

LM/MRS 6/1/77

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8. ABSTRACT

"First, the taking in of scattered particulars under the Idea, so that everyone understands what is being talked about... Second, the separation of the Idea into parts, by dividing it at the joints, as nature directs, not breaking any limb in half as a bad carver might"

Plato, Phaedrus, 265 A.D.

PROCESS: TIME, REPETITION, FLUX

1- Reality is now.

All knowledge is held within the experience of the present—and this present is in a continual flux. Knowledge is nothing more than what it immediately is.

Goodby history.

Each day is a new epoch. In this way, each statement is uniquely felt; uniquely formed in the present; and succeeded by another, slightly different statement, much like the successive frames of a film. Like the moving picture frames, our thoughts repeat most of what has been stated previously, adding small pieces of information with each successive frame. And so, as in moving

pictures, we see the changing picture only after viewing a number of frames in sequence. I view life as a succession of moments, each one of which repeats all the characteristics of the previous one with a slight addition of some sort. Most people and events exemplify this notion to some degree, structuring themselves by a long series of miniscule changes. Although events seem on the surface to have a monotonous sameness, each occurs at a more complex stage of relationships and adds to the complexity. Thus, within the surface sameness of the elements, each event has its own uniqueness within the context of the total relationship.

Each time: a new meaning for old words.

"Architecture is stifled by customs. The "styles" are a lie..."¹

As designers, all elements of a project are plastic entities subject to our needs. We have the freedom to control the dialogue so that it appears to be continually present and manipulate the time continuum. With each moment there is a transition from one state of

mind to the next. But besides showing potential relationships, the thoughts of architects must be representational and have an order which provides a logical transition. It is a "still point" within which there is movement. The careful relationships of conceptual thought and content can emphasize the importance of the present time and enable the capture not only of the present moment in time, but also the process of its being.

2- "The business of Art is to live in the actual present, that is the complete actual present, and to express that actual complete present."² Repetition is an instrument that reflects a kind of action or tension present in all art (paint, architecture, sculpture, poetry, etc.). An example of these thoughts in literature, as applied by Gertrude Stein in 1909, follows:

PICASSO

One whom some were certainly following was one who was completely charming. One whom some were certainly following was one who was charming. One whom some were following was one who was completely

charming. One whom some were following was one who was completely charming.

Some were certainly following and were certain that the one they were following was one working and was one bringing out of himself then something. Some were certainly following and were certain that the one they were then following was one bringing out of himself then something that was coming to be a heavy thing, a solid thing and a complete thing.

One whom some were certainly following was one working and certainly was one bringing something out of himself then and was one who had been all his living had been one having something coming out of him.

Something had been coming out of him, certainly it had been coming out of him, certainly it was something, certainly it had been coming out of him and it had meaning, a charming meaning, a solid meaning, a struggling meaning, a clear meaning.

One whom some were certainly following and some were certainly following him, one whom some were certainly following was one certainly working.

One whom some were certainly following was one having something coming out of him something having meaning and this one was certainly working then.

This one was working and something was coming then, something was coming out of this one then. This one was one and always there was something coming out of this one and always there had been something coming out of this one. This one had never been one not having something coming out of this one. This one was one having something coming out of this one. This one had been one whom some were following. This one was one whom some were following. This one was one whom some were following. This one was being one whom

some were following. This one was one who was working.

This one was one who was working. This one was one being one having something being coming out of him. This one was one going on having something come out of this one and always there had been something coming out of this one. This one had never been one not having something coming out of this one. This one was one having something coming out of this one. This one had been one whom some were following. This one was one whom some were following. This one was one whom some were following. This one was being one whom some were following. This one was one who was working.

This one was one who was working. This one was one being one having something being coming out of him. This one was one going on having something come out of him. This one was one going on working. This one was one whom some were following. This one was one who was working.

This one always had something being coming out of this one. This one was working. This one always had been working. This one was always having something that was coming out of this one that was a solid thing, a charming thing, a lovely thing, a perplexing thing, a disconcerting thing, a simple thing, a clear thing, a complicated thing, an interesting thing, a disturbing thing, a repellant thing, a very pretty thing. This one was one certainly being one having something coming out of him. This one was one whom some were following. This one was one who was working.

This one was one who was working and certainly this one was needing to be working so as to be one being working. This one was one having something coming out of him. This one would be one all his living having something coming out of him. This one was working and then this one was working and this

one was needing to be working, not to be one having something coming out of him something having meaning, but was needing to be working so as to be one working.

This one was certainly working and working was something this one was certain this one would be doing and this one was doing that thing, this one was working. This one was not one completely working. This one was not ever completely working. This one certainly was not completely working.

This one was one having always something being coming out of him, something having completely a real meaning. This one was one whom some were following. This one was one who was working. This one was one who was working and he was one needing this thing to be working so as to be one having some way of being one having some way of working. This one was one who was working. This one was one having something come out of him something having meaning. This one was one always having something come out of him and this thing the thing coming out of him always had real meaning. This one was one who was working. This one was one not ever completely working. This one was not one working to have anything come out of him. This one did have something having meaning that did come out of him. He always did have something come out of him. He was working, he was not ever completely working. He did have some following. They were always following him. Some were certainly following him. He was one who was working. He was one having something coming out of him something having meaning. He was not ever completely working.

Repetition is Gertrude Stein's main method of characterization.

She tells us this herself in many paragraphs of The Making of Americans, "Many things then come out in the repeating that make a history of each one for any one who always listens to them. Many things come out of each one and as one listens to them listens to all the repeating in them, always this comes to be clear about them, the history of them of the bottom nature in them, the nature or natures mixed up in them to make the whole of them in anyway it mixes up in the, sometime then there will be a history of every one." The key words here are "repeating" and "bottom nature." Life is presented with the implied metaphor of struggle, and repetition is the embodiment of the struggle of the individual consciousness to make its bottom nature clear to the world. This "primitive" bottom nature cannot depend on tricks for effects, but rather keeps everything out in the open. In my work I conceal nothing.

Down to the marrow.

Many try to give a sense of the inner urgency of what they are doing and claim that the movement of what they are doing is out of their hands. A building should be totally a product of the author and not bound to some syntactical concept that forces logical answers. Just minimize mistakes as you proceed from one present moment to the next.

If you take the world as it comes and at its face value, then reality is what you know it as. You find that transition and change, continuity and discontinuity, routine and surprise are all connected to one another by transitions from next to next; you find movement. You find beginnings; you find endings; and you find transformations. Life is filled with moment to moment uniqueness.

Life is filled.

Life is unique.

3- Can a building be in perceptual and constant flux (combined, fused, synthesized)? There exists in any environment an underlying structure which ultimately affects communication. Architecture has been traditionally involved in the manipulation of forms to express meaning. But this is limited to syntax. Le Corbusier says "Architecture is the art above all others which achieves a state of planctonic grandeur, mathematical order, speculation, the perception of the harmony which lies in emotional relationships. This is the Aim of Architecture."

I propose that "flux" be used as an instrument to show the intrinsic forces at work in architecture and to show a linkage that exists between the actual form and the complex system of architectural ideas that generate it. Order emerges when the content, or organization, is seen to synthesize all the essential characteristics within a work. The purpose of flux is to augment the understanding of the work by implying the internal tension, struggle, and forces that generate forms. Thus, what happens within is known throughout

and vice-versa. In other words, an "in-out" opposition.

Intersecting elements.

The primary meaning of architecture is more than function. It must include perception, abstracted to indicate the architect's own awareness; and above all, order. These inter-related architectural issues send the visual and perceptual message to the viewer. In modern cubist painting, duality and plurality are particularly highly developed. Space is perceived as a dialectic between plane and depth; between frontal, non-frontal, and peripheral planes.

When, in architecture, relationships are order in flux, the intention is to understand and synthesize form and essence. Semantic, syntactic, and pragmatic issues can flux between themselves and be articulated through the careful juxtaposition of physical elements. This gives spatial significance and allows a physical structure to have more than a surface meaning. The difficulty is not in the

ideas of shear, tension, compression, rotation, frontality, obliqueness, nature, etc., but to find the means of expressing that idea so that it is immediately apparent. When this is accomplished, space is not only perceived but fluctuates in a continuous activity. "The eye of the spectator finds itself looking at a site composed of streets and houses. It receives the impact of the masses which rise up around it. If these masses are of a formal kind and have not been spoilt by unseemly variations, if the disposition of their grouping expresses a clear rhythm and not an incoherent agglomeration, if the relationship of mass to space is in just proportion, the eye transmits to the brain-coordinated sensations and the mind derives from these satisfactions of a high order: this is architecture."⁴

Our concern, then, is to make things appear obvious in all their complexity.

PORTABILITY

Portability needs no defense.

It is a fact that urban centers are expanding in a way that is increasingly chaotic and indeterminate. You cannot predict the future when there are so many variables. It is necessary then to think about an architecture that more closely approximates today's actual life styles; and which is closer to our needs and less bound to taste and custom. Mass production and portability are ideas that are more integrated with our present lives. Mass production for economy and speed (the twentieth century creed) and portability, to conform to the physiological requirements of life whereby a structure can be transformed to our increasingly various needs and uses. Also, the life of a building is extended when it can be demounted and re-

erected. Often, in urban areas, the center of gravity changes unpredictably. But there are those that still need their pretty and secure icons of permanence that stifle the thought of transportable buildings. Our eyes should see that we must approach architecture within its new technological context. If we challenge the past, we shall see that the "styles" no longer exist.

Churches especially lend themselves to the idea of flexibility: the building is usable for secular activities as well as for religious functions, and should not be an idle space. The theme of portability suggests many uses:

- a. the semi-permanent erection in areas struck by catastrophe to bring immediate solidarity;
- b. expanding school buildings for alternating enrollment;
- c. working communities in public works projects like road and dam construction;
- d. anywhere it is necessary to respect the natural surroundings and where buildings must be strictly temporary.

As the world population is seventy-five percent transient, portable architecture is a viable option that coincides with the needs of a vital, vibrant and ever-changing modern society.

Portable architecture for portable people.

SYSTEMS: MASS, PLAN, SURFACE

1- Thirty spokes are made one by holes in a hub. By vacancies joining them for a wheel's use; the use of clay in moulding pitchers comes from the hollow of its absence; doors, windows, in a house, are used for their emptiness: thus we are helped by what is not what is.⁵

The portable church is one of primary form, repeated adjacent to itself. Like a sculpture that invites you to walk around it, the building is approachable from all sides. At the same moment, since one separate mass is turned around and repeated beside itself, two sides are viewed at once. Nothing is hidden. Knowledge of the physical structure comes quickly. As the building is perceived peripherally, the repetitive elevations give immediate

presence and since there are no tricks, the "bottom nature" of the building is necessarily revealed. These ideas lend themselves especially well to a church; allowing the viewer to move on to the characteristically more poetic, spiritual, and semantic thoughts surrounding churches.

Importantly, the structure lends itself to optional and universal solar orientation as the needs and the site dictate. It does not matter where the building is relocated since the most vital concern of the building, the optimum control of light, will always be preserved; and along with the light, the building's wholeness will always be maintained.

2- The mass is determined by the plan.

The plan is the generator and has the primary rhythm, the "essence of sensation." The plan, as was said before, is adaptable to other building types, expandable and retractable, demountable and re-erectable, as various activities require. As in a film, the

nature of the plan is that it "unfolds" before you, always picking up information, with a continuous but changing sameness.

Motion. Motion and mass. A building in motion. A portable building.

The plan consists of:

- a. A sanctuary space that steps down at five foot intervals and six inch risers towards the alter and fully glazed background wall. Movable plastic chairs can be stored in the adjacent fellowship space.
- b. The choir and organ are in the rear and off to one side where the building reaches its highest point. This height resonates music fluidly through the building as it funnels downward toward the altar and bounces through the truss frame structural system. A skylight above this space gives it further definition.
- c. A special space for the baptistery is defined by the only solid

ninety degree perpendicular wall.

- d. An open air transitional space, ten feet wide, between the two adjacent structures.
- e. A mechanical space with ducts and conduit running through red brick service walls on either side of the structure, crossing between the two sides under the two foot high outdoor transitional space between the two buildings. These red brick walls are the only permanent elements, but are still easily removed. Along the top of these walls is a recessed black aluminum gutter, ten inches wide, that drains the water from the roofs and allows accessibility to the air and electrical systems. Registers for air flow and return are at five foot intervals inside the building.
- f. Plug-in moulded plastic bathrooms and closets. A panel above these spaces to close it off, fits diagonally between a five foot square module truss frame roof support system.
- g. Silvered heavy canvas telescoping walls, guided on suspended

tracks, become flexible class, office, or storage rooms.

An aluminum front panel attached to each pair of canvas walls contains the entrance door and an acrylic dome window. These manually folding partitions adjust to maximum room spaces of ten feet by fifteen feet, or can be in a closed position to maximize space for social events, etc.

- h. Trees act interdependently with the building as architectural elements. They become an acoustical as well as visual buffer and can be seen as live partitions that direct the entrance conditions.

3- "To model the surface of masses which are in themselves complicated and been brought into harmony is to modulate and still remain within the mass: a rare problem"⁶

I have attempted to modulate the entire surface and structural system of this portable structure with the use of horizontal and

vertical tracks to which different components are secured. Interlocking five foot square pre-cast concrete plates are bolted to hard alloy aluminum tracks that rest on compacted earth, held in place by lag bolts, to form the rigid floor system. Perimeter footings below the ground surface support the weight of hard alloy aluminum arches that span the width of the building. Post tension cables that run through the tracks act further to make the floor one complete rigid floor system once the concrete plates are bolted in place. The top of each aluminum track is capped with stainless steel to protect the aluminum-concrete joints.

Between hard alloy aluminum arches span two varieties of an aluminum truss frame: one that is eighteen inches deep for the arches that are five feet apart, and a second that is three feet deep and spans twenty feet between arches. A tight skin of black anodized aluminum sandwich panels attach to these frames and enclose the space. Yellow anodized aluminum gutters between the shorter span arches act as ribs to drain water, define the

structural system and enclose it. These "ribs" give a transparent dimension by exposing the spacing of the aluminum archs on the exterior. They also give immediate knowledge of where rain water will go.

Light-emitting aluminum panels, that slide on vertical tracks, form a light-wall sculpture on the inside walls. They are glazed with panes of mirrored glass that let light in but not out. Different intensities of reflection give the sanctuary and fellowship rooms a continually vibrant quality as each day proceeds. A similar night lighting effect is produced by incandescent bulbs hidden in these panels, shielded from view by translucent panels at the bottom of each reflector.

It was an important objective of the Modern Movement in architecture to make doors and windows more than just holes in the wall. Now that we have accepted the challenge of windows as important architectural elements in their own right, I suggest that we further the

search for truth and make daylight a continually vibrant condition,
thus giving our building moment to moment presence and uniqueness.

"The time is ripe for construction, not for foolery."⁷

FOOTNOTES

1. Le Corbusier, *Towards a New Architecture*, (New York: Praeger Publishers, 1960), p. 9.
2. Gertrude Stein, *Composition as Explanation*, (New York: Random House, 1946), p. 151.
3. Le Corbusier, *op. cit.*, p. 102–103.
4. Le Corbusier, *op. cit.*, p. 45.
5. Lao Tzu, *Tao te Ching*, (China, 3000 B.C.), Chapter 11.
6. Le Corbusier, *op. cit.*, p. 41.
7. Le Corbusier, *op. cit.*, p. 95.

APPENDIX

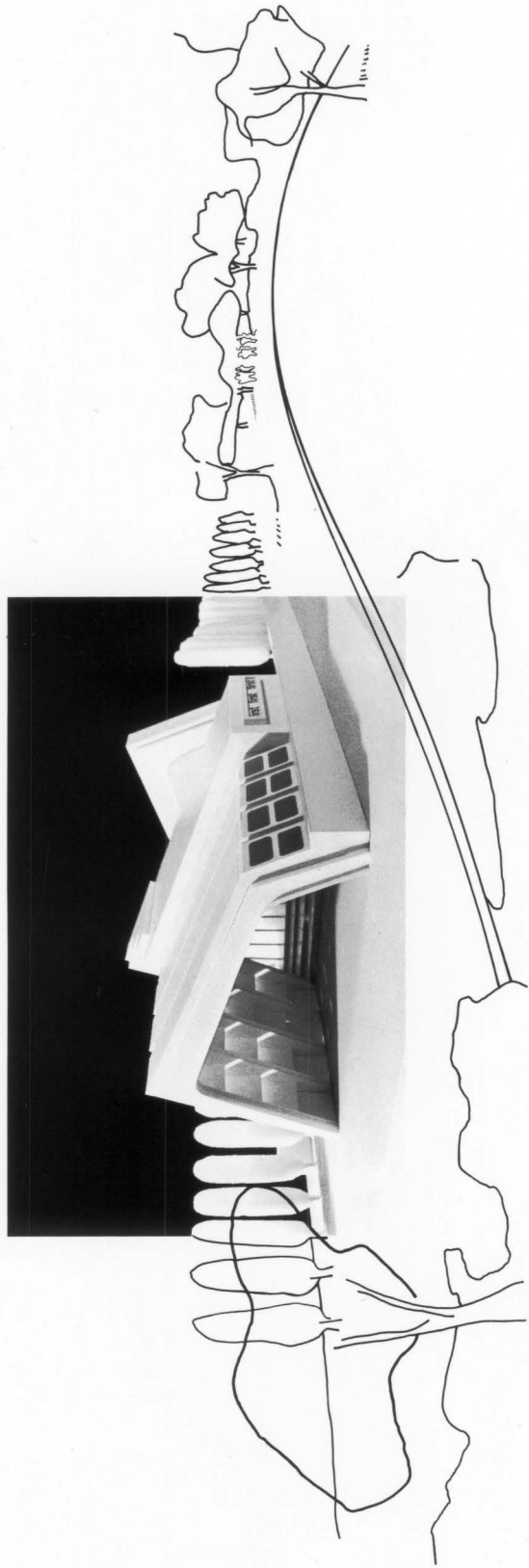
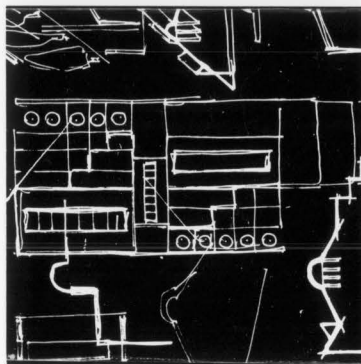
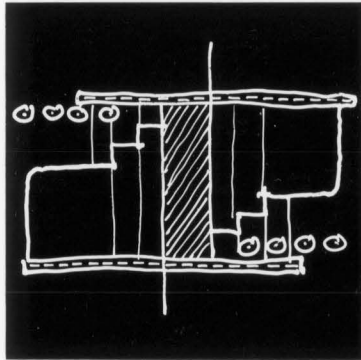
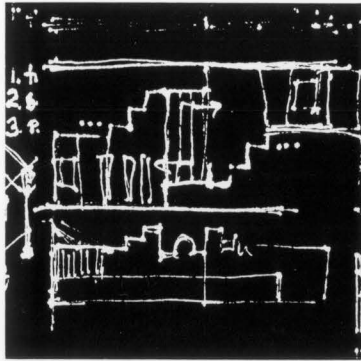


Figure 1- Scenario



- 00 fellowship entrance
- 0 sanctuary entrance
- 1 choir
- 2 organ
- 3 baptistery
- 4 mechanical room
- 5 telescoping class, office, storage rms.
- expandable in 5 ft. modules

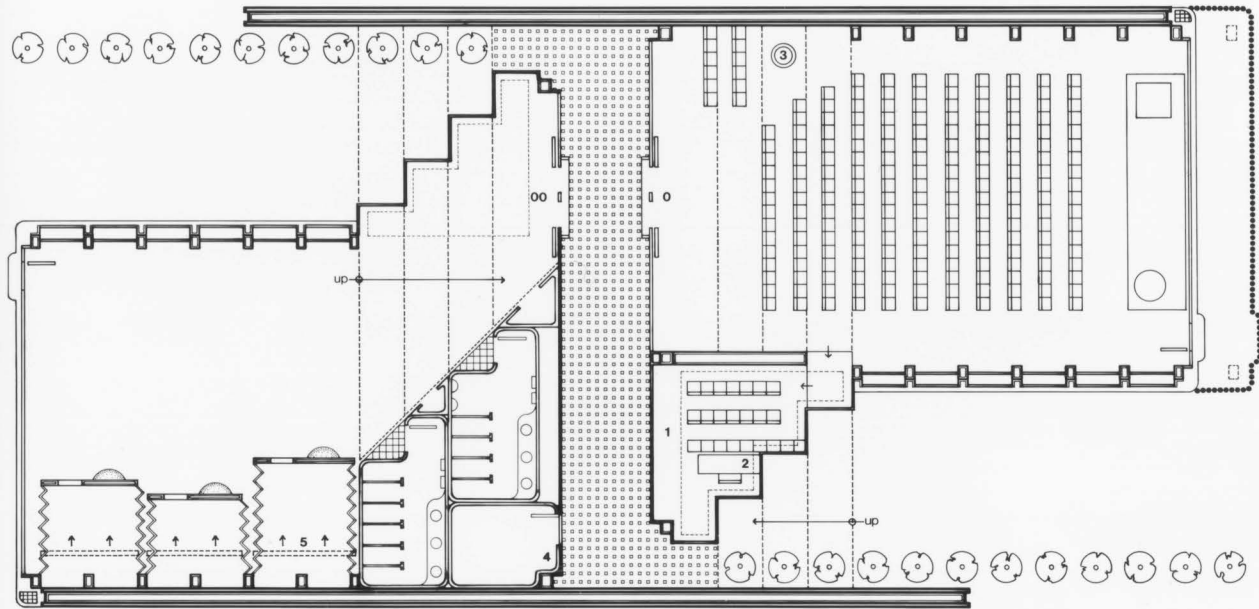


Figure 2- Plan and developmental sketches

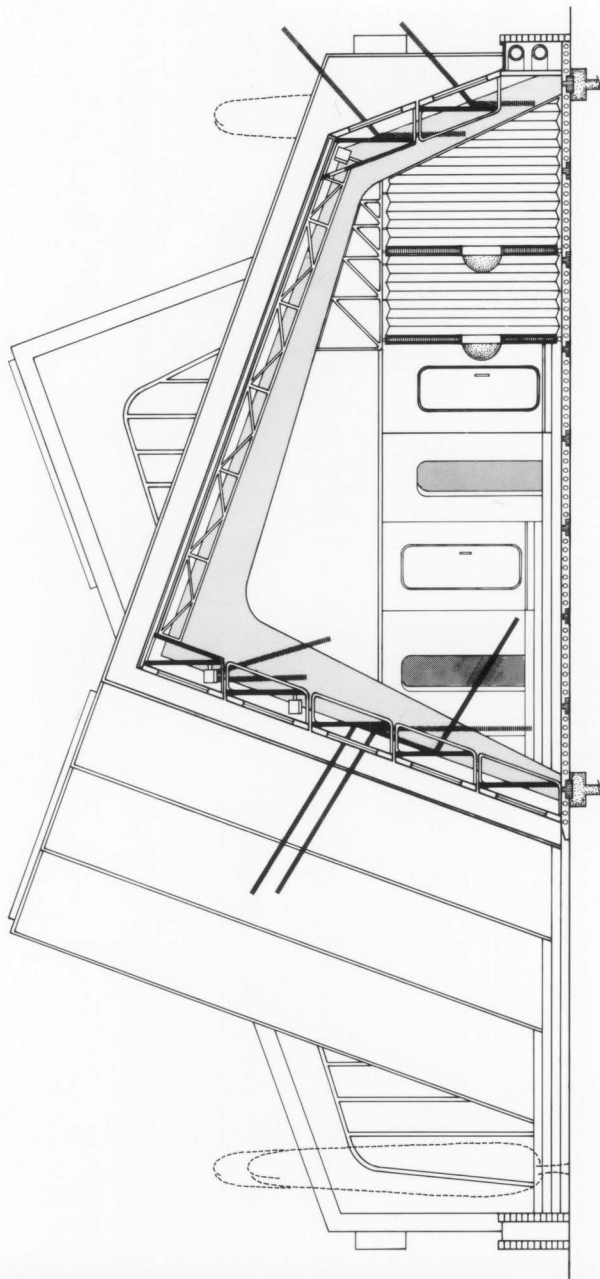
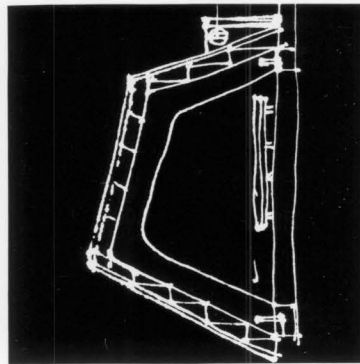
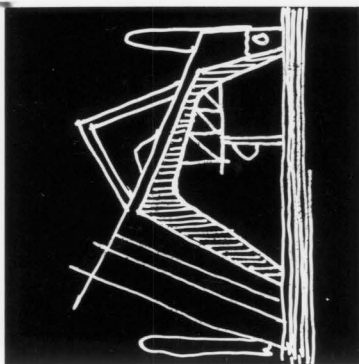
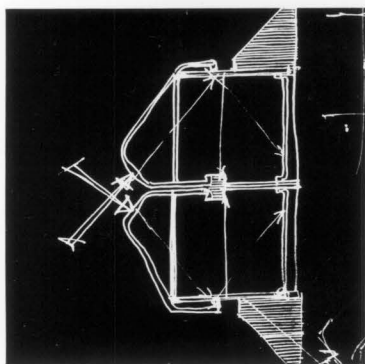


Figure 3- Section and developmental sketches

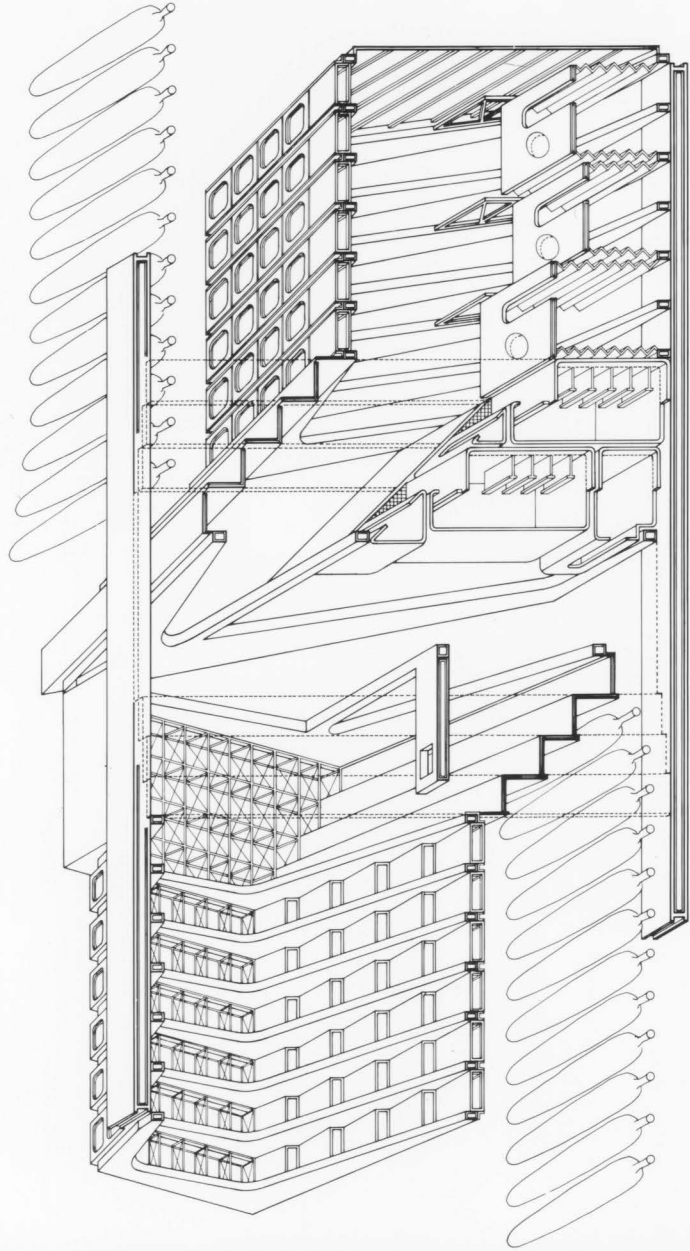
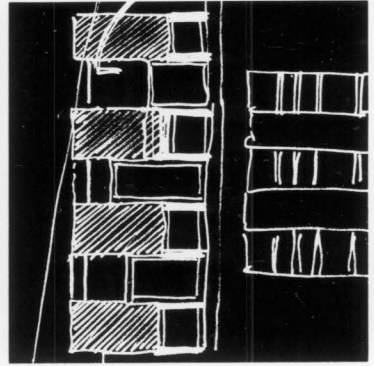
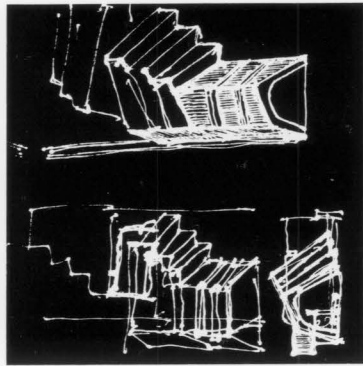
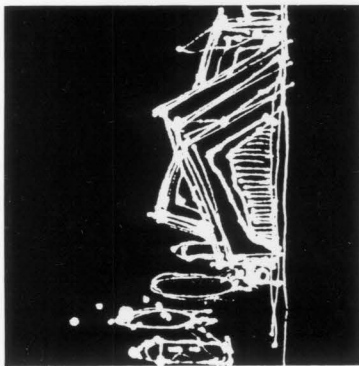
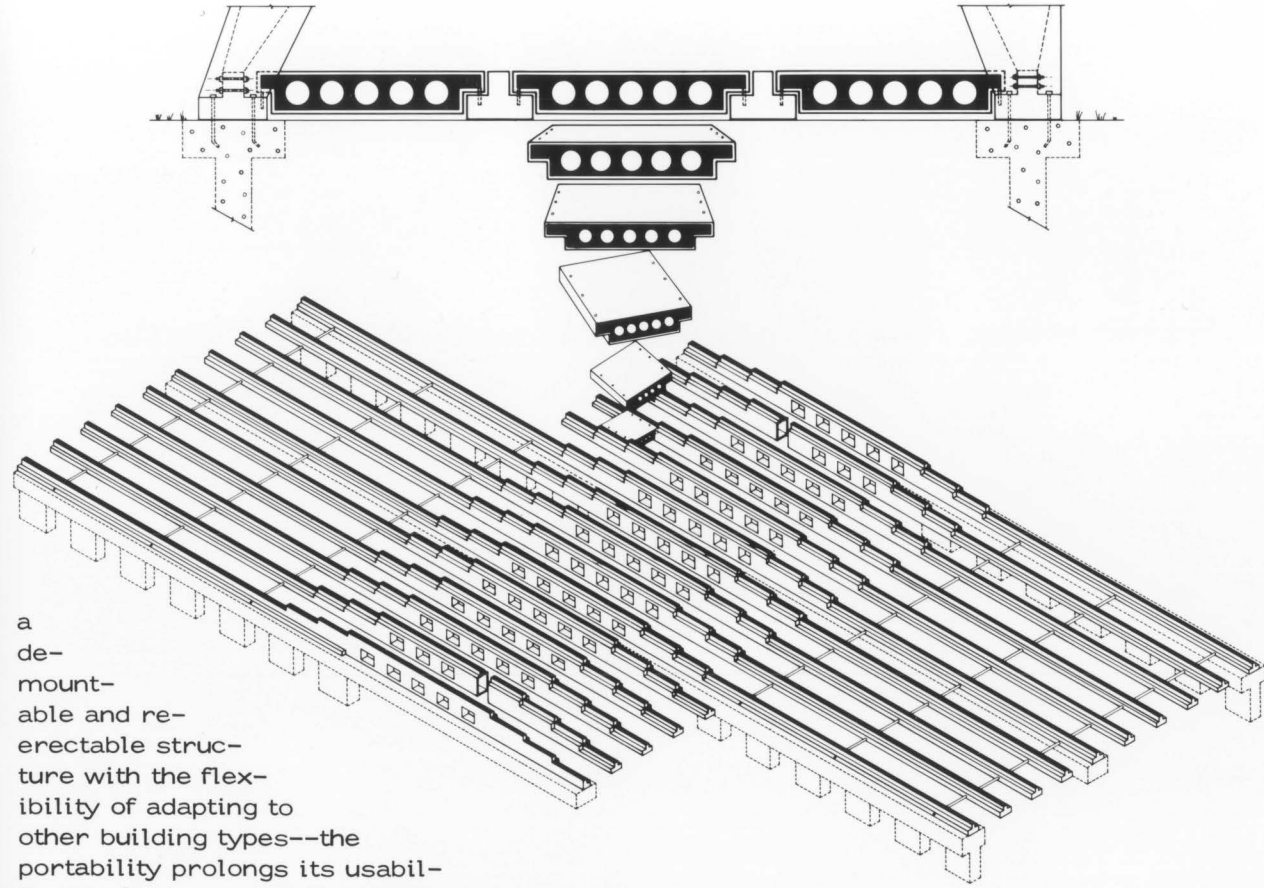
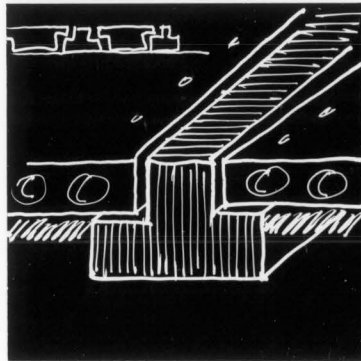
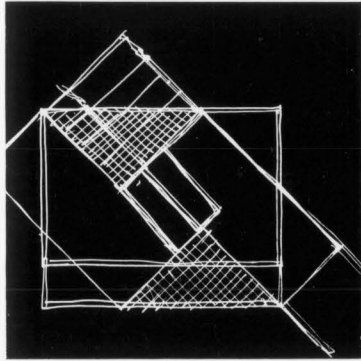
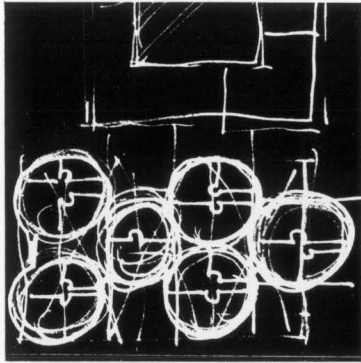
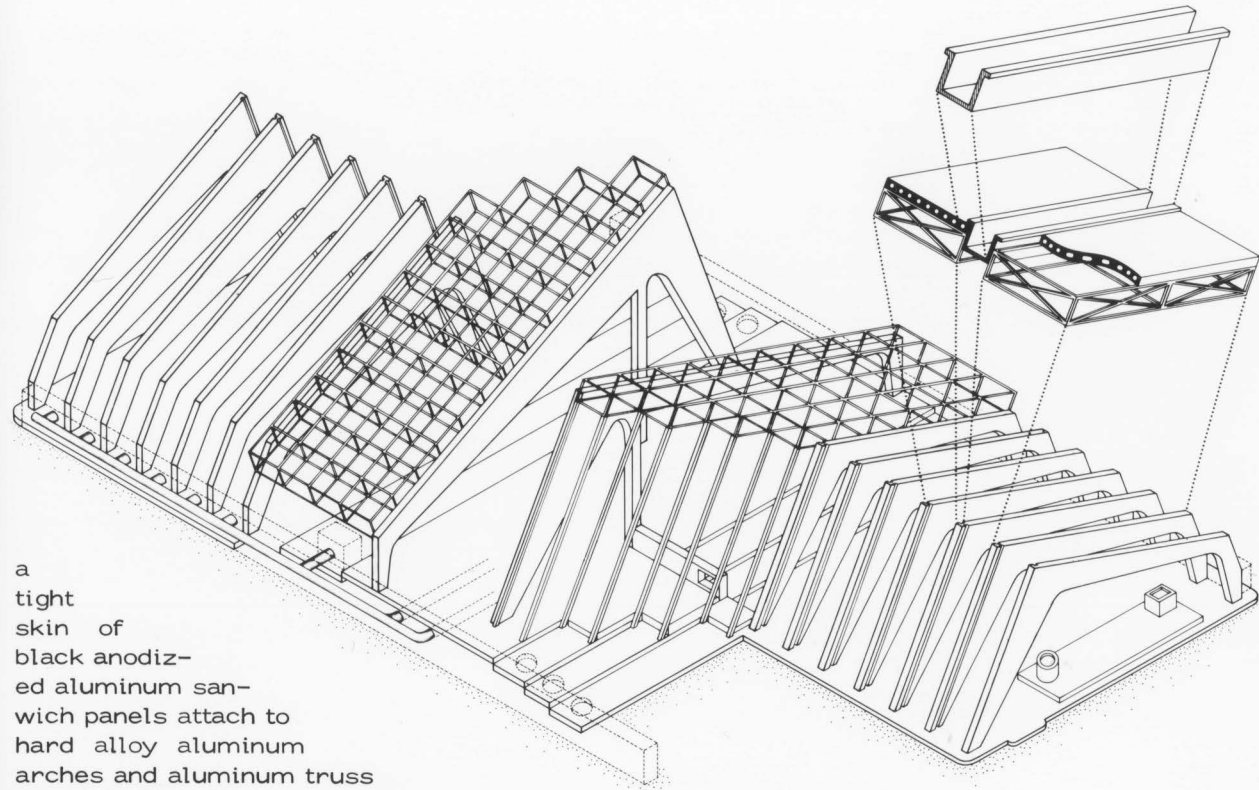
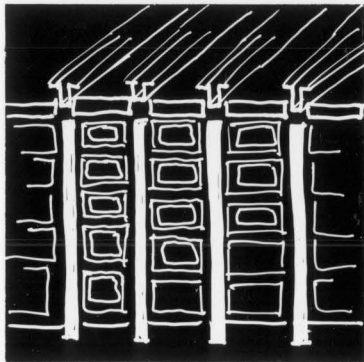
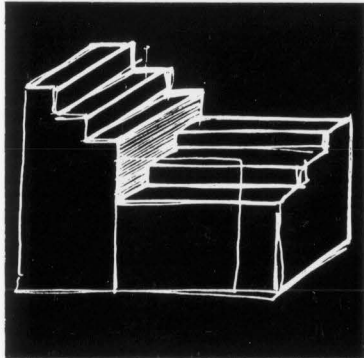
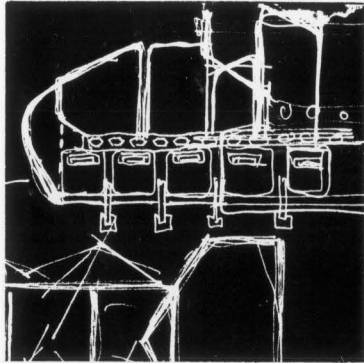


Figure 4- Worm 's eye view and developmental sketches



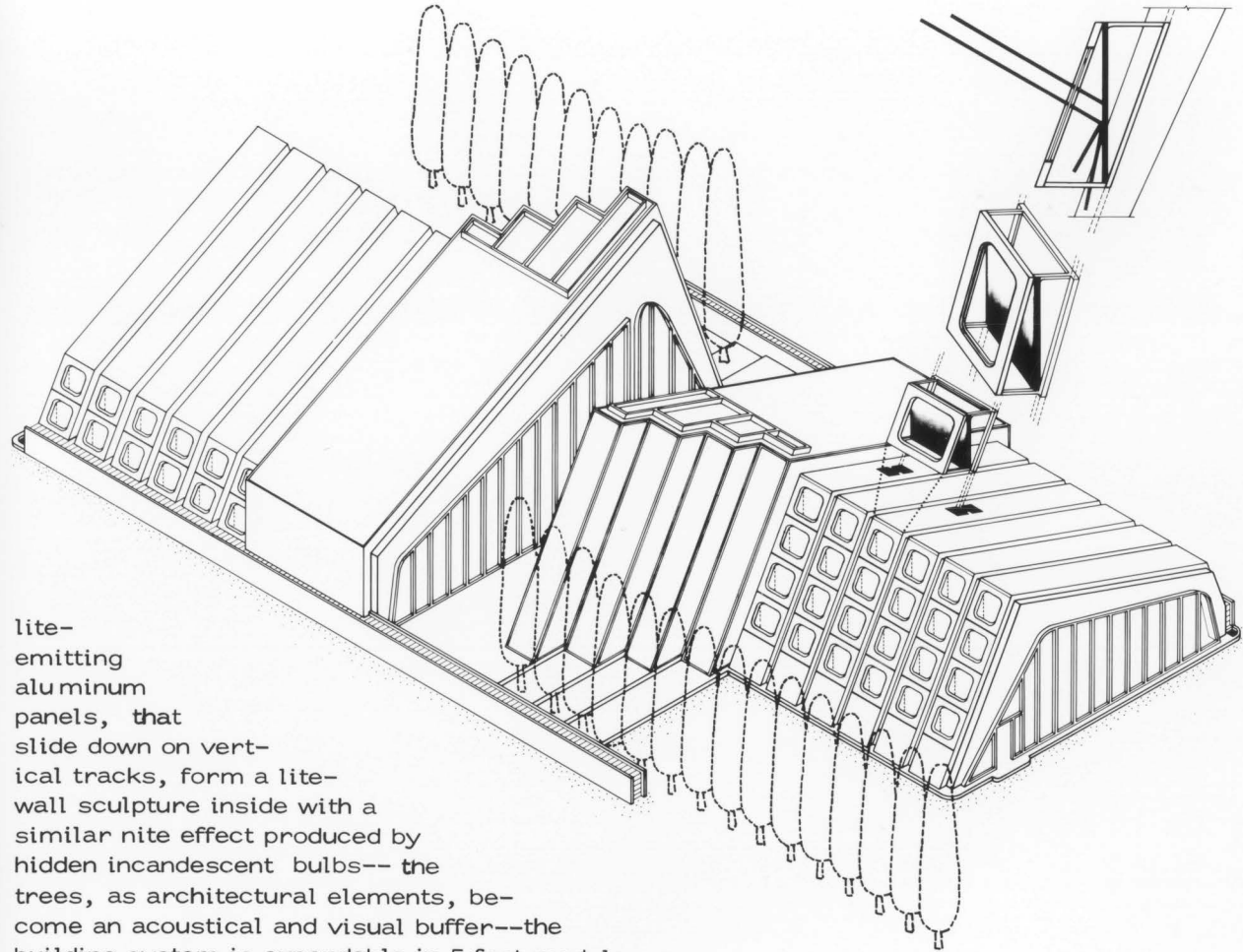
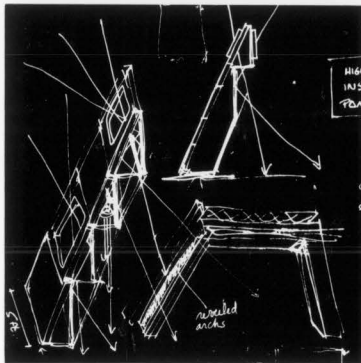
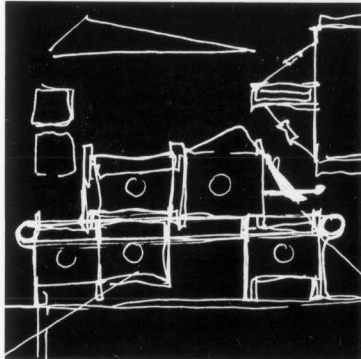
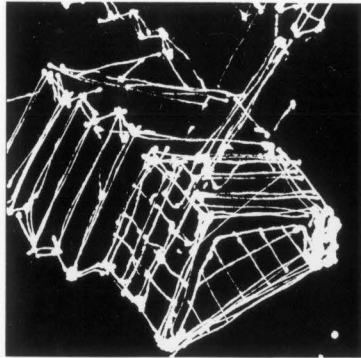
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other building types--the
portability prolongs its usabil-
ity as cities emerge in indetermi-
nate directions--alternative uses in-
clude semi permanent erection in emerg-
ency areas--5 foot square precast concrete
plates bolt to hard alloy aluminum tracks that
rest on compacted earth to form the rigid floor system.

Figure 5- First phase erection and developmental sketches



a
tight
skin of
black anodiz-
ed aluminum san-
wich panels attach to
hard alloy aluminum
arches and aluminum truss
frame to form the structural
system--yellow anodized aluminum
gutters act as ribs to drain water, de-
fine the structural system and enclose it--
the red brick walls along the perimeter become
service walls for mechanical systems that trans-
port air and water.

Figure 6- Second phase erection and developmental sketches



lite-emitting aluminum panels, that slide down on vertical tracks, form a lite-wall sculpture inside with a similar nite effect produced by hidden incandescent bulbs-- the trees, as architectural elements, become an acoustical and visual buffer--the building system is expandable in 5 foot modules for varying activities--"Simplicity, Standardization Openess, Spaciousness, Lightness.....Vitality."

Figure 7- Third phase erection and developmental sketches

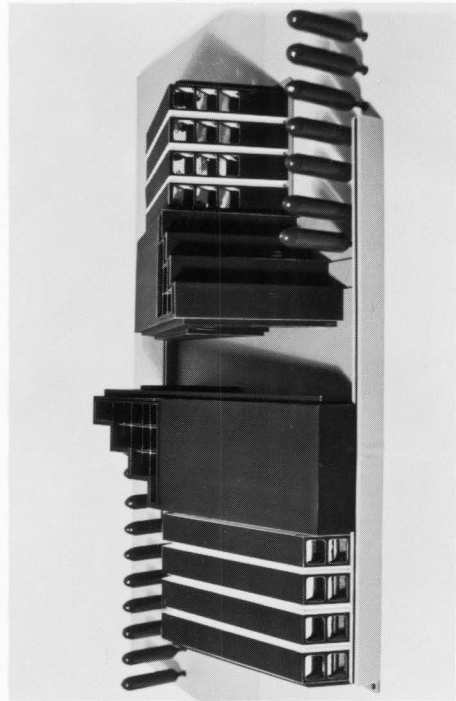
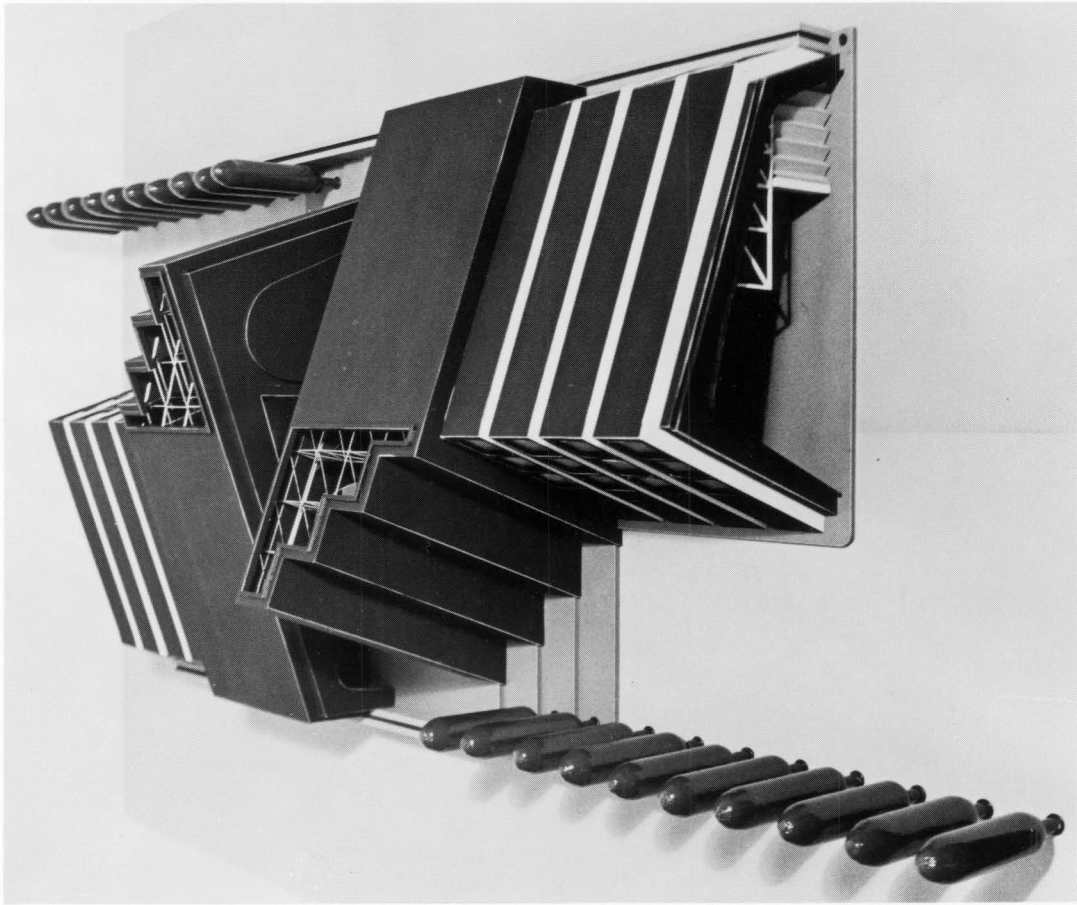


Figure 8 - Model view

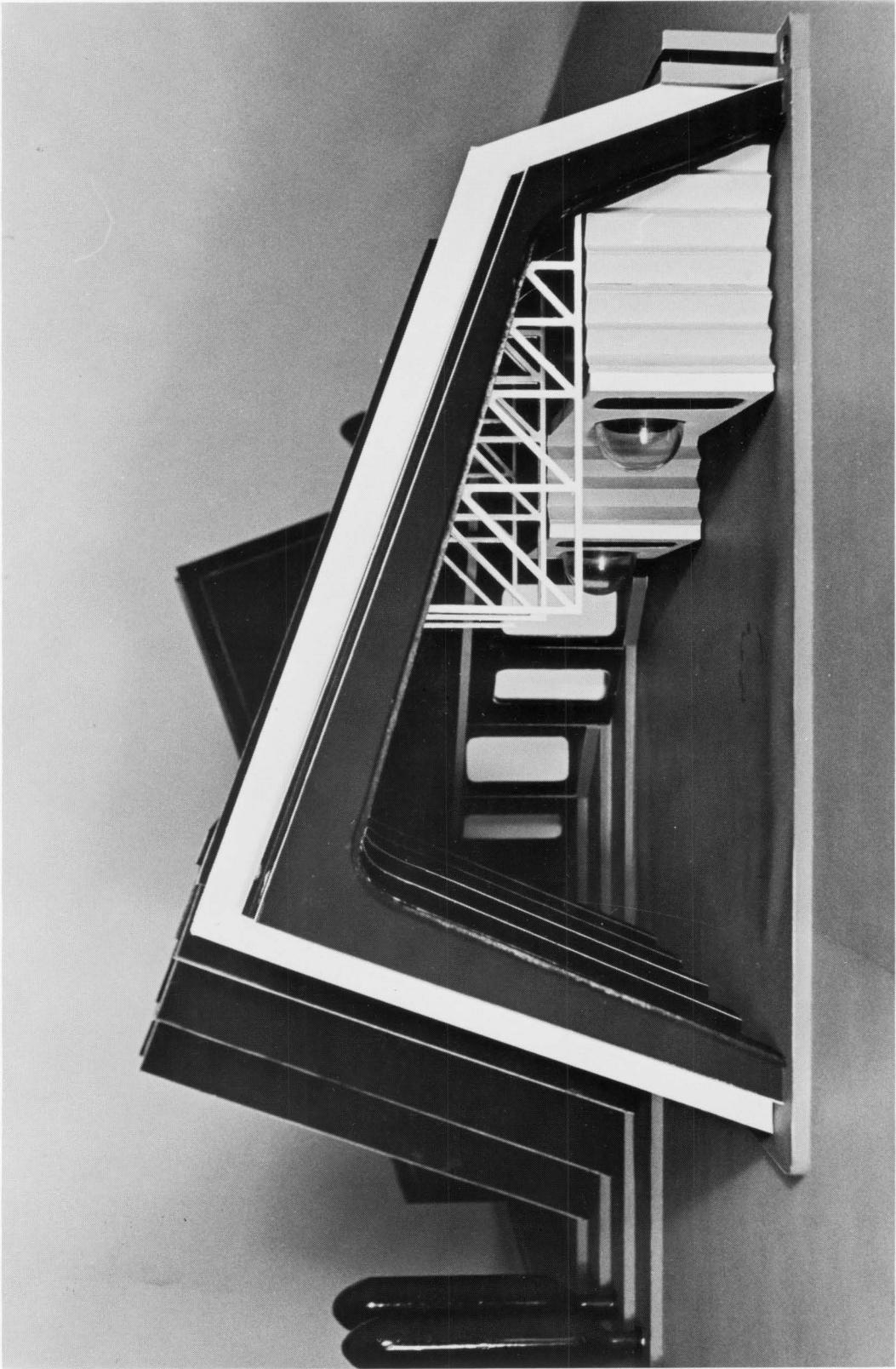


Figure 9- Model view

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PORTABLE CHURCH (PARABLE AND PARADOX)

by

J. Dean Chavooshian

(ABSTRACT)

- 1- as cities emerge in indeterminate directions, the mobility of structures prolongs their usability.
- 2- a portable church having an approximate life of 40-50 years will be capable of being re-erected several times and have expansion potential where greater activity requires.
- 3- alternative uses include their semi-permanent construction in underdeveloped countries, or areas of natural disasters, to bring solidarity among people.
- 4- "simplicity, standardization, openness, spaciousness and lightness...vitality."