

## CHAPTER 22

### SHAPING A GROUP OF BUILDINGS

*In the same way, groups of people can conceive their larger public buildings, on the ground, by following a common pattern language, almost as if they had a single mind.*



















*We know from chapter 21, that an individual person, can create a building in his mind simply by letting a sequence of patterns generate it, on the site.*

*Now we go one step further, and see how a group of people, also on a site, and with a common language, can use the same process to design a larger building.*

It is often said that no group of people can create a work of art, or anything which is whole, since different people pull in different directions, and make the end product a compromise which has no strength.

The use of a shared pattern language solves these problems. As we shall now see, a group of people who use a common pattern language can make a design together just as well as a single person can within his mind.

*Here is an example of a clinic.*

It is a psychiatric clinic to serve a rural population of about 50,000 in California. The building has about 25,000 square feet of internal space, and sits on a piece of land whose area is about 40,000 square feet in the middle of an existing hospital. The building was designed by a team which included the director of the clinic (Dr. Ryan, a psychiatrist), several of his staff members who had years of experience working with patients, and two of us from the Center for Environmental Structure.

*Again the process begins with a pattern language.*



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We sent Dr. Ryan a sequence of patterns from the printed pattern language which we thought might be useful.

We asked him to pick those he thought were relevant; get rid of those which were irrelevant; and asked him to add whatever special patterns or new "ideas" which seemed to be missing, including, of course, those special parts or "patterns" specific to a clinic. Those new ones which he added are marked with asterisks below.

After our first discussion, we had a language of some forty patterns:

BUILDING COMPLEX  
NUMBER OF STORIES  
SHIELDED PARKING  
MAIN GATEWAY  
CIRCULATION REALMS  
MAIN BUILDING  
PEDESTRIAN STREET  
\*ADULT DAY CARE  
\*ADOLESCENT DAY CARE  
\*CHILDREN'S DAY CARE  
\*OUTPATIENT  
\*INPATIENT  
\*ADMINISTRATION  
\*EMERGENCY  
FAMILY OF ENTRANCES  
SOUTH FACING OUTDOORS  
WINGS OF LIGHT  
POSITIVE OUTDOOR SPACE  
HALF-HIDDEN GARDEN  
HIERARCHY OF OPEN SPACE



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COURTYARDS WHICH LIVE  
CASCADE OF ROOFS  
SHELTERING ROOFS  
ARCADES  
PATHS AND GOALS  
PEDESTRIAN DENSITY  
INTIMACY GRADIENT  
COMMON AREAS AT THE HEART  
ENTRANCE ROOM  
TAPESTRY OF LIGHT AND DARK  
FARMHOUSE KITCHEN  
FLEXIBLE OFFICE SPACE  
SMALL WORK GROUPS  
RECEPTION WELCOMES YOU  
A PLACE TO WAIT  
SMALL MEETING ROOMS  
HALF-PRIVATE OFFICE  
LIGHT ON TWO SIDES OF EVERY ROOM  
BUILDING EDGE  
OUTDOOR ROOM  
THE SHAPE OF INDOOR SPACE  
CEILING HEIGHT VARIETY

*Gradually this language changed.*

As more discussion took place, people's ideas about the patterns which the clinic should contain, changed. They decided that INPATIENT was unimportant, since the nearby hospital would take care of overnight patients. Then it turned out that the clinic needed a single area for occu-



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pational therapy—and that this would become the MAIN BUILDING.

*Dr. Ryan decided that there ought to be a GREENHOUSE as part of this MAIN BUILDING: patients could help plants to grow, and then transplant them into the gardens, and look after the gardens.*

Then the discussion of the GREENHOUSE made the HALF-HIDDEN GARDENS seem much more important, and they became an essential part of the conception of the building.

Later, when we realized the importance of the CHILDREN'S HOME, a place at the entrance of the clinic where parents could leave children while they were being treated, we introduced STILL WATER, and a FOUNTAIN where the children could play and splash about.

There was some debate about COMMUNAL EATING; finally it was agreed that this pattern should be included, because the advantages of staff and patients eating lunch together regularly seemed so essential. Only the fact that each person should cook for the others in turn was not included, since it seemed impractical.

*Every aspect of the clinic's life, was discussed, and settled, in the medium of patterns.*

The language has the medium in which people worked out their disagreements, and in which they built a common picture of the building and the institution as a whole.

Usually people have a great deal of trouble when they



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try to define the future of an institution—because they have no language, no medium, in which they can forge their definitions, no way of gradually building up agreements, no way of gradually settling disagreements.

But with the pattern language as a base, the group of people gradually come to see themselves, and their activities, and their environment, as one thing—as a whole.

*And finally, when everyone agreed about the pattern language, we were ready to begin design.*

At this stage, the people who were going to run the clinic, had a shared vision, a vision not only shared in its intentions, in its broad outline, but shared in the details too. As a community, they knew, now, just exactly what they wanted, how it was going to work, what kind of places there would be in it, . . . everything in short, they needed to know, in order to begin design.

*Then we began the design itself.*

It took a week, Monday to Friday, out on the site itself, walking around parked cars and obstacles, overcoats against the fog, walking, walking all day long, cups of coffee, crazy dancing around, as the building took shape, chalk marks on the ground, stones to mark corners. People wondered what on earth we could be doing out there in the fog, walking around, all day long, for so many days.

*We began with BUILDING COMPLEX.*

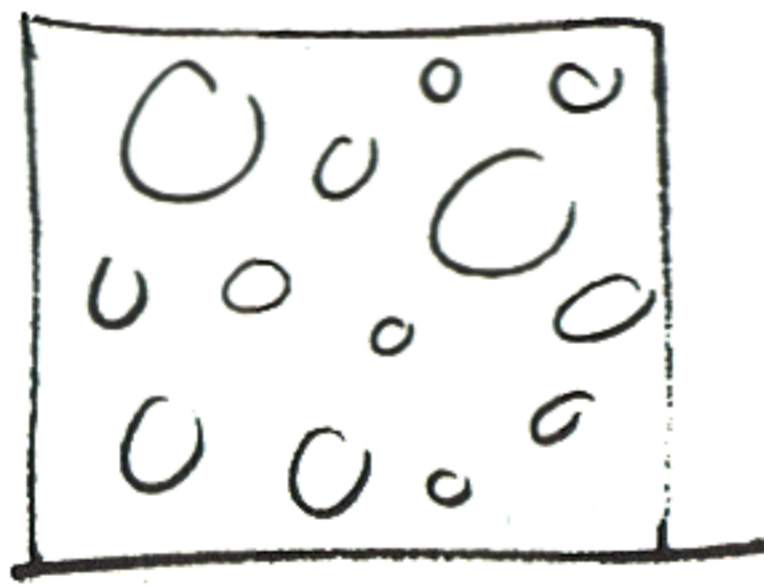


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The first pattern. We sat, at first, around a table in the nearby health center. How is this particular clinic going to reflect the building complex pattern? The pattern requires that any building be made up of visible components, which correspond to social groups: and—if the complex is at a low density—that the components actually be separate, connected by arcades and passages.

First of all, Dr. Ryan said, I see many many little cottages, each one individual and personal. How many do you see? Well, perhaps 30 separate cottages.

The entire building complex will have 24,000 square feet. I point out that if there are 30 cottages, each one will on the average have about 800 square feet—perhaps  $25 \times 30$ —and that some of them will be even smaller. This didn't sound right. There was some discussion among the staff. Then he said, Well, let's perhaps say 6 or 8 separate buildings, clustered and connected, but identifiable and separate.



With this idea clear in our minds, we went outdoors to the site itself.

*Next we placed the MAIN GATEWAY and MAIN ENTRANCE to the building complex.*



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All the next patterns we took on outdoors. We walked out into the fog in overcoats, and looked around. I asked: Suppose there is one main entrance to this building complex: Where is it? Close your eyes; imagine; where do you see it?

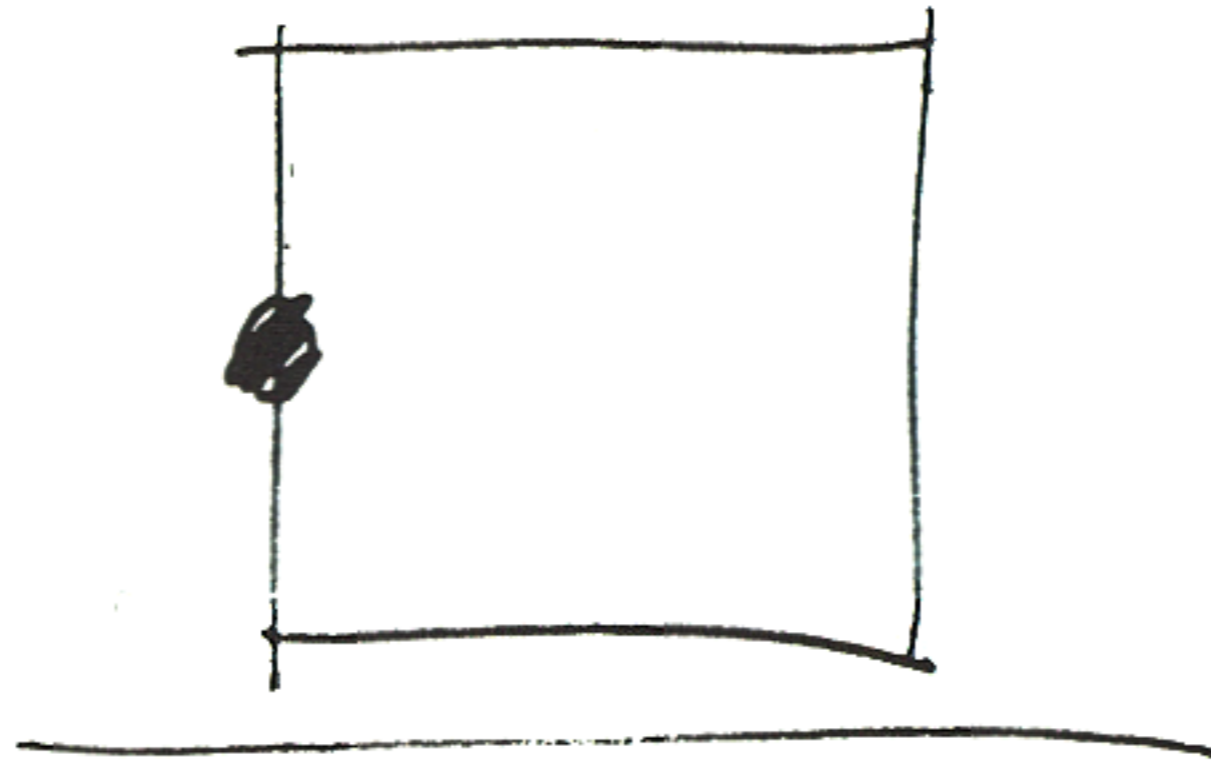
Is it along the main street? Is it on the corner? Dr. Ryan said: I see it half way along the driveway which leads back from the road to the main hospital. I asked then: Well, let's decide exactly where it is. The pattern says that it must be immediate and visible from all possible lines of approach. If it is in this position, then there are two lines of approach—one from the main road, walking back; one from the hospital parking lot, if you have driven in, parked your car, and are now walking forward, towards the road again. Let us go to both these places and try to imagine the best position for it.

First, all six of us stood at the road end of the driveway, and looked back. I walked to the halfway point and said: Imagine that I am at the entrance—is it right now? I moved a few feet—now? moved again . . . now? They said stop, go back, forward a bit—there was very great agreement—and I made chalk marks at the nearest and the farthest points. They were about 10 feet apart only, in a total length of 200 feet.

Then we went to the other end—the parking lot, and did the same thing. Again I made chalk marks which now showed the best place to make the entrance feel good, for someone coming to it from his car. The two sets of chalk-marks were about ten feet apart: less than the size of the entrance itself.



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Now the position of the main entrance was fixed. I explained that we would now mark that, and that from now on it would be a given about the design—that we would no longer think about moving the entrance, in view of later things—but would let the design grow outward from this decision. A little frightening—what if things don't work out?

*Next, with the main entrance fixed, we started to define the CIRCULATION REALMS.*

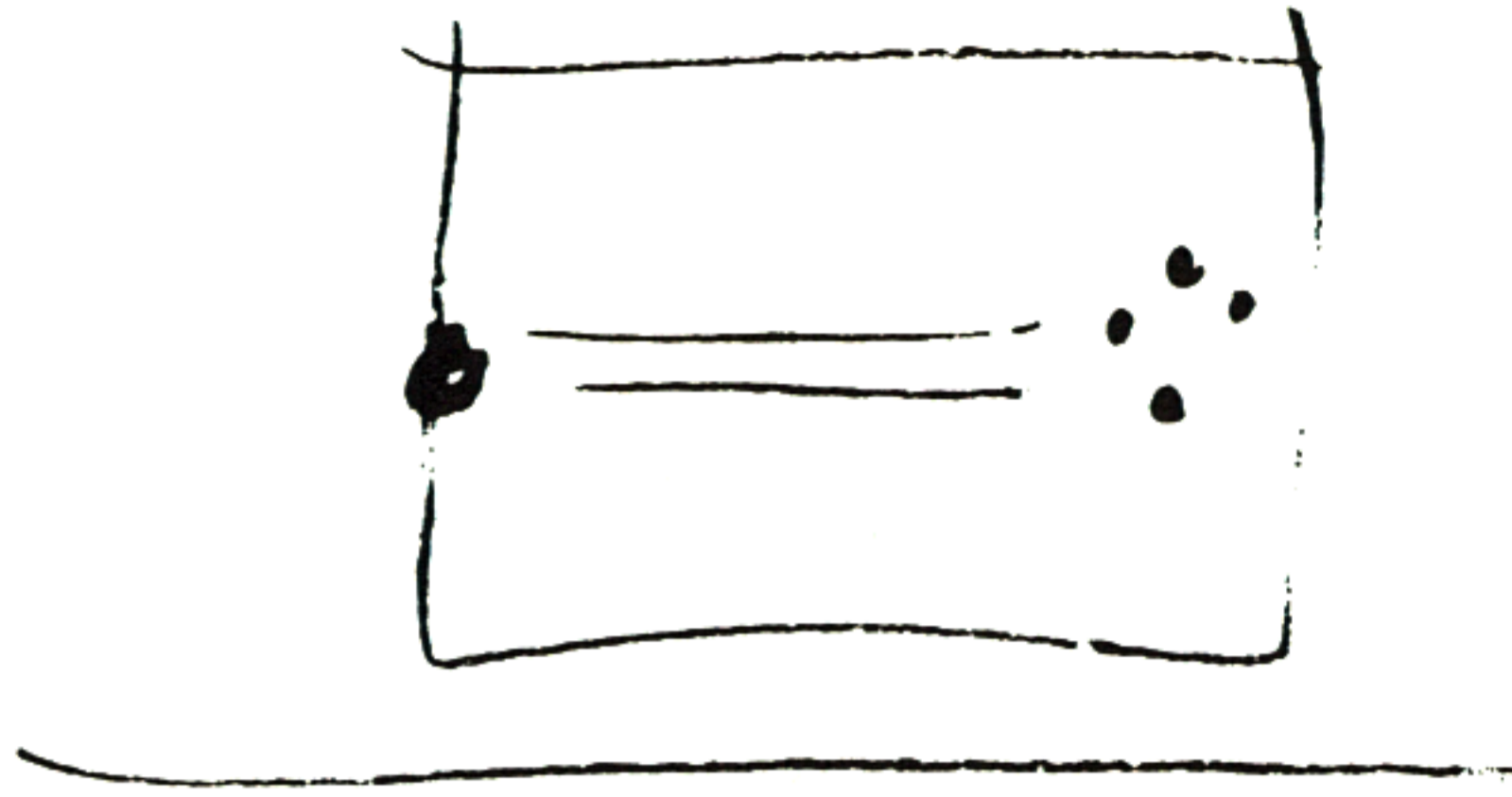
I explained that this pattern required a single, simple pedestrian area, opening directly from the main entrance, and, further, a series of individual pedestrian realms opening off this one main path.

We stood at the main entrance, and wondered how this might be.

At the far end of the site, opposite the entrance, were four magnificent trees. It seemed natural, then, to make the main path go down towards those trees. And, with several small buildings opening off this path, some to the left, some to the right, it was easy to imagine a series of smaller paths, more or less at right angles to the main path, opening off it.



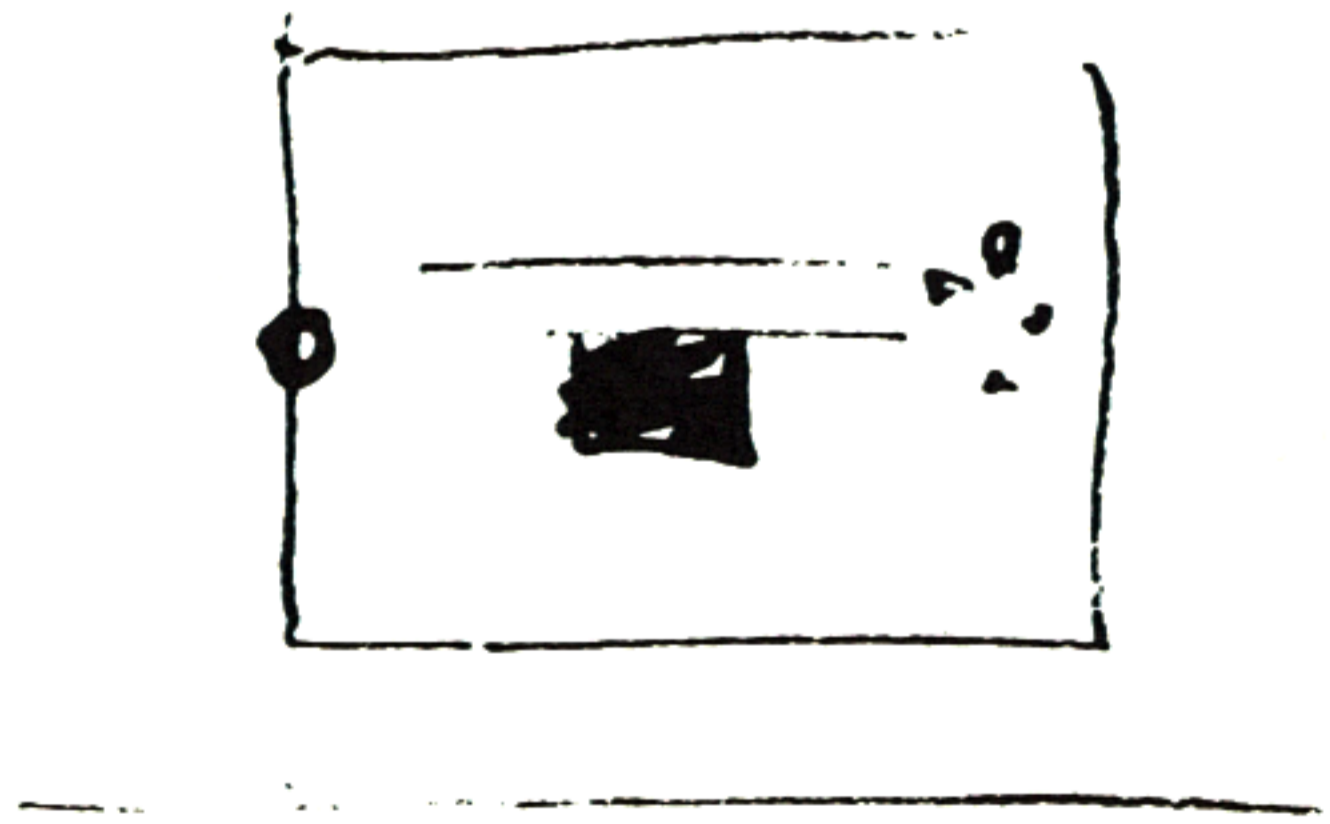
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*Within the circulation realms we placed the MAIN BUILDING.*

This pattern calls for a main building, in any group of buildings, to act as a heart and focus: and requires that this building have paths, tangent to it, with views into the inside, so that everyone who moves about the building complex is connected to it all the time.

We spent some time discussing what part of the clinic might most naturally function as a main building. Finally, we agreed that the so-called occupational therapy building—where patients do various kinds of creative work—would make the best “heart,” and decided to make a large building, with a specially high roof, right in the middle, for this reason.

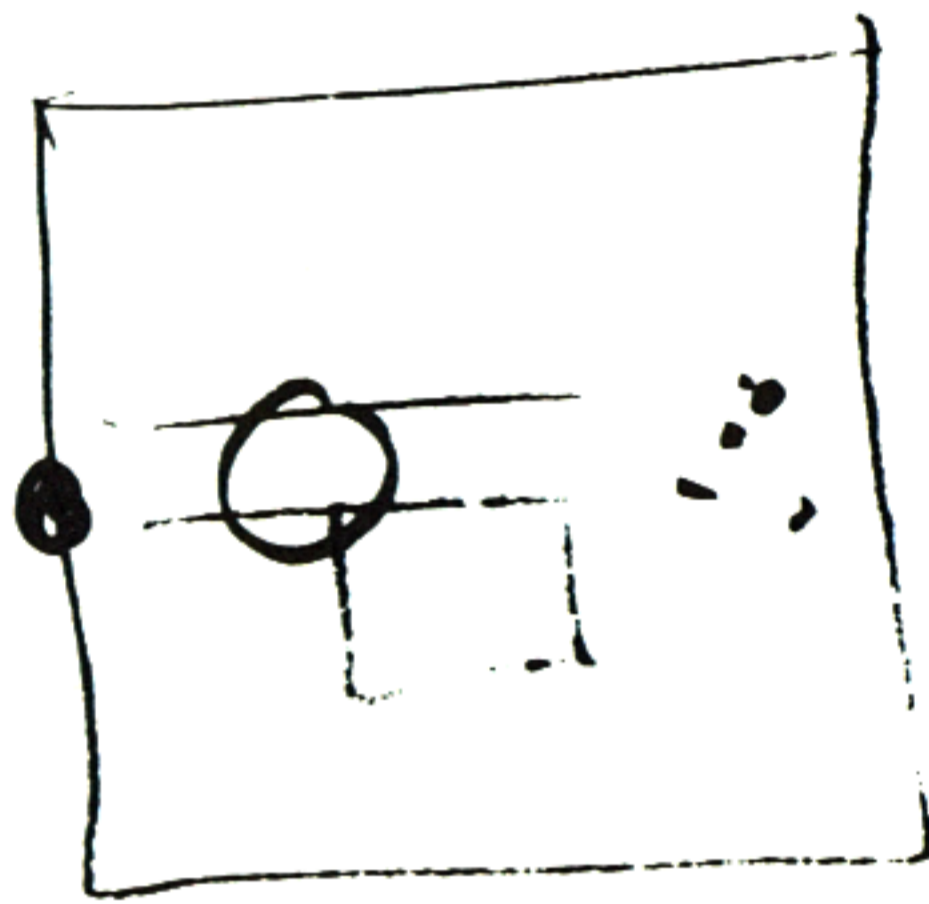


*Then, outside the main building, an ACTIVITY NODE.*



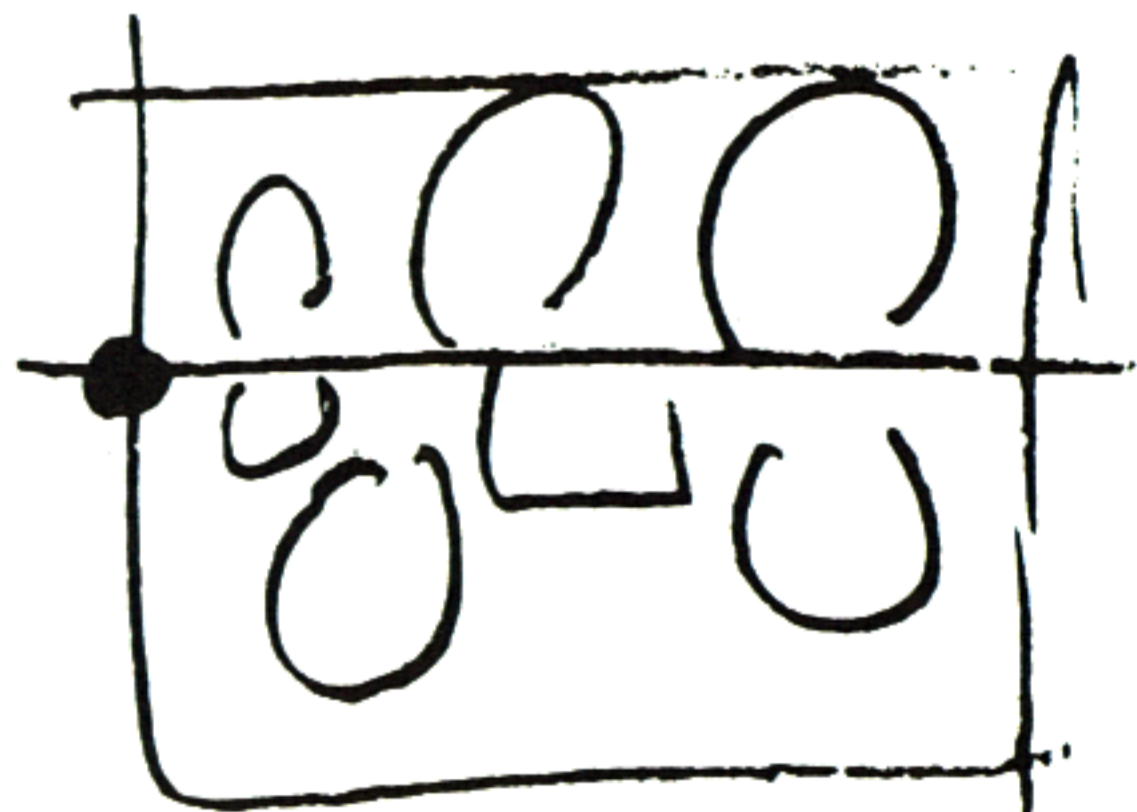
## SHAPING A GROUP OF BUILDINGS

If there was to be a node of activity, inside the building complex, it seemed natural to place it just at one of the places where the main "street" is crossed by two of the wide "streets"—and where several important buildings meet around it. We decide to open this crossing, to have a fountain there, and to make doors from the main building, from the administration building, and from the child care, with children playing, all open into this node.



*Around the activity node at the key points in the circulation realms, we placed* RECEPTION, ADMINISTRATION, OUTPATIENT, ADULT DAY CARE, ADOLESCENT DAY CARE, CHILD DAY CARE.

Now we placed the various different buildings on the site. Dr. Ryan had rather clear ideas already, about the positions of these buildings. He showed us where he felt they





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ought to go, and we discussed it, walking about the site.

One question came up. There were going to be two outpatient teams—Dr. Ryan had placed them to the right, after, just after the entrance, since that seemed to him the most natural position for the buildings which would be used most.

Since there were to be two teams, each with its own identifiable place, we thought about the circulation realms. We all stood at the activity node and asked ourselves how they might be placed, so that they would be clearly different—so that a patient would know which one was “his.”

Several of the staff stood, with their eyes closed, and suggested that if there were a courtyard, and the two teams opened off this courtyard to the left and right respectively, it would be clear and simple.

*Then, in a special place, near the main entrance, COMMUNAL EATING.*

Dr. Ryan agreed that the process of sharing food is one of the most fundamental in any human group. We discussed the various ways this might happen, and might help patients to become more emotionally stable.

He and the chief administrator for the clinic decided finally that it would make most sense to place a kind of café, in the first garden on the left, attached to the library and administrative services, visible from the activity node and fountain at the main cross roads within the project.



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*Now, within the individual building areas, we made SOUTH FACING OUTDOORS, WINGS OF LIGHT, POSITIVE OUTDOOR SPACE.*

Now came the most difficult part of the process. At this stage, we had some rough idea of where the various buildings were; and some rough idea of the main paths and movement between buildings. Now came the moment when the actual position of buildings, and the shape of the outdoors had to be fixed. This is always one of the most difficult moments in the layout of a large group of buildings. It is tense, and rather nerve-racking. Until this has been accomplished, there is a diagrammatic quality about the things which have been laid out: the people walking about ask themselves whether there is any actual, concrete way of laying out the buildings which gives them sensible shapes, and which gives sensible shapes to the outdoor spaces too.

As always, everyone became rather nervous. Indeed, in this particular case it was especially difficult. We spent an afternoon, not knowing exactly how to arrange the buildings, went home and slept on it; and the next morning, finally found a way of doing it which made it seem simple and workable.

I thought, first, that every garden, in between the buildings, needed to be cupped towards the south. This made the left-hand side and the right-hand side, which so far had seemed symmetrical, become asymmetrical.

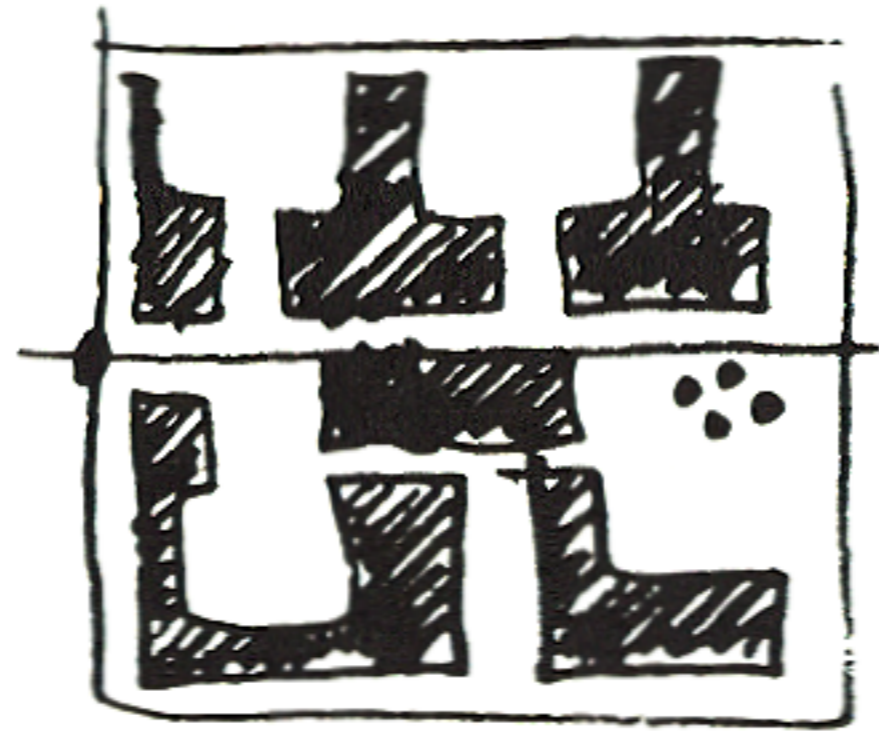
It was complicated by the fact that all these gardens, or courtyards, needed to be connected to the main pedestrian



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path—so there would be views of flowers, and trellises, glimpsed from the path, inviting people into the back spaces.

We realized, finally, that the double effect of the connection to the main path, and the facing south, coupled with the idea of buildings which were not too wide at any point, so that they would give natural daylight in all rooms, led us to a series of rough T-shaped buildings placed to the north of south-facing courtyards. At this moment, when, for the first time, we had a layout of the building space and open space, we finally knew we had a group of buildings that could be built.



There was no doubt, at any stage, that these patterns would make something buildable. But it is worth recording the fact that to those people who had not seen the process in action, it was very remarkable that the issue would resolve itself within the loose and slightly irregular array of buildings which had been formed so far.

This is an extreme example of the fear, the fear of plunging in, which people must live with, when they are letting their language generate a building for them. It was only because of the confidence that it would work, that everyone allowed the thing to remain fluid for so long.



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Of course, it would have been possible to make some formal arrangement of buildings and open space—some formal geometrical arrangement, very much earlier. A formal arrangement would have guaranteed that there would be some feasible way of placing the buildings.

But it would have killed the spirit of the buildings.

It would have killed that subtle, rambling balance of coherence, and incoherence, which comes from the fact that every building is unique, according to its position in the whole.

*Within the individual buildings, and in the proper places in the circulation realms, we placed a FAMILY OF ENTRANCES.*

Finally, to make these buildings coherent, not only with respect to space and volume, but also for the person coming in, we dealt with the family of entrances: the patterns which require that, in some fashion, all the different buildings have similar entrances, which are clearly visible, as a group, from the main pedestrian paths, and which are also members of a family, so that one sees “at a glance” the way they span the full range of possible entrances.

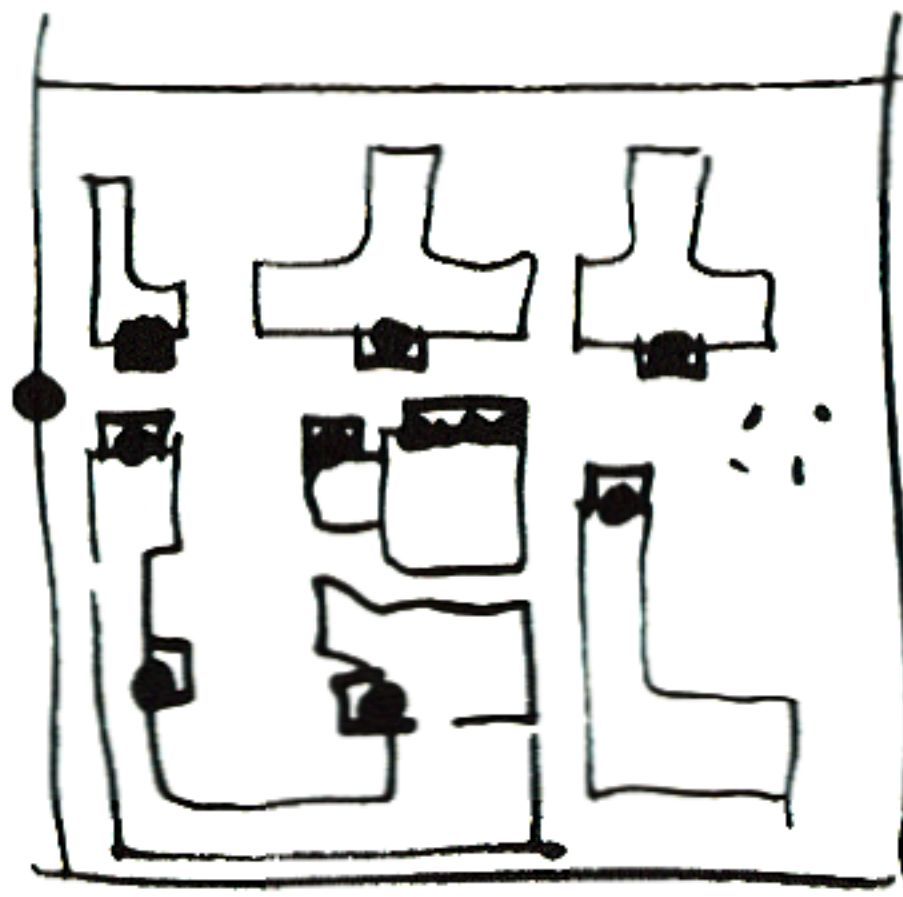
We walked about the site, which was by now laid out in some detail, with chalk marks and stones, and asked ourselves what we would like to see from various points, what we would like to see of entrances. I talked about the FAMILY OF ENTRANCES pattern: then asked everyone to stand in different places in the site, with their eyes closed. Imagine, now, that the FAMILY OF ENTRANCES pattern is solved as perfectly as you can imagine—it is ideal; it is



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what you dream about when you think this pattern is there, in the most beautiful form it can be.

One person suggested “a whole lot of porches”; each one with its seats, so people can wait, outdoors, for appointments, a couple of steps up. Nice wood columns—each one sticking forward from its respective building.



*At this stage, the basic layout of the building complex, as a complex, was complete.*

The decisions which had been made on behalf of the clinic “as a whole” were finished. Now it was time to go down into the details of the individual buildings, and the individual gardens.

For this, we asked the doctors and the staff to rearrange themselves, in small groups, each one responsible for one of these buildings—so that the individual buildings could be designed by the people who knew most about them, most about what was going to happen there.

*Now different specialists on the clinic staff worked out the details of each different building.*



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The doctors concerned most with children designed the building for child treatment and for adolescent treatment; the social workers most concerned with outpatients designed the outpatient areas; the administrative officer of the clinic designed the administrative building.

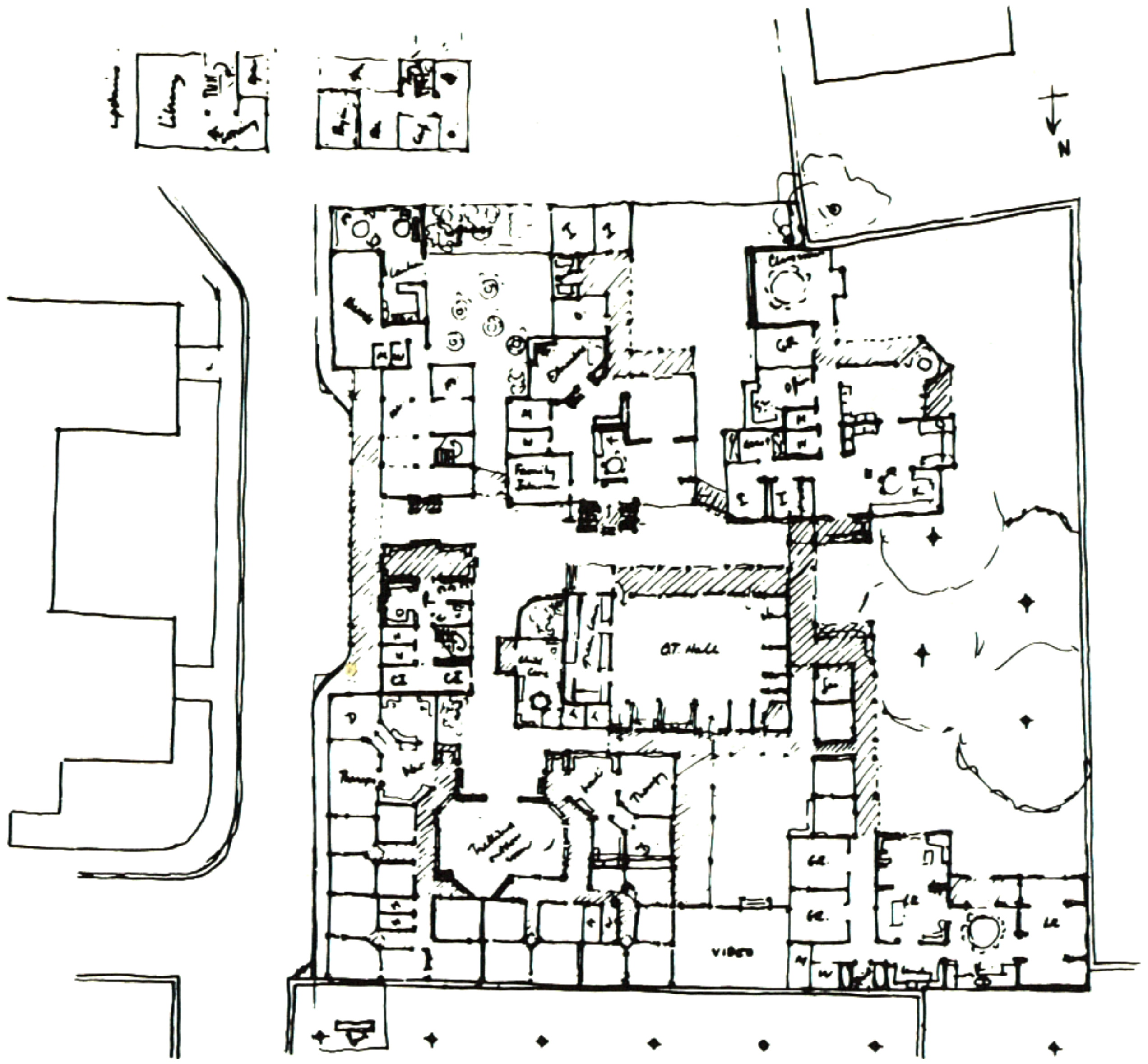
*The director of the clinic himself designed the details of the large central building.*

He put child care at one end, just inside the entrance, so that playing children would be visible, and children coming to it would feel comfortable and unafraid (as specified by **VISIBLE CHILD CARE**). He placed a large greenhouse at one end of the main social hall, with the idea that patients could learn to take care of plants, and might, in the end, take care of all the plants in the clinic's gardens (**OCCUPATIONAL THERAPY**). He made alcoves inside the main social hall where small groups can gather to talk (**FAMILY ROOM ALCOVES** again); and an arcade outside, along the main street, to create a zone of social space neither entirely private nor entirely public (as directed by **ARCADE**).

*Each part of the building was designed, in detail, by a process like the process described in chapter 21.*

The patterns which affected the design included, for example, **SHORT CORRIDORS**, which explains how long corridors in buildings make people feel inhuman; **RECEPTION WELCOMES YOU**, which says that a building for patients should not have a formal reception counter, but instead a more informal arrangement with comfortable chairs, a

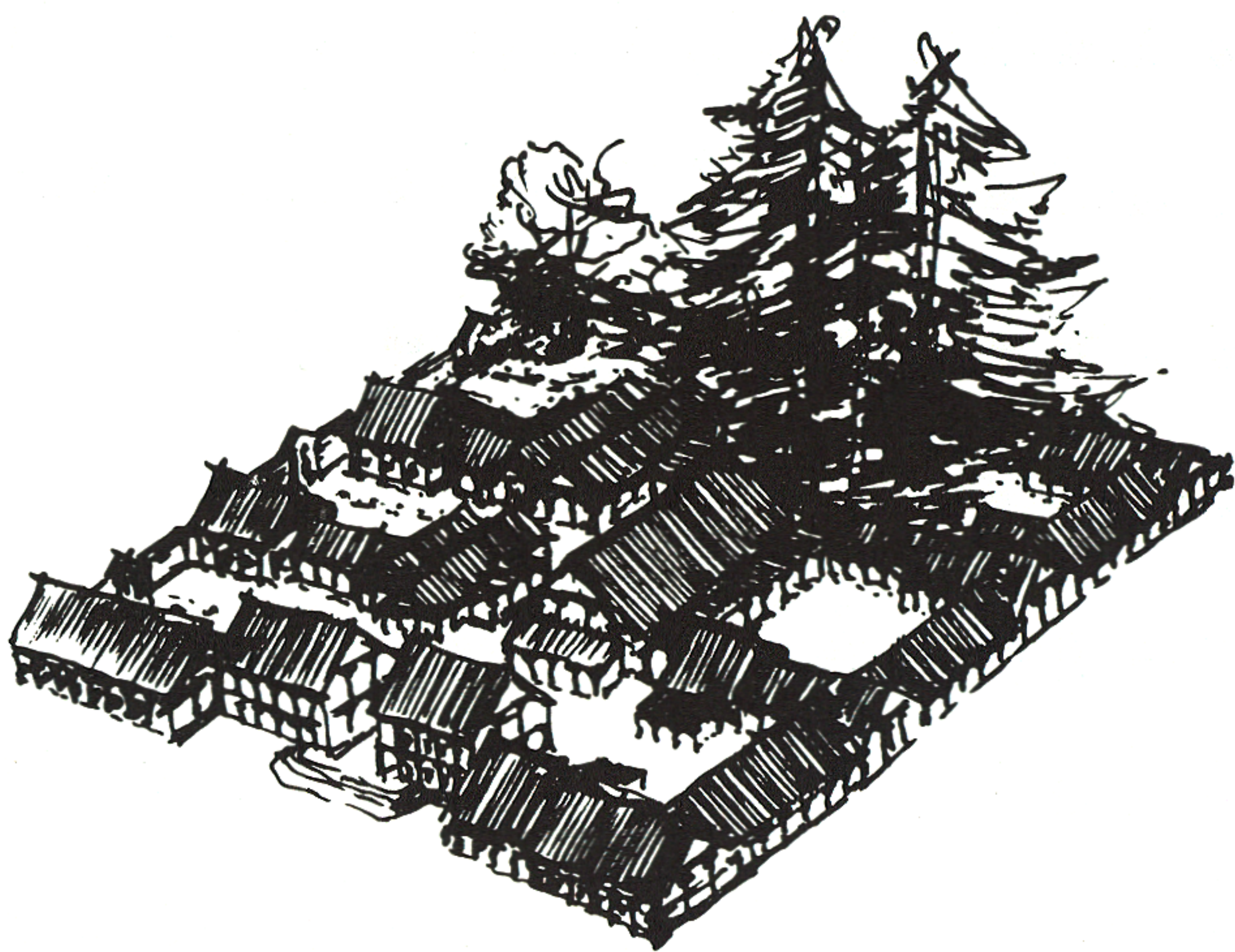




fireplace, and coffee where people can be made to feel at home; FARMHOUSE KITCHEN, a pattern most relevant to houses, which shows how a kitchen with a big table is one of the most comfortable places for communal discussion—this pattern was used in three of the day treatment programs; FLEXIBLE OFFICE SPACE, which requires a large number of small workrooms and alcoves, instead of the continuous open workspaces typical of modern office buildings. FAMILY ROOM ALCOVES, also most often used in houses, shows how small, low-ceilinged alcoves off the edge of larger rooms give people a chance to sit alone, or in twos, and be quiet, without leaving the larger group altogether.

*And we see then how a group of people can design a complex building.*





Once they agree about the language, the actual emergence of the form is simple and fluid. When a group of people try to do something together, they usually fail, because their assumptions are different at every stage. But with a language, the assumptions are almost completely explicit from the start.

Of course they no longer have the medium of a single mind, as an individual person does. But instead, the group uses the site “out there in front of them,” as the medium in which the design takes its shape. People walk around, wave their arms, gradually build up a common picture of the building as it takes its shape—and all, still, without making a drawing.

And, it is for this reason, that the site becomes so much more important for a group.

*The site speaks to the people—the building forms itself—and people experience it as something received, not created.*







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And they are able to visualize the building, right before their eyes, as if it were already there.

The idea that "ordinary" people cannot visualize a building is completely false.

The building grows, and comes alive, before their very eyes.

A few sticks in the ground, or stones, or chalk marks, are enough to bring the image to mind.

And then the building can be built directly from these marks.

*Of course, this building, like the experimental building in chapter 21, is still immensely shallower than the buildings in the photographs which start this chapter.*

It has great beauty of layout. But in its details of construction it still falls far behind. Indeed, in its construction it is completely spoiled.

For reasons outside our control, it was necessary that this particular building, once laid out, was then "detailed" by ordinary processes. It was taken to the drawing board, by people who had not laid it out, far from the site, and given mechanical "drawn" details, quite inappropriate to its design . . . until it became, in the end, no different from a thousand ordinary buildings of our time.

In short, it was almost destroyed, because it was not built in the right way. At first I hesitated, I was not sure whether to write this, or whether to include the picture, because it is so sad and so depressing. But then I realized how essential it is to include it: because many people may



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be willing to lay out a building in the way I have described, and will then try to get it built from drawings.

*The life, pulse, substance, subtlety of the building can only be retained, if it is built, in the same way that it has been designed—by a sequential and linguistic process, which gives birth to the building slowly, in which the building gets its final form during the actual process of construction: where the details, known in advance as patterns, get their substance from the process of creating them, right there, exactly where the building stands.*

In short, a building laid out by a pattern language process, and which comes to life because of it, will die again, quite certainly, when it is built, unless the process of construction is the same—unless, that is, the same spirit which generated rooms that are just right, entrances where they should be, light coming from the right directions . . . is carried on into the details, and also shapes the columns, and the beams, the window frames, the doors, the vaults, the colors and the ornament as well.

In the next chapter we shall see how such a construction process works.

*Yet even this clinic, crude as it is in its construction, already touched the hearts of the people who laid it out.*



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In earlier chapters I have described, in theory, why the active use of a language is so important to a person. It is because it is the only process in which he is able to make his picture of the world solid and actual—his feelings are embodied in the active concrete manifestation of his language: he feels his world as whole; it comes from within him, and is then around him, physically.

In the case of this clinic, we observed this process in fact.

*Dr. Ryan told us, after his clinic was built, that this one week he spent with us, shaping the building, was the most important week he had spent in five years—the week in which he had felt most alive.*

Now, years later, seeing the building made real—even though he has since moved—he remembers that week, standing in the fog, making chalk marks on the ground as we laid the building out, talking about the place for the entrance, the place for the greenhouse, the places where people could sit, the fountain, the small gardens, the rooms, the arcades—he remembers this week as the best week in five years of his working life.

*The simple process by which people generate a living building, simply by walking it out, waving their arms, thinking together, placing stakes in the ground, will always touch them deeply.*



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*It is a moment when, within the medium of a shared language, they create a common image of their lives together, and experience the union which this common process of creation generates in them.*



THE  
TIMELESS WAY  
OF BUILDING

*Christopher Alexander*

*with love and thanks  
to Ingrid, Sara, and Peter*

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