems correct to those who have actually experienced similar situations. But there is also, within each, a hint of something awry. The logic seems strong but the results are truly absurd. Imagine what the world is like for an institutionalized child who unravels socks and from whom soft things are methodically removed.

It is hard, sometimes, to distinguish between a problem a person has and a problem that the environment has. Were the children “wild” because they had a problem—hyperactivity—or because the environment had a problem—too many hard, noise-reflecting (but, of course, easy to clean) surfaces? Calling the children wild without considering their environment is a really classic example of blaming the victim. Further, merely to view the children in their existing, barren, institutional environment is a failure to see how they might have been in a nurturing, stimulating, supportive environment.

Safety is, of course, a genuine concern, and even if it were not, the appearance of safety certainly is: during the design and construction of the playstructure, being sued was an often expressed concern of the school board, the booster committee, the workshop participants, the funding source, the general contractor, the subcontractor who built the welded pipe structure, and the fabricator who made the net. But at the same time, it is
clear that children seek challenge and risk. If the playstructure were too safe, kids would play somewhere else, more fun but less safe. A perfectly safe—but unused—piece of equipment can be seen on almost any playground: a slide that is not steep enough to get up any speed is an example. What is not so easy to see is that, as a result of this stifling degree of safety, the children are somewhere else, seeking challenge. Risk is part of growth.

Given the situation, these "you can't" statements were true. Unquestioned, they would have served to limit the situation, status quo. Since part of our intent was to change the situation, these statements would have put unacceptable limits on the design work. (Although, unfortunately, the lack of any staff pressure at the Heights playstructure did remain a limit. It is not reasonable to build a place that is attractive to dozens of children without making provisions for some supervision. We argued but lost.)

Christopher Alexander has woven the idea of conflicts deeply into the concept of an environmental pattern language [Alexander, Ishikawa, Silverstein, et al., 1977; we describe our use of Alexander's work—particularly the idea of conflict statements—in ARC, 1976.] Seeing the conflicts in a situation is one way of getting out of the trap that "you can't" statements set up.

The trouble with "you can't" statements is that they obscure the important forces that a designer must see. Change the statements with the assumption in mind that there are probably at least two opposing forces in conflict: "The children's need for tactile stimulation is in conflict with their tendency to eat anything available, regardless of the consequences." The problem can now be tackled by a designer: Design something that is tactfully stimulating but also will not be eaten by the children. There are many possible designs that fit this statement. In the Broadview playroom, we included fire-resistant carpet, wrapped at the edges to eliminate unravelling, on both walls and softsills. Carpet is an excellent absorber of sound, is colorful, and is easy to keep clean. Occasionally, a child would come into the room apparently just to feel the walls.

Public places and institutions are usually run according to the idea that "you can't keep anything out in the open." Truthfully, you cannot. Anything valuable and anything dangerous (which, taken together, includes almost everything that is interesting) will be locked away in the name of security. The result is dull, uninteresting institutional spaces, devoid of the stimulation and visual suggestivity inherent in visible, useful objects. A good-hearted designer might decide simply to forge ahead with the idea that things out in the open are a lot nicer than things stored out of sight. But the result will still be unsatisfactory. Those nice open shelves will soon be empty and everything interesting will again be locked away in some closed place. In the conflict between stimulation and security, security always wins.

If we change the statement so that it reflects a conflict of opposing forces, however, the problem becomes approachable: Design something that

will keep objects secure and yet still also keep them as an integral, stimulating part of the space. Again, there are many possible designs that might result from this statement. One design is a display cabinet, not gigantic, with glazed openings on two sides, a light overhead, and a snap lock on the doors. That the contents can be seen suggests use, but the cabinet can be locked on a moment's notice.

Actually, in use, we have rarely seen one of these cabinets kept locked; they are usually open. In conventional spaces the possibility of something negative happening—no matter how infrequently—means that everything stimulating is kept put away. An awful sort of barreness results. With the cabinets, the same negative event would lead only to more care in keeping the cabinets locked.

Getting the Questions Right by Being Aware of a Hierarchy of Needs

Before having any involvement with the Broadview play program, we had visited the ward. The dayroom was large and barren, without the sort of differentiation and human scale that comes from smaller parts making up a larger whole. There was occasional fighting. We were struck with the general sense that the children were adrift in space, afraid, and left to their own devices. (The noise alone was almost overwhelming. In addition to the noises of 27 children with nothing to do, there were also noises and intrusions of staff people on duty as well as those of visitors and volunteers.) This is the setting for a very significant portion of the early development of these children. It was, for many, the closest thing to home they had ever known.

A designer had attempted to humanize the unit by putting up a colorful mural and some large cartoon character cutouts high up on the walls; there were new, bright draperies, also high on the walls, out of reach. We were asked to look at the unit because the high hopes of the designer and staff had not been met; the children seemed not even to notice. Our reaction was, "Good answer, Wrong question!"

The environmental problems of the unit were deeper than what could be affected by cheery colors. We have found Maslow's "theory of human motivation" [Maslow, 1943] to be a useful analytical tool to see this more clearly. Essentially, Maslow says that individual needs can be ranked on a hierarchy from basic to advanced. Basic needs are prepotent to the more advanced needs; it is no good for a person to attempt to deal with the higher-level needs if the basic ones have not been met. (Maslow's work, of course, is not the only possible source for this view; see Erikson, 1963, or Spivak, 1984.)

Now, to apply this thinking to places, this leap is required: we have to agree that some environmental elements are generally supportive of individual attempts to satisfy particular needs, other elements can be generally associated with other levels of needs.

The cheery colors, for instance, are an environmental element that
might enhance one's feeling of self-esteem. Yet, the self-esteem needs are close to the top of Maslow's hierarchy. In the ward, what reason was there to suppose that the children were dealing with esteem needs, at all? Knowing Maslow's view and, through empathy, imagining the fear and insecurity of the children, adrift in this undifferentiated space, one might consider a prepotent need: the need for safety.

With safety needs in mind, a designer would surely look for some alternative to the noise and chaos of the unit. Delving more deeply, it seems likely that the lack of any defined parts or personal territories in the room would result in each child's being preoccupied with the self-defense that the environment did not offer. Restructuring the unit into small groups in a bounded, stable physical setting is certainly a physical change more significant to consider than cheery colors.

When it came to working on the playroom, we had this experience of Broadview in mind. The scope of the work did not include restructuring the ward, of course, but within the playroom we did try to make many small, clearly defined parts. A child-sized hole was cut in the lower part of the cabinet and a small, solidly mounted glass mirror was installed inside. The space within is also child-sized and acts as a secure private place for a quiet time: a safe retreat, a "cave." The "balance beam" helped to define one boundary of a "pit." Even the formica surfaced testing table was affected. Its buff color was surrounded with a 4-inch red circle to distinguish the center from the edge—an otherwise difficult conceptualization for children at this level of development, the importance of which is clear to anyone who has tried to tell a child to keep the toys away from the edge so that they will not fall off.

Avoiding the Head Nurse by Involving All

Of course, it is not always the head nurse, but each time we have done a project somebody emerges who acts like a head nurse. It is someone who has been promoted up above the middle of the table of organization, who values job security and stability greatly, and reacts very negatively—but usually not directly—to any proposals for changing the turf. It usually is not someone at the bottom or the top, as they are more often open to innovation.

While working at Broadview, we had become quite comfortable in inviting kids into the playroom while we were building. For them it was an opportunity to run a vacuum cleaner or watch a saw being used close up. For us it was a chance to see day-by-day how kids were able to handle the steps without a tarring or to be aware of how fascinated they were by their own mirror image.

The "head nurse" had shown no interest in participating in the planning workshops and was quite unaware of the safety measures we had taken to protect the children. The reaction was simply an order that the kids were to be kept in the dayroom during the day shift—the very hours we were work-

ing. The line staff people knew the purpose of this order and immediately subverted it. They simply agreed among themselves to spirit the kids back to the dayroom whenever this particular head nurse made one of her [fortunately] infrequent appearances.

The "head nurse" at the Heights playstructure is really not a fair example, since he was not hired until after the planning workshops were over and therefore could not have been involved in the planning process. Suddenly, a large number of youngsters were playing in one corner of a high-school athletic field—the athletic field that he had been hired to oversee. His reaction was to install a sign: "THIS AREA FOR HANDICAPPED ONLY"—exactly opposite the original purpose of the structure. Removal of this sign was instigated by a workshop participant.

The more thorough the job of involving users, the less the likelihood a head nurse will emerge. But keep in mind that dealing with space is always a case of dealing with someone's turf and for many people the right to control turf is a very important source of power. Particularly in a hierarchical organization, head nurses are easily threatened by proposals for change. On some projects, we have initiated a very small change—we have joined with users to wash the windows, for instance—to build trust and get the lay of the land. Our interest has been not so much to cut anyone out of control but to show that power can be shared. The idealized advantage of shared power is that there is also shared responsibility; everyone takes better care of spaces over which everyone feels control.

User involvement is an empowering process; it is a process that takes a lot of time. Some people have gotten used to the idea that their power to affect space is very limited. Building models, making full-sized mock-ups, drawing on the walls, or putting tape on the floor are all nonthreatening ways to get the point across that affecting space can be lively and exciting.

Making a Design: Integrating Images into Places

In this narrative, we have been moving forward and backward a bit through our process to try to describe common threads in the work. We want to focus now on the act of making a design. This occurs in any project, at some point designs happen. All this information and all these experiences become integrated into the design or else they do not.

Actually, we design in the same way as other designers. As others do, we float repeatedly between a process of analysis and a process of synthesis. An important difference in our process is that, early on, participation by users generates many more images of parts than conventional design processes are capable of generating. Finally, we sit down with a blank piece of paper, a pencil, and these many strong images. We start to draw these images, alone or in a group, sometimes layering one image over another, piecing parts together, always seeking to integrate disparate parts.

A clue to the success of design integration—a guidepost to look for as
the design progresses—is that one part begins to contain many parts. Visually and functionally the design becomes very suggestive, meaning emerges. Ezra Pound said that literature is language charged with meaning. He went on to say, “Great literature is simply language charged with meaning to the utmost degree” [1960, p. 28]. In the same way, what distinguishes architecture from lackadaisical design is that architecture is design charged with meaning. The design becomes charged from the layering of one image over another image, from integrating one part with many other parts. The result is that one thing does many things; again, the place becomes a configuration of possibilities.

At the Heights playstructure, for instance, we began to sketch out the image of a “big hill” that had come from one of the workshop sessions; this led to thinking about a spiral ramp, it began to look like a zigzag. Then we sketched a “meeting place”—also from the workshop sessions. To put the two together, the big hill had to become hollow. We built a toothpick model of this and began to think and sketch how the many other images we had of parts could fit into this whole. There were other beginning points and some blind alleys, but it was from this toothpick model, where the hill and the meeting place came together, that the whole appeared.

We began to look at different ways of supporting the hill. The finished design is built of a highly indeterminate series of welded pipe frames, purposely designed as many small-diameter kids' hand-sized parts rather than as few too-large-to-grasp parts. The pipes hold up the structure and also act as many handholds.

At the Broadview playroom, design happened openly in the design team sessions with much back and forth; it was a group effort. An issue early on in the process was the sense that many staff people expressed of wanting “a room with things in it.” At this point, integration was lacking. For instance, staff people wanted a balance beam and a set of “practice” stairs, both intended to develop balance, coordination, motor skills, and muscles. Their idea was two conventional pieces of equipment, standing separate, each with a built-in “right answer.”

Together we worked with sketches and the cardboard model. Initially there was a we—they split; we would propose and they would react. But gradually everyone became more comfortable with the process and they also made proposals. “Take out that wall.” “Add a platform here.” “That opening seems too small.” “It needs more little nooks.” Ideas came from all sides as the group came to life and began to sense its own power. Our role became to show how all these various ideas could be integrated into physical space.

So the practice stairs became a series of levels incorporating the balance beam and defining a pit and became seating around the central-pedestal testing table [comfortable for both kids and volunteers] and raised kids up high enough to look out over the high window sills and defined parts within the whole that gave the spaces a sense of differentiation so that the concept of “here” and “there” was more meaningful and helped define the human scale of the room. What had been separate thoughts were now integrated into the design, giving it meaning and possibilities.

It is in some ways scary for an architect to do this design work with users involved, openly. It means taking the risk of giving up the professionalized stance of being the sole source; it means being more vulnerable. The attractive thing about trying to operate this way is that it demystifies how architecture is done, welcoming the creativity of many people.

**A REFLECTION**

The point of being immersed in a place is not, of course, to do the same sort of design as what would have happened anyway. An open, encompassing, informed participatory process is right at the heart of what makes the result different and special.

What is different and special about these designs, however, is not that they read as some odd contraption for kids of limited capacity. In fact, most people would have no idea that these two projects were designed for children with any sort of disability. The designs are richer and more suggestive for all children because they have taken into account the special needs of some children. To put it differently, designing with any particular group, whether the actual future users or not, is better than designing for an abstraction.

As architecture has become professionalized, architects and other designers find it far more difficult to know their clients intimately; this is “professional distancing.” Large investment in larger and larger projects means more sweeping decisions based only on abstracted notions of client needs; complex technologies and sophisticated building processes result in less time for immersion. Opportunities are lost for fine tuning and adjustments.

Part of the problem is just the overwhelming size of decisions. Karl Popper has said: “Our main point is very simple: it is difficult enough to be critical of our own mistakes, but it must be nearly impossible for us to persist in a critical attitude towards those of our actions which involve the lives of many men. To put it differently, it is very hard to learn from very big mistakes” [1957, p. 88].

This professional distancing is especially true when the user of design is a child. Children do not pay for buildings or for architects’ time. Even when kids are involved in the design process—which in itself must really be quite rare—control remains in the hands of some adult. Their needs are usually interpreted through a parent, a school administrator, a developer, or a war-
den: the “surrogate client” (Spivak, 1973]. The result of this process is bad fit; its inadequacies are described in other parts of this book.

A good deal of material in the field of environmental psychology seems to be published—this book is an example— with the idea that architects [and administrators, among others] will make better buildings by using the results of the work of environmental psychologists. This presents an interesting dilemma. Using the results of studies suggests avoiding having to go directly through the process of study and particularly, from our point of view, the process of immersion. Surely there are many facts to be learned from environmental psychologists; more important than their facts, though, is their process of interacting directly with users over time. In this sense and to a limited degree, the existence of environmental psychology as a new field, striving for professional legitimacy, has the potential for imposing itself between architects and what they ought to experience directly.

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Holt, J. Children are sensitive to space. School Review, 1974, 82[4], 667–70. [There are many other good articles in this issue on design with children.]