7 / INTRODUCTION TO DISCUSSION OF PROCESS FOR A LARGER BUILDING

Perhaps the most difficult thing about big buildings — especially public buildings — is the fact that the *process* needed to design them and to build them really has to be remarkable. If we consider the example of the Upham house, given in the appendix of Book 2, we see enormous numbers of changes in design, layout, modification, construction, and special craftsmanship — all happening dynamically, during the various stages of the project.

In a small or medium-sized building — up to one or two million dollars — this is solvable. However, when a building becomes really big, all these tasks are more difficult dynamically, and require feats of administration that may seem almost unsolvable. As a result, in 20th-century projects, the issues of budget, coordination of effort, administration, organization, and construction process, almost inevitably led to mechanization — and then of course to loss of life — for the buildings which resulted.

The creation of great architecture, then — often only to be captured in the largest buildings — requires that we imagine, and succeed in implementing, a new kind of process which makes living process attainable, in the context of contracts, budgets, schedule, and organization of manpower and construction operations, for a project that may comprise hundreds of men on site and tens or hundreds of millions of dollars in construction budget.

I have made middle-sized, large buildings and have in these cases (some illustrated) been able to take a path which lies roughly in the right direction.

However, for the largest buildings we have barely yet even been able to *imagine* the right kind of process. The contingencies of contract administration coordination and the yearning for an inner life of the building are so far apart that in the largest modern projects, no one, I think, has yet been fully able to put the two together.

8 / EVEN IN THE BIGGEST BUILDING, PEOPLE MUST BE THE CORE. THE BUILDING GENUINELY COMES FROM THE INSPIRATION AND DEEP FEELING OF THE USERS

Anyway, in this chapter I am beginning to suggest how architecture itself — the architecture of a large modern building — can arise from the fundamental process, even for the largest buildings, and how the fundamental process will call into being new social processes, at almost every stage, to embody the development of its structure-preserving, center-making action.

The core of a living process — whether a building is large or small — is that it comes from people, from their inner desires — and *genuinely* does so; that it meets their archetypal core, and thereby makes them feel at home; and above all that it follows from, and is drawn out from, their inner wishes, which they make actual through dreams, fantasy, and genuine emotional experience.

In a big building this is, of course, not so easy. It is not easy to administer — that is, to arrange a process in which the people who will use the building can give voice to what is needed there.

I introduce, for the sake of example, the Homeless Shelter I built in San Jose, which be-

Fountain and roses, Julian Street Inn, San Jose, California

came known as the Julian Street Inn. In the case of this homeless shelter, we began with some of the people in San Jose who were homeless in 1987. We found a group sleeping under bridges, people who were willing to act as representatives of all the homeless people who might one day seek shelter in this building. I sat with them on the empty site — about a dozen of us altogether — and asked them to explain to me the essentials of such a place, and what would matter most to them.

"What matters most," said one, ". . . is, Who has the key?" "We need a place which is ours, so long as we are there," another one said. Gradually these kinds of wishes were taken on.

I worked with them, a number of times, and throughout my time with them I tried at all times to imagine myself as homeless, too. Thinking of myself as homeless, I knew one thing above everything else: that a person who is homeless is an ordinary person, not different from anyone else, but faced, for a time, with a circumstance where because of lack of money, or food, or work, they have lost their apartment; and that being in that state, I, like them, would want to come to a place that gave me my dignity. In this frame of mind we, they and I, together designed the building.

Their leader, when I first presented the building to our formal clients (the city officials), was present. He interrupted me (very politely) while I was speaking — and said "Really, you know, Mr. Alexander did not design this building — we designed it — we told him what we

Note the hand-painted tiles on the upper wall surface. Four thousand of these tiles were made for the building in our own workshops. See extensive discussion about the tiles in Book 2, pages 292–95.

The 100-bed Shelter for the Homeless, San Jose, California, known as the Julian Street Inn. Christopher Alexander, with Artemis Anninou, Gary Black, Carl Lindberg and others, 1989

Courtyard of the 100-bed Shelter for the Homeless, San Jose, California, known as the Julian Street Inn. Christopher Alexander with Artemis Anninou, Gary Black, Carl Lindberg and others, 1989

wanted, and he made it for us . . . . I know he will forgive me for saying this, but it is just true. . . and that's what makes it good."

Such a process creates places for people in inner gardens, has alcoves for privacy in the sleeping rooms, has benches on the street outside, where these homeless folk could be comfortable, and get warm in the sun . . . all this was very natural.

And if, indeed, the building has this quality at all, it is because those people of San Jose who were, that winter, without homes — gave it to me. I tried to make, from what they gave me, a geometrical substance which contained their wishes. The process of finding the plan which resulted, the structure, and its details, have been discussed at length in Book 2 (chapter 10) with an emphasis, in that discussion, on the continuous creation of centers as the most essential aspect of the unfolding. In the following pages, I go forward from that discussion to focus on the *contractual* problems which arise in construction of a large public building, and the ways that living process must introduce very new elements into almost every aspect of procedure and contract administration.

9 / THE CONTRACTING PROBLEM

Big buildings perhaps pose the biggest problem for a way of building that can produce living structure. During the 20th century these big processes were mechanized in such a way as to disrupt the unfolding process almost completely.

As a result, in such projects especially, living structure was almost unattainable in the 20th century. Yet it is our age, the 20th century and beyond, which has given birth to these enormous building projects, and our time which therefore most urgently needs ways of building them well.

The main difficulty in the present architectural scheme, is the absence of engineers and construction managers from the driving process, and the lack of understanding how a large project involving hundreds of construction workers, and massive problems of coordination, can give each individual the liberty needed to create a living center, locally, while still *together* they create a coherent (structurally safe, on-budget, on-schedule) whole.

For example, when the Shasta dam (at Mount Shasta, California) was built in 1935, the dam wall, 500 feet high and 1500 feet long and with an average thickness of 50 feet, was made by a continuous concrete pour which lasted 24 hrs per day, for 6 months, pouring a total of 1.4 million cubic yards of concrete. The way this was done was that the forms, reinforcing steel, and roads and ramps leading up the sloping exterior wall of the dam face, were changing every day and were built continuously while concrete was poured. Concrete was poured continually, day and night, at the rate of about 400 cubic yards per hour, or some 60 concrete trucks per hour.

Of course, the whole process was dynamic, and was under the control of structural engineers who made on-site adjustments on a continuous basis, to permit the handling of the huge job, and to accommodate, flexibly, whatever problems developed while the dam wall was growing.

Process of this kind is well within the grasp of modern technology and engineering. The reason that architects have not, in recent years, been able to handle large projects dynamically, in a comparable way, is that they have become dissociated from engineers. Given the dress-design approach that was favored by many 20th-century architects, it was impossible for such a firm to be entrusted with a process where large-scale engineering problems were being faced, and solved, dynamically. But, in principle, it is entirely feasible.