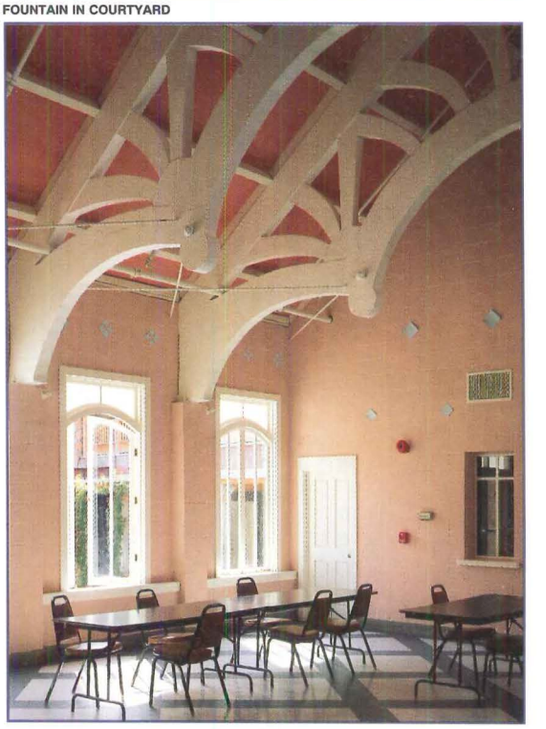
The Real Meaning of Architecture

Highlights from four works by Christopher Alexander, Gary Black, and Hajo Neis of the Center for Environmental Structure eloquently vindicate the firm's integrated, empirical approach to design and construction.

FOUNTAIN IN COURTYARD

ENTRY FAÇADE

STREET FAÇADE

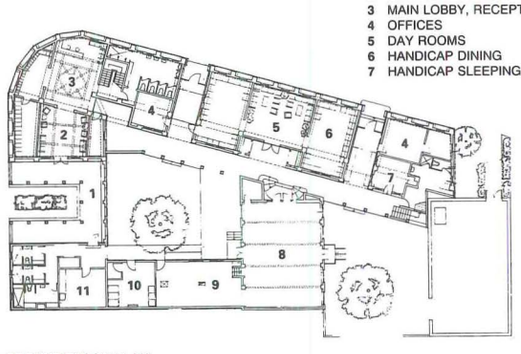


DINING HALL

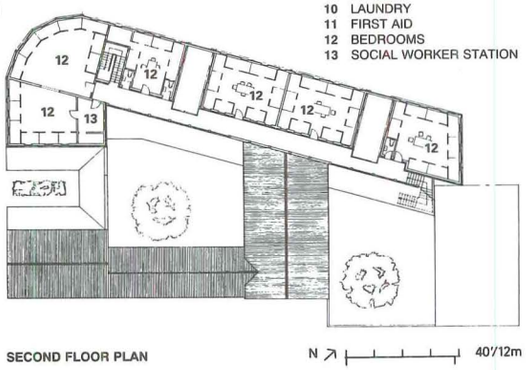
Photos: Mark Darley

GARDEN COURTYARD

1 ENTRY COURT
2 ENTRANCE LOBBY
3 MAIN LOBBY, RECEPTION
4 OFFICES
5 DAY ROOMS
6 HANDICAP DINING
7 HANDICAP SLEEPING
8 DINING HALL
9 KITCHEN
10 LAUNDRY
11 FIRST AID
12 BEDROOMS
13 SOCIAL WORKER STATION



GROUND FLOOR PLAN



SECOND FLOOR PLAN

N ↗ 40'/12m

Julian Street Inn, San Jose

Since at least the Middle Ages, religious and other charitable organizations have taken the lead in giving shelter to the homeless. And Christopher Alexander seems to acknowledge that in his design of the Julian Street Inn, which recalls the form and materials of a medieval cloister. The building turns monastically inward, with its perimeter dormitory structure wrapping around a central dining hall and service wing and a series of intimate colonnaded courtyards.

Alexander and his collaborators of the Center for Environmental Structure have managed to capture the quality and feeling of a traditional place of charity not through any specific stylistic reference, but through the building's form, materials, and scale. That is due, in large part, to the process Alexander and his colleagues employ: a design-build method in which many decisions about form and construction are decided on site with the involvement of the owners and users. His is not a seamless process: The person who runs the mission talks about the painful delays incurred while Alexander worked to get the concrete trusses in the dining hall just right. But Alexander's approach presents a fundamental challenge to us and our style-obsessed age. It suggests that a beautiful form can come about only through a process that is meaningful to people. It also implies that certain types of processes, regardless of when they occur or who does them, can lead to certain types of forms. The Julian Street shelter does not just look like a medieval cloister. It is like a medieval cloister in the best sense – the product of faith, hope, and charity. **Thomas Fisher** ■

Designed and built by Christopher Alexander, Gary Black, Eleni Coromvli, Carl Lindberg, Kleoniki Tsotropoulou, James Maguire; Oliver Construction, general contracting.

VIEW OF CAMPUS WITH TEA BUSHES AND LAKE IN FOREGROUND

CAMPUS STREET

ORNAMENT ON RECENTLY COMPLETED COLLEGE WING

Photo above: Christopher Alexander

Photos: Richard Barnes

Christopher Alexander

JUDO HALL

Christopher Alexander

CAMPUS IN LANDSCAPE

Shioda Tetsuya

EXTERIOR OF GREAT HALL

Hansjoachim Neis

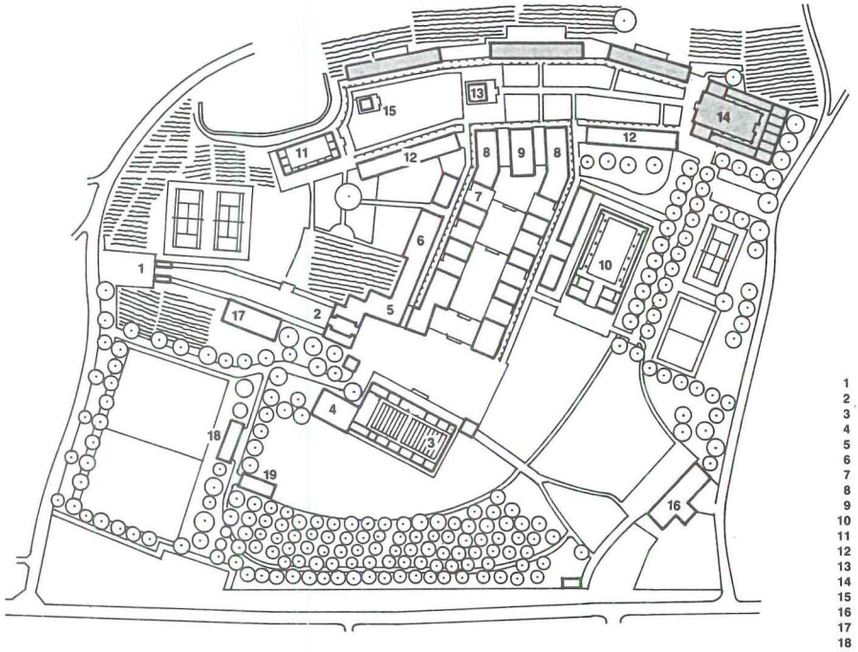
VIEW OF COLLEGE WINGS AND CENTRAL HALL

Hiroshi Kobayashi

ORNAMENT IN GREAT HALL

Christopher Alexander

CAMPUS STREET



SITE PLAN

N 100'/30m

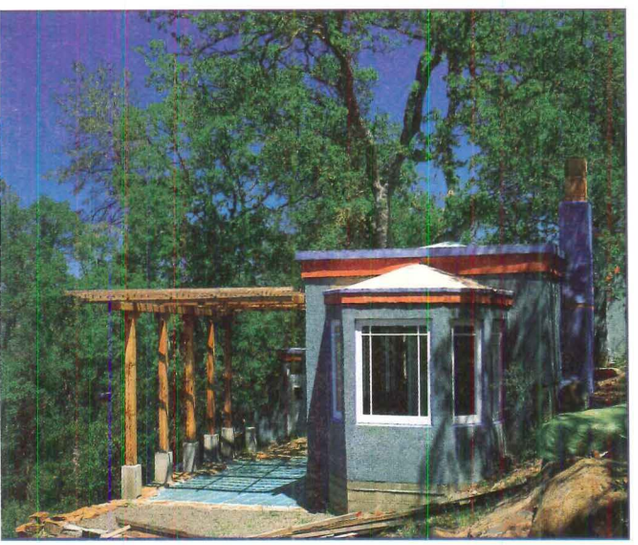
1 FIRST GATE
2 MAIN GATE
3 GREAT HALL
4 MUSIC HALL
5 ADMINISTRATION
6 FACULTY OFFICES
7 HOMEROOM BUILDINGS
8 SPECIAL CLASSROOMS
9 CENTRAL HALL
10 GYMNASIUM
11 JUDO HALL
12 COLLEGE WING
13 STUDENT'S HALL
14 LIBRARY/RESEARCH CENTER
15 PAVILION
16 CAFETERIA
17 WORKSHOP
18 CLUB ROOMS
19 BOATHOUSE

PLANNED BUILDINGS ARE SHADED

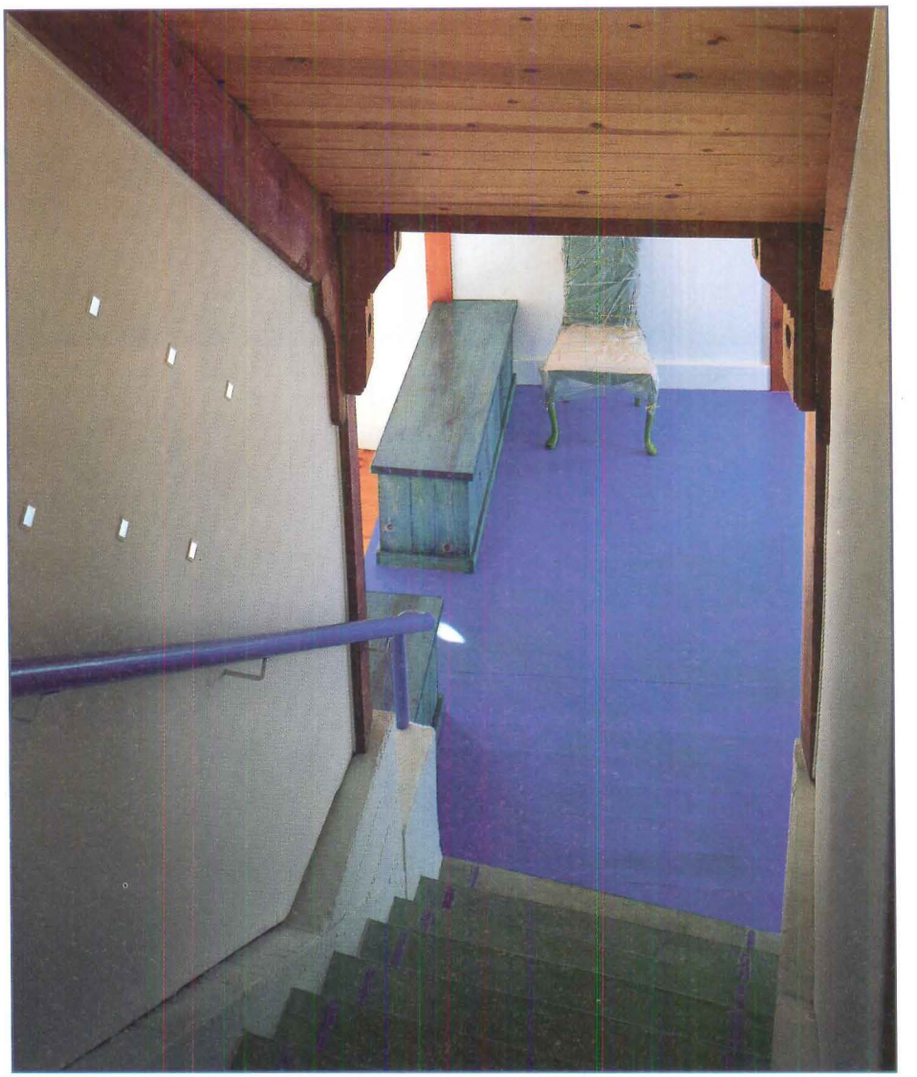
New Eishin University, Japan

The scope and complexity of the Eishin campus have provided a unique testing ground for the empirical design/build methods of the Center for Environmental Structure, which previously had been employed only on smaller projects. With some 30 buildings completed since work began in 1982, at a cost of about $13 million, Eishin is the first Japanese institution to combine a high school and college within the same campus (P/A, June 1986, p. 92). The first step in its planning was to derive a "pattern language," an 80-page document worked out with the users, as a physical, social, and cultural "blueprint" for the entire project. Next, the various buildings were staked out on the 300 m by 300 m site, using hundreds of six-foot flags; the knowledge thus garnered, combined with input from users, was transferred daily to a 1:100 model. After studying the site for close to a year, Christopher Alexander and his collaborators set about compiling a palette of materials, based on their strong sense of local conditions. A 10′ x 14′ mockup took shape as a "statistical," or proportional profile of the complex mix of concrete, wood, stone, and plaster in predominant hues of black, white, green, and gray that best suited the compound's physical and emotional landscape, and the light's "odd mixture of softness and harshness." By then, a good deal of information about each building had accrued, Alexander explains. The main work remained, "to make a beautiful structure" for each in keeping with its nature.

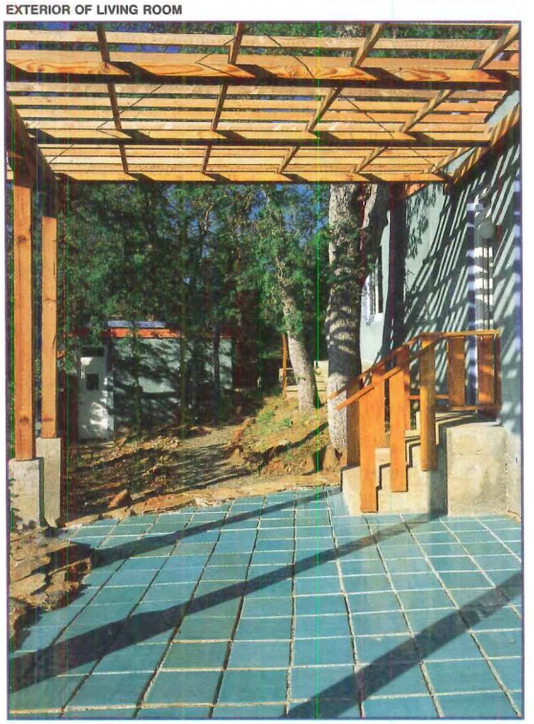
Designed, built, and managed by Christopher Alexander, Hajo Neis, Gary Black, Ingrid King, Artemis Anninou, Eleni Coromvli, Hiro Nakano, with Fujita Construction Company.



EXTERIOR OF LIVING ROOM



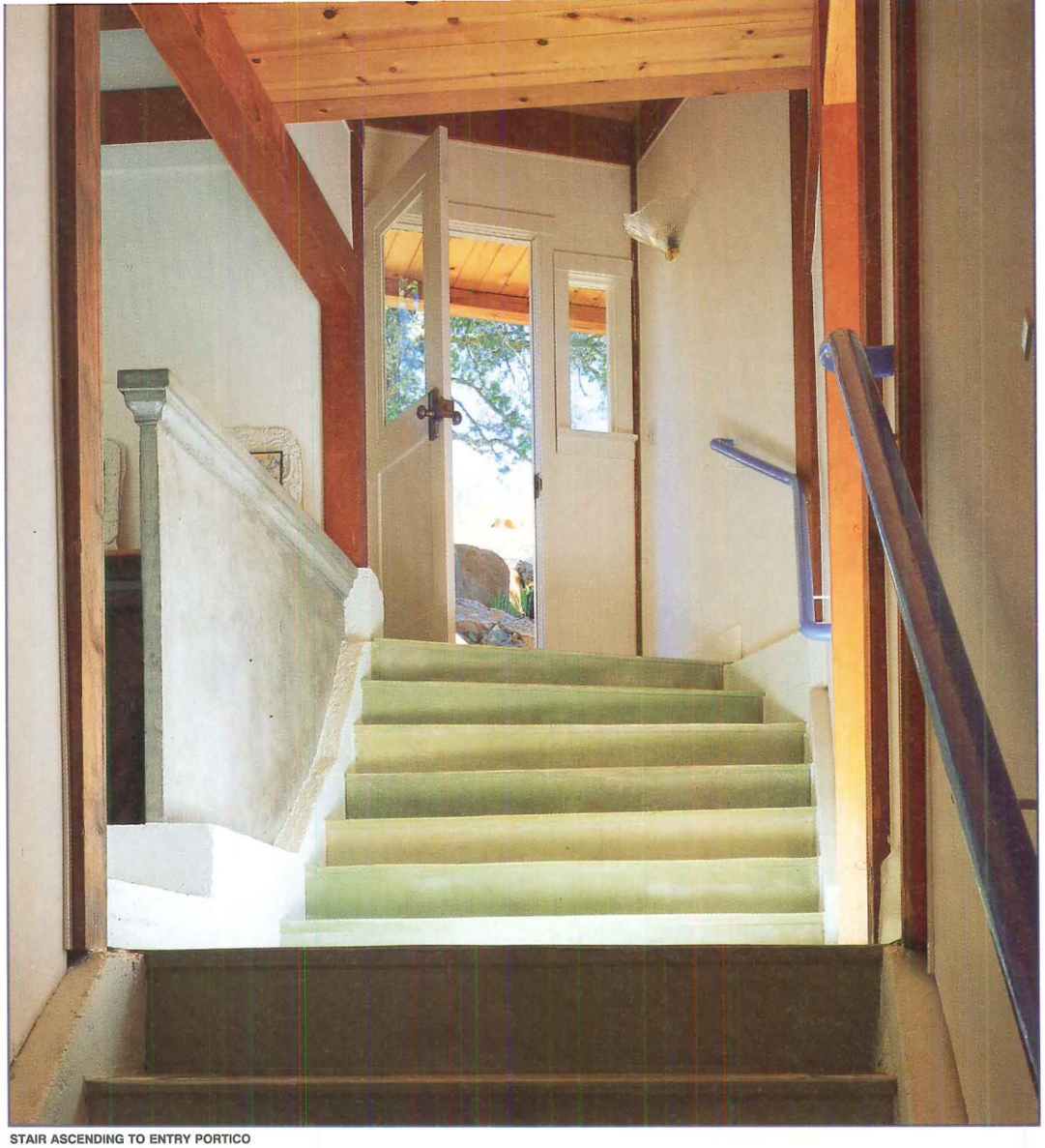
STAIR DESCENDING FROM ENTRANCE



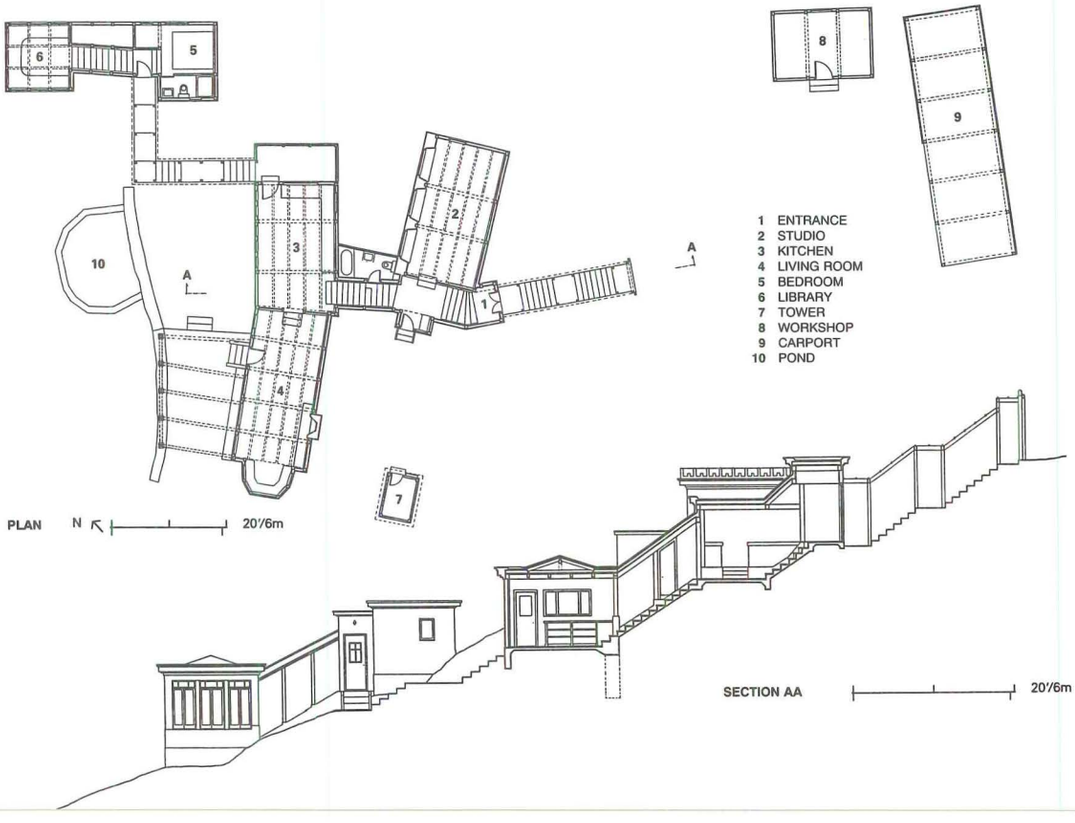
VERANDAH OFF LIVING ROOM

ARTIST'S STUDIO

Photos: Mark Darley



STAIR ASCENDING TO ENTRY PORTICO



Residence, Lake Berryessa, California

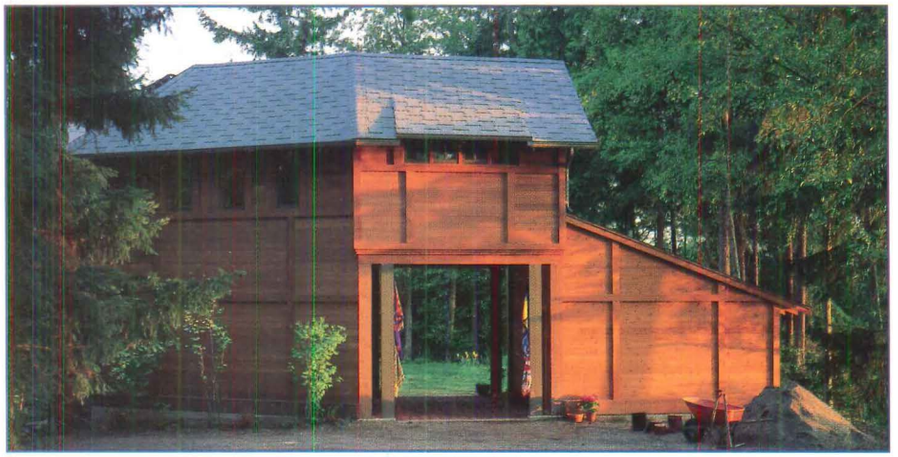
Built on a heavily wooded mountainside, this 1600-square-foot home for a teacher and an artist steps down the slope with a series of volumes connected by stairs. The building masses themselves are symmetrical forms, which are placed in a syncopated way in response to particular characteristics of the site.

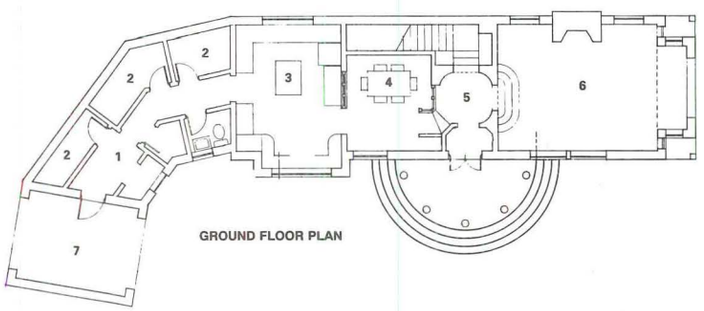
The number and relation of the house's various components were derived from the "pattern language work," or intensive discussion with the clients, that is an inalienable part of CES's design process. The next step was to "stake out" the building on the land. In this case, the procedure was made all the more crucial by unique site constraints. With only rough sketches to work from, the CES construction crew went up early on to walk about the site, locating immovable natural obstacles such as rocks and trees, and accordingly adapting and placing the formwork for the exterior perimeter of the buildings. Only after this was done could the house be drawn up in a conventional manner.

Other major considerations for the disposition of the house's parts were light conditions and views, as they changed every three or four feet. "That plan is not a style," Alexander asserts. "It came about because of a fundamental process of relating the building to the land." The climate in the area, some 80 miles north of San Francisco, can be very hot, and so the building needed to be of cementitious materials. The construction technique, one pioneered by CES, employed a 6x6 post and beam system for the vertical structure, with a 2-inch concrete shell forming the shear structure.

Designed and built by Christopher Alexander, Gary Black, Artemis Anninou, Bob Theis, Carl Lindberg, Seth Wachtel.

FRONT AND BACK VIEWS OF EXTERIOR

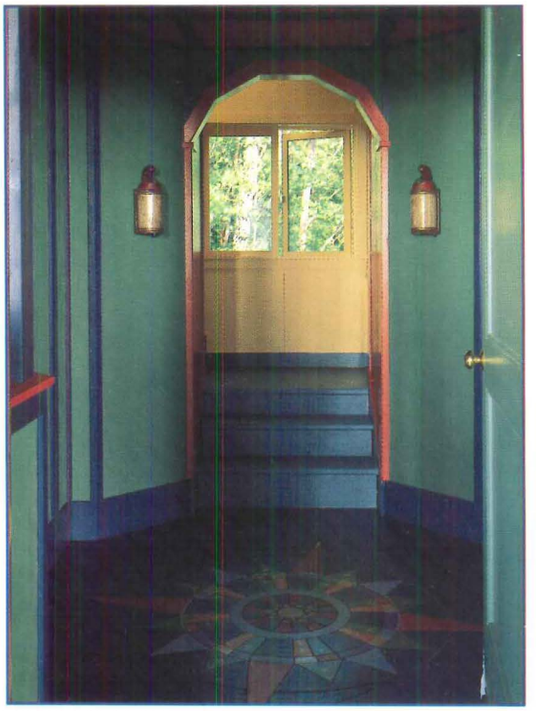




GROUND FLOOR PLAN

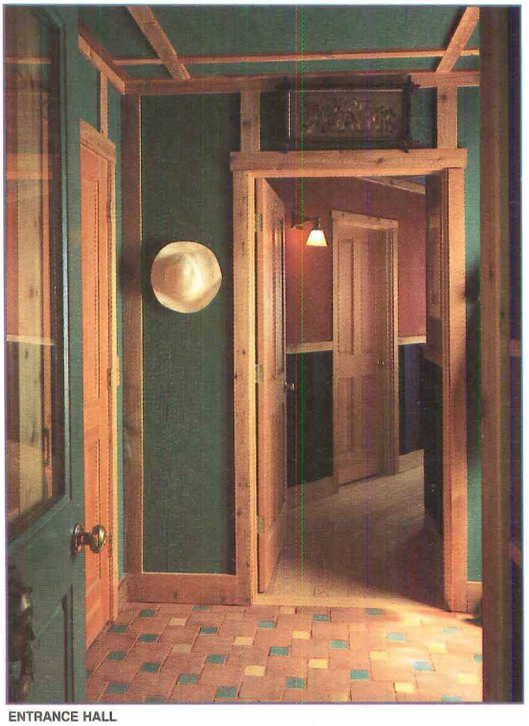
1 ENTRANCE HALL
2 STORAGE
3 KITCHEN/FAMILY ROOM
4 DINING ROOM
5 FOYER
6 LIVING ROOM
7 GATEWAY

N 10'/3m



CENTRAL FOYER NEAR STAIR

LIVING ROOM



ENTRANCE HALL

STAIRWAY

Photos: Mark Darley

Residence, Whidbey Island, Washington

This house for a couple occupies a tiny knoll in the midst of acres of steep, forested terrain on an island in Puget Sound. Culminating a long and complex series of probing conversations with the clients, the architects of CES realized that the physical form suggested by the couple's life together was that of a building whose rooms were arranged "like a necklace of beads." At the same time, the CES crew spent a good deal of time on the site trying to pinpoint the most suitable disposition of that elongated volume. In this case, "construction" began virtually from the first visit: The knoll was so heavily wooded that it was necessary to cut some trees just to be able to grasp the lay of the land – a sensitive, non-reversible operation Alexander likens to "brain surgery."

From the knowledge that the house was essentially a long, thin volume stretching southward on the site, the plan took shape as a progression of spaces, with the entrance at one end, leading through a series of secondary rooms to the kitchen and family room at the center of the chain. The living room occupies the most protected, light-washed, southern end. The organization of the second floor similarly locates the "very precious" library and master bedroom at the extremities of the house. As Alexander puts it, "a deep understanding of form leads you to an understanding of function." **Ziva Freiman** ■

Designed and built by Christopher Alexander, Gary Black, Kurt Brown, Jim Dow, Bryan Almquist.

Perspectives: Manifesto 1991

Christopher Alexander opens the door

to a new and entirely different theory – and practice – of architecture.

Collapse of the Present Mainstream Theory of Architecture

In scientific terms, we may broadly describe the present view of architecture, which has held sway in one form or another since 1920, as "the mainstream theory of architecture."

During the last 15 years, a wide variety of attacks have been made on this theory, and the theory has been shown to be seriously defective in many important areas. It is now reasonable to say that the mainstream theory is on the verge of collapse. In order to understand this fact, it is merely necessary to make a catalog of the broad issues that the theory fails to address:

1. The definition of quality that is used as the basis for judgment according to "the theory" is not understood or accepted by the majority of people in society, but is esoteric and exclusive, thus separating the buildings made in the mainstream theory from any normal mainstream of society.

2. Incredibly, the theory has no substantial connection with the actual work or process of construction.

3. The theory does not deal with Third World building, low- cost housing, or community affairs.

4. Even in the United States, the theory deals with only a tiny fraction of the buildings that are built.

5. The theory does not deal with ecological problems.

6. The theory does not deal with or incorporate a wide range of facts now known about the relation between human behavior and the environment.

7. The theory does not deal with money or cost in a reasonable fashion.

8. The theory has no substantive or clear empirical relationship with human feeling.

9. The theory has failed to give any general coherent explanation of the values necessary for building well.

10. The theory has not produced buildings that ordinary people like. On the contrary, it has mainly produced buildings that people see as ugly and unsuitable.

11. The theory has not provided any moral leadership that can establish the value inherent in the built world.

"The architectural profession is not only suffering from a theory that fails to solve massive problems it ought to solve, it has maintained itself in a way that must frankly be admitted to be ugly in spirit. It has abandoned its role as a moral force."

Yet, in spite of these failures, which signal the slow collapse of the mainstream theory, the theory is still taught unchanged in most schools of architecture, and is, indeed, not only taught in many schools, but remains as the core of the curriculum.

As in the situation near the collapse of any paradigm, many younger professionals are more and more nervous about the possibility that the whole theory is nonsense.

In an effort to provide architects with an entirely different model, I have agreed to make a statement about a new way of thinking about these things.

In December 1989, P/A Executive Editor Thomas Fisher wrote a highly negative Editorial about Prince Charles. I got a phone call from a London newspaper asking for my comment on his editorial. I responded with an angry letter that was published. The letter directly questioned and criticized Tom Fisher, perhaps too personally. A few hours later, I thought that Tom deserved a copy of what I had written. So, out of politeness more than expectation, I sent it to him, never really expecting that P/A would publish it. To my astonishment, a few days later he called to tell me that he wanted to print the letter. I must say that moved me greatly. I never imagined Tom would have the courage to print something that attacked him personally.

I felt that the possibility of real dialogue about the meaning of architecture had begun again.

A few months later Ziva Freiman came to see me, with the request that I write a longer piece expanding on the ideas expressed in that letter [P/A, April 1990, p. 11]. We met in the library of my house.

A Conversation with Ziva Freiman

She asks me what I am thinking.

I sit in my library, trying to answer. Gary and Randy and I have just been working on some blocks of concrete we are making for a building in the Sierras. I think about these blocks. We have been building forms; pouring the concrete, mixing color, cutting chases in them. The concrete is to form stones: these massive stones are the base of the building. There are incisions in the stone, into which thin slivers of marble will be inserted.

The concrete is massive. You feel its weight. Not only when you lift it – each stone weighs about 200 pounds – but you feel it in your heart. There is an emotional gravity.

It is wonderful just thinking about these stones. Getting ready to build with them. Thinking about the building that will come from these stones.

What is this – this activity? It is an ancient thing, a heavy thing, nothing like the thing we call architecture now. Something entirely different from

Christopher Alexander

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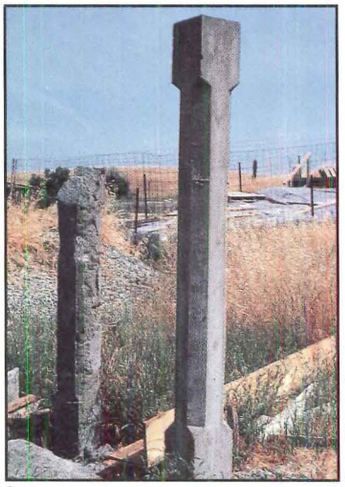
During construction of the Great Hall at Eishin, huge sheets of paper painted with gouache were hung on the columns (1). When the color and feeling were right, the design was carried out in colored plaster.

2



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Photos: Christopher Alexander

One of dozens of mockups (2) in our yard, with which we're trying to find the combinations of giant cast blocks with ordinary concrete blocks, marble slivers, and marble panels, that have the greatest emotional weight. One of my early experiments with gunite: a way of building concrete columns (3) without expensive heavy duty formwork.

the architecture of the magazines, and from the profession as it exists in 1991. I have been looking through a variety of architectural magazines from the last two years. In all these magazines, there is hardly one page, hardly one thing, which has to do with what we have been doing with these stones. Ninety-eight percent of what is published – all of it, really – is simply something else. Something which has to do with images; self-importance; money.

Yet it is these stones that are what architecture really is.

Thus the architectural profession is not only suffering from a theory that fails to solve massive problems which it ought to solve, it has maintained itself in a way that must frankly be admitted to be ugly in spirit. It has abandoned its role as a moral force. It has, essentially, become coopted as part of the money-image machine of Madison Avenue.

And that is where the wound that young architects feel today is coming from. A knowledge that their own integrity is compromised. A knowledge that they have something in their heart, which has to do with real building, with the love of the sky, real stones, wood, cushions, happiness. . . but that they have sold themselves to make drawings for an architect who has sold himself to make drawings for a developer.

It is nervous work thinking about that. What if the answer leads to some impossible place? Or is it better, safer, not to think about these things?

A few months ago I saw a remarkable film on PBS entitled *Letter to the Next Generation,* made by Jim Klein, who described himself as a 1960s radical, and made a film of a series of conversations with students from Ohio State University. Many of the students are expressing the materialism of the 1980s. They explain how they are not interested in deeper questions or foundations – the main thing they want is to succeed, to make sure they have a job when they leave the university. They are nice students, quite unabashed.

The film-maker isn't heavy. He doesn't moralize. Throughout the film, he talks to the students, gently asking questions, saying how the kinds of things they are talking about don't quite make sense to him; that he wants to know more about bigger questions, not so much about jobs. Gradually, you see the students themselves begin to wonder a little.

"There are thousands of architects who have given their lives to architecture, who want to make something beautiful, and who are beginning to realize that the present organization of the profession makes it all but impossible."

By the end of the film, real doubt has been created. One feels that things are going to change, that it is impossible that they can continue on such a silly level. That money will not triumph, and that people will rise up again, question themselves, look for something deeper. But it is so gently done.

That is what I would like to get in this piece for P/A – something gentle in tone, very gentle – but able to bring people, wondering, to their senses. A whisper that will make people doubt the self-satisfied images that have been living in them and that have been published continuously in this magazine and in almost all architecture magazines during the last two or three decades. A new life for architecture; a new life for architects.

"Tell me, so I know what you are hoping for: What is the name of the piece?" I ask Ziva. "Well, I was going to ask you that," she says. I laugh. "I know. But I am asking you."

"Something about morality."

Finally, after a long silence she adds, "Perhaps something biblical." Another silence. "A righteous man."

I am astonished. I didn't expect this. Does it mean that my effort, after all these years, is beginning to be heard? Can it be that even the people who have said for many years that what I want to do in architecture is impossible – can it be that they, too, are so confused that they are now beginning to doubt, beginning to wonder if after all there may be a shred of truth in what I say?

I have been isolated for a long time. It is not my choice. And, I think, it has not been the choice of the professionals either; nor of the magazines. Then why has it happened?

It is because of this thing, the difference in *paradigm.* That isn't just an easy phrase, a cute gimmick. It is true. What I do is so different, in every pore, that it is almost impossible to describe it from the inside of the profession as it exists today in the words the profession uses.

But this isolation is not good for the profession. And it is not good for me.

I want to talk more about the big cast blocks we have been making. They are like massive stones, 24″ by 18″ by 6″. They will be cast on site and then laid up, one or two courses at a time, then tied together with reinforced concrete poured behind. Each can be shaped for entrances, arches, windows, sills, ornaments.

It is something, doing this, like digging a ditch. There is a connection to reality which carries through every phase, the walking about on the site, talking to the family, preparing for construction, talking to the workmen, thinking about the ornament, working through the structure. It is all one thing, on a level of physical reality that makes it something entirely different, worthwhile, you feel like a person, living, breathing, swimming; sex is engaged.

My simple, modern version of an ancient technique: Marble dust and cement are used to make a floor (4) as beautiful as the old intaglio marble floors of Florence. A seven-story-high lobby (5) designed for the Tokyo International Forum competition, a vast project on which we intended to apply the contractual techniques described here.

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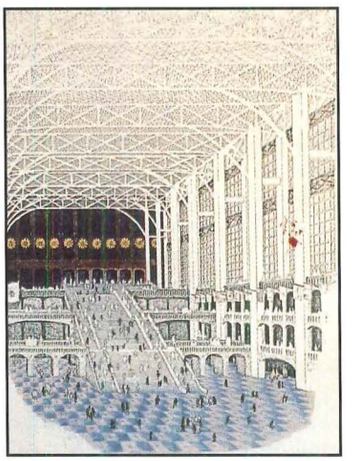

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Making these stones, building with them, is as different from making working drawings for a contractor as eating real food is different from looking at pictures of food.

This is the real moral force of what it means to build. But unfortunately, the process of building, as we know it today, is something very different. Magazines like P/A, and architects, and developers' money have cooperated to create an entirely different picture of what it means to build.

I have taken it as my task to shake this situation: to make it clear what it really means to build; to free architects from the mental picture that has been constructed for them.

That is the core of the whole thing. There are thousands of architects who have given their lives to architecture, who want to make something beautiful, and who are beginning to realize that the present organization of the profession makes it all but impossible.

What it comes down to, in the end, is practical. How can a person actually live and work in the way I have been describing? Is it practical to make buildings in the ways I have shown, is it a viable model for thousands of architects all over the country?

Can the attitudes and the ways of building I have developed be used for large public buildings? Can they be used for large housing developments? Office furniture and office interiors?

The feeling of desperation that architects feel is that the package, the whole system of how architecture is "supposed" to be done, seems efficient, sophisticated, worldly – when actually it is not. The status of the profession is highly deceptive. It seems elegant, integral, self-sustaining, worked out as a coherent body of thought, practice, and action. But it is in a state of collapse, its authority undermined. Even those architects who feel sympathetic to what I say do not see a way out of this ball of string.

But to do what I have done involves risks and changes that are very great. In the early 1970s I taught myself to become a licensed general contractor. I had little more experience of it than any other architects trained in architecture school, but I knew that building meant nothing unless one actually did the building work itself.

"Here we go right to the core of the giant scam, the invented series of conceptions about space and volume and style... which is not connected to real human feelings, but only to the artificially constructed aesthetic rules of a design intelligentsia."

The essence of the thing is to *make* the building – large or small.

I go back to the problem of how to *do* it. At the bottom of the whole thing is a system of understanding the world, what space and matter are, which includes the idea of soul.

The trouble is that within a mechanistic view of space and matter – the one considered normal by all right-thinking people today – architecture must inevitably become shallow and trivial.

In *The Nature of Order* (a 1000-page book I have been writing for the last 20 years, which is still not finished but is circulated now, in many versions, in many parts of the world) I have tried to explore these questions, and I have found a picture of space and matter that makes sense of things, that shows what it means for spirit to occur in something, that shows how feeling is inevitably integrated in design – and how matter itself, understood as a Godlike substance, shows us what we have to do when we try to bring life into a doorknob, or a window, or a whole building project. It becomes clear, because it comes from an entirely different way of looking at the world.

This way is connected to ecology and respect for nature. But so far, the ecological revolution is still mechanistic in its fundamental way of looking at the world, and so still creates an arbitrariness that we see in the kinds of "ecological" buildings which have become associated with the name.

The real thing is deeper, and more serious. It is also more human. The respect for living things is not just a respect for plants, and rivers, and vanishing species... It is a respect for ourselves, for our own vulnerable, pathetic, and marvelous heart. It is an architecture, then, that comes out of the voice of that heart – not some sham, not some money scheme, but something that pleases me, in my own heart, and you in yours – so that we never have to say: "Let me explain it to you. You don't understand..." and then go into the artificial rap, the falsehoods that make up our architecture now.

A Conversation with Kenneth Frampton

A year ago I showed pictures of the Eishin campus near Tokyo (p. 103) at the Cooper Union in New York where Herzberger and I were both talking on the same evening. Ken Frampton was in the audience, and made some very sympathetic statements with respect to our two very different points of view. But later, in private, Frampton told me: "The best part [of Eishin] is the lake – isn't it – the buildings are not really the important part." The subtle message, very politely put, was that the buildings are too romantic, too traditional – how could they possibly be serious architecture – so he dismissed it by talking about something else.

But it is just this emotionally cynical and subtle, offhand way of trying to put down or de-

Hiroshi Kobayashi

6

The Emoto Building (6,7). A five-story apartment building in Tokyo, completed in 1987, designed and built by me with Hajo Neis, Ingrid King, Miyoko Tsutsui, and Kibe Construction Company. In this project, design, management, and construction were combined to some extent, but in a manner closer to the normal practice of today.

Photos: Christopher Alexander

7

mean things of beauty on the grounds that it "is not really architecture," which is the craziest and most destructive part of modern architecture of the last 50 years. Here we go right to the core of the giant scam, the invented series of conceptions about space and volume and style, which has erected an imaginary set of criteria as if they were a "truth" – but a so-called truth which is entirely fictitious, which is not connected to real human feelings, but only to the artificially constructed aesthetic rules of a design intelligentsia.

The subtle put-down, and the unspoken rap about nothing real, is the catch-all method that both Modern and Post-Modern architecture have been using to propagate their ideas.

I am sure Ken Frampton is a serious person. I do not believe he did this willfully, and he is perhaps one of the present-day theorists who is willing to go furthest towards the possibility that something might be seriously wrong. But even he, for all his insight, was trapped in this net of lies. (Yes, unfortunately, from an intellectual point of view, they are just lies – because they intentionally distort the landscape of our feelings as they actually occur, and replace them with something false).

That is what we are fighting. The loss of innocence that makes you elevate garbage to something worthwhile, trying to puff yourself up to be an "Architect," and refusing simple and beautiful things that have substance or feeling in them.

But what does "beautiful" mean? It means that the thing makes me feel joyous, more rooted in the world, more whole as a person.

Of course, there is nothing harder in the world than making a building that has this quality. I fail ten times in every moment I try to do it, before I succeed. But it is unbelievably worthwhile. When I do succeed, and even while I am failing, I feel happy.

A Practical Program of Action

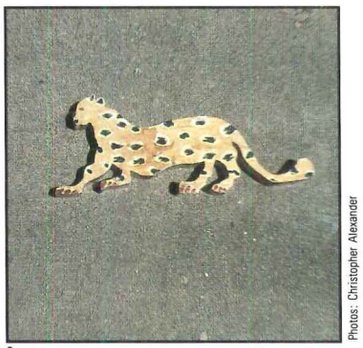
I will try to sketch out the characteristics of an entirely new way of looking at architecture, which solves the problems that beset the mainstream theory, and which holds the possibility of resolving the moral and practical dilemmas that exist in present mainstream practice. The most important considerations are these:

"The respect for living things is not just a respect for plants, and rivers, and vanishing species... It is a respect for ourselves, for our own vulnerable, pathetic, and marvelous heart."

- Architects must see themselves as custodians of harmony in the world. This care for harmony cannot be abused, must not go out to hire, and should be aimed only towards increase in life. This ethic must be just as applicable to big buildings and large developments as it is to small projects.
- The quality of harmony is very hard to attain. But by group work it can be attained. It is not a matter of opinion, nor of taste: it is an objective reality.
- The wholesomeness can only be created by a process in which design and construction are unified, and in which the material of the building, the way it is *made* – is itself considered part of that harmony. This requires a process in which we understand the key process as a process of *making*, not a process of designing. The money, process, time, craft, and art are all interwoven. Decoration comes out of the process of making. Structure and solid materials are essential to it.
- Such materials and processes include concrete in its various forms as a plastic material that can be shaped; tile; terrazzo; marble insets into concrete; relief work; casting; formwork; blocks; wood for finishing; plaster; paint not chosen according to a formula, but mixed on site.
- The construction contract must be re-organized so that work can change throughout the building process while cost is still controlled. This is central to the process. My colleagues and I have invented and developed various versions of a contract that accomplishes this aim. The idea of change orders is removed, the permit drawings are understood as a rough idea of the building that is to be built, not as an accurate prediction of the finished product, and the client's need for security about matters of money is guaranteed by the form of control embodied in the contract. Subcontracts are bid to a fixed sum, with variable specifications, so that budget is met no matter what. The architect retains the right to move items around within the budget at his discretion while construction is going on, and to change design and specs as needed. Quality of building depends on a balance of roughly made and finely made items in an overall harmony dictated by the budget. The guarantee of a good result under these fluctuating conditions depends on the architect's integrity and professional skill.
- This contractual process can and must be used for large buildings as well as small. These processes have become familiar in small-scale design build operations such as houses built by carpenters. But the essence of the new view of architecture is a reorganization of large-job conditions, in which millions

A panel of hand-painted tiles (8) made in our workshops. Getting the right glazes took months of experiments. I carved this leopard (9) when I was making templates for a mold for some ceramic leopards we put in the floor of a house we built in Berkeley. When I was done with the template, I painted it and gave it to my children.

8



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Photos: Christopher Alexander

of dollars of construction in large building complexes can be managed in a similar fashion. In this situation, we may then once again see even an enormous project as a work of love and craft. This is not sentimental claptrap, but a practical objective, which directly governs every day-to-day process.

A Hippocratic Oath for Architects

Since the moral purpose of our work as architects and builders has become so unclear I have tried, for the purposes of this manifesto, to capture the essential points in a kind of Hippocratic oath, principles of action that any reasonable architect might be willing to adopt.

1. No matter how big the building is, the architect does some craft work on every building, with his (or her) own hands.

2. The architect controls the flow of money completely: both its distribution at the outset, and the ongoing flow throughout the process.

3. The architect assumes legal responsibility for the actual construction.

4. The architect ensures that the building is designed on the site and is checked and understood by all relevant people – clients and nearby community – while it is being formed.

5. The involvement of users in the process is necessary – and widespread.

6. The architect undertakes to work directly with subcontractors, and to take direct control over their activities.

7. The architect is leader and artist – but without pride. He or she retains the right to refuse user requests, not based on the architect's ego, but in cases where his (her) grasp of the problem is demonstrably greater.

8. Every architect must be able to work as an engineer at a modest level. Engineering is part of architecture, and building is conceived while being engineered.

9. The architect makes a profound commitment to find out – and to perceive – what the life of the site requires, and then to do just that thing that brings most life to the surroundings. Thus, to make each building small in importance in relation to the life of the surrounding world which it supports.

10. The architect must recognize that process, not design, is the crux, and that the beauty and functional harmony of the building comes from a thousand small steps, taken one at a time, while the building is being designed, through the use of models, and then while the building is actually being made.

11. The architect must try to develop a conscious awareness that every part of the world – air, stone, room, building – everything that is made in a building has its *life*, and that it is the extent of this life, judged in ordinary terms, that is the ultimate criterion for success or failure.

12. The architect is committed to make only buildings that are deeply and genuinely liked. Above all, a commitment by the architect to make only a work which he, or she, can genuinely love.

13. The architect recognizes the importance of variety, and refuses to produce artificial or mechanical repetition, whether in components, or houses, or offices, or office furniture, or windows.

14. The architect is committed to daily work and experimentation with techniques of making, forming, fabrication, and construction, with an understanding that new methods of building are essential to the creation of harmony and beauty.

15. The architect will recognize that the life of the construction workers, and their spiritual evolution, is as important as that of the architects. This is not only done for obvious moral reasons, but because of an understanding that the life of buildings will never be profound or worthwhile unless this goal is achieved.

16. The architect acknowledges that all building is essentially a religious process. This does not mean that it is attached to any one particular religion. It means that the ultimate object of the work of building is to make a gift to God. And that the ultimate purpose of the work is to reach a level of art in which the inner nature of things – the universe – and God – stand revealed.

Finally, the architect must recognize that the conditions of this oath are, in 1991, extremely hard to satisfy, and that some of them represent almost unimaginably big changes in our profession. To prevail requires a steadfast refusal to do anything less, and an absolute determination to say no to any process, or any mental reservation, which seeks to persuade the architect that these goals cannot be satisfied.

Christopher Alexander ■

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The photos included in this manifesto show works built by Christopher Alexander and his colleagues Gary Black, Hajo Neis, Ingrid King, Randy Schmidt, Kleoniki Tsotropoulou, Carl Lindberg, Artemis Anninou, Eleni Coromvli, Miyoko Tsutsui, Karen Stanton, Harissos Tsiringas, Annie Der Bedrossian.