112 ENTRANCE TRANSITION**

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. . . whatever kind of building or building complex you are making, you have a rough position for its major entrances—the gateways to the site from MAIN GATEWAYS (53); the entrances to individual buildings from FAMILY OF ENTRANCES (102), MAIN ENTRANCE (110). In every case, the entrances create a transition between the "outside"—the public world—and some less public inner world. If you have HALF-HIDDEN GARDENS (111) the gardens help to intensify the beauty of the transition. This pattern now elaborates and reinforces the transition which entrances and gardens generate.

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Buildings, and especially houses, with a graceful transition between the street and the inside, are more tranquil than those which open directly off the street.

The experience of entering a building influences the way you feel inside the building. If the transition is too abrupt there is no feeling of arrival, and the inside of the building fails to be an inner sanctum.

An abrupt entrance—no transition.

The following argument may help to explain it. While people are on the street, they adopt a style of "street behavior." When they come into a house they naturally want to get rid of this street behavior and settle down completely into the more intimate spirit appropriate to a house. But it seems likely that they cannot do this unless there is a transition from one to the other which

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helps them to lose the street behavior. The transition must, in effect, destroy the momentum of the closedness, tension and "distance" which are appropriate to street behavior, before people can relax completely.

Evidence comes from the report by Robert Weiss and Serge Bouterline, *Fairs, Exhibits, Pavilions, and their Audiences*, Cambridge, Mass., 1962. The authors noticed that many exhibits failed to "hold" people; people drifted in and then drifted out again within a very short time. However, in one exhibit people had to cross a huge, deep-pile, bright orange carpet on the way in. In this case, though the exhibit was no better than other exhibits, people stayed. The authors concluded that people were, in general, under the influence of their own "street and crowd behavior," and that while under this influence could not relax enough to make contact with the exhibits. But the bright carpet presented them with such a strong contrast as they walked in, that it broke the effect of their outside behavior, in effect "wiped them clean," with the result that they could then get absorbed in the exhibit.

Michael Christiano, while a student at the University of California, made the following experiment. He showed people photographs and drawings of house entrances with varying degrees of transition and then asked them which of these had the most "houseness." He found that the more changes and transitions a house entrance has, the more it seems to be "houselike." And the entrance which was judged most houselike of all is one which is approached by a long open sheltered gallery from which there is a view into the distance.

There is another argument which helps to explain the importance of the transition: people want their house, and especially the entrance, to be a private domain. If the front door is set back, and there is a transition space between it and the street, this domain is well established. This would explain why people are often unwilling to go without a front lawn, even though they do not "use it." Cyril Bird found that 90 per cent of the inhabitants of a housing project said their front gardens, which were some 20 feet deep, were just right or even too small—yet only 15 per cent of them ever used the gardens as a place to sit. ("Reactions to Radburn: A Study of Radburn Type Housing, in Hemel Hempstead," RIBA final thesis, 1960.)

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The illustrations on this page have been taken directly from A Pattern Language *and show one of the 253 patterns.*

So far we have spoken mainly about houses. But we believe this pattern applies to a wide variety of entrances. It certainly applies to all dwellings including apartments—even though it is usually missing from apartments today. It also applies to those public buildings which thrive on a sense of seclusion from the world: a clinic, a jewelry store, a church, a public library. It does not apply to public buildings or any buildings which thrive on the fact of being continuous with the public world.

Here are four examples of successful entrance transitions.

Each creates the transition with a different combination of elements.

As you see from these examples, it is possible to make the transition itself in many different physical ways. In some cases, for example, it may be just inside the front door—a kind of entry court, leading to another door or opening that is more definitely inside. In another case, the transition may be formed by a bend in the path that takes you through a gate and brushes past the fuchsia on the way to the door. Or again, you might create a tran-

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sition by changing the texture of the path, so that you step off the sidewalk onto a gravel path and then up a step or two and under a trellis.

In all these cases, what matters most is that the transition exists, as an actual physical place, between the outside and the inside, and that the view, and sounds, and light, and surface which you walk on change as you pass through this place. It is the physical changes—and above all the change of view—which creates the psychological transition in your mind.

Therefore:

Make a transition space between the street and the front door. Bring the path which connects street and entrance through this transition space, and mark it with a change of light, a change of sound, a change of direction, a change of surface, a change of level, perhaps by gateways which make a change of enclosure, and above all with a change of view.

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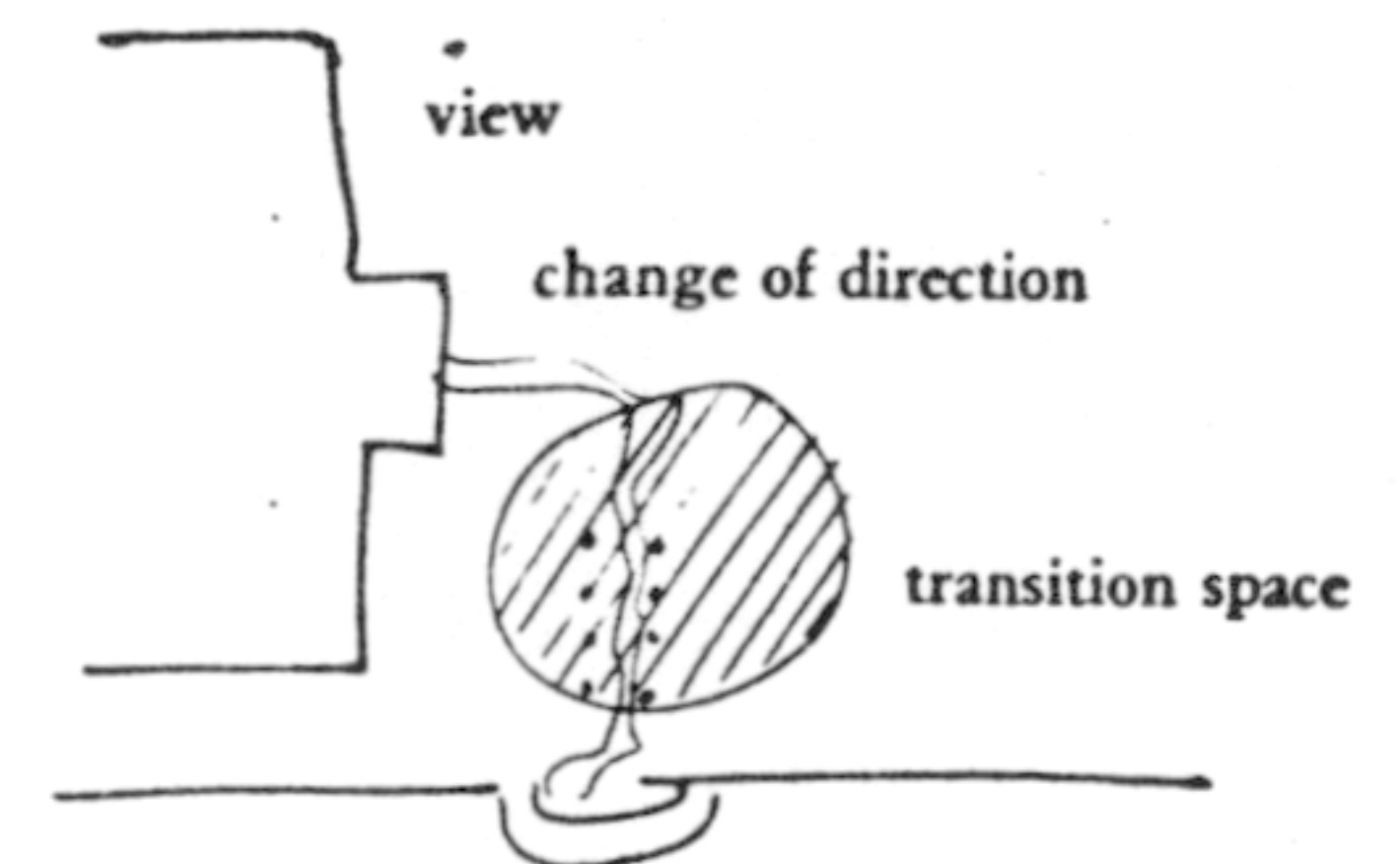
Emphasize the momentary view which marks the transition by a glimpse of a distant place—ZEN VIEW (134); perhaps make a gateway or a simple garden gate to mark the entrance—GARDEN WALL (173); and emphasize the change of light—TAPESTRY OF LIGHT AND DARK (135), TRELLISED WALK (174). The transition runs right up to the front door, up to the ENTRANCE ROOM (130), and marks the beginning of the INTIMACY GRADIENT (127). . . .

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Tony Ward Reviews:
A PATTERN LANGUAGE

AD 7/78 describes various developments on the West Coast of the United States in hand-made housing. This article connects some of those issues with current academic work in particular with design methods, which closely parallels the apparently idiosyncratic and spontaneous phenomenon the hand-made houses represent.

Environmental Liberation (The Dialectics of Design)
The collective insanity of design methodology as it has evolved since 1962 indeed seems very far from the sensual acrobatics of hand-made houses and woodbutchery. Those dry, sterile diagrams of the 60s with their feedback loops, parameters, performance specifications, criteria of evaluation, sub-set decompositions, environment behaviour models, and inev' ~ statistics – all so seduced the ι. and somewhat desperate generation in search of The Solution. In retrospect, however, design methodologies lacked a *vision*.

The current design methodology of some of the original (and most of the erstwhile) proponents approximates closely the kinds of ideological premises upon which the hand-made houses are based. Christopher Alexander, Sara Ishakawa, and Murray Silverstein have produced a new method – or rather have sought to re-introduce – perhaps the oldest method of all: it is called *A Pattern Language*. Possibly the singularly most important book of the 20th century on environmental design, it takes the concept, the ideology, the methodology, and the spiritual essence of the owner-built house, and escalates them systematically to a planetary level. *A Pattern Language* is, if you will, an attempt at the ultimate methodology.

The Setting
Interest in design methods has waned over the last few years, and the current vogue leans more towards semiotics (or the theory of signs). Alexander has recently condemned design methods as 'preventing you from ng in the right state of mind to do ..e design', which is odd for someone who has contributed more to design methodology than any other architect.

Alexander's aversion is even more peculiar, since in the new publication he sets out to describe the Ultimate Design Method whereby lay people are able, with very little professional help, to generate their own environments from the earliest sketches to the final construction of walls, ceilings, windows etc. This is, to say the least, a very ambitious book. In production for ten years, it is his first major publication since 1964 when he shattered all our design preconceptions with the astonishing *Notes on The Synthesis of Form*.[2] This was the book which made Alexander famous, and which most people still identify him with. Yet he has long since eschewed this work and has moved gradually towards a radically different approach – now manifest fully in *A Pattern Language* (itself part of a much larger canvas involving at least another *three* volumes).

In 1966 there was a brief goodbye to his work with mathematical decompositions in his paper, 'A City is Not a Tree, but a Semi-Lattice',[3] and from then on Alexander concentrated on non-mathematical works. There was a freeway-location study with Mervin Manheim at MIT,[4] followed by a contribution to Kepes' anthology of man-made objects entitled 'From a Set of Forces to a Form'.[5]

What differentiated this latter work from Alexander's previous ideas was a subtle change of attitude towards the physical world. Here, for the first time, we begin to suspect his belief in a natural order to the physical world, quite unrelated to the conceptual order which we impose upon it. This new world is *dynamic* rather than *static*, and Alexander takes the crucial step of suggesting the need for a methodology which *is itself in constant process of change*.

Early in 1967 Alexander was working in Britain with Barry Poyner, producing the first crude suggestions of this 'process-solution', *Atoms of Environmental Structure*.[6] In this he tried to describe the forces (or 'atoms') which were the essential basis for this 'process solution'. The authors described the forces as 'relations', like the nexus-geometries occurring in the environment at a more or less discreet level. The kinds of 'relations' caused some amusement among their critics. Concentrating as they did upon the examples given, his critics missed entirely the major principle of the work from which these examples grew – evolutionary process. They misjudged the work completely in assuming that the individual relations were what mattered, when in reality it was the process itself, based upon observations of human behaviour in the physical world.

Yet there was an even more radical component to the evolutionary process theory than the principle of process. It was the principle of utopian ideology, a belief in the ultimate, absolutely perfect world, continually evolving through a rational, dynamic process of scientific evaluation. This evaluation revolved around the concept of 'conflict', and the dialectics of the conflicting forces, scientifically analysed, was what made this theory so very different.

Alexander believed that conflict was neither necessary nor natural. He believed that everyone could have his needs fulfilled by an environmental reorganisation; that there were no such things as conflicting needs, only environmental geometries which brought these needs into conflict, and these geometries could be altered.

The final form of the relational process involved the discovery and study of conflict situations, the isolation of their conflicting components, and their resolution through geometric rearrangement of the environment – a task requiring expertise beyond that of the lay person. It required a new kind of designer, one versed in the systematic observations of human behaviour and the rather tricky simplicity of the method itself.

Environmental design was now moving into the real world of consciousness and politics. It was the beginning of phenomenology in architecture, heralded very quietly at Portsmouth in December 1967 at the Symposium on Design Methods in Architecture,[7] where greater user participation in design decision-making was demanded.

At the same time Alexander was back in Berkeley opening the new centre for Environmental Structure, and together with a small group of ideological brethren who included Sara Ishakawa and Murray Silverstein he began formulating the statement which we now know as *A Pattern Language*.

The Time
In 1967, Berkeley, the university city ten miles across the bay from San Francisco, was experiencing all the hallucinogenic euphoria of the flower movement, only one or two voices proclaimed the advancing tide of horror. One was Norman Mailer's in *Armies of the Night*,[8] another was R D Laing's in *The Politics of Experience and the Bird of Paradise*.[10] In architecture, Bernard Rudofsky's *Architecture Without Architects*[12] cast the first lingering suspicions that ordinary people could, if left to their own devices, do it all so very much better.

There was also now a dramatic increase in unemployment in the design profession as a result of the world-wide recession. In the years between 1967 and 1977 many young professionals moved easily from intellectual endeavour in the universities to the more sensual gratifications of the owner-builder in the countryside north of San Francisco. They joined the ever-increasing numbers of dropped-out designers to begin a new phenomenon, that of the 'Outlaw Builder'

All of these forces left their mark upon the small group of people working at the Centre for Environmental Structures. Already the rigid form of 'relations' and 'tendencies' had disappeared. The 'atoms' of environmental structure were now called 'patterns'.

The Book
Published in the summer of 1977, *A Pattern Language* is part of a trilogy. The other volumes are *A Timeless Way of Building* and *The Oregon Experiment*,[11] of which only the latter has so far been published. *A Timeless Way of Building* is due to appear in 1978. It is Alexander's own contribution to the trilogy, and in it he establishes the ideological, social, and environmental basis for *A Pattern Language*.

It contains the *theory* of planning and building which is essentially a modern version of the age-old, pre-industrial and traditional processes which shaped the world's most beautiful towns and buildings for thousands of years.

Whereas *The Oregon Experiment* is a documentary description of this process at work in the design of the University of Oregon at Eugene, *A Pattern Language* is the tool used to achieve the process. It is:

BOOKS

an explicit set of instructions for designing and building which define patterns at every scale, from the structure of a region to the nailing of a window; set out in such a way that laymen can use it to design a satisfying and ecologically appropriate environment for themselves and their activities. (p2)

There are 253 of these pattern-instructions laid out in sequence in a descending order of scale which closely follows the design sequence for any design problem. This form of presentation, coupled with the actual form of each pattern, is extremely well conceived. It allows for the utmost clarity and efficiency of process, and ensures that each design decision is made at the right time, and in harmony with all the other decisions.

For simplicity the book is divided into three discrete sets of patterns or instructions:
Towns
Buildings
Construction

Each set deals with a different order of magnitude, a different scale of environmental organisation, and a differing scale of social organisation. t is a characteristic of all the town patterns, for instance, that they cannot be implemented by single individuals (except in a dictatorship). They require concerted social organisation whereas some building patterns *can* be implemented by individuals, but will more commonly require the collective efforts of small groups of people. The construction patterns deal with the very materials of implementation, and are perhaps most related to the scale of individual decision-making, the point at which the hands actually handle the material which will make the home or the shop. Each group deals with a different scale, and each one does so with differing degrees of success.

This distinction is important, because it is one of the basic ideological standpoints of the whole language of patterns that the environment must be designed *by all the people who are affected by it*. The breakdown in scale of each section serves as a clear guide about the nature and scale of the social organisation needed to achieve implementation of each pattern.

Towns

Perhaps because of their sheer immensity, the 'Town' patterns are yet to be well tested. This is not surprising, since they range from 'No 1: Independent Regions', suggesting autonomous and self-governing regions of between two and ten million population, down to 'No 94: Sleeping in Public', which suggests the provisions of lots of safe, warm

places where vagrants and citizens can snooze. In between there are less surprising suggestions for 'No 64: Common Land', 'No 25: Access to Water', 'No 40: Old People Everywhere', 'No 21: Four-Storey Limit', and 'No 22: Nine Percent Parking', to name a few. Although these patterns remain to a great extent hypothetical, it is clear that some are quite traditional and are based not just upon intuitive guesswork but upon centuries of use and adaptation in pre-industrial villages throughout Europe. The aim here is to return to this pre-industrial organisation of the environment by means of a new and democratic decision-making process.

Buildings

The second set of patterns categorised as 'Buildings' is, in contrast, the most solidly-tested in the book. Each pattern has been tested many times over the last ten years in various projects throughout California. Many houses have been designed using them, and the authors can confidently predict that the average lay person who uses these patterns can design for himself or herself a very commendable home or workshop entirely suited to their needs. A person using these patterns may even design a home *better* than any which might be designed for them by the average architect. There are patterns which cover almost every conceivable aspect of housing design.

There is 'No 139: Farmhouse Kitchen', 'No 144: Bathing Room', 'No 109: Long Thin House', 'No 138: Sleeping to the East', and 'No 141: A Room of One's Own', all of which deal with the particular problem of *housing*. Yet most of the patterns in this section, although they are applicable to the housing context, are also relevant to a broad spectrum of building types. There is 'No 110: Main Entrance', 'No 119: Arcades', 'No 131: The Flow Through Rooms', 'No 159: Light on Two Sides of Every Room', and many more, each building towards a concrete and realisable whole and welded together by a community incisive sequential process, at the end of which lies a clear and well documented 'plan' or sketch design.

Construction

The final section of the book is devoted to 'Construction' patterns. These are the patterns which put a final form to the designs arrived at in the 'Buildings' section. The first four patterns set forth a philosophy of buildings. They are 'No 205: Structure Follows Social Space', 'No 206: Efficient Structure', 'No 207: Good Materials', and 'No 208: Gradual Stiffening'. Thereafter the remaining 45 patterns in the language outline a *building process*, the intention of which is 'to provide an alternative to

the technocratic and rigid ways of building that have become a legacy of machine age and modern architecture.' (p935)

The most significant aspect of this process is the blurring of the usually hard distinctions made between building and designing. The patterns encourage the ideas that the building is still being designed throughout construction and perhaps long after, throughout its life. Thus the designer/builder who uses these patterns is encouraged to make changes at each step of the building process, and perhaps even to discard the 'plans' altogether if what they are producing does not 'feel' right.

The building process itself is set out in a series of lucid patterns which outline a simple and very efficient small-scale construction technique. There are patterns for 'No 212: Columns at the Corners', 'No 216: Box Columns', 'No 219: Floor-Ceiling Vaults', 'No 227: Column Connection', among many others, and similar patterns which tend to imply a simple building form which is of very small scale and could be constructed by only one or two people.

The authors have tested these patterns in buildings which they have built in Peru, Mexico, and Berkeley, and have tried to design the patterns so that they lend themselves to a wide variety of contexts and do not preclude the use of natural and indigenous materials in any particular location.

Patterns

Each pattern in the language is the product of the collective imagination of a fairly large group of people. Besides the six main authors, numerous other individuals, some named and some not, have had a hand in its production; whereas there is little doubt that the idea of the language itself is Alexander's, the structure of the book and the patterns themselves are all heavily influenced by the other contributors. *A Pattern Language* is very much a product of its times, and of the way in which these times have been experienced by the authors. The extent to which this is true can be gauged by the 'patterns' themselves. There are very many clear instances where the book takes upon itself the political colourings of its time and place. One such example is the 'Pattern No 159: Farmhouse Kitchen', where the authors state:

The isolated kitchen, separate from the family and considered as an efficient but unpleasant factory for food, is a hangover from the days of servants; and from the more recent days when women *willingly took over the servants' role*. (p661, my italics).

Their suggested solution harks back to a past long lost, to a kitchen which is the antithesis of the fragmentation which has become our lives, to a kitchen which is the embodiment of *wholeness*, where everything that binds the family together happens. However, the authors are not just being carried along a wave of popular romantic idealism of the Walden variety; they have not just filled a book with fashionable and politically expedient suggestions — a kind of architects' 'whole earth catalogue'. Rather they have tried to *transcend* the temporal boundaries of their subject, to delve to the root of consciousness itself, and to produce design suggestions which are *archetypal*, 'timeless'.

Many of these patterns are archetypal — so deeply rooted in the nature of things, that it seems likely that they will be a part of human nature and human action as much in 500 years as they are today.

This attempt to produce archetypal patterns hinges on a technique of description which is simultaneously general *and* specific. Each individual pattern is designed to be of maximum guidance while at the same time allowing the reader as much freedom of interpretation as possible.

In this sense, the patterns work very much like hexagrams in the *I Ching*,[12] the ancient Chinese book of divination which so interested Carl Jung and which was one of the cornerstones of his search for archetypal patterns. They specify the issue in a very precise way, while leaving it open to innumerable individualised interpretations. Thus, in one of their more successful patterns, 'No 112: Extreme Transition', the authors advise:

Make a transition space between the street and the front door. Bring the path that connects streets and entrance through the transition space, and mark it with a change of light, a change of sound, a change of direction, a change of surface, a change of level, perhaps by gateways which mark a change of enclosure, and above all, with a change of view.

At no point do the authors tell the reader *how* this is to be done, which materials to use, which view to change, and so on. What they *do* say is that a transition space which contains these characteristics is important, and they back up their hypotheses with well-documented research. This is the format of each pattern. There is a problem statement, then an anlysis of the available data, followed by the pattern-description in the form of a recommendation. As

one reads through the book, these generated pattern statements begin to o... more specifically, in the process releasing and touching the creative fantasy of the reader until he or she can actually *see* their dream materialise in a form quite definitely *theirs.*

The Process

Each of the 253 patterns in *A Pattern Language* is welded together with the suggestion of a sequential process, by which readers can design any kind of environment for themselves. The reader is first asked to make a note of all the patterns which are important to himself, in a descending order of scale, and to interject into this list any other patterns, not included in the book, which he would like to see included in the environment he is designing.

This list will then read like a complete information source for the building. Each pattern is referenced backwards and forwards throughout the book to those other patterns to which it is connected.

Every pattern is connected to all other patterns, just as every element in the real world is connected to every other element, no matter how tenuously. What is implied is a global or ecological view of the phy... universe quite different from that which forms the basis of most physical change.

It can be seen that *A Pattern Language* bases its form upon several ideological premises; that everything in the world affects everything else; that real change can only be achieved through an evolutionary process which advances as a series of small and separate acts across a broad front; that a beautiful environment can only be generated when it is made by all of the people who are affected by it; and that this process of democratic, piecemeal growth is a viable alternative to current technocratic and monolithic development projects. It is based upon a great faith that the ordinary man in the street is capable of designing and building his own environment, if he is given the right information in a coherent and readily assimilable form.

The Ideology

The architect who believes in the gradual evolution of utopian ideals finds himself in a double bind conflict: he cannot remain a professional while at the same time acting as a medium for social change simply because it is social change which the pre...ons are committed to preventin... ...ny architects and academics have sought to camouflage this dilemma with the complex theory they appended to their work. Design Methodology itself must rank as one such slick coverup.

Alexander's works have always

been remarkable for their breathtaking simplicity, for their ability to communicate complex relationships to non-professionals in the most straightforward manner. There has always been a germ of demystification about his writings which sets him apart from others in the field, and *A Pattern Language* is no exception.

Yet even here he is unable to escape the professional knot entirely. Having sought to remain within the system, to pursue their goals by evolutionary rather than revolutionary means, the authors find themselves occasionally caught between the opposing forces of radicalism and conservatism.

This is nowhere more apparent than in the 'Construction' patterns, perhaps because they are at one and the same time the most concrete and the least developed of all the patterns. The reader who faithfully follows these particular patterns can be guaranteed to be on collision course with the building regulation authorities.

If the changes implied in the book were to be realised, it would imply nothing short of a total *inversion* of the current power structure over the environment.

Having led the unsuspecting reader up the road towards confrontation, they leave him without weapons, to face the building inspector alone.

Yet a further ideological dilemma which has confronted the authors is that of *context*. If each pattern is, as the authors suggest, archetypal, then they will, by definition, have applications in *any* culture. Each will be, so to speak, transcultural. On the other hand if a pattern is *not* archetypal it is, by definition, context-specific. The dilemma is: What is archetypal? The authors escape this dilemma by proposing that the final arbiters of pattern appropriateness be the users themselves.

As a measure of the extent to which the authors intend users of the book to be the *only* arbiters of how the book should be used, is the fact that there is nothing to prevent well-meaning designers from using the book as a design guide within the existing professional role. There is no sanction which the authors can levy upon their readers to ensure that they adopt the ideological principles which lie behind the language.

Indeed, if only used at this level, *A Pattern Language* is a very impressive book. It has been humourously described as 'a cross between the *Whole Earth Catalogue* and the *Bible*' (in fact it physically resembles a *Gideon Bible*). Yet there is a serious side to the analogy. Like the *WEC*, *A Pattern Language* provides access to tools and information, and like the *Bible*, it is not without considerable wisdom. In the last analysis, it represents a monumental faith on the part

of the authors in the ability of ordinary human beings to create a beautiful world, given the right kind of guidance and authority.

Community Architecture

There is a growing awareness within the profession that there has been a breakdown in the relationship between the designer and the user. This awareness has led to the formation in the UK and in the USA of groups committed to the practice of what they call 'Community Architecture' or 'Community Design'. In the USA, Sara Ishakawa was largely responsible for the formulation of the first course at the University of California in Berkeley on 'Community Design', and it is there, working with the community, that the principles of user participation in the design process have been most thoroughly tested. In Britain these principles are still in their infancy, and there remains a great deal of scepticism, even cynicism, within the professions about the possibility of working within a new relationship where the designer and the user have equal roles.

A Pattern Language fills a very large gap in the move towards a greater democratisation of the design process. Through it, professionals and non-professionals are in the position to communicate. Its additional beauty is that it really does produce results. Buildings *do* materialise from the patterns.

Conclusion

Those like myself, who have used the *Pattern Language* for several years can testify to its efficiency as a communication tool, not just in discussions with the client but in the domain of architectural education itself, where it functions par excellance as a tool for teaching architectural design.

This is a serious book. One might also say that it is a book with a destiny (and how many books are that?). It will not automatically deliver a new environment. It will not provide an immediate solution to the squalor in which most of us live. There is no guarantee that a person reading this book will build a moving piece of architecture. Yet this book does bring *all* of these possibilities very much closer. Although it is no panacea, it is a necessary step in the process which might yet produce an environment of quality.

And even if the book is ignored by the profession, I am confident that it will be well received by the people themselves. Perhaps this language will take root.

All of its authors are to be congratulated, for make no mistake this is not just another book by Christopher Alexander. The stature of this book is the responsibility of no one person. I believe this to be perhaps

the most important book on architectural design published this century. Every library, every school, every environmental action group, every architect, and every first year student should have a copy.
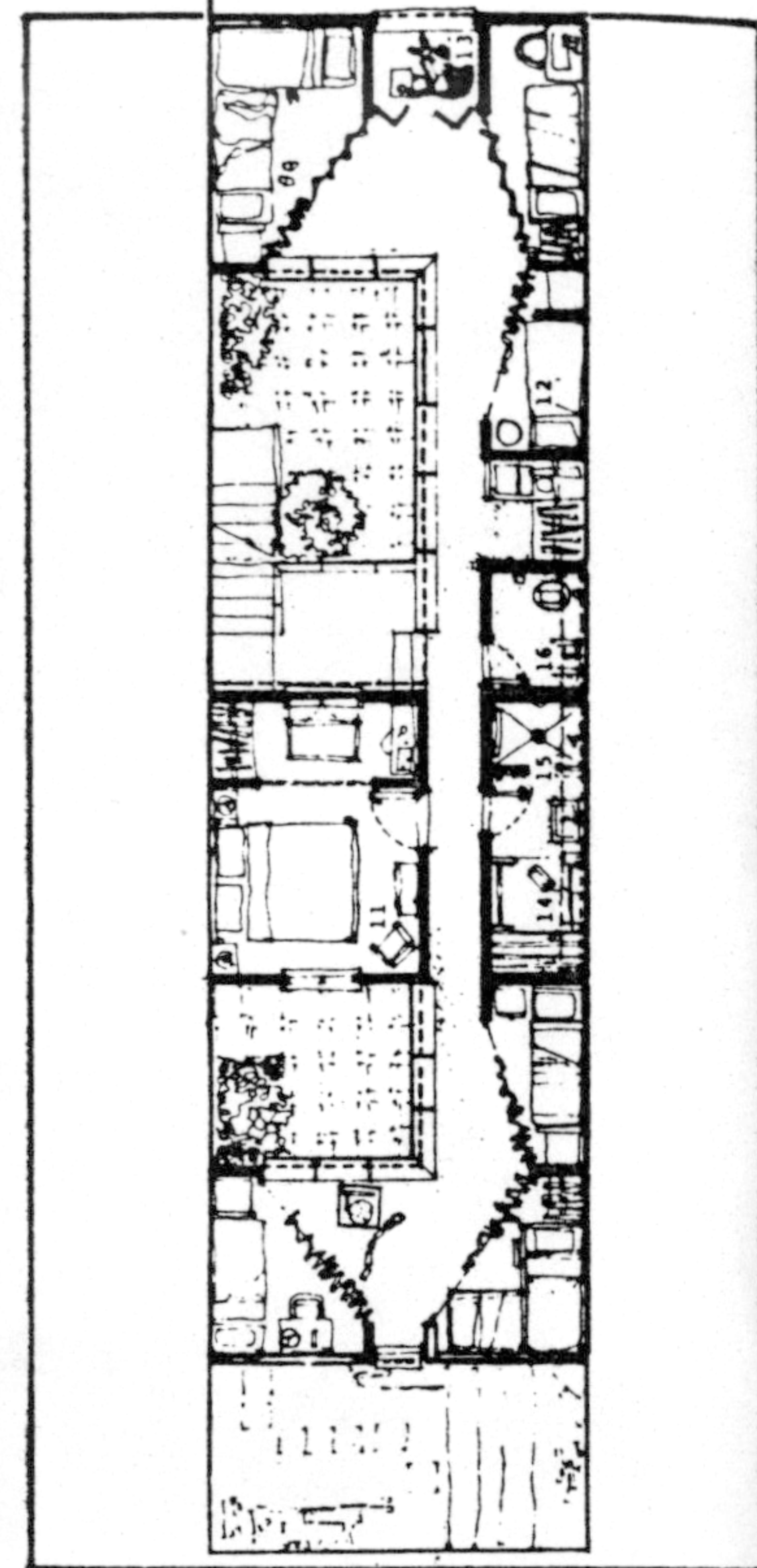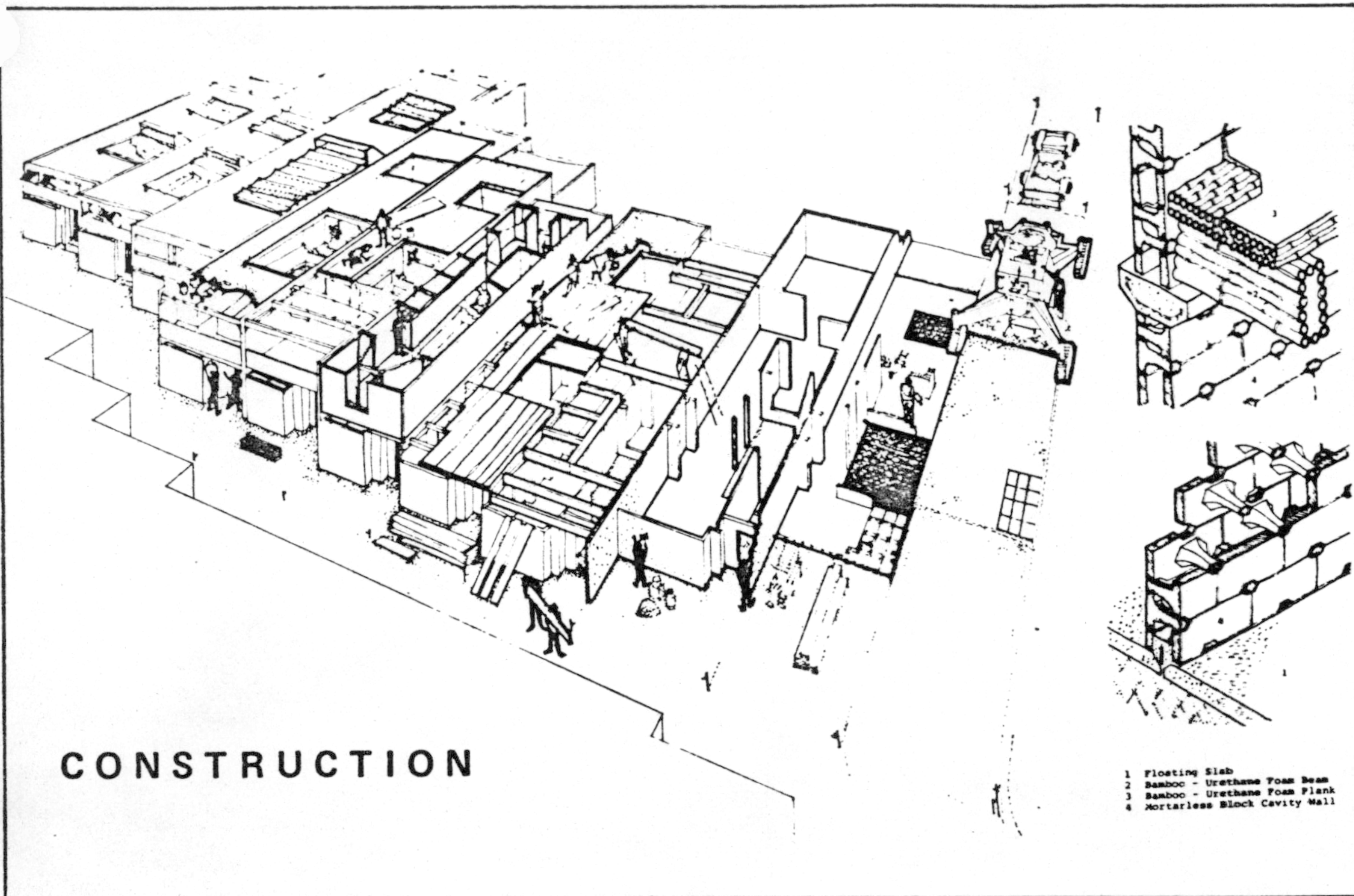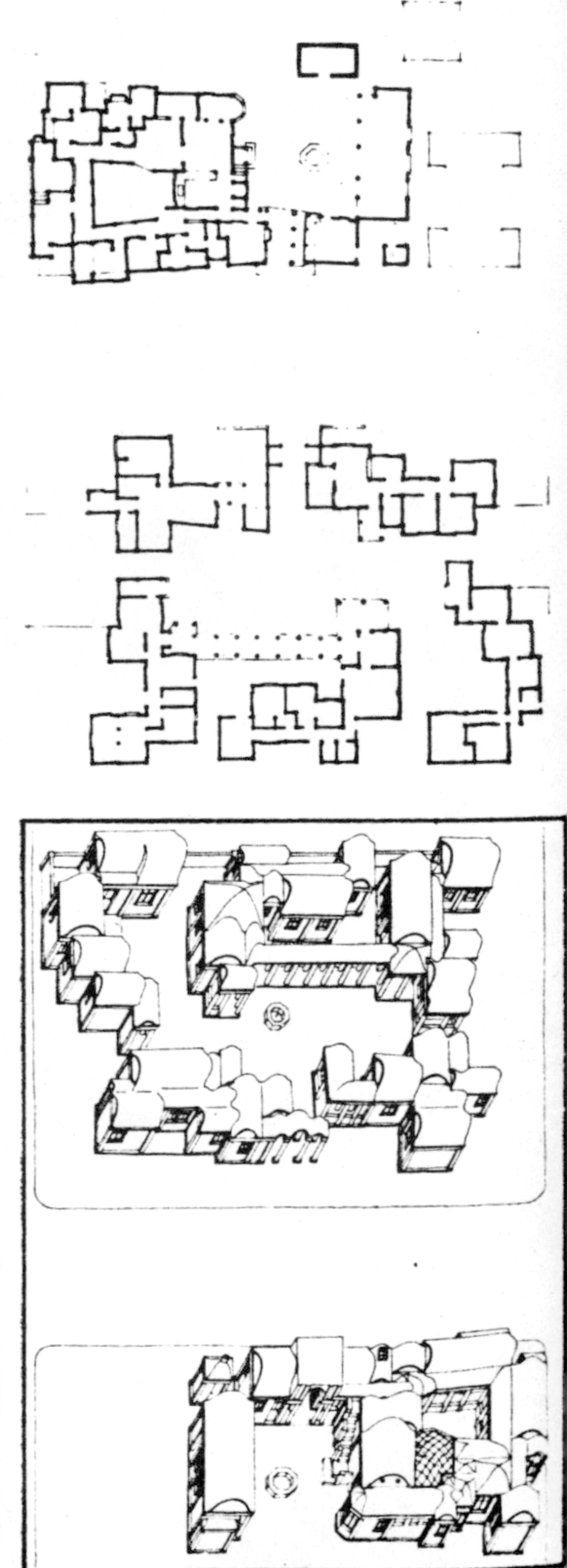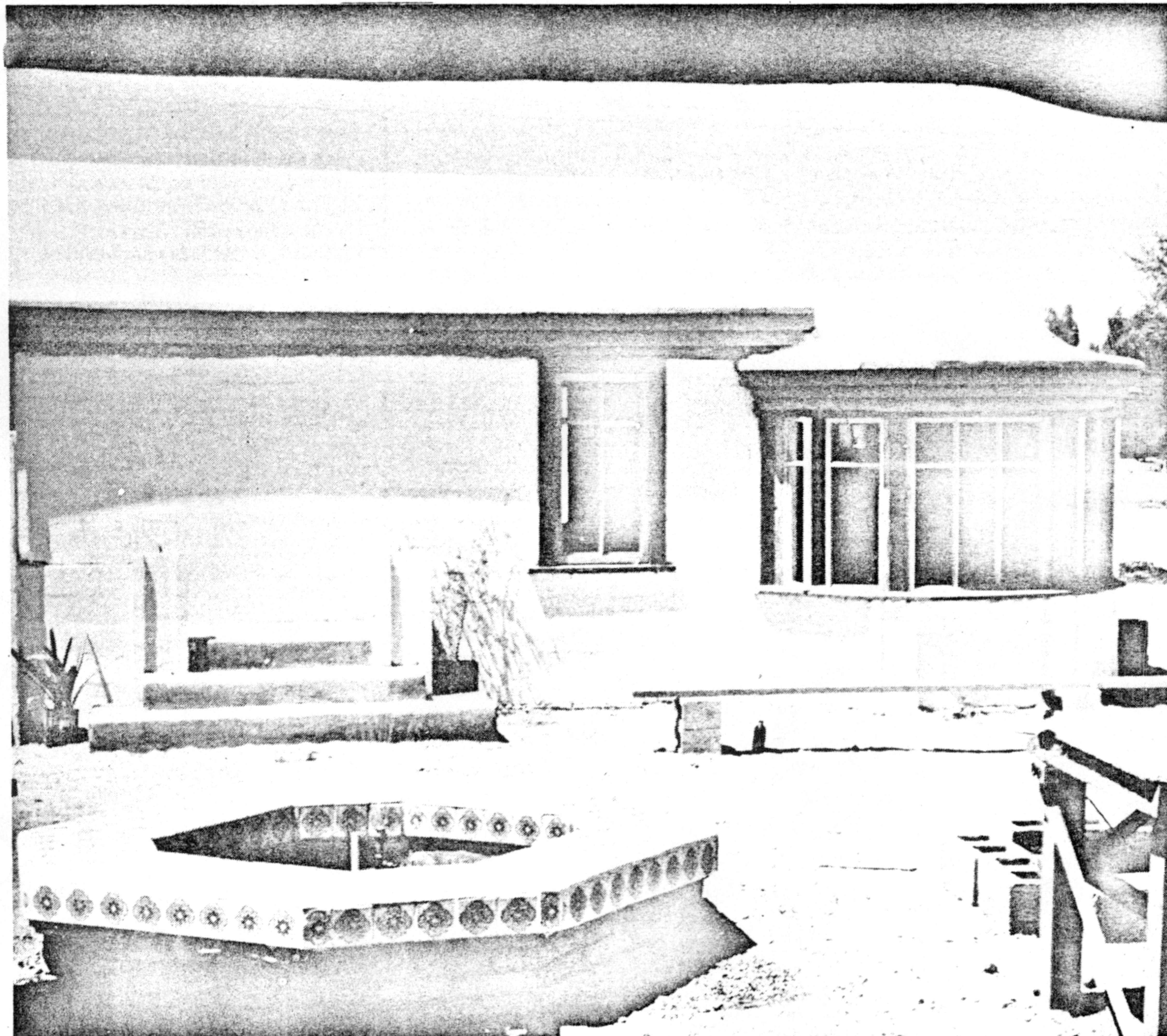*Tony Ward*

Notes

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12 *I Ching*, transl Richard Wilhelm, Princeton Univ Press, 1950.

Tony Ward: B Arch, Birmingham (1965); developed the first computer methodology for calculating the 3 dimensional distribution of building activities (1965); worked in London with Christopher Alexander (1966); organised the first International Conference of Design Methods in Architecture at Portsmouth (1967); co-edited *Design Methods in Architecture* with Geoffrey Broadbent (1968); was assistant professor of architecture at the University of California, Berkeley, until 1977, where he taught courses in Social Phenomenology and Architecture, Gestalt Therapy and Architecture, Client-design in architecture, and community architecture. Now, after a year in the UK, he will shortly be returning to the US to work in the domain of community design.

Tony Ward has used the pattern language formula for 12 years, and his students at Berkeley have designed and built five houses following Alexander's Pattern Language book.

CONSTRUCTION

1 Floating Slab
2 Bamboo - Urethane Foam Beam
3 Bamboo - Urethane Foam Plank
4 Mortarless Block Cavity Wall

Christopher Alexander (and others): Housing Peru (competition entry)

Christopher Alexander (and others): Housing, Mexicali (under construction)

LK78