

FURNITURE EXPLORATIONS

by

PETER MARTIN CONANT

B.A., University of Pennsylvania

1967

submitted in partial fulfillment
of the requirements for the
degree of Master of Architecture
at the

Massachusetts Institute of Technology

February, 1973 (*i.e. June 1973*)

Signature of Author

February 1, 1973

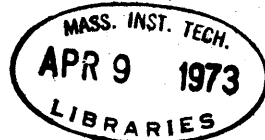
Certified by.....

Thesis Supervisor

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Chairman, Department of Architecture

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ABSTRACT

Furniture Explorations

Peter Conant

submitted to the Department of Architecture
on January 24, 1973 in partial fulfillment of the
requirements for the degree of Master of Architecture

The thesis explores the role of furniture as a group of intermediate forms between the eternally still surrounding frame, and the constantly mobile users. Examples are given of space design in which movable framework pieces form the significant interior edges to which the smaller pieces associate. Furniture is seen as being able to imply more space than it inhabits. The illustrations treat the combination of simple forms into more complex configurations, and the separation of the supporting structure from the usable surface. Frameworks which build up into significant space divisions are discussed.

Thesis Supervisor: Kenneth Kaiser

Visiting Lecturer in Architecture

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This particular topic for a thesis report arose out of a summer project in 1972, a 1000 s.f. addition to a single family house. (figs. 9-17) In planning out the living-dining area and the children's sleeping-play area, I wanted to create enough internal definitions with the structure, windows, and wall geometry so that the furniture would have edges to associate with. After numerous attempts involving the creation of nooks, bay windows, level changes of two or three steps, and various zig-zag patterns of the wall, I realized that it was unreasonable to ask the major supporting structure to do all, or even most, of the significant definition. I began thinking of large-scale closets and window seats, larger and more permanent than most pieces of traditional furniture, which could be deployed to make those recesses in the internal space without affecting the external form. In fact, I realized that there was no necessary congruence between the exterior and interior geometries.

Having realized this, these critical areas began to be planned around the various configurations of furniture which the family already possessed, and around the larger pieces I was to design. In the sleeping area, the idea was to leave it as a large open space until the need was felt for separation of the individual children, at which point the closets would form the partition. The door locations were designed around this.

The different situations and personal groupings of a family over time implies that the interior arrangements

should be re-organizable. Most people, when starting a home, have had no opportunity whatsoever of influencing the macro-form of their space, such as entry location, window placement, amount of usable wall surface, and room dimensions. Making this space into a significant place is the responsibility of the furniture substructure, which works associatively off of the larger use patterns established by the more immutable framework. Spatial definition is usually left to the choice of furniture, which in turn usually reflects the choice available on the market and the available money. With furniture as singular items, the space defining characteristics can best be described as the distribution of objects on a single surface. The various arrangements pictured in Time Savers Standards is typical. Figs. 1-8 are copies of the thirty-odd arrangements suggested. The captions attached to these drawings try to indicate what patterns are at work, and how a single piece can imply more space than it inhabits.

In figs. 9-15, the movable closet, (shown as the dark rectangle), the post, fireplace, and overhead beam form the major interior elements to which the furniture associates. Window location and circulation is superimposed on this. Figures 14 and 15 show a modular couch-scape which would take the place of the window-seat couch. By moving out into the space, it acquires more significance by forming a relationship with the void between it and the corner.

Figure 18 indicates a situation where the larger geometry is formed by an intermediate scale of furniture.

But the use of such pieces necessitates a room dimension large enough to accommodate it. Figure 9 is an example of an all too frequent case where the traffic pattern, room size, and available wall surface all counteract the attempts of the user to furnish it with any degree of choice. One can easily see that by the shifting of the kitchen and living-room doorway, the possibilities are increased. In such a small space, straight-down-the-middle openings are inhibiting to furniture distribution.

Figure twenty is a classroom off of a typical double loaded corridor, with primary use directions established by the entry, blackboard and window locations. The distribution of the furniture reflects this, but also begins to work three-dimensionally toward definitions of areas. The large bookcase facing the reading corner is anchored in place by the use of the room, and in turn embellishes the corner. Further proposals designed to increase this association are shown in fig. 20 and 21. The use of overhead elements and rugs help-re-direct the space.

Many office interiors correspond to the traditional classroom plan; a large open area with individual desks. Personal definitions are largely left to the papers and tools which it takes to do the task. In many cases a person is his own definition. A solitary walker on a beach makes his own place as he moves, and is the point against which he measures distance and size. This same individual in a library is in competition with the architecture if alone,

and generally needs some help to keep from appearing out of place. This is usually provided by more people. The beginnings of definition which people can significantly affect are found in office partitions which are themselves frameworks for the association of smaller objects. They generally have nothing to do with the larger space, but do relate to each other. Figure 22 shows the idea, along with a unit which serves as an apartment partition with the possibility of making a double bed into a usable couch. The use of these intermediate frameworks provide definitions which if made by the major structure might well be too permanent.

Figures 23 and 24 indicate the use of these containers, 24 being significant because the plane is realized as a volume with usable depth. It probably has a structural connection to the major frame. Figures 25 and 26 are essentially large suitcases, which can be used as planes, or utilized for their folded stability. The folded condition could be thought of as a column, in that it has the potential for the support of objects larger than itself. One need not always be restricted to the hierarchy of little things attaching themselves to larger ones.

A chair, even though a highly specific form, is capable of handling a large number of people-sizes, and a large number of people-positions. In fact, a sort of contradiction exists in the fact that highly specific contours allows highly non-specific postures. Examples of this can be shown in figures 27 and 28. The bed, although

about as non-specific as you can get, does not really allow all these different positions because it is a plane, but because it is soft, and molds itself into a reflection of the surface pressing on it. It is a characteristic of its material, not of its geometry. Similarly, figure 30 shows the postural attraction of soft materials, especially ones which are malleable and rearrangeable. The bean bag chair is an attempt to combine a suggestion of contour with a material that allows that contour to become highly specific. If the chair reflected the exact shape of the sitter, it would allow only that position to be assumed, as well as border on the obscene.

Figure 31 is an attempt to make specific contours combinable, a difficult job at best, since curves do not combine with curves as well as planes combine with planes.

This idea of combination of singular volumes to get many different surfaces is best expressed for me in the work of Joe Colombo, figures 34 and 35. Urethane foam padding is the interface between the person-shape and the seat-shape, but the significant thing is the range of form to be had from simple elements. Another aspect of this idea, figures 36 and 37, is making use of the three independent x,y, and z dimensions of a rectangular solid. This may be as simple as stacking blocks on each other and then using foam as the padding, or as complex as cutting into the solid to utilize its different faces.

We are here talking about singular "pieces of furniture", not anything which establishes a larger framework. My own thoughts about combination of single elements have led to a furniture system for an apartment of a friend. Figure 38 shows the given use pattern, and the existing furnishings. The smallness of the room precludes much big stuff, and most of the geometry relates directly to the floor. The large pillow in the corner is the bean-bag idea. The need was primarily bookshelves, and while speculating on this, I realized that the addition of a modular floor unit, containing storage space, could reinforce the traffic space while adding a significant edge to the room. Another attitude was to work off of the existing definitions to realize more corners. Figure 40 indicates the strong establishment of a direction with the floor unit. Coupled with this, the box units in figure 41 help to soften the space. Their multi-use character may be seen from the photographs following.

The idea of building a "second floor" led me to consider the idea of building new frames within the given frame. Floor structures require no attachment to external walls, and simultaneously provide level change definitions in step or seat-height increments. Along with this comes the opportunity for attaching vertical surfaces or columns for frames at higher levels.

Before going on, I want to say something about the structure in the lobby of building 7 as an example of working associatively with a given space, and providing

a sort of mountainside which people climb onto and find those places which suit them. My major quarrel with this marvelous invention is that it is not very specific in its definitions, so that neither does it have those lightweight, moveable pieces of seating which would allow a gathering or easy re-orientation of use, and also it lacks a real range of geometries that allow it to be used for writing, drawing, sleeping, eating, lovemaking, and activities which necessitate many objects, such as tools, many books, etc. It appears to me as the first stage in a further range of permanencies. But because of its focal qualities in a rather undistinguished volume, in the morning it is a place to get coffee, park your bike and pick up a paper. Later in the day it is used for study, meeting, an alternative route down from the second floor. On some of its raised platforms a concert might be given, changing it into a stage with the floor and galleries becoming audience areas. Because it is constantly transformed, it lets the content of the function determine its use, rather than by its form determining its use.

The converse of this would be an auditorium or church, where the focus and raising of the stage/altar dictates certain use patterns, and makes difficult a round table discussion or seminar. When the interior furnishings allow the users and their social organization to decide on the importance to attach to a "leader" or "presentation", we

might expect the surrounding enclosure to be generalized and non-specific, with lightweight furniture that can be moved into orientations which make sense for the activity. The example of the lobby, however, tells us that specific decisions are not necessarily limiting, as long as they broaden and not restrict the range of spatial possibilities. The space of the dome is not made unusable by the structure. More can take place there now.

In many situations, people are their own furniture in the sense that they are space implying elements. The body is the reference for our concepts of overhead, behind, in front, beneath, to the right, left, etc. With its ability to assume various postures and combinations of spatial association, the entire medium of dance is significant in its implications of bodily extension, contraction, rotation, action, repose, and motion. For architecture to correspond to this vast spatial potential involves building as great a range of definitions as possible.

In separating the framework from the structure, a broader range of use is to be had than by combining singular "things". Figures 44-48 attempt to hint at the combinations of frameworks which allow attachments at different places. Fig. 49 is an attempt with steel to build a piece of support which utilizes all its orientations. Fig. 50 is the beginning of a growth of frame attached to frame, providing support for bed, desk, shelf.

Figure 53 is the development of the couch-scape mentioned on page 2. The photographs are self explanatory. I feel it is significant that the right angled pieces must become attached to a larger framework to be useful. They could be used alone on edge for desk-support, and in figure 47, or as backrests as in figure 58, but with the ability to translate in and out of the channel frame, they become extensions of something larger than themselves. It is not necessary, of course, that they all be angles; some could work perfectly well as u-shaped cross sections. The intention however is that they are meant to fit into a larger frame, and work off of it.

Figures 59-61 indicate further ideas about pieces which must attach to larger frameworks. The Co-Struc system developed for hospitals by Hermann Miller, Inc., attempts to combine desk/shelf/drawer/counter/wardrobe into units which hang off the wall. In many cases the smaller units hang off intermediate units, such as the under-the-counter carts of figure 61. The material is molded plastic, lightweight, easily cleaned, and colorful. It establishes a range of permanency in the immutable room-corridor layout. Figure 62 is a study of reasonably associated levels which themselves are large trays, allowing the use of two sides of the section.

A further development of the sliding section is shown in figures 65 and 66. This "house with pockets" attempts to make the entire mountainside function as the


furniture, with the framework providing useful dimensions even before the smaller scale of stuff is attached to it.

The building of walls with ladders or rails attached would allow more thought about cantilevered and hanging furniture than usually exists. Most hanging or cantilevered equipment is the end of the line in attachable frames, usually because it is tricky to stabilize from swaying. The top illustration in figure 67 indicates that if a volume or plane is hung from above, it can develop a rigidity in the same manner as a plane set on a floor. It need not be mounted permanently; two angles attached to either side of the top plane would be enough to securely anchor it in place.

Running some sort of continuous notch around the ceiling of a space might provide for recessed lighting as well as an acceptance that smaller frame will at some point be needed to attach to it. Doing this would also avoid a problem of formally how to bring a wall and ceiling together. Done in this way, they are connected by separating them.

Figures 69 and 70 show a system of housing where the volumes come nested inside each other, and tilt and slide apart for use. The largest framework accommodates smaller units, all of which add up to a combination of uses not determined by the original geometry of the box. It shows the value of thinking of basic frames in various orientations, not unlike the attempt to separate frame from surface in figure 49, and explore its other config-

urations.

Figure 71 is an attempt to bring some of this thinking together in a single proposal for a living area. The existing column provides support for smaller frames which provide a focus; other units relate to this. The circulation pattern is basically , an attempt to get more corners out of the box. The best analogy I can think of is a pinball machine, which shoots people into the space along the wall and then lets them rattle around among the obstacles.

I think also that using framework pieces which are themselves planes, channels, or angles, where some basic form decisions have already been made are easier for most people to work with than linear and planar elements only. For this reason it would be well to explore molded plywood, injection molded and extruded plastic sections, and stamped sheet metal as the basic components of a furniture system. The production of a 4'x8' wall panel of injection molded plastic, which contained rails, indentations and projections could well take over the idea of flat pieces of drywall or panelling as the only cheap way to finish a plane surface. With the production of entirely stamped fiberglass bathroom units comes the potential for molding in at the very beginning those points of attachment which in traditional construction have to be attached so laboriously.

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Abitare, # 108, Sept. '72
Figs. 65,66

Design Italiano Mobili, Bestetti, '66
Figs. 24, 32,45,51

Domus, # 514, Sept. '72
Figs. 69,70

Hermann Miller, brochure, '72
Figs. 23,59,60,61

Neue Möbel 6, Praeger '62
Fig. 35a

Neue Möbel 9, Praeger '69
Figs. 25,31,47,48,63

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Figs. 1,2,3,4,5,6,7,8

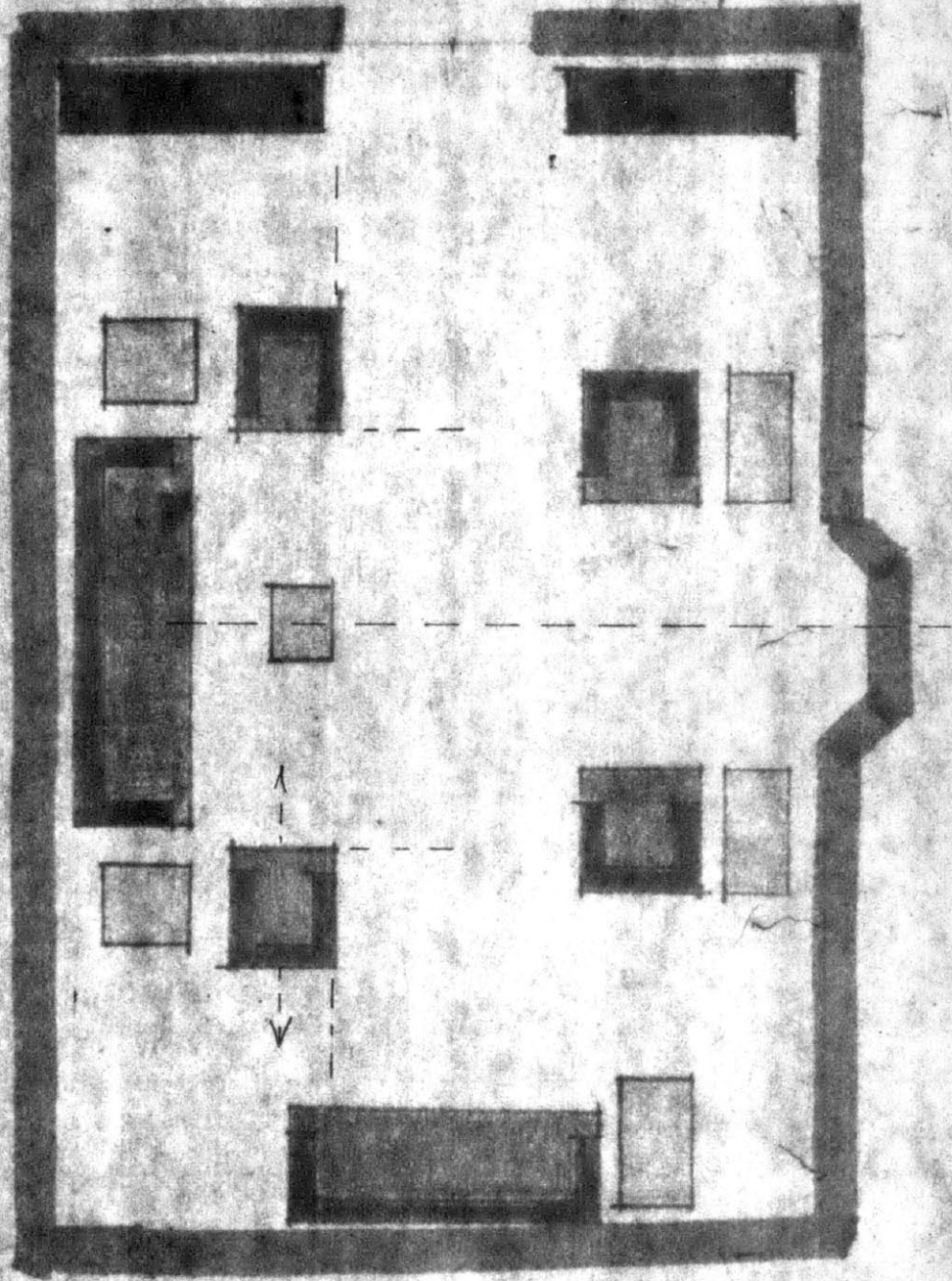


Fig. 1
Couch and fireplace anchor the entire group symmetrically. Chairs associated with it tend to re-direct the space. Small tables tend to soften the grouping.

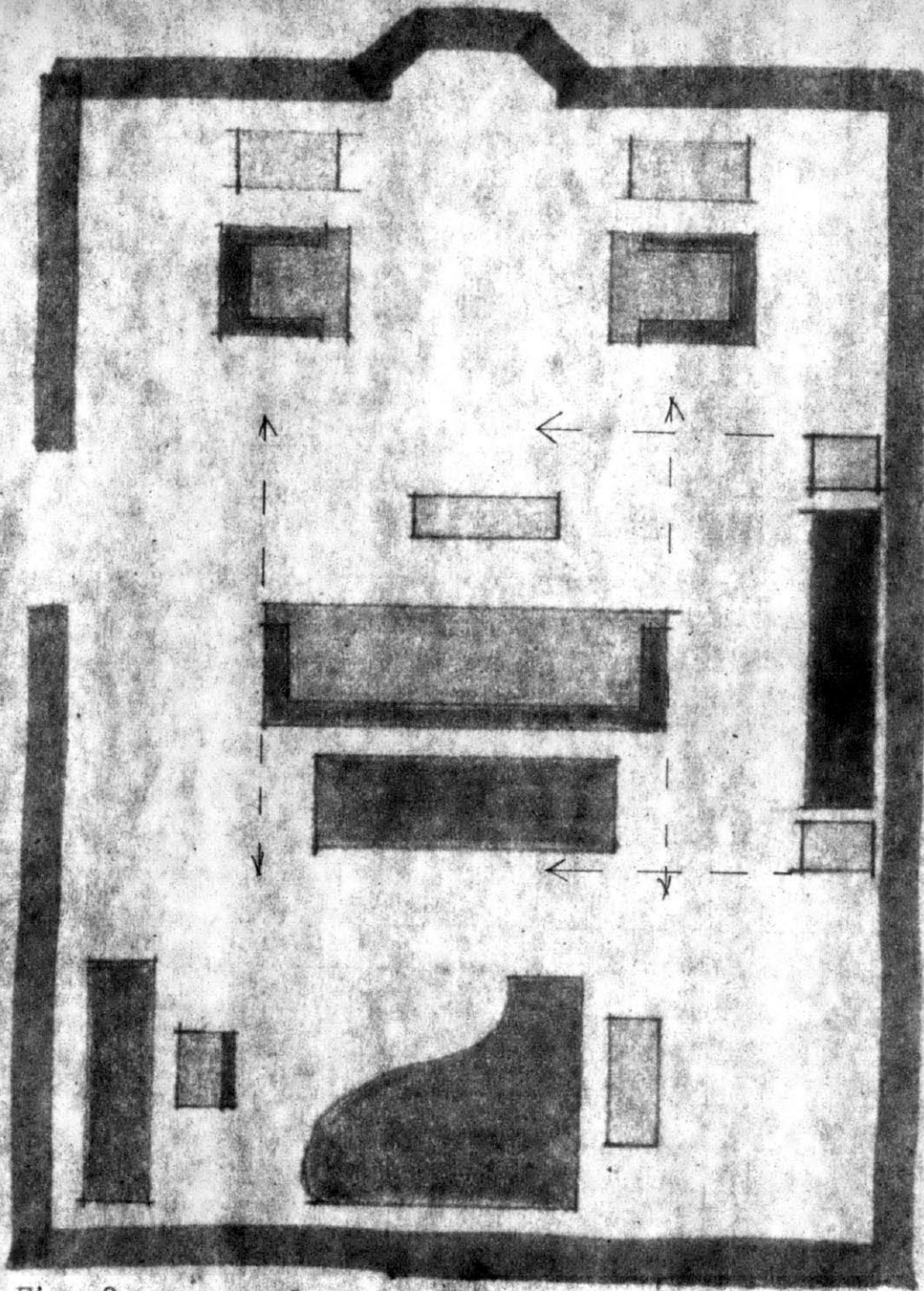


Fig. 2
With the bookcase to one side of, and the table behind the couch, an otherwise hard edge is softened, and used for association. Two distinct spaces with two distinct service aisles are created.

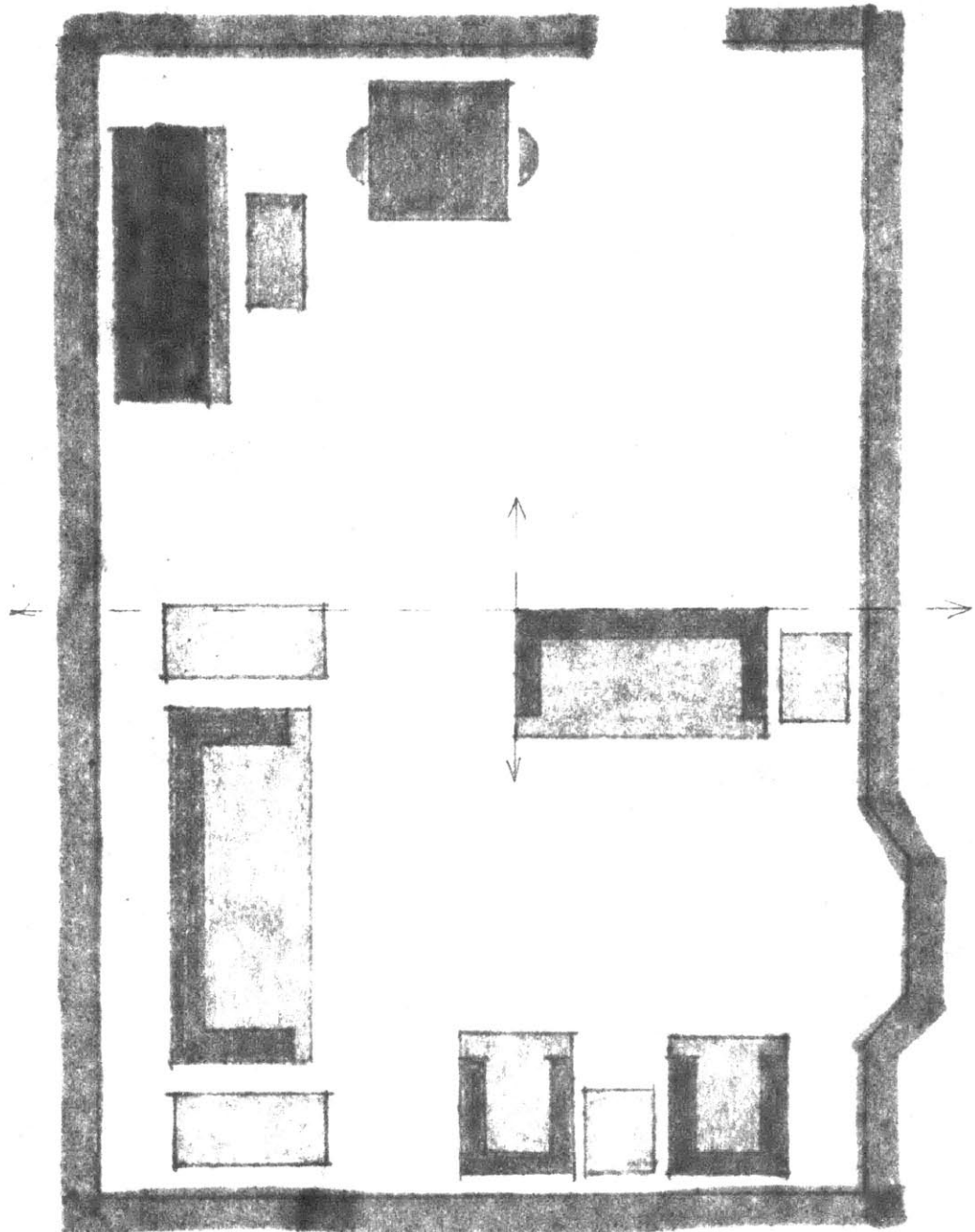
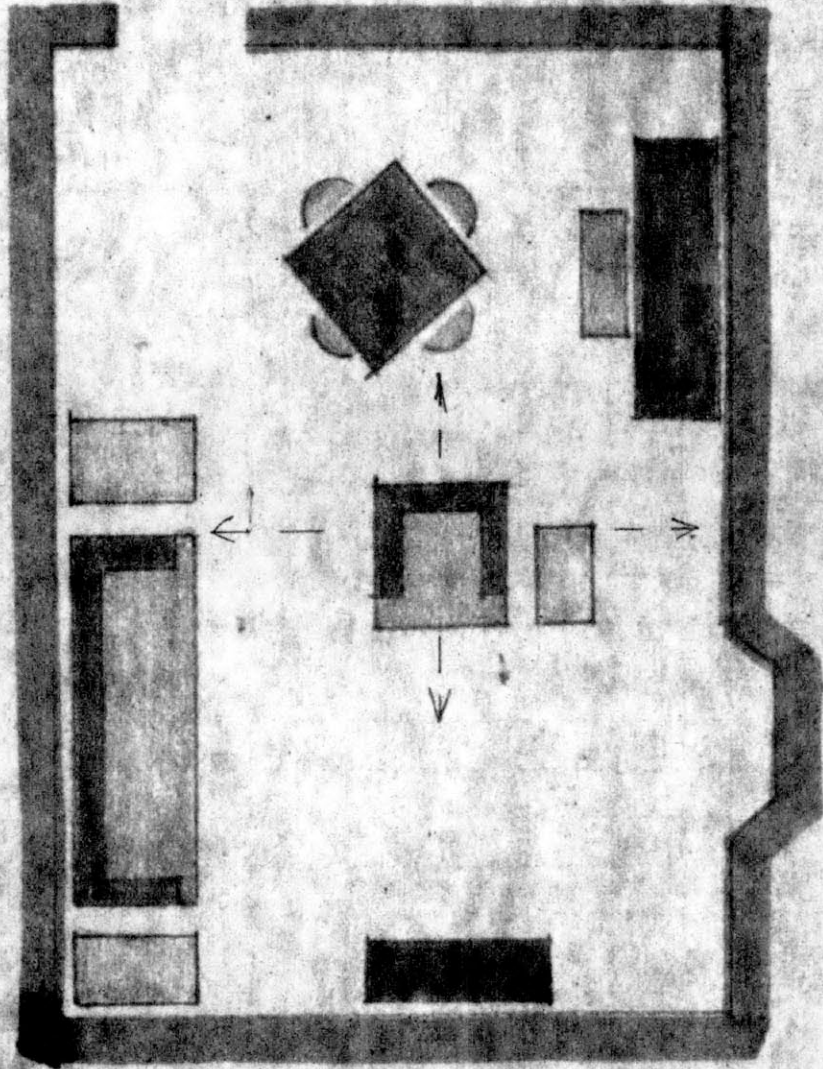


Fig. 3
Overdefinition and redundancy. Large couch has now been cut off from its overlapping definition. Does not hold the smaller elements together. Re-orientation of smaller couch unit would help.

Fig. 5

The more edges a thing uses for association, the more significant it becomes. This is why the middle chair is doing the biggest job of space definition in the entire room.



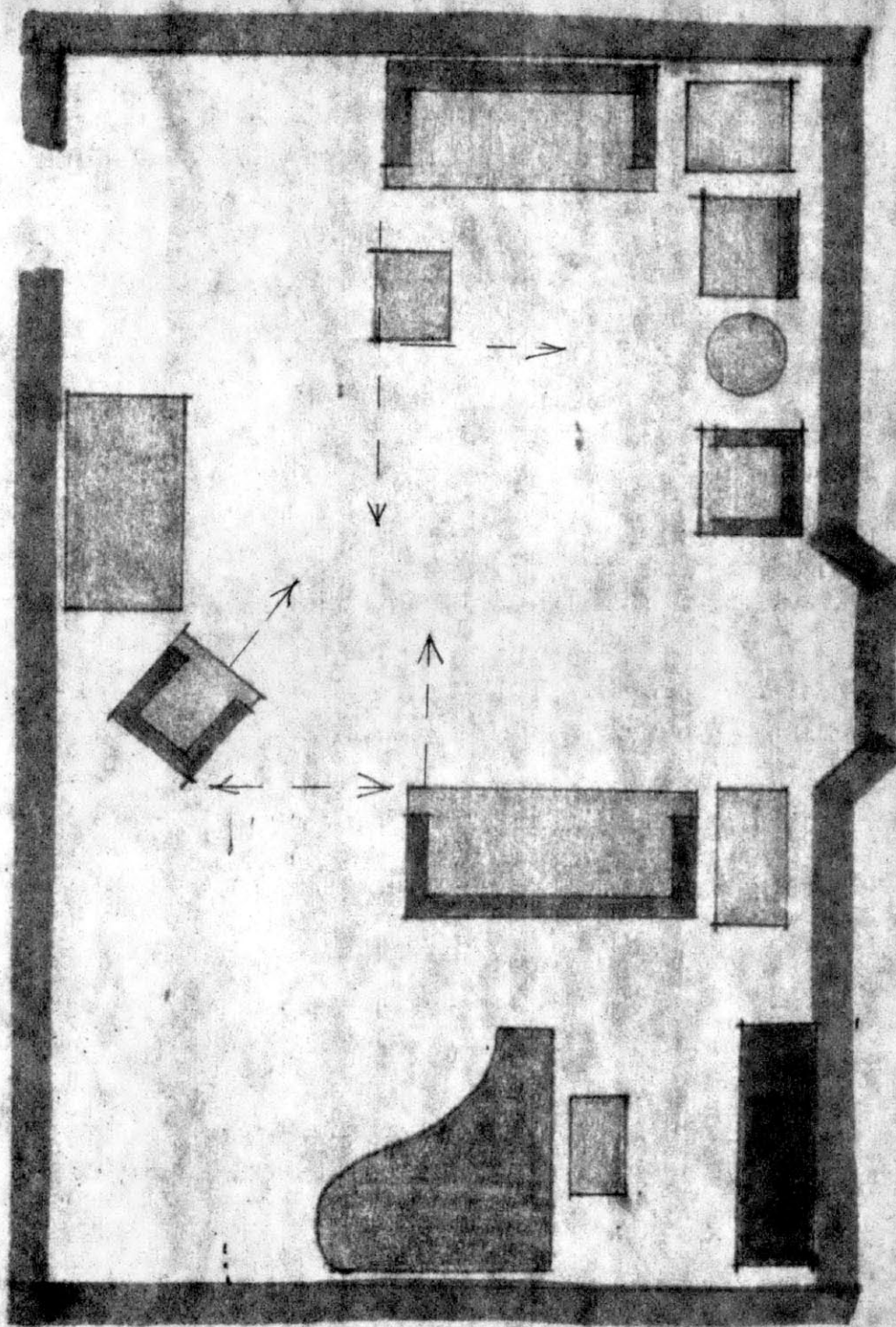


Fig. 6

Each group begins to shift its area of focus to another grouping. Each grouping, because of association to another, implies more space than it inhabits. Each has stepped out of the way of over-definition.

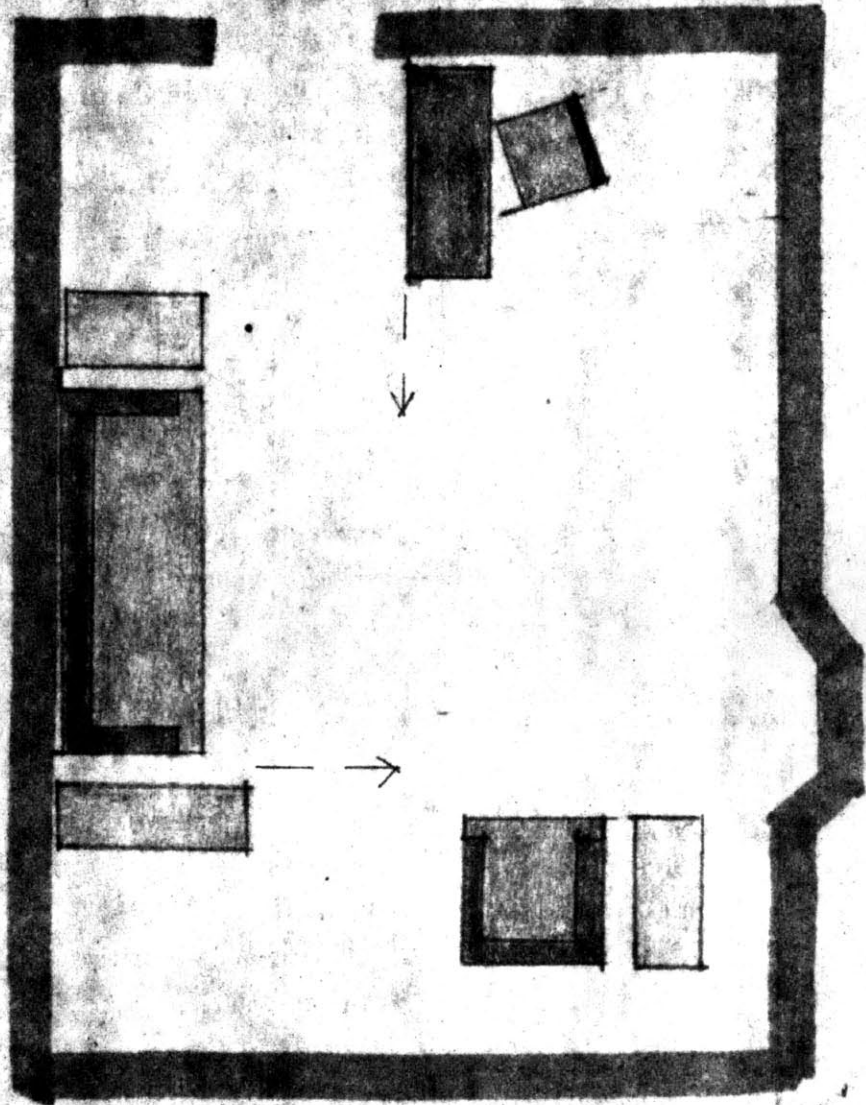


Fig. 7 An impoverished situation. The implication is that there may be a critical size and critical amount of furniture necessary for interaction or definitions.

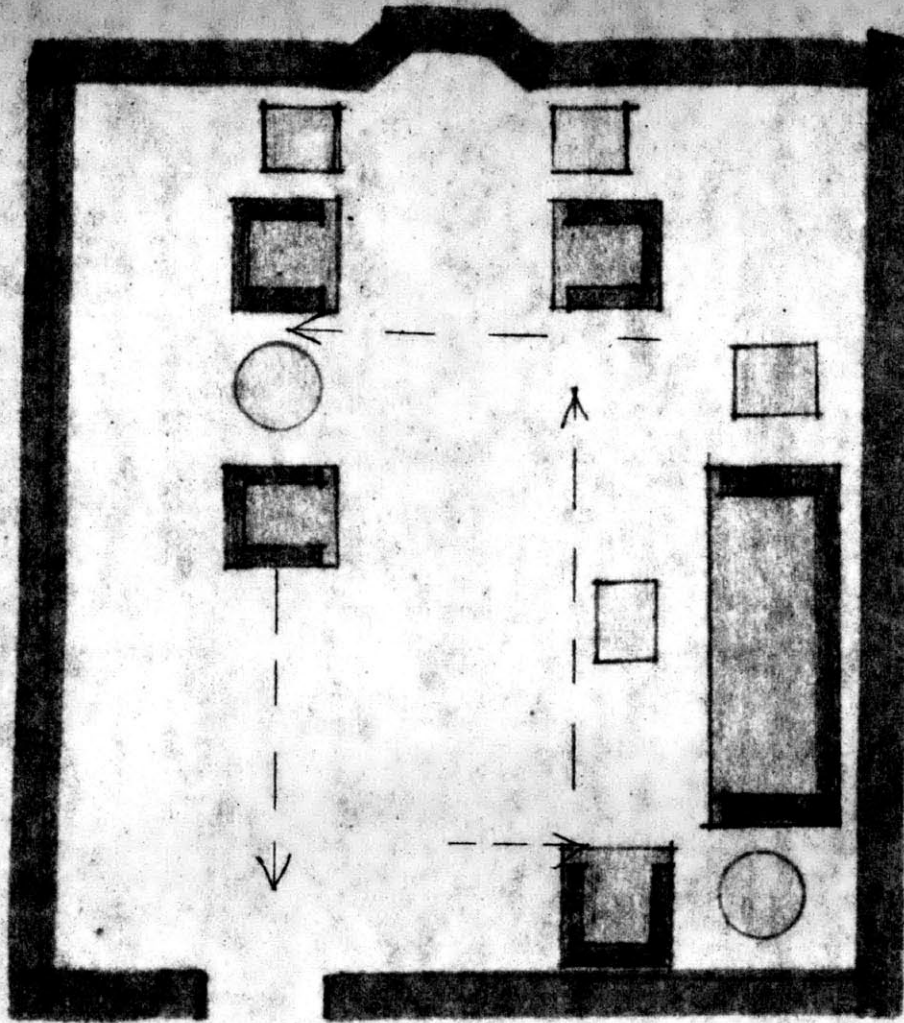


FIG. 8

A combination of wrap-around and overlapping definitions. Many areas created with few elements.

Fig. 9
Combination of useless free wall
area and intersecting traffic
patterns combine to make this plan
unfurnishable except in the
corners.

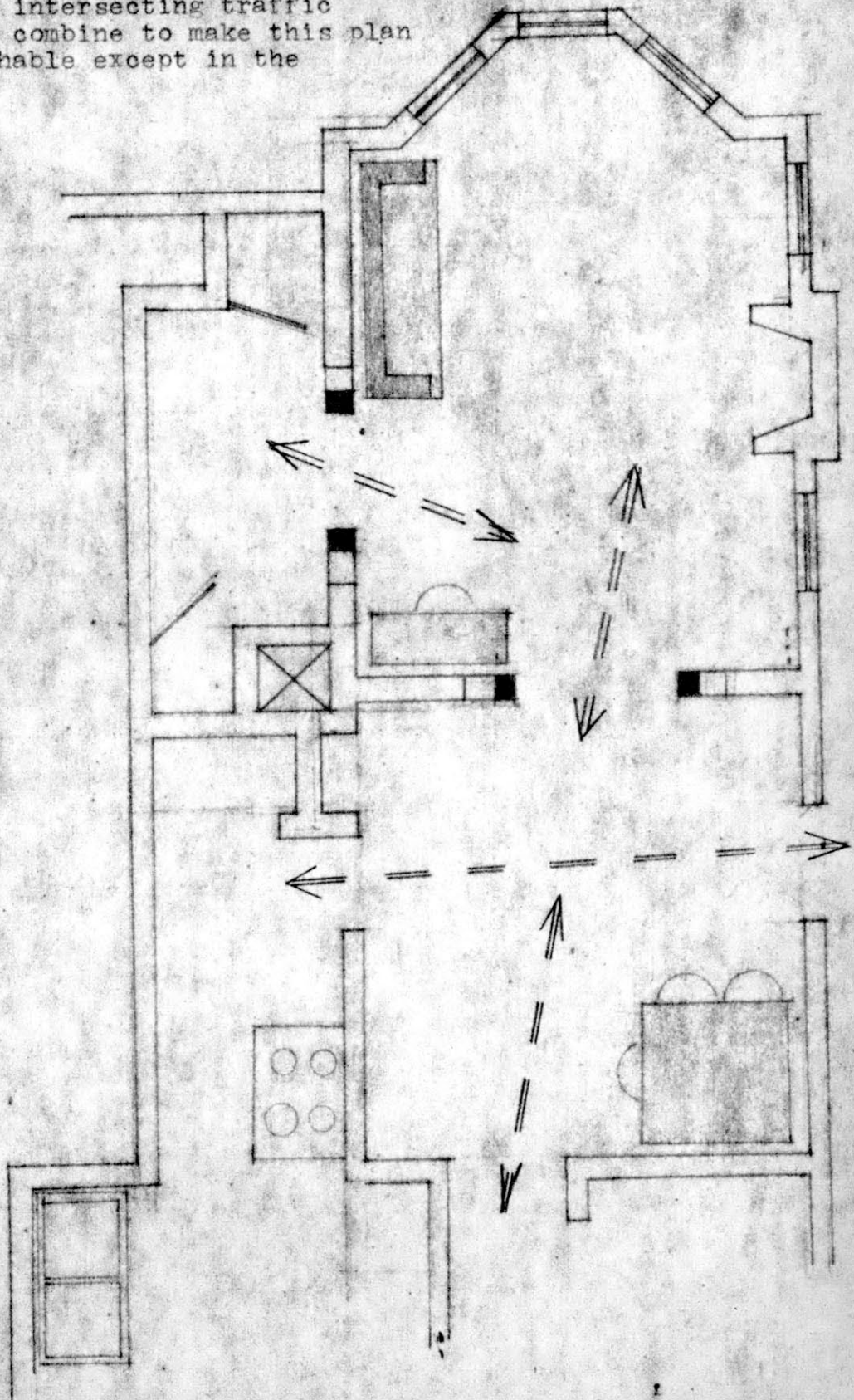


Fig. 10
Use of table-fireplace-wall as a unit of definition.

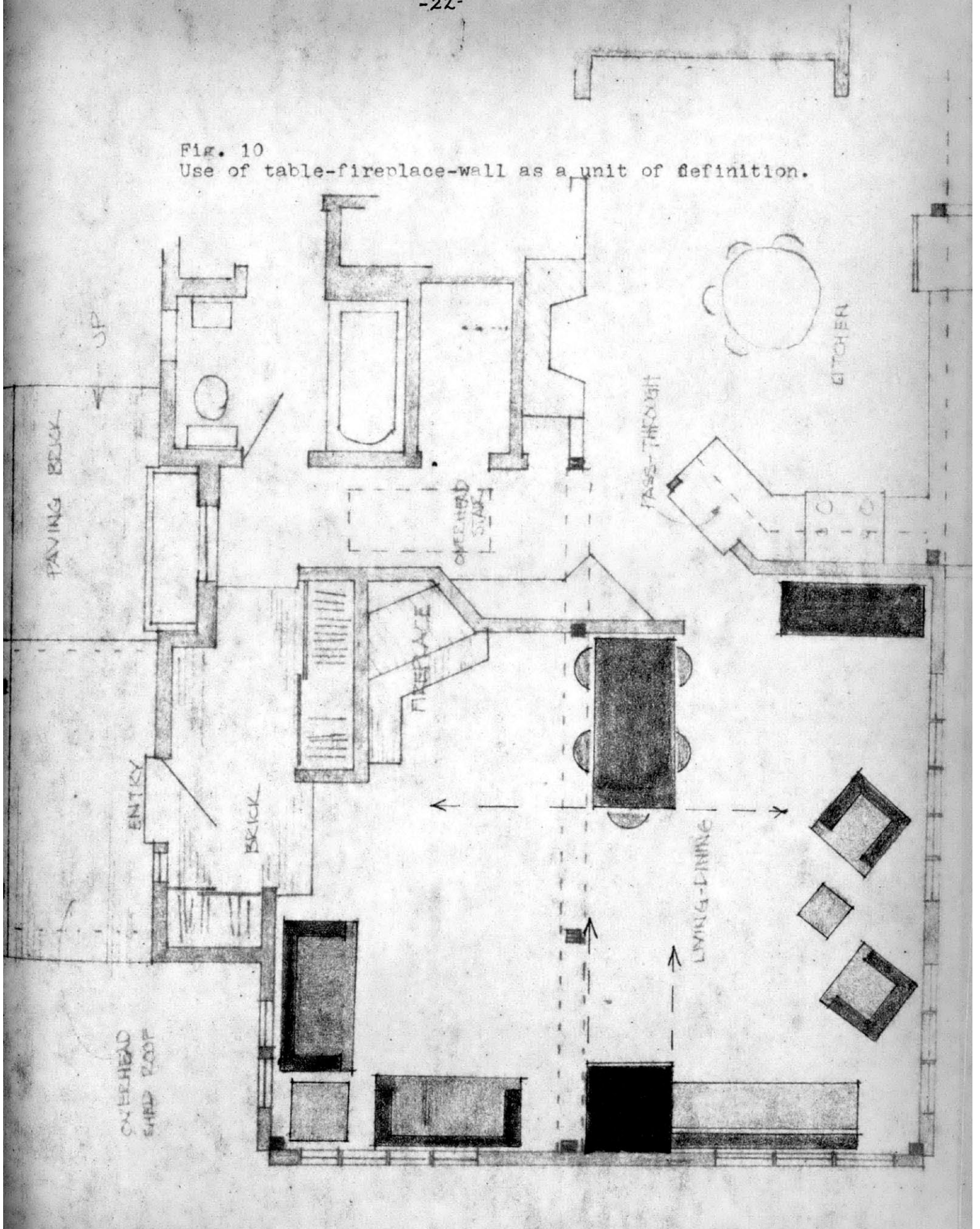


Fig. 11
Circulation patterns leave
wall spaces free to be re-directed.

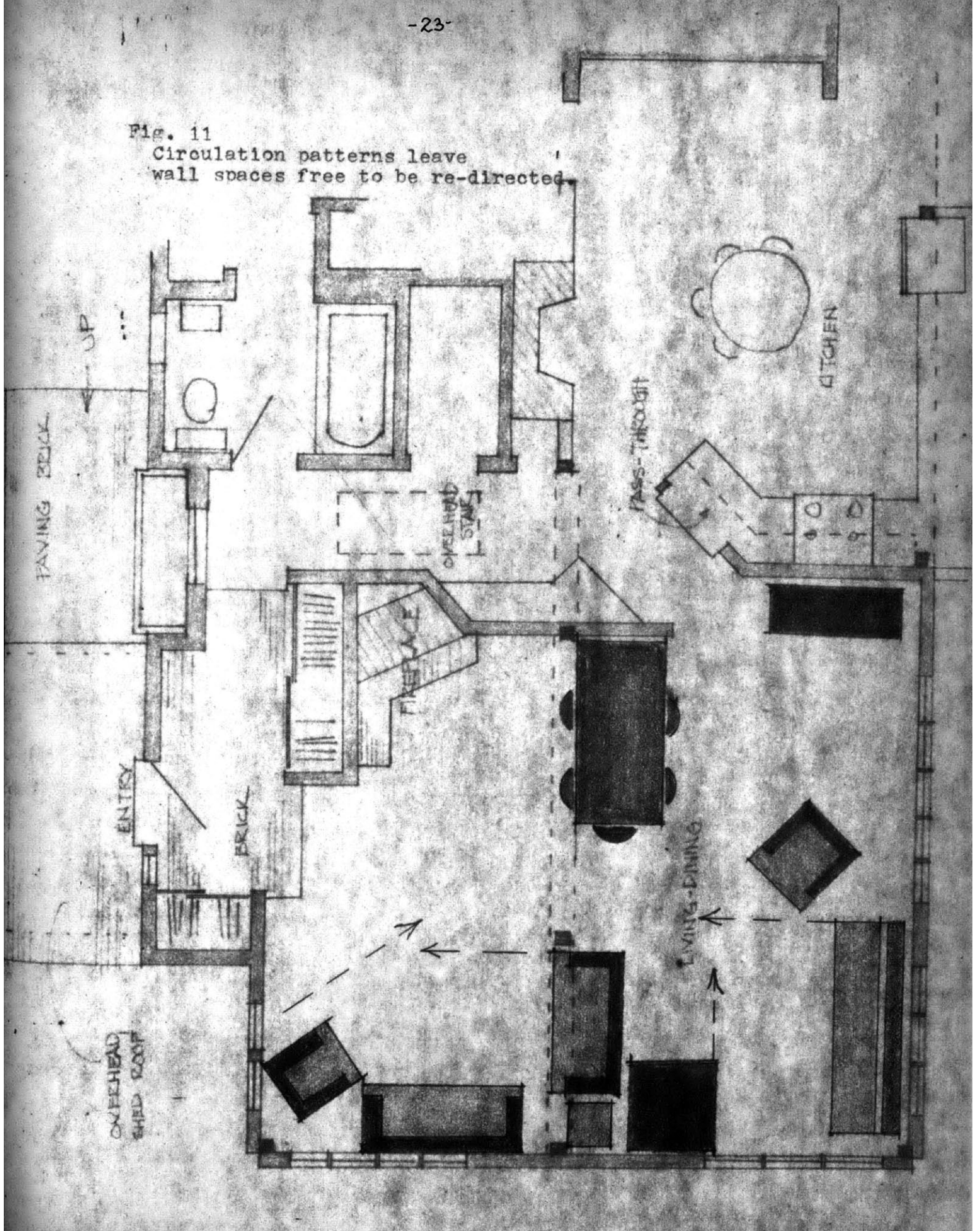


Fig. 12
Re-orientation of major furniture
elements changes character of the space-use.

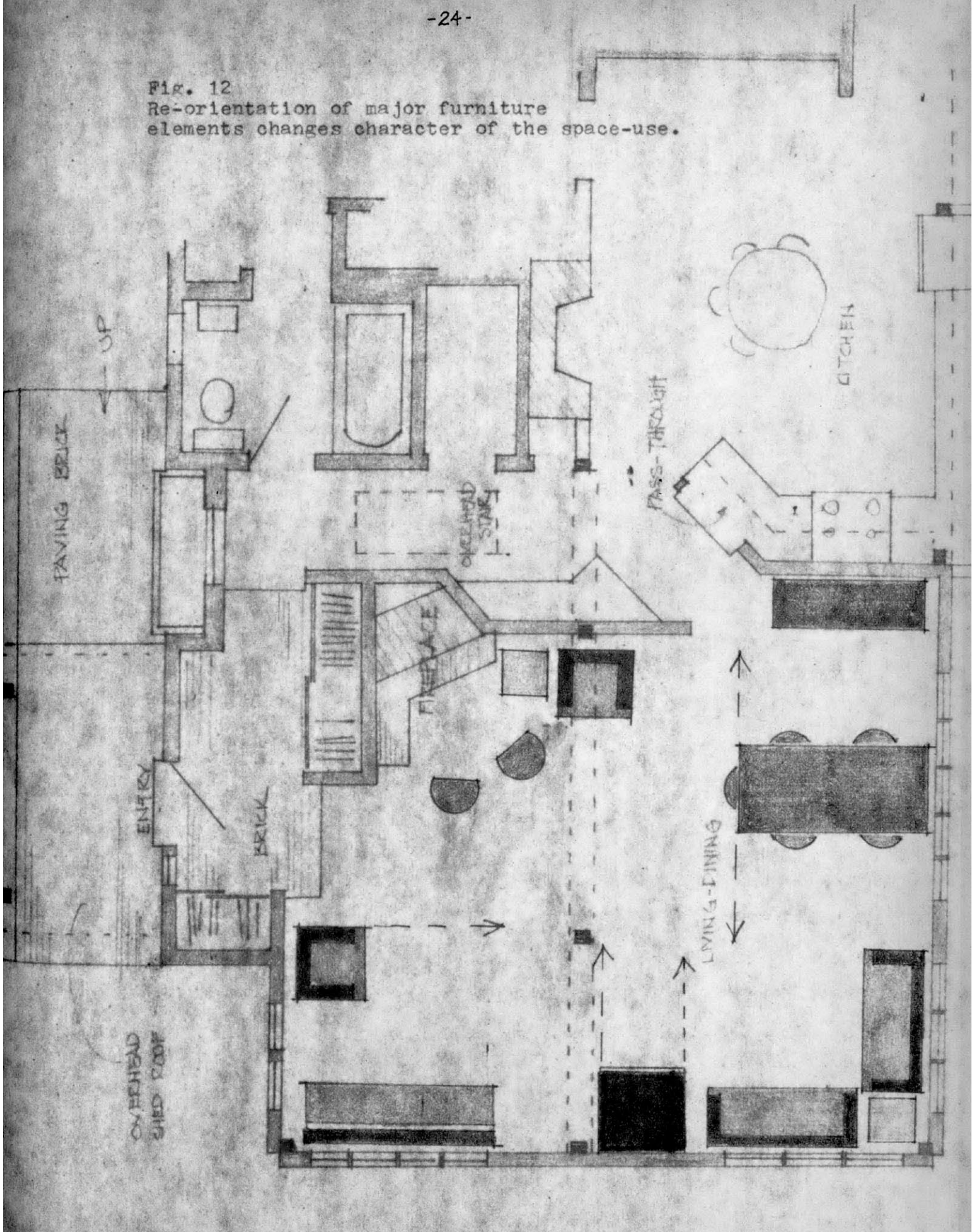


Fig. 13
Creation of four distinct use-areas by
furniture arrangement.

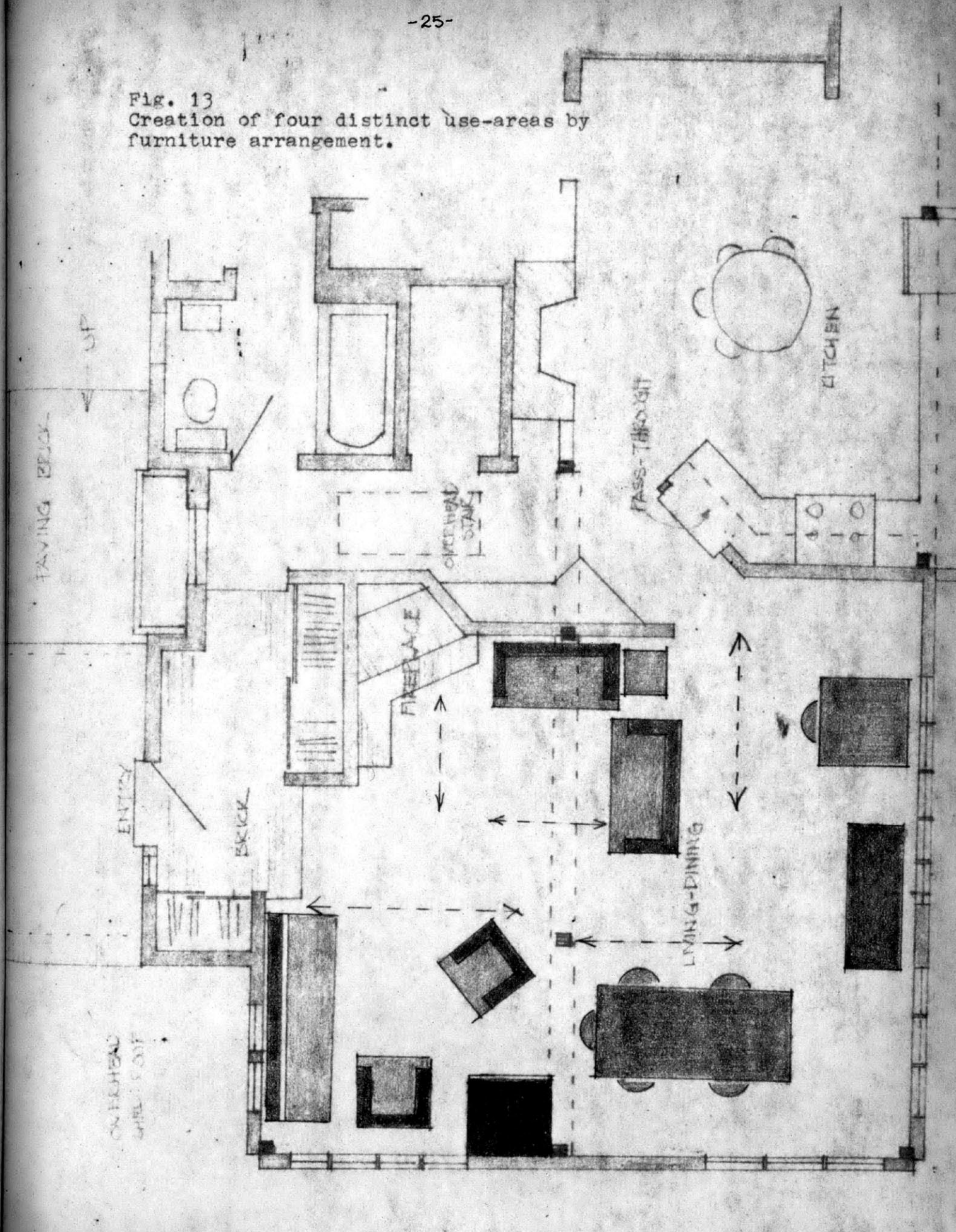


Fig. 14
Use of re-orientable couch-table
framework.

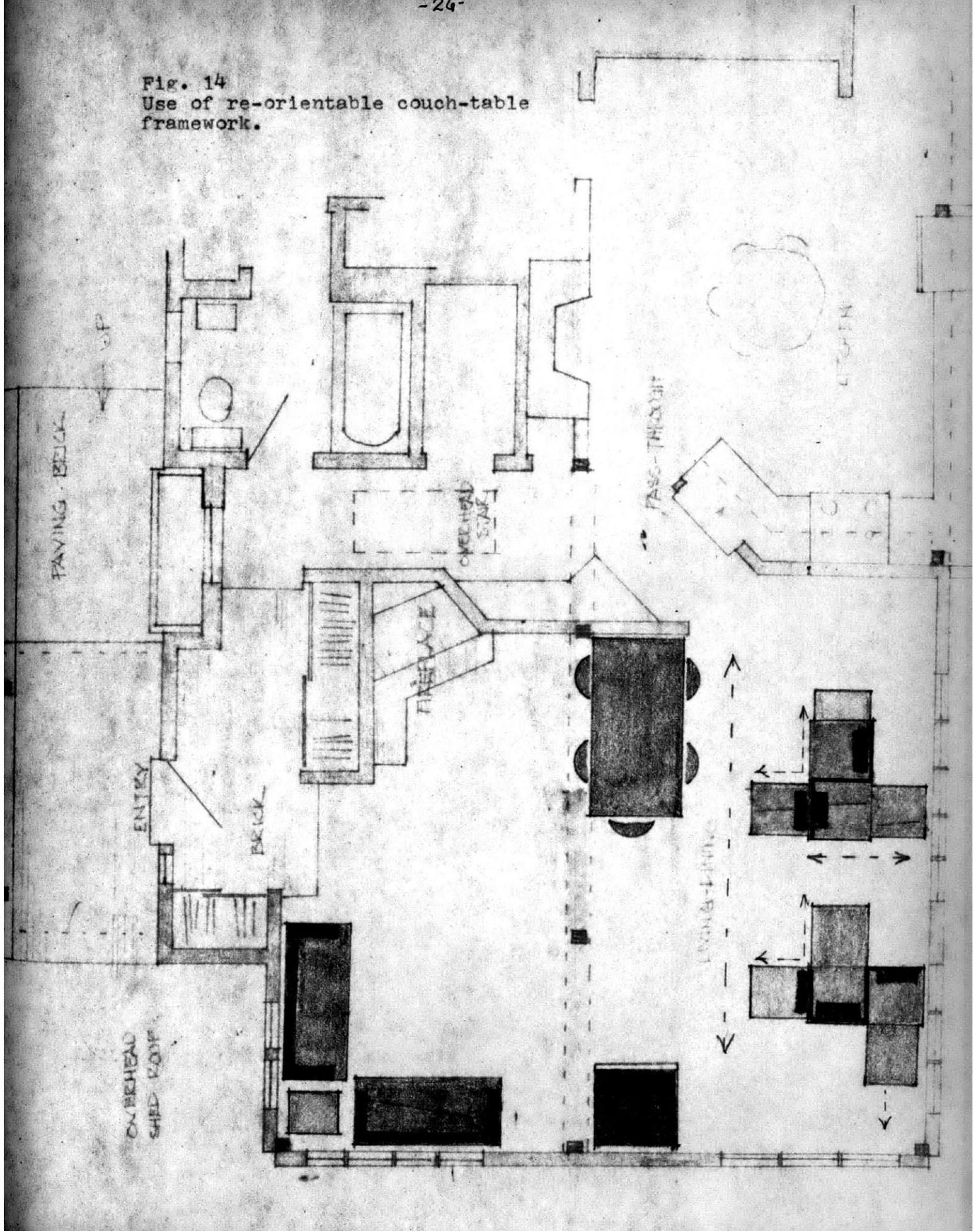
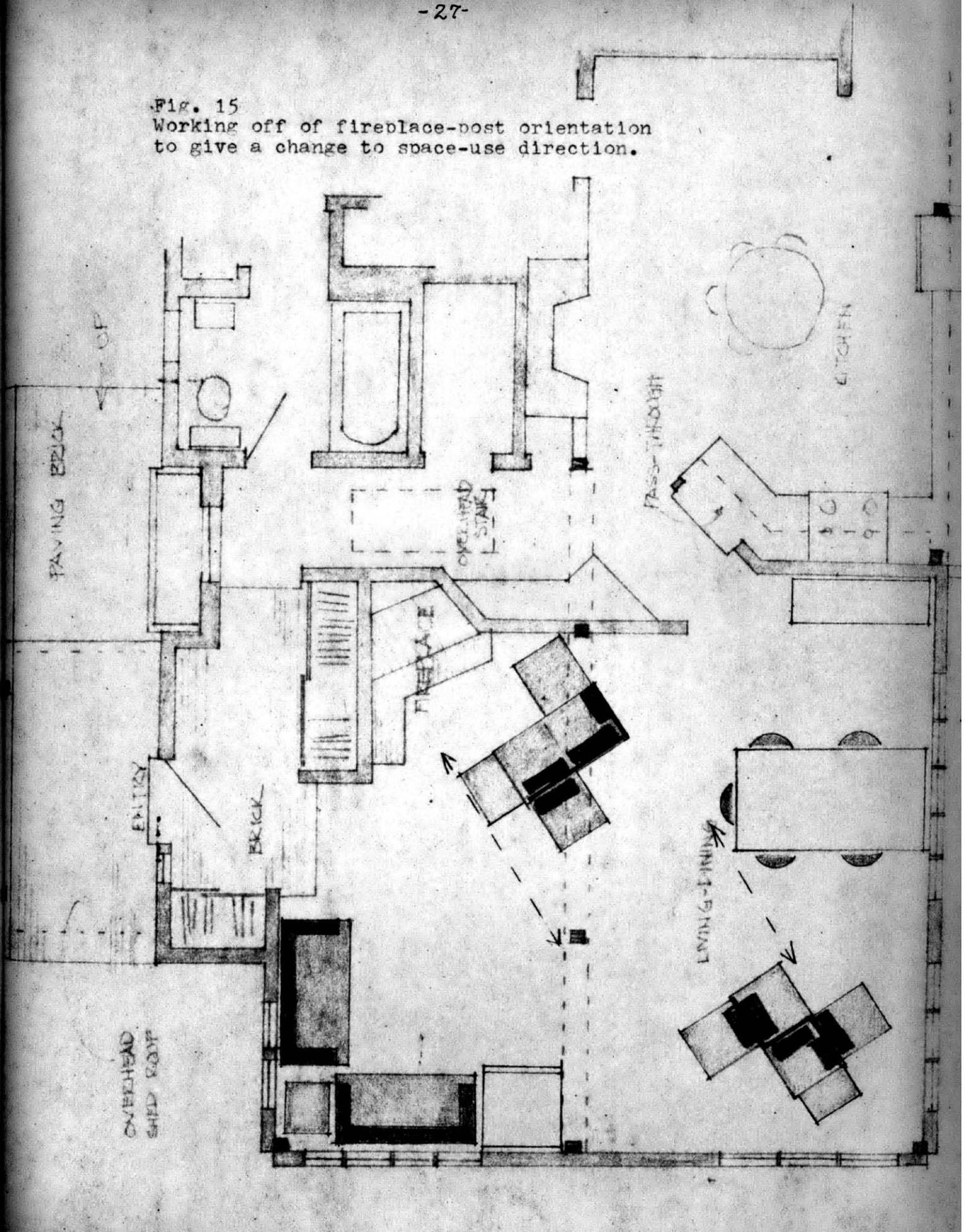


Fig. 15
Working off of fireplace-post orientation
to give a change to space-use direction.



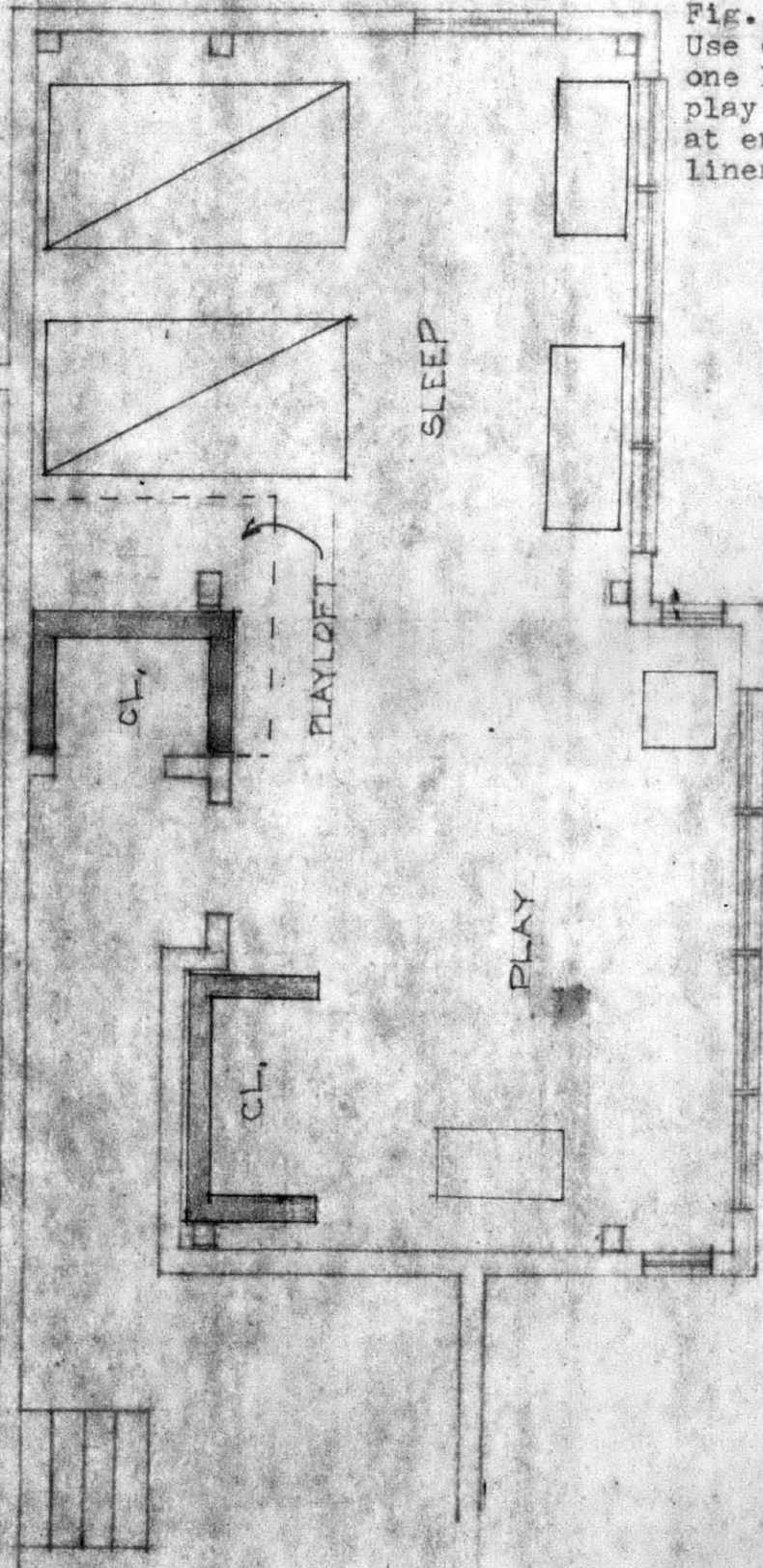
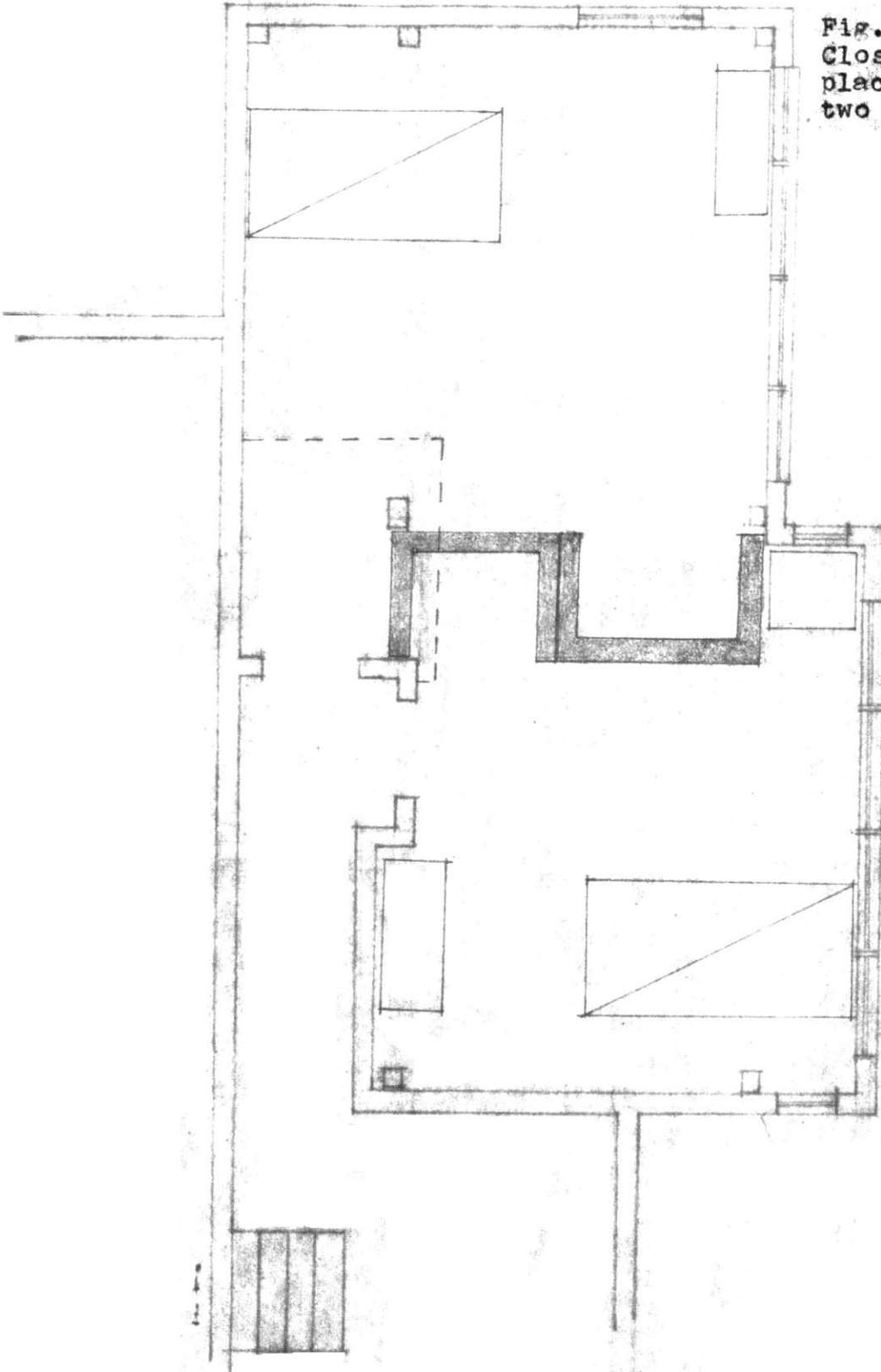


Fig. 16
Use of kids area as
one large sleep-
play space. Closet
at end of hallway for
linen.

Fig.17
Closets may than be
placed as shown for
two individual rooms.



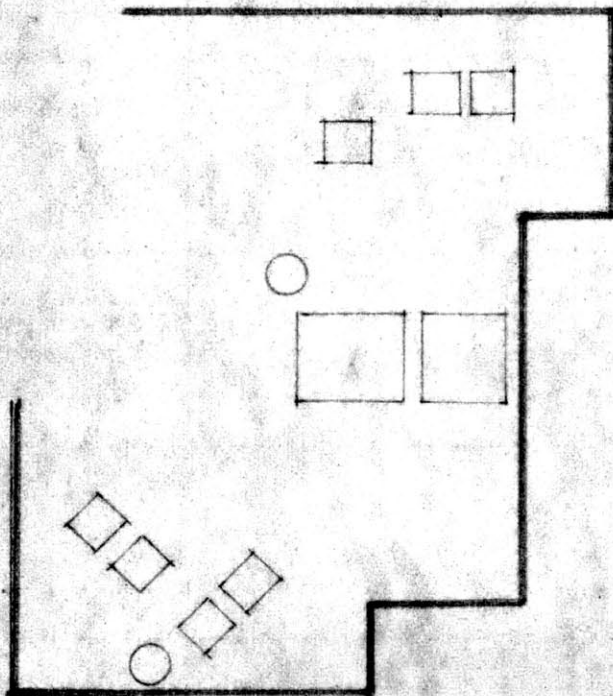


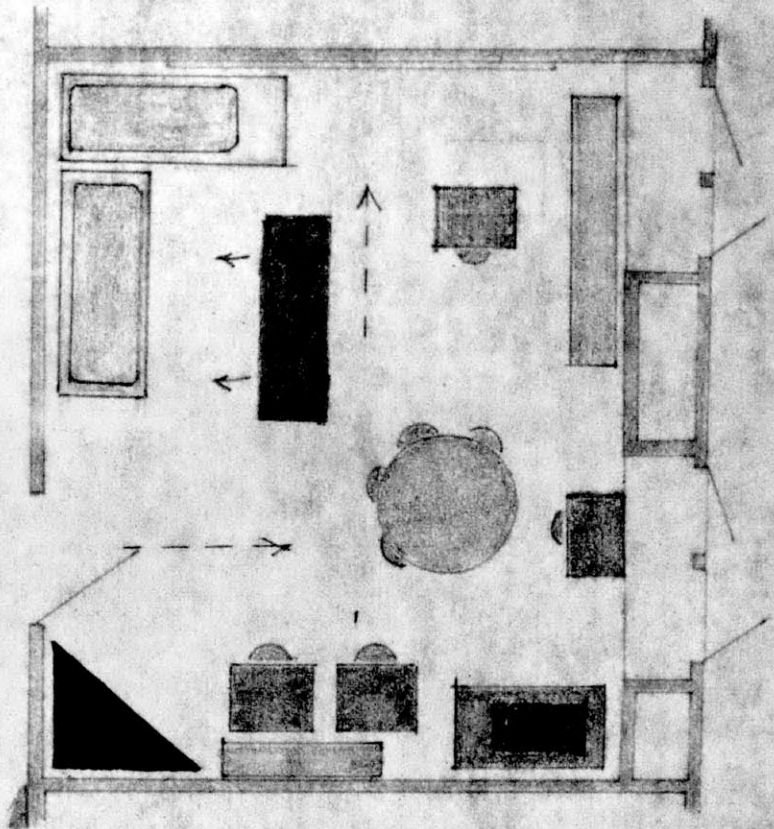
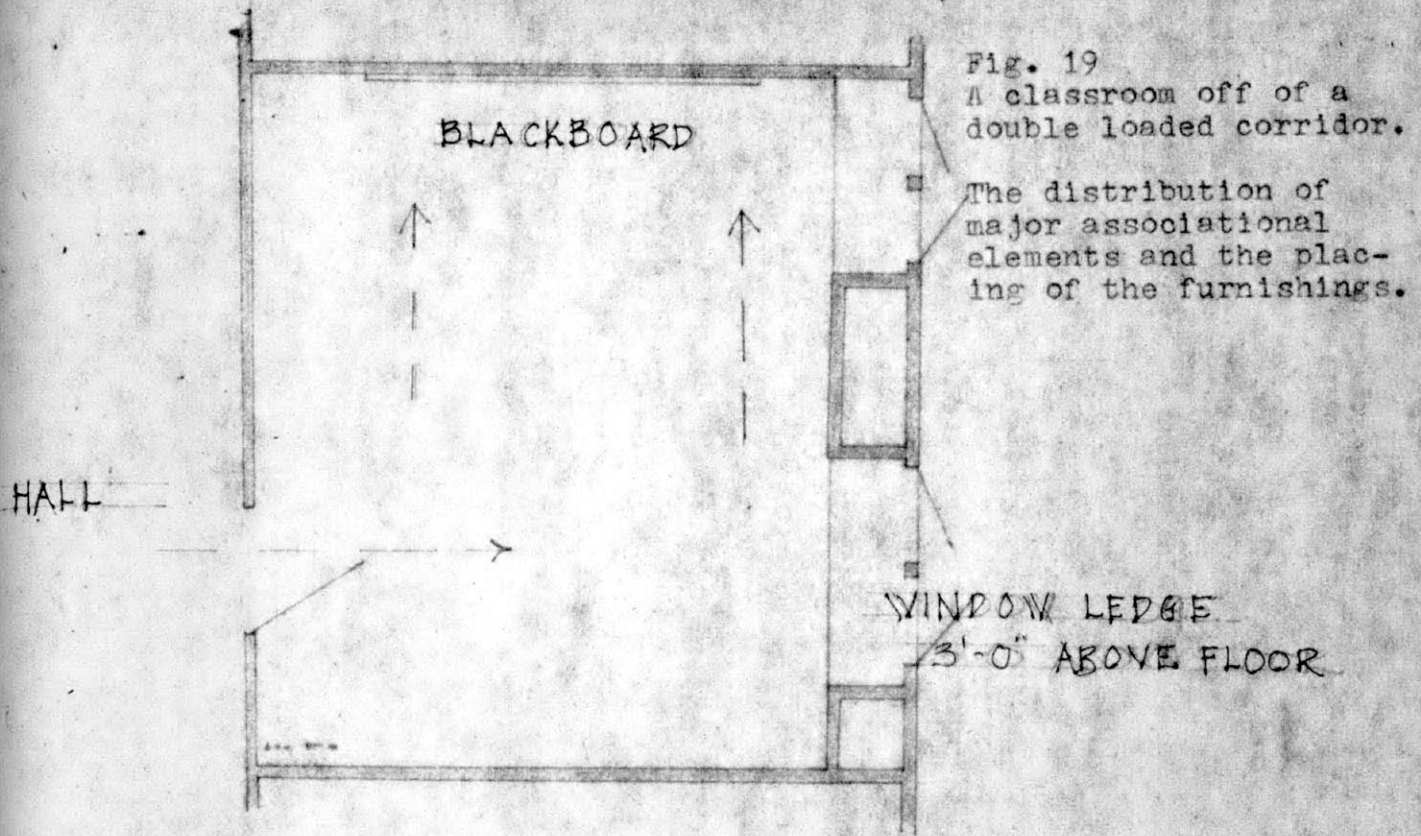
Fig. 18
Furnishings acquire greater meaning if able to form a spatial relationship with a larger geometry.

This indentation does not have to be done with the major supporting structure.

It does not even have to go up the distance defined by the walls.

Can be independent from previous conditions determined by the major structure.

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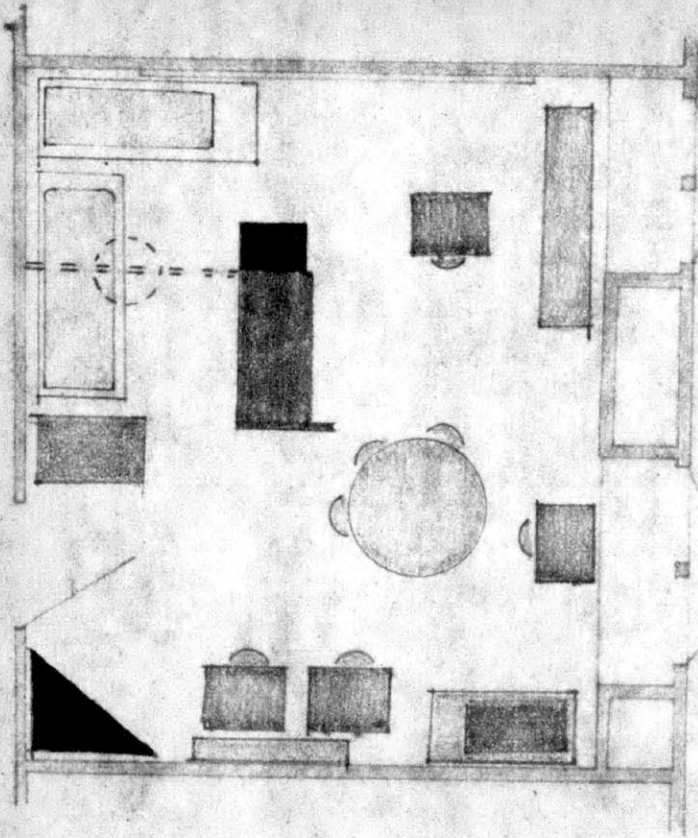
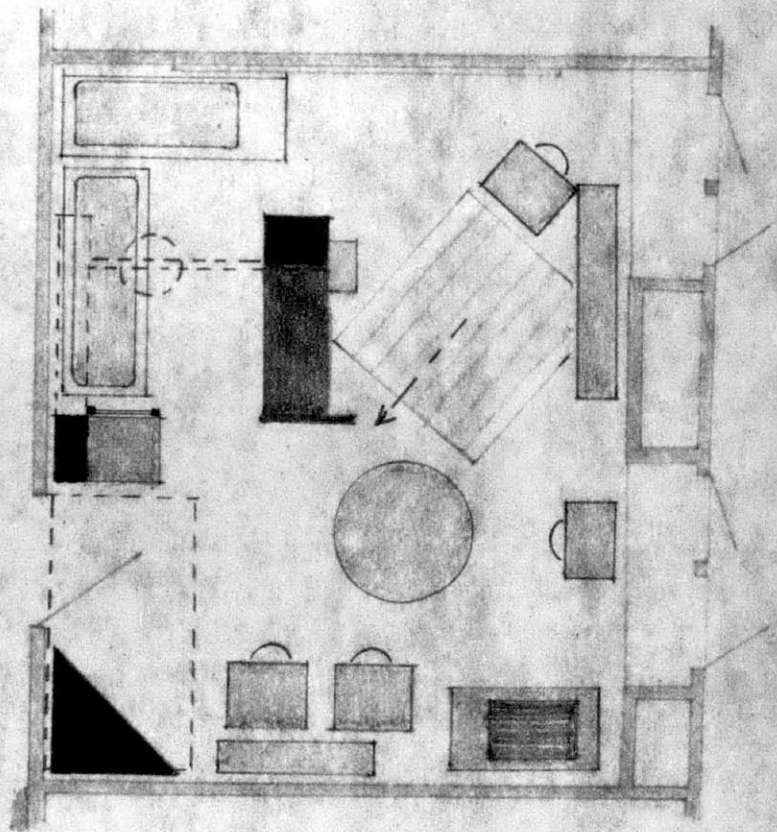


Fig. 20
Embellishment and re-orientation of the space through frameworks. These allow attachments of subsequent planes which go beyond the initial framework definitions.



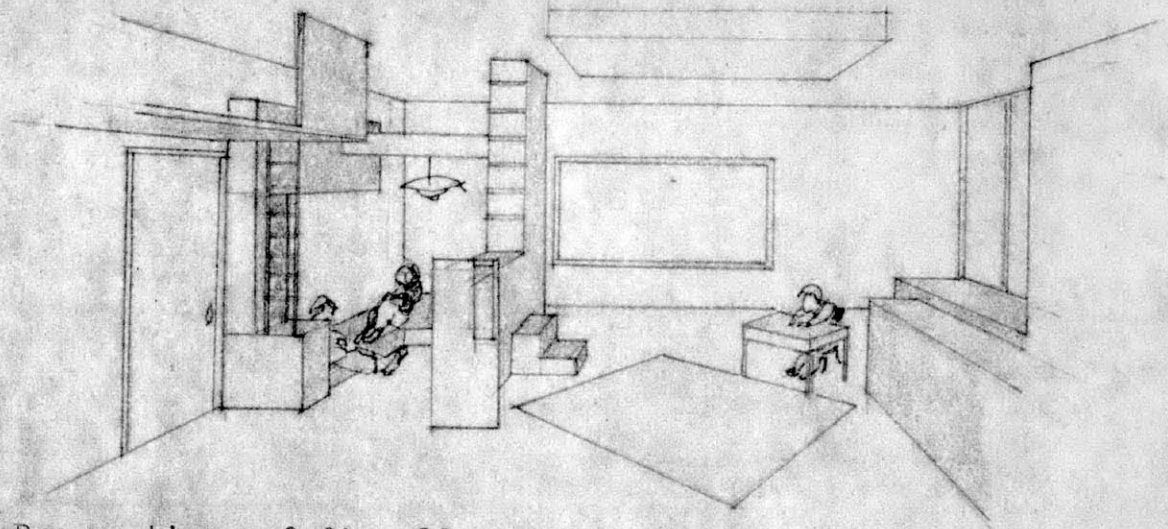
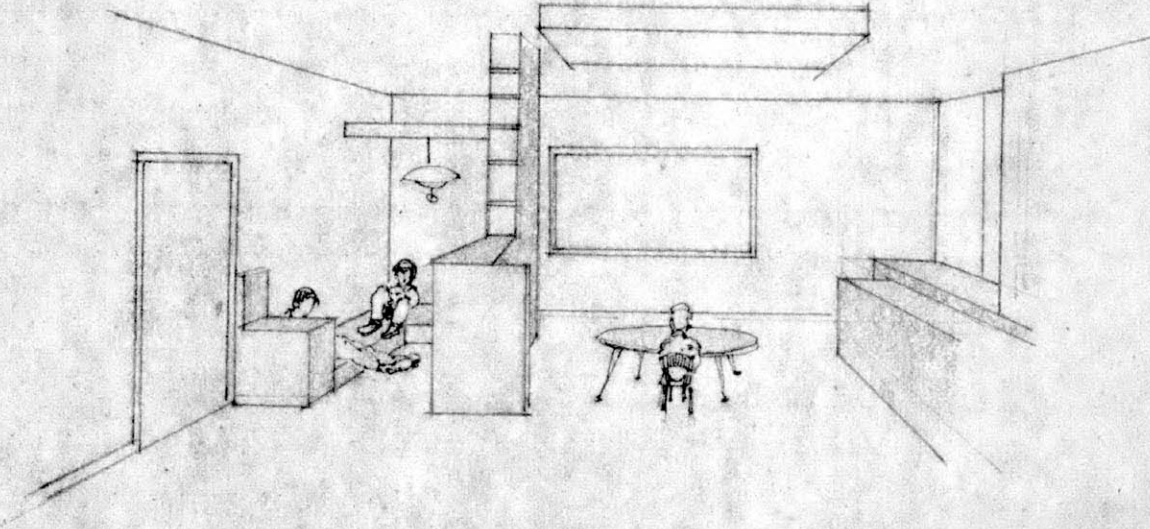


Fig. 21
Perspectives of fig. 20

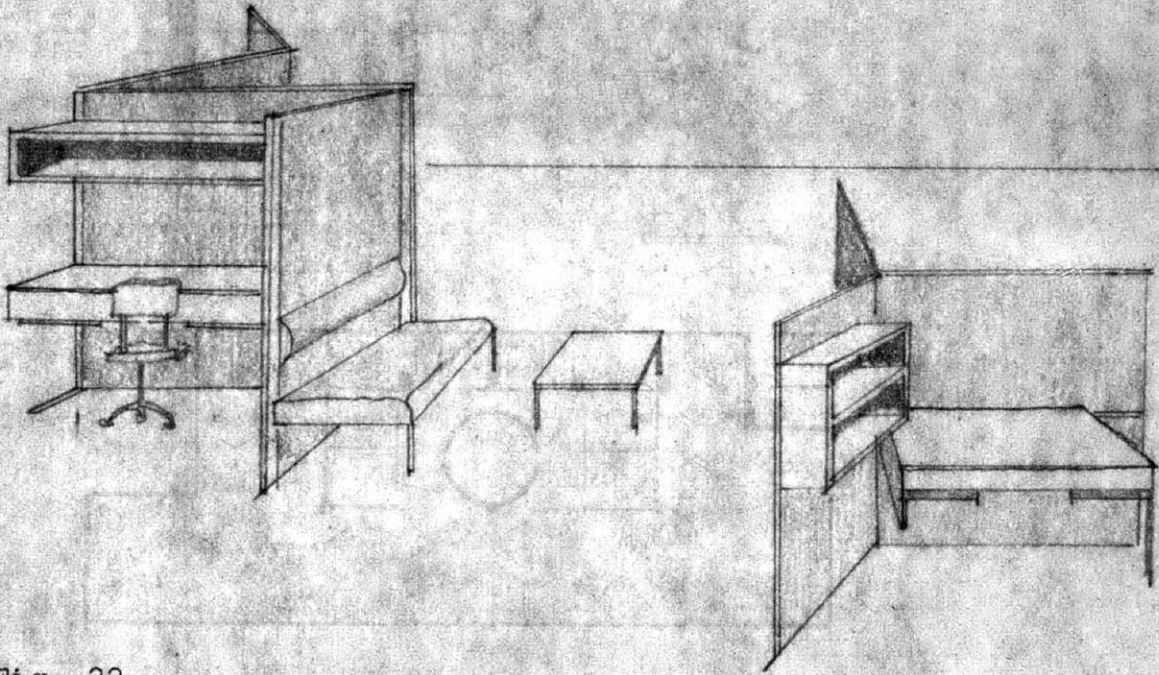
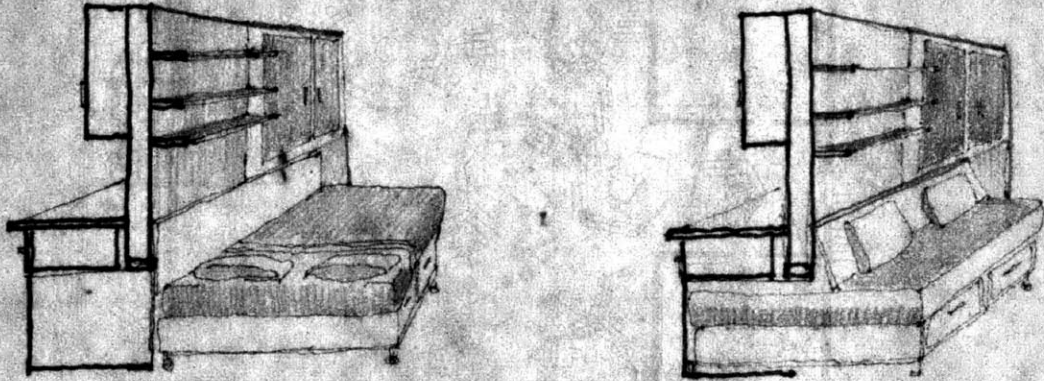


Fig. 22
Intermediate ranges of furniture, not as permanent as the built structure, and more permanent than individual pieces. These allow other uses to be hung off of them, and require a certain initial stability. Their capabilities for carrying other significant definition are not even beginning to be realized.

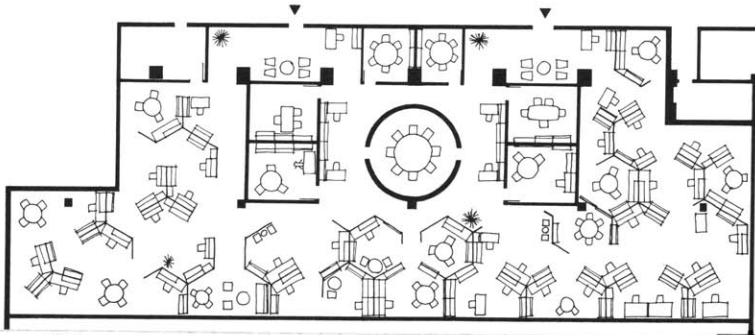
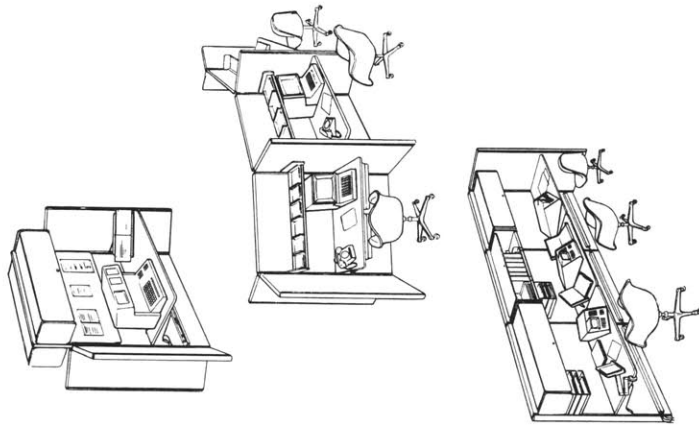
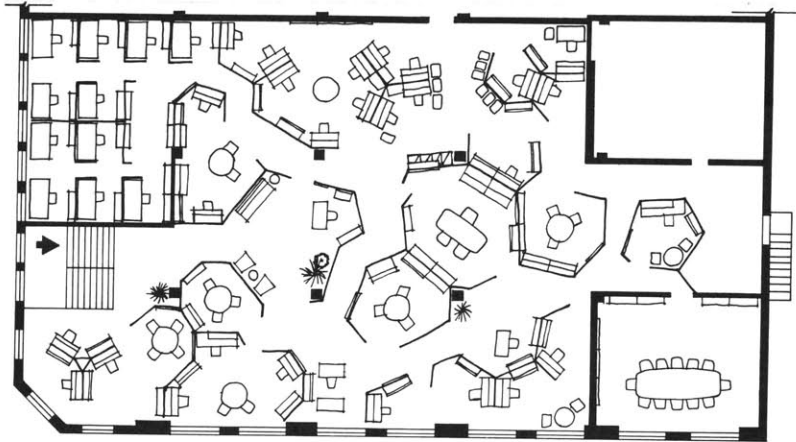


Fig. 23

The use of a range of permanencies in a modern office complex. The use of a unitary height for the partitions negates much of the concept, but does create an arbitrary consistency.

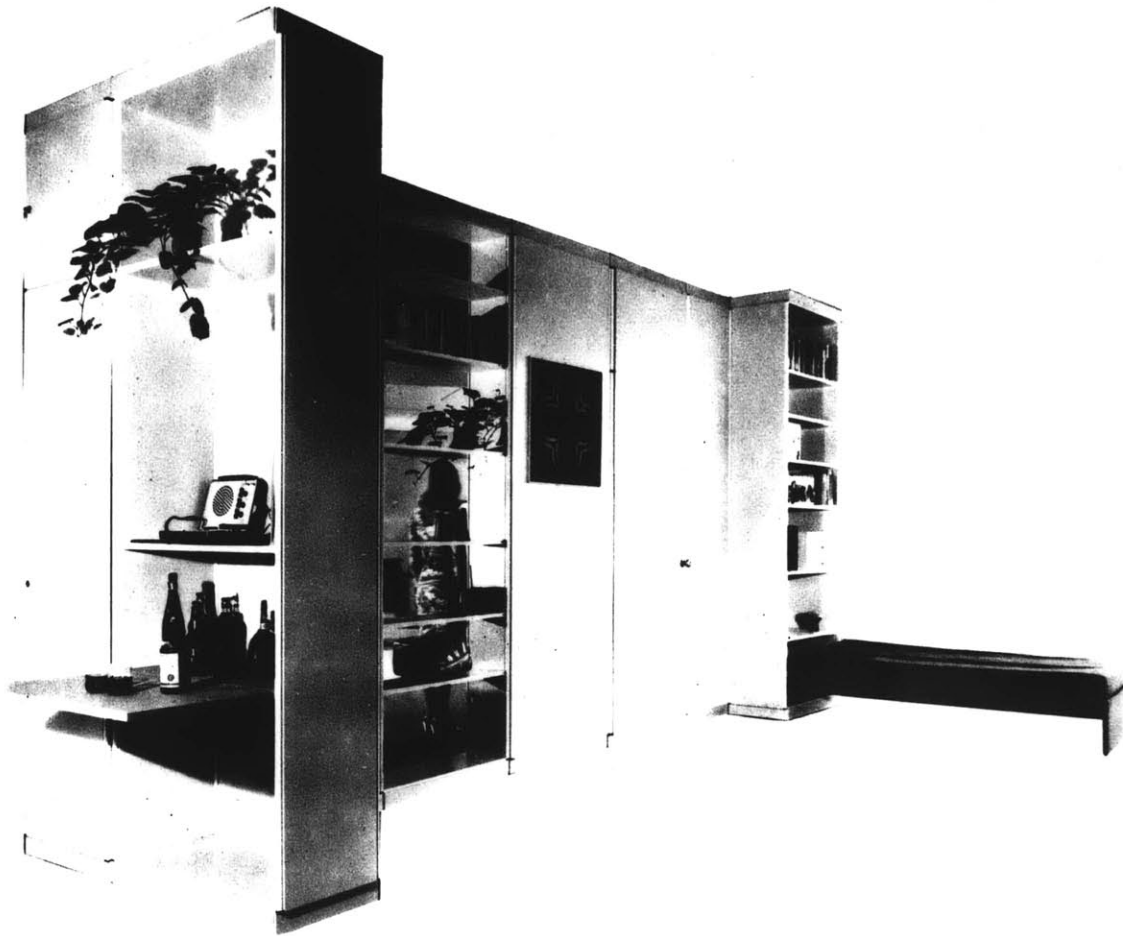


Fig. 24

The partition seen as more than a plane, with attachable surfaces and the creation of significant volumes.

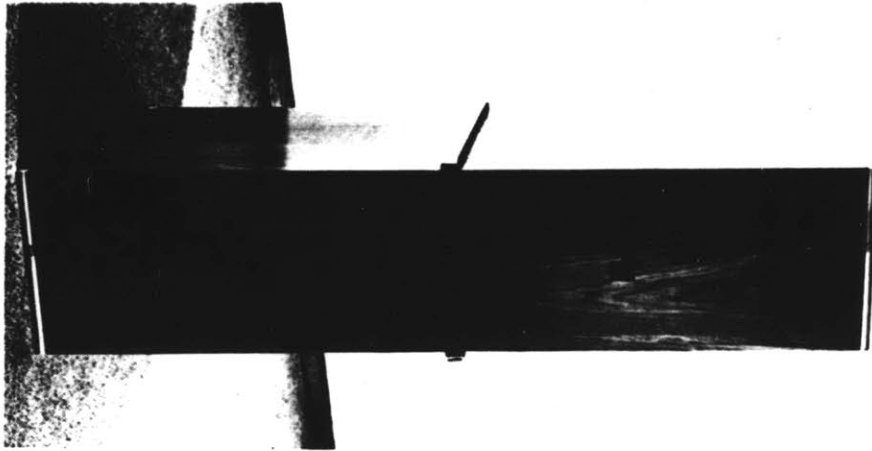
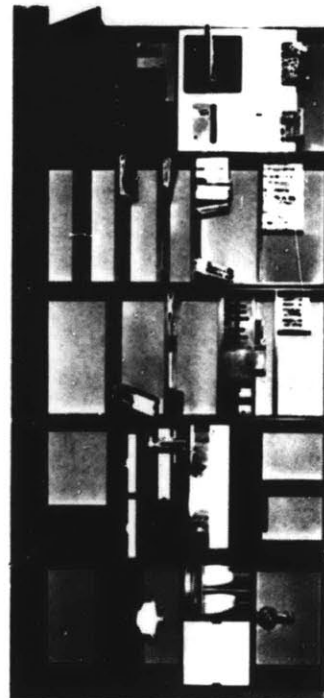
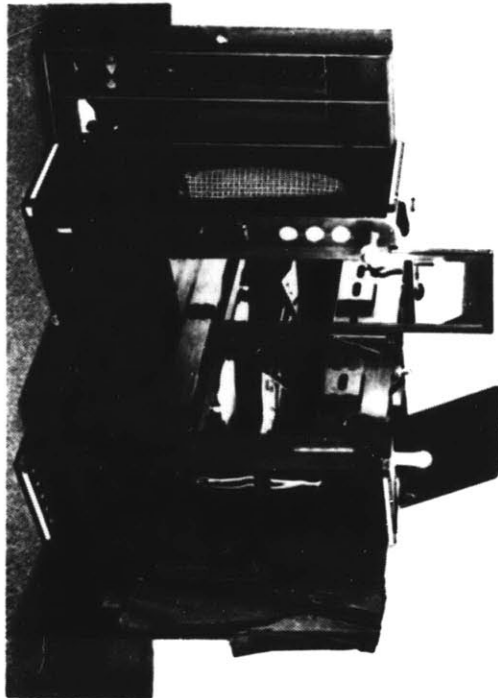


Fig. 25

Folding suitcase analogy: can be used either against a wall, or as space definition with the fold producing stability. This is a series of sophisticated nesting and sliding interior boxes.



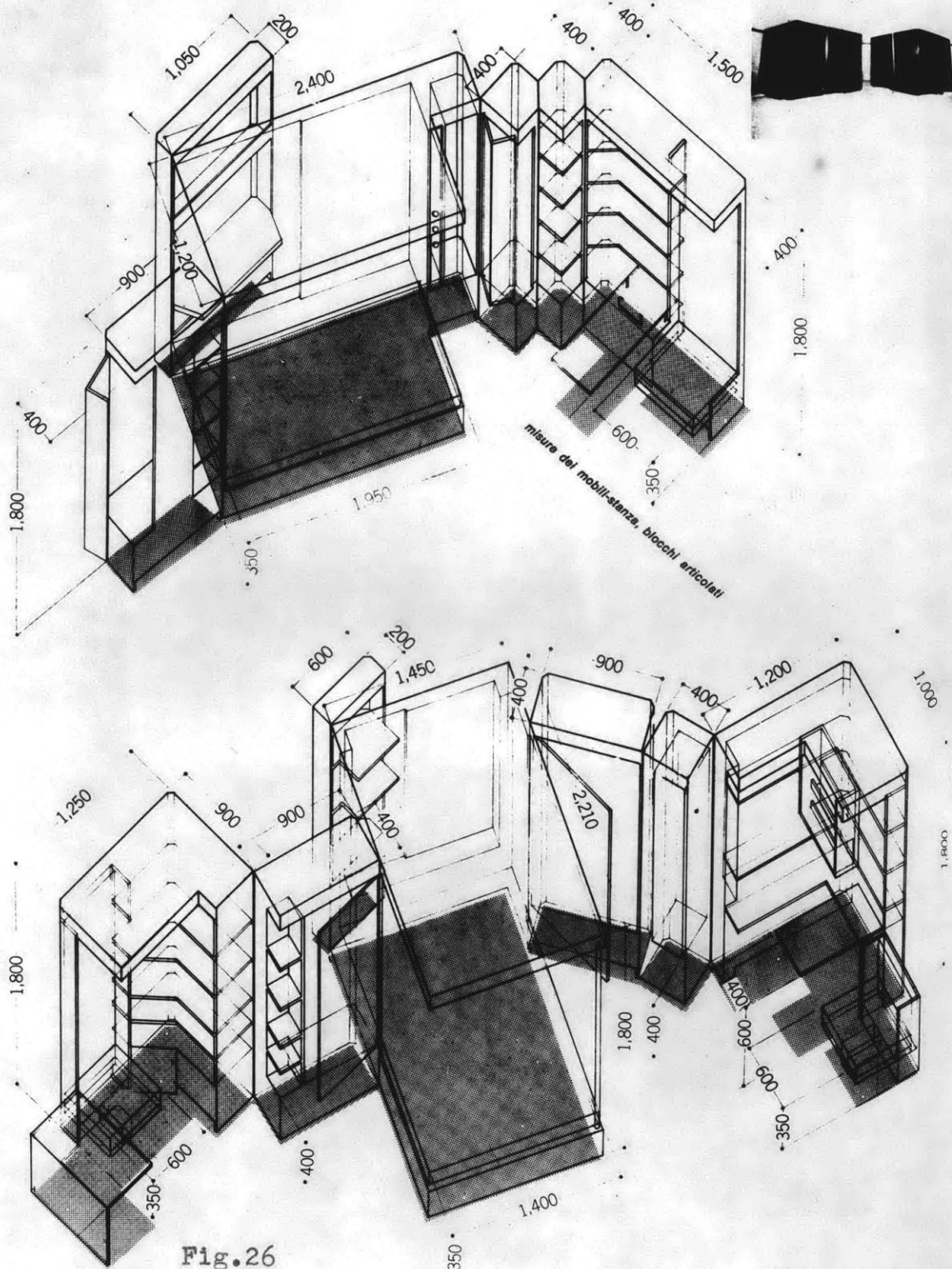
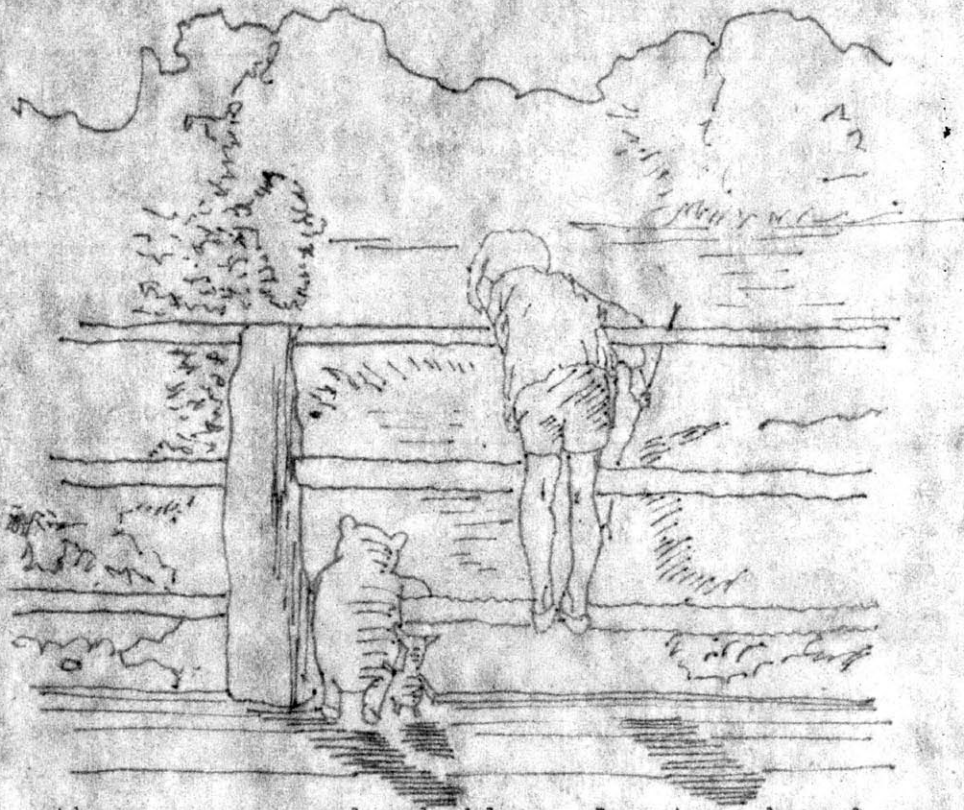


Fig.26
More suitcase analogies, except here the right angle stability is built into the piece, allowing significantly more attachment.

Fig. 27



"... there was a wooden bridge, almost as broad as a road, with wooden rails on each side of it. Christopher Robin could just get his chin to the top rail, if he wanted to, but it was more fun to stand on the bottom rail, so that he could lean right over, and watch the river slipping slowly away beneath him. Pooh could get his chin on to the bottom rail if he wanted to, but it was more fun to lie down and get his head under it, and watch the river slipping slowly away beneath him. And this was the only way Piglet and Roo could watch the river at all, because they were too small to reach the bottom rail. So they would lie down and watch it.... and it slipped away very slowly, being in no hurry to get there."

The House at Pooh Corner



Fig. 28
Singular, non-moveable contours, if possessed of a range of curvatures, can accommodate different shapes of persons and different uses.

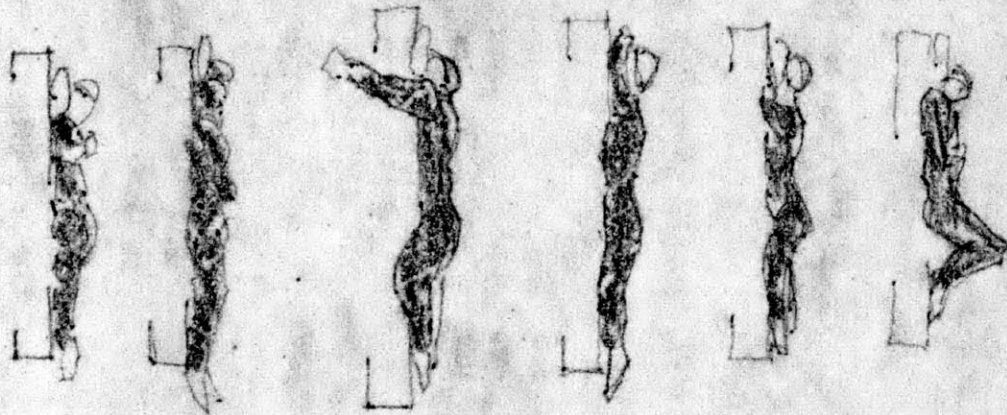


Fig. 29

Items get used in different ways than that for which they were designed. The bed as a soft plane accommodates more unspecified positions because it is neutral and non-specific.

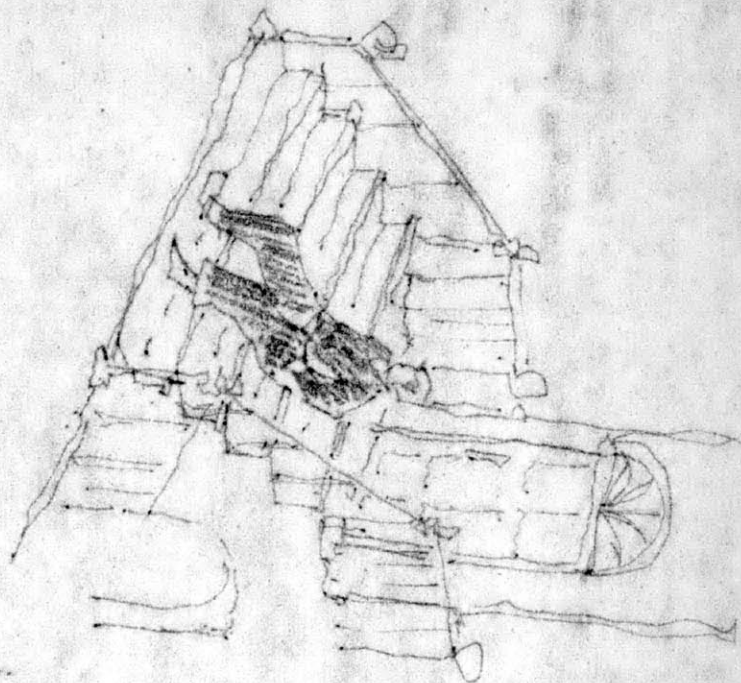




Fig. 30
softness and malleability

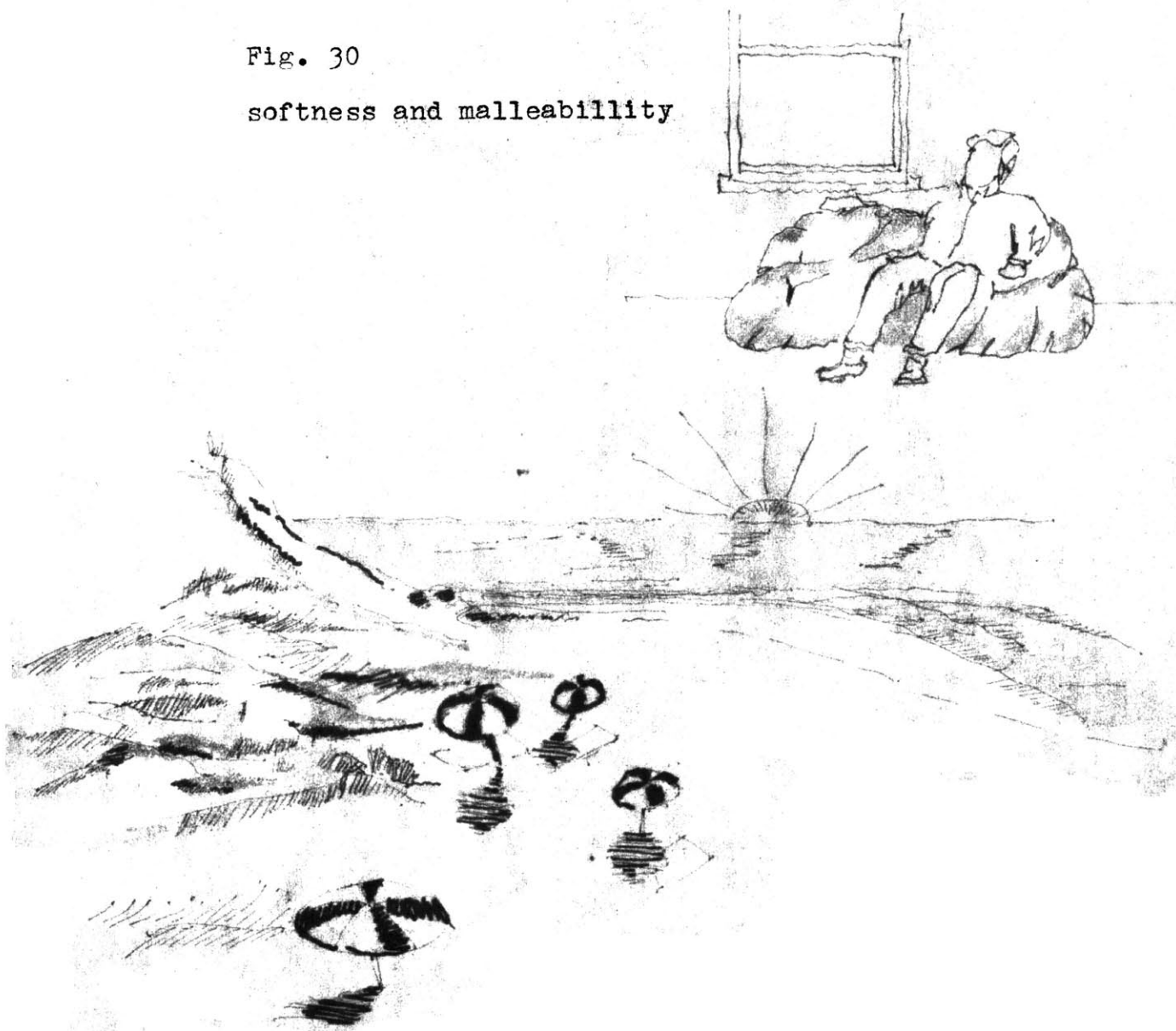




Fig. 31
An attempt to make specific curves
recombinable. Provision for the attachment
of small plaques increases its usefulness.

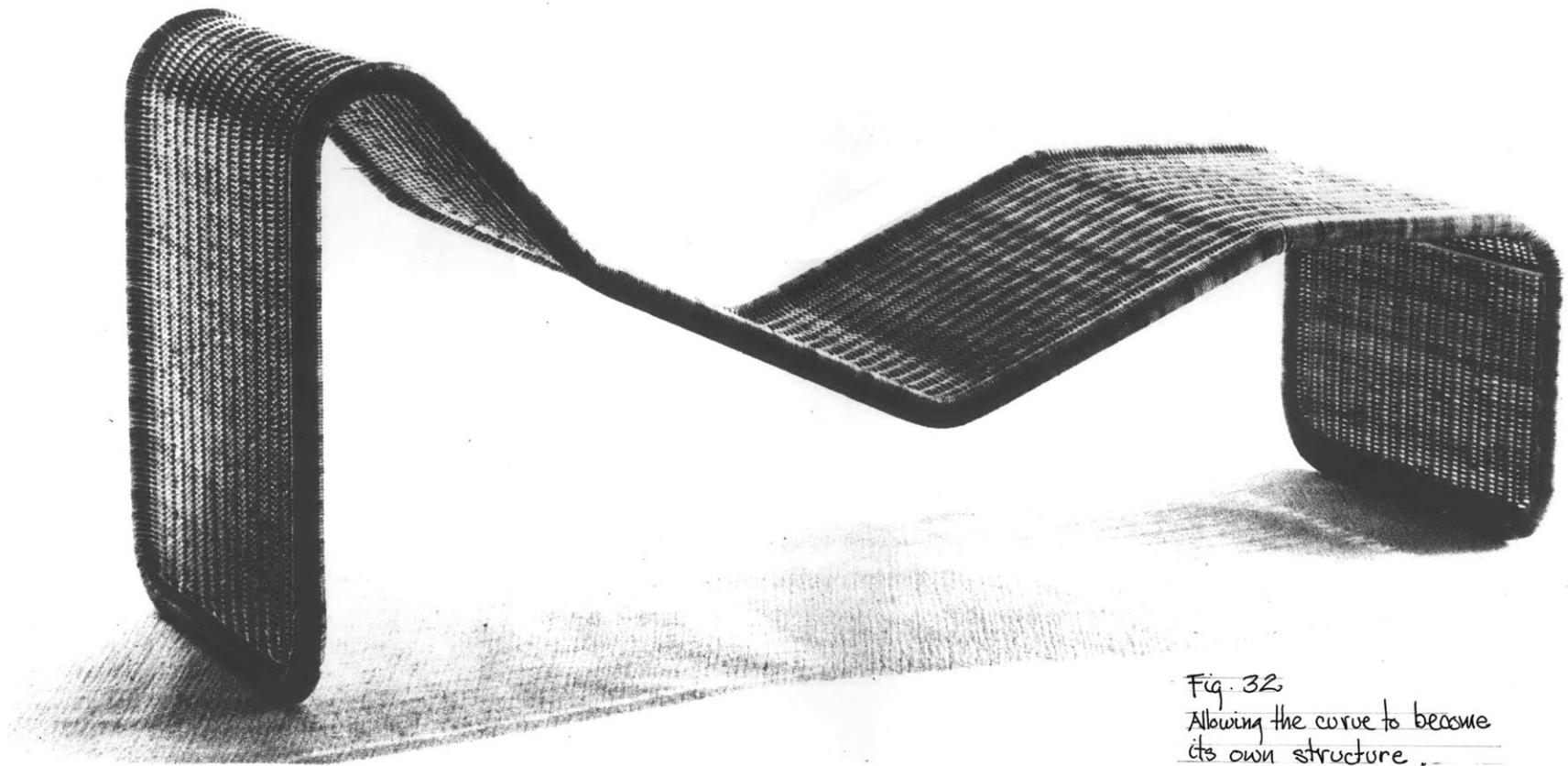


Fig. 32
Allowing the curve to become
its own structure . . .

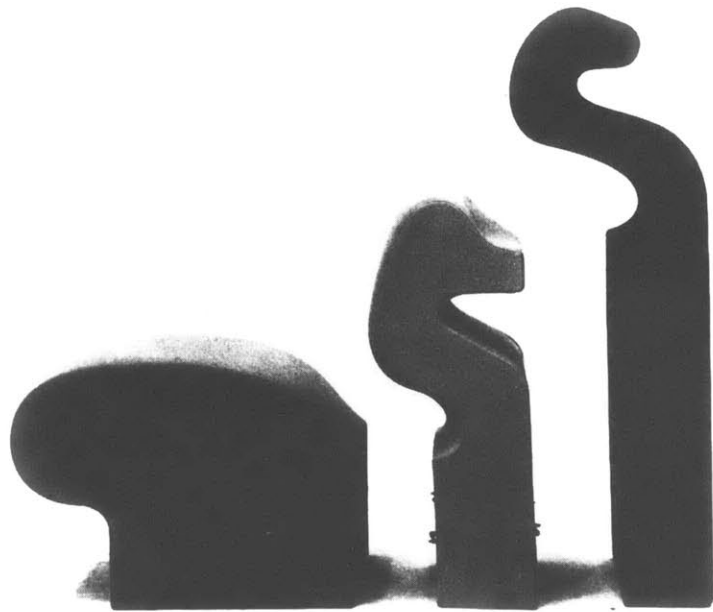


Fig. 33
The use of specific, singular
shapes in combination.

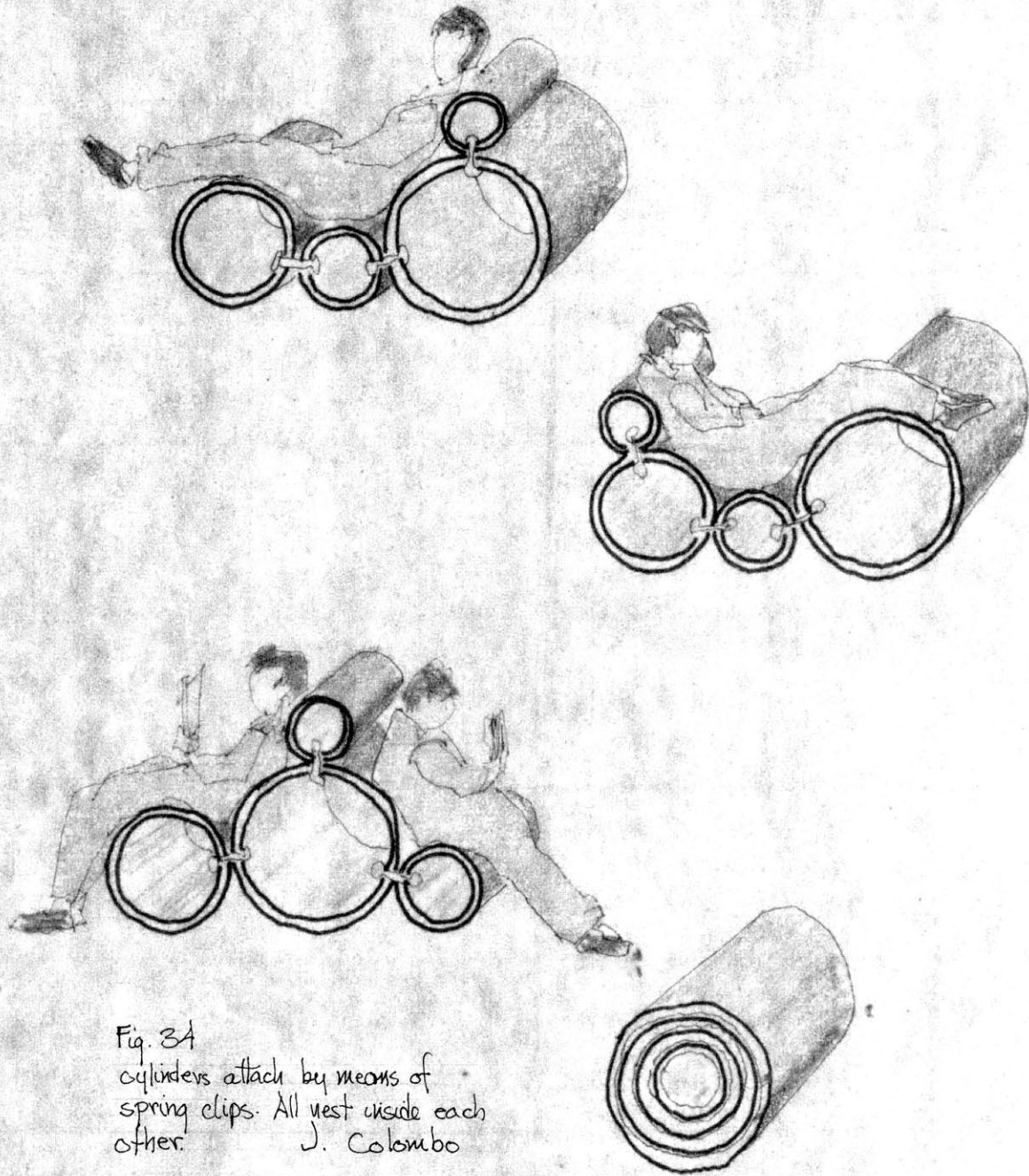


Fig. 34
cylinders attach by means of
spring clips. All nest inside each
other. J. Colombo

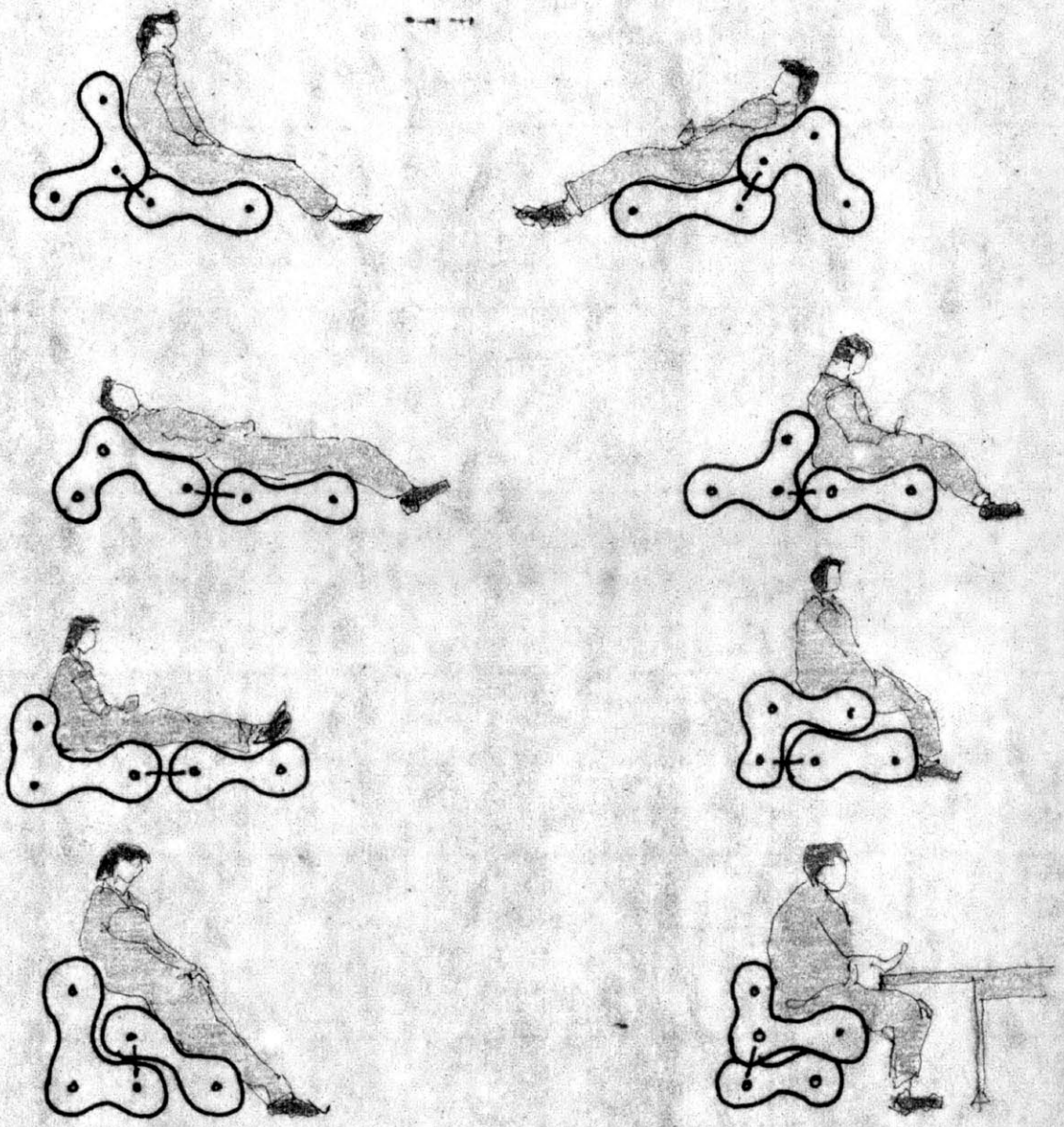


Fig. 35
specific contours combine into many
use-forms. J. Colombo

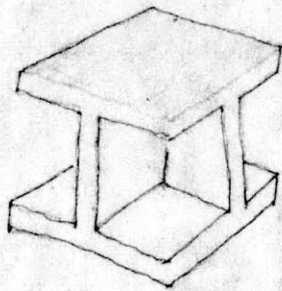
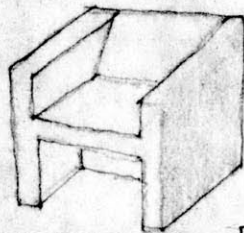
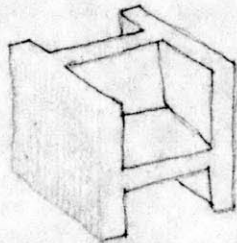
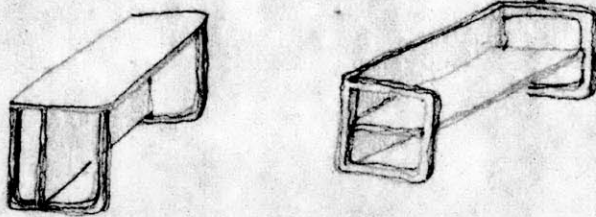
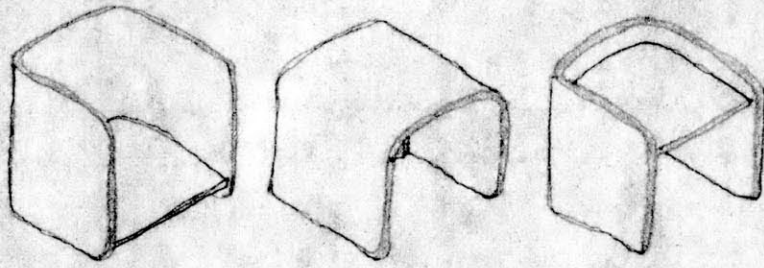


Fig. 36
The exploitation of the
3 basic independent dimensions
of a rectangular solid.

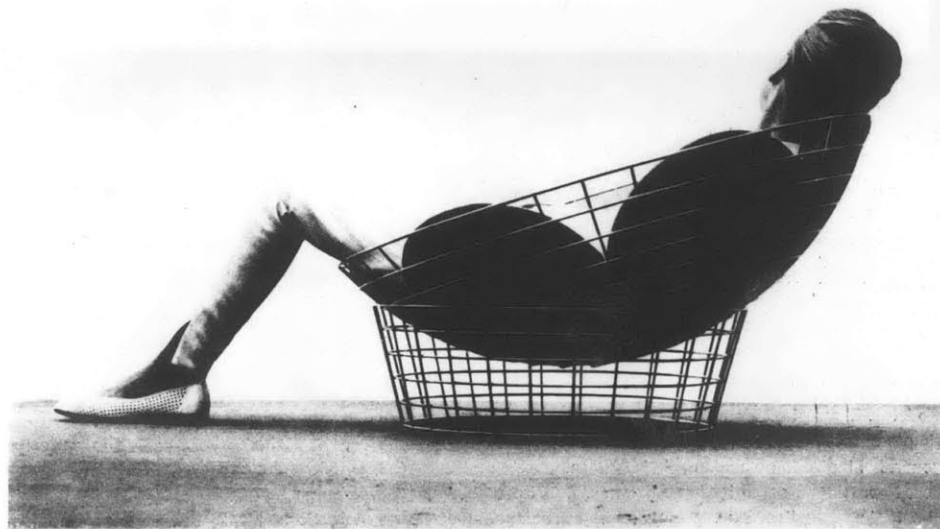
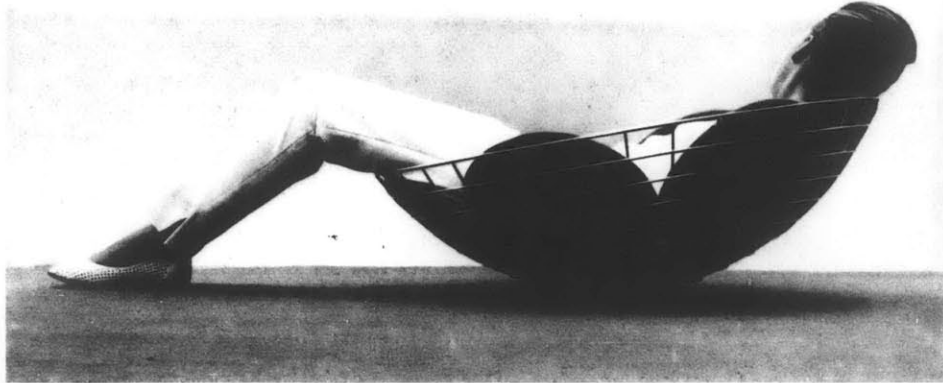


Fig. 35 a.

Continuous variation of position of the same piece. A "rocking" chair which can be locked into position.

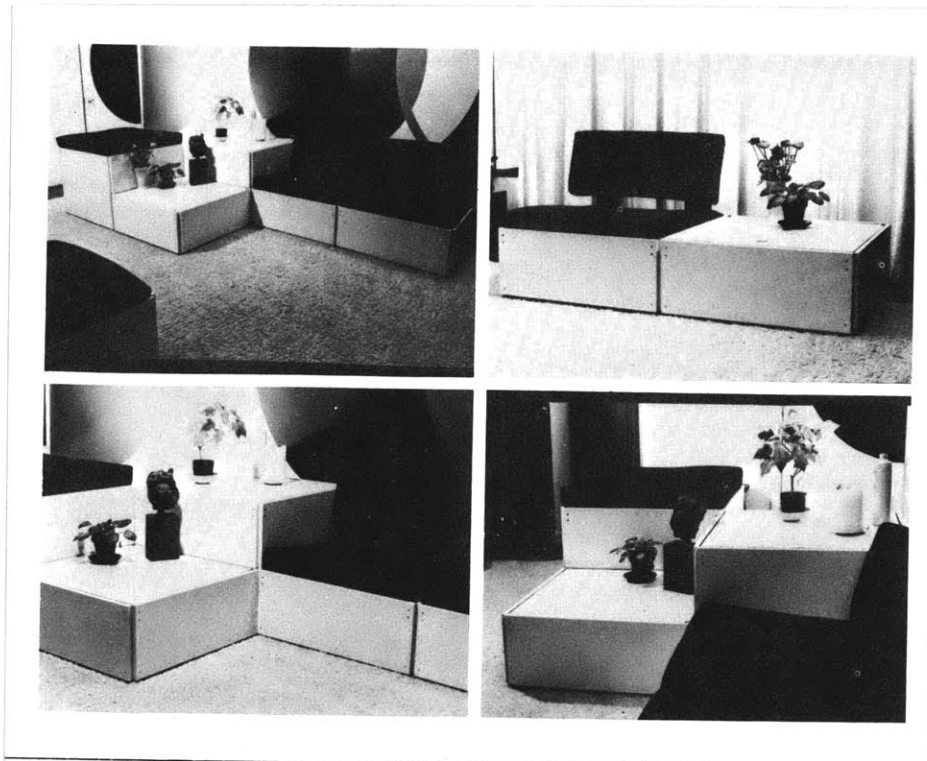


Fig. 37

The use of simple boxes with attachable back-rests to allow different orientations and combinations.

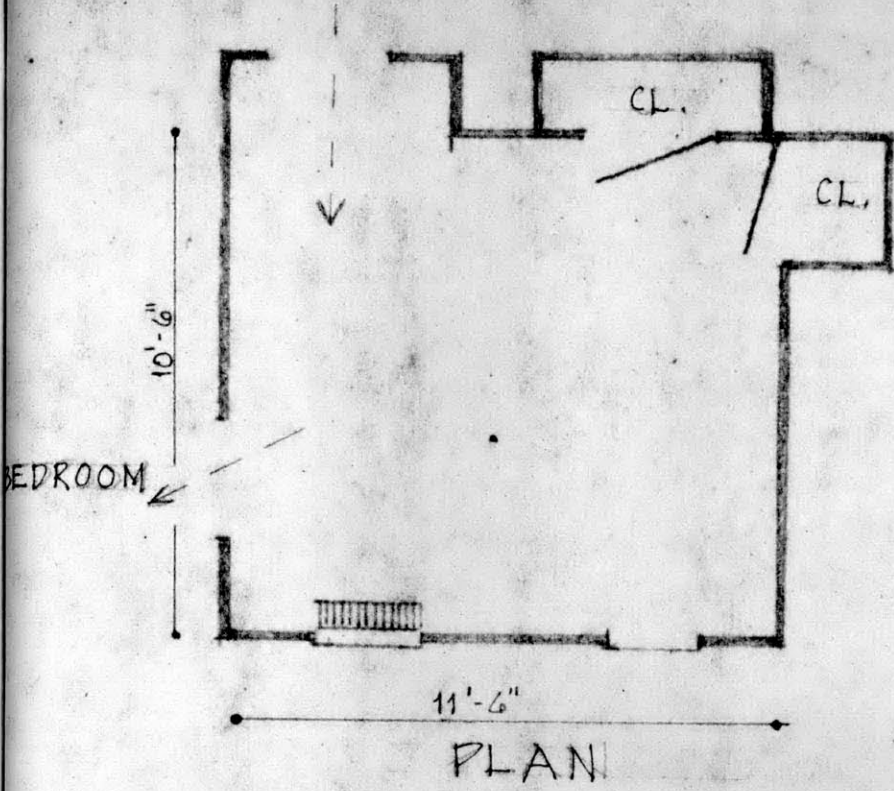
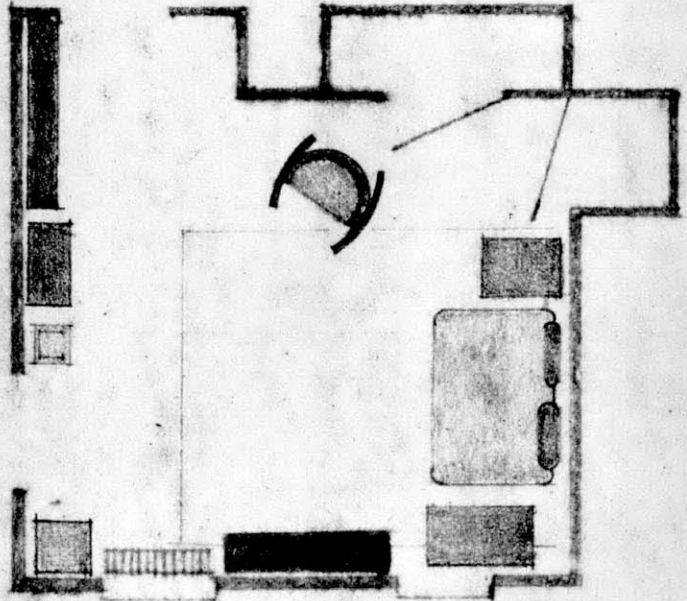


Fig. 38
Apartment plan, and
existing furnishing
working off of given
circulation pattern.
Room is small enough
that floor serves as
basic framework with
lightweight-movable
furnishings.



EXISTING
FURNISHING

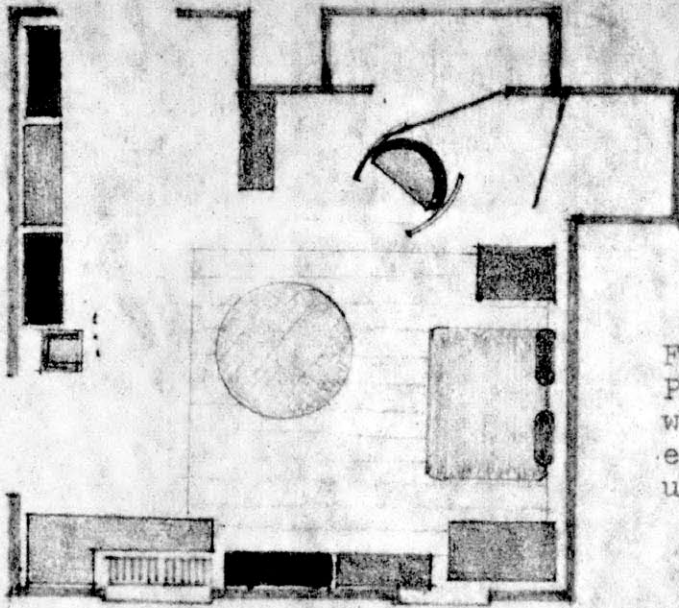
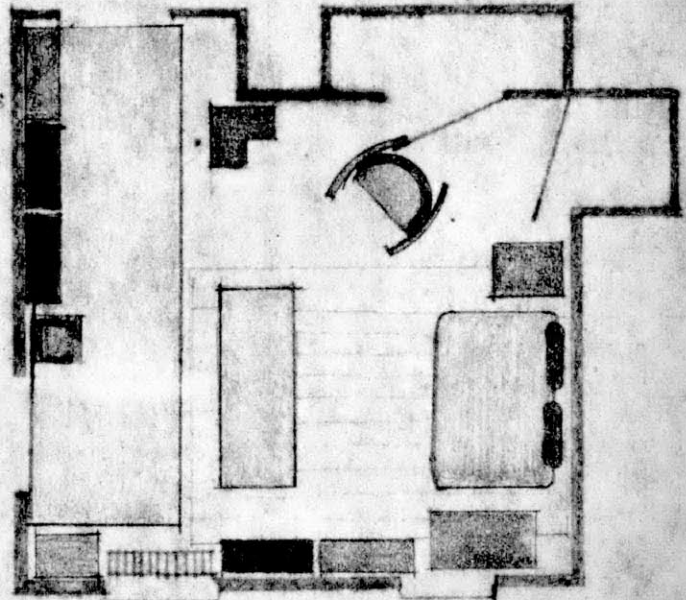


Fig. 39
Proposed improvements,
with slight edge pieces
enhancing the given
use pattern.

Raised floor unit
emphasizes traffic
function and provides
another usable edge.



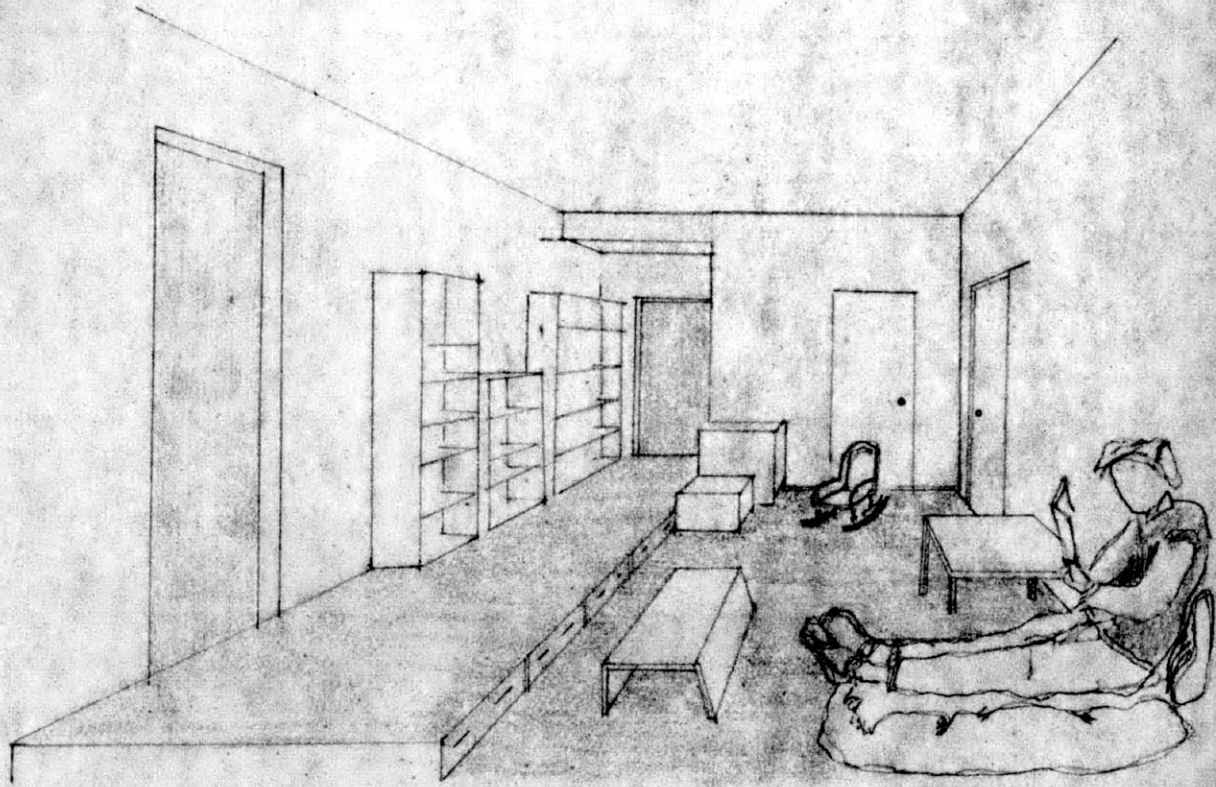


Fig. 40
Perspective of the use of floor unit, and
using this to establish primary direction
to work from.

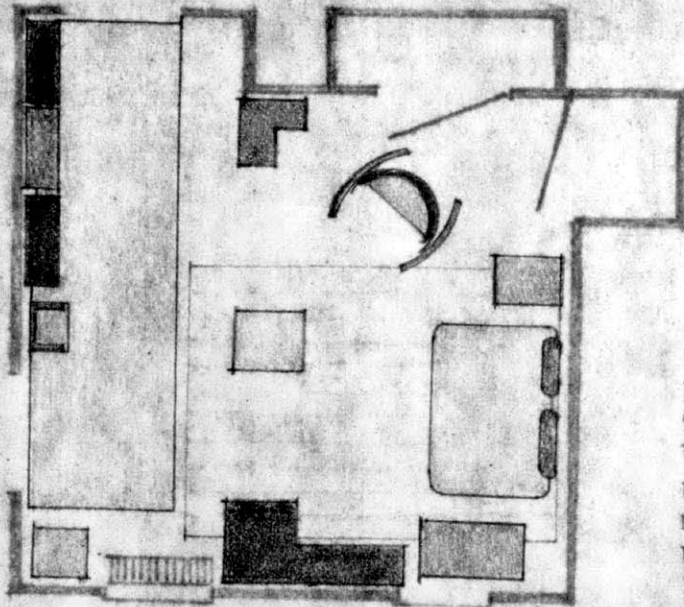
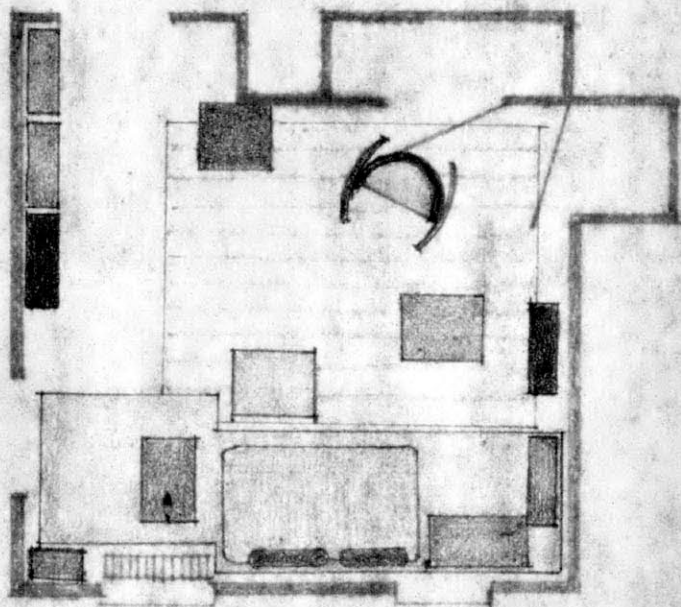


Fig. 41
The breakup of table,
book storage, and floor
unit into re-orientable
modules allows the
user better control of
interior use, and
re-establishment of the
major axis.



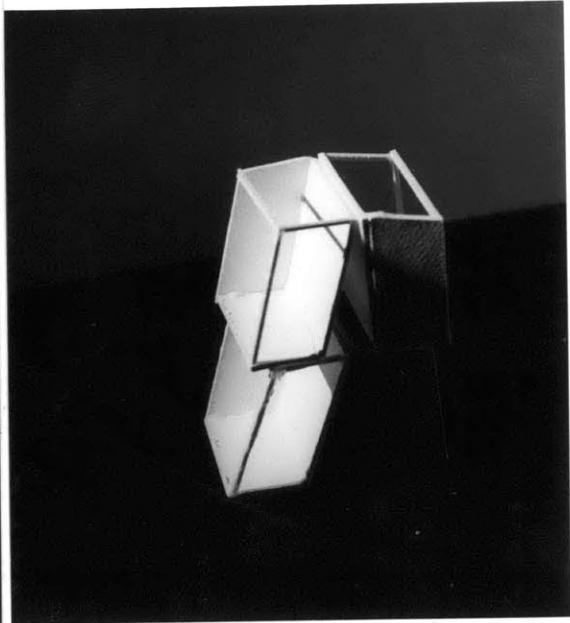
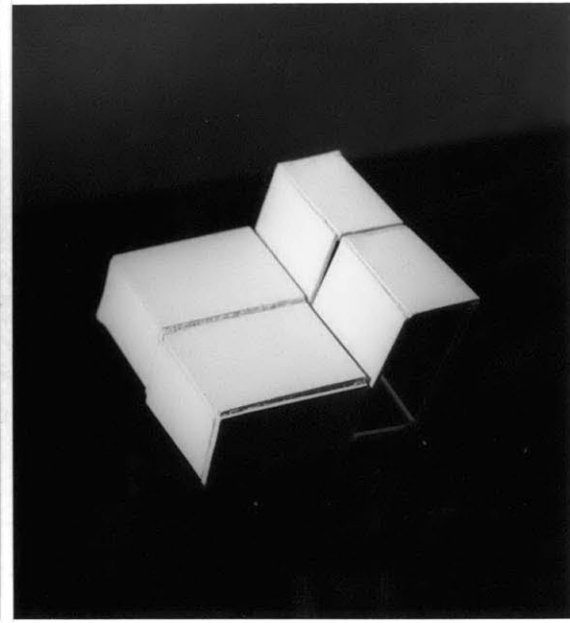
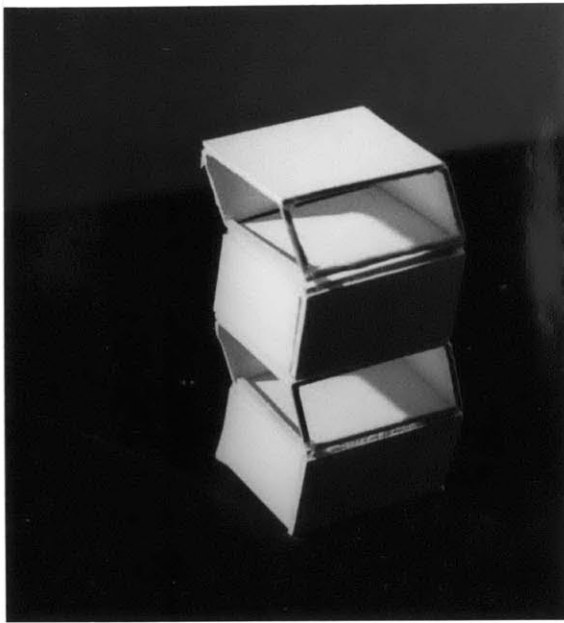


Fig. 42
Boxes are 10" x 18" x 22", with an angle slope of
1:5 at long ends.



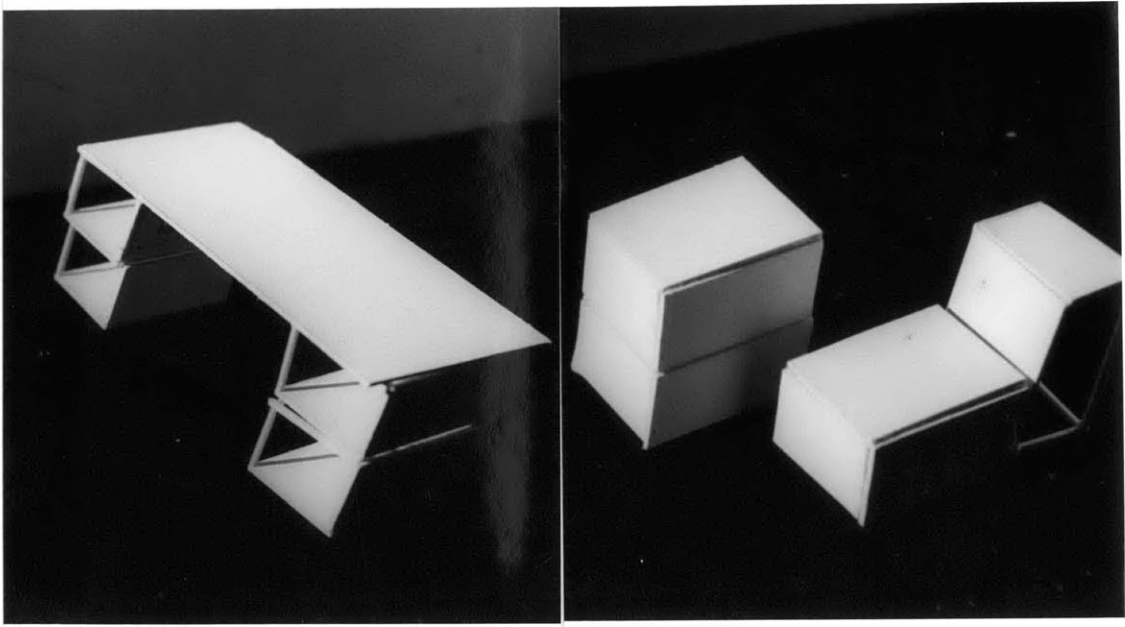


Fig. 43

The attempt is to maximize the use of independent dimensional combination.

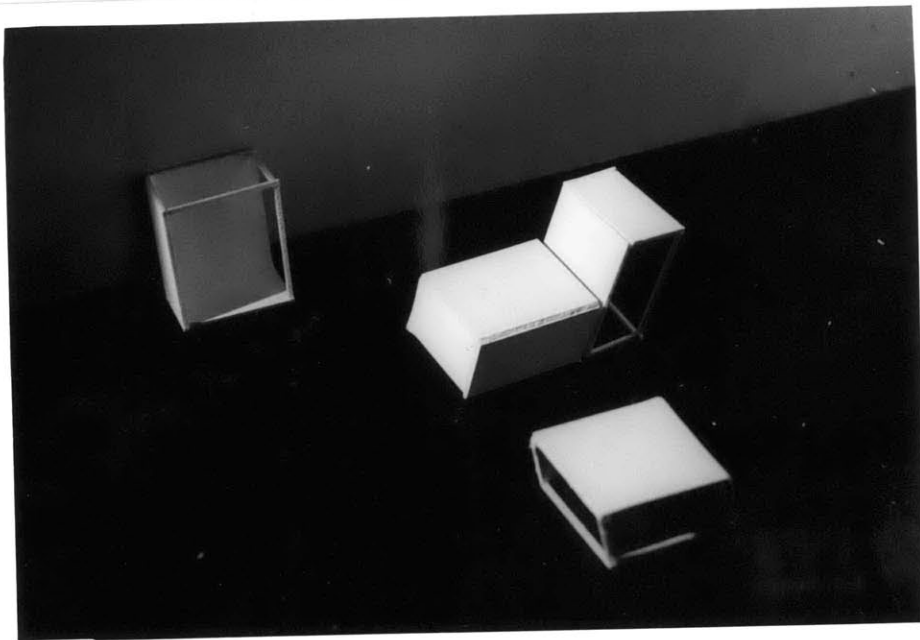




Fig. 44
Frames being separated from support to allow
re-orientation

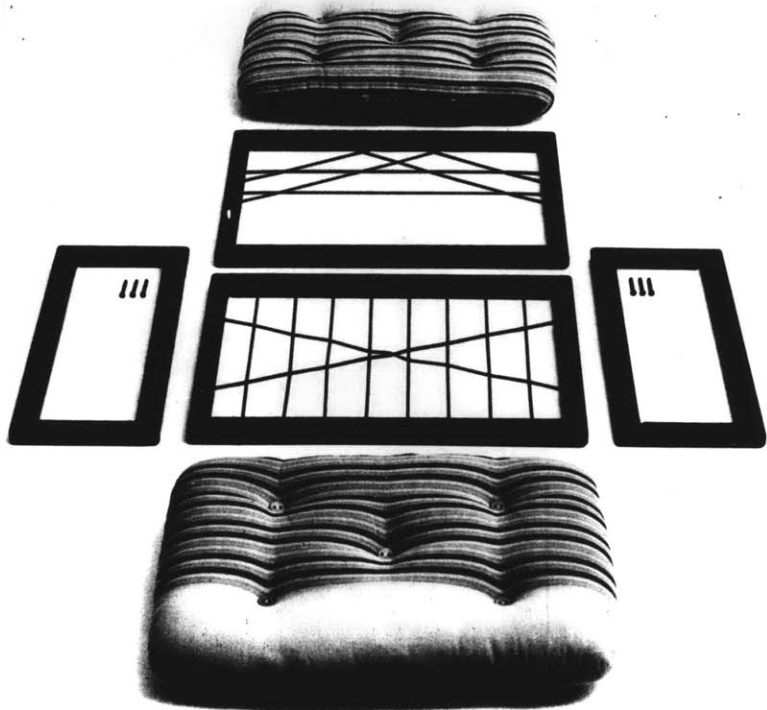
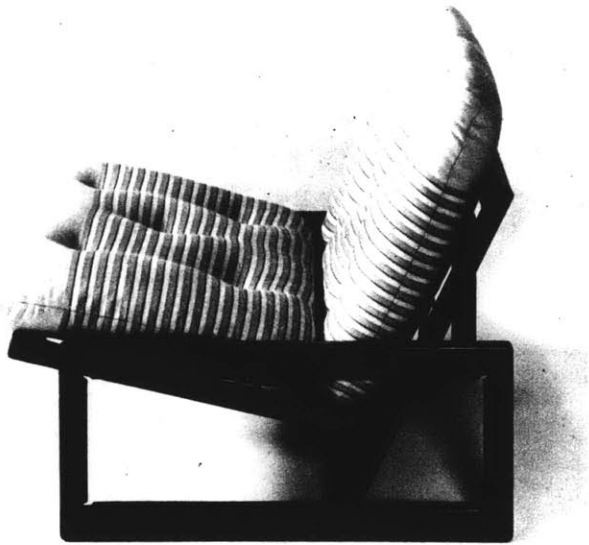


Fig. 45

Frame interacts with other frames to change the basic direction and use.



Fig. 46

An example of a frame that could be doing much more in combination both with other frames and with other surfaces. Having gone to the trouble to separate the support and surface roles, this could easily be used in re-combination.

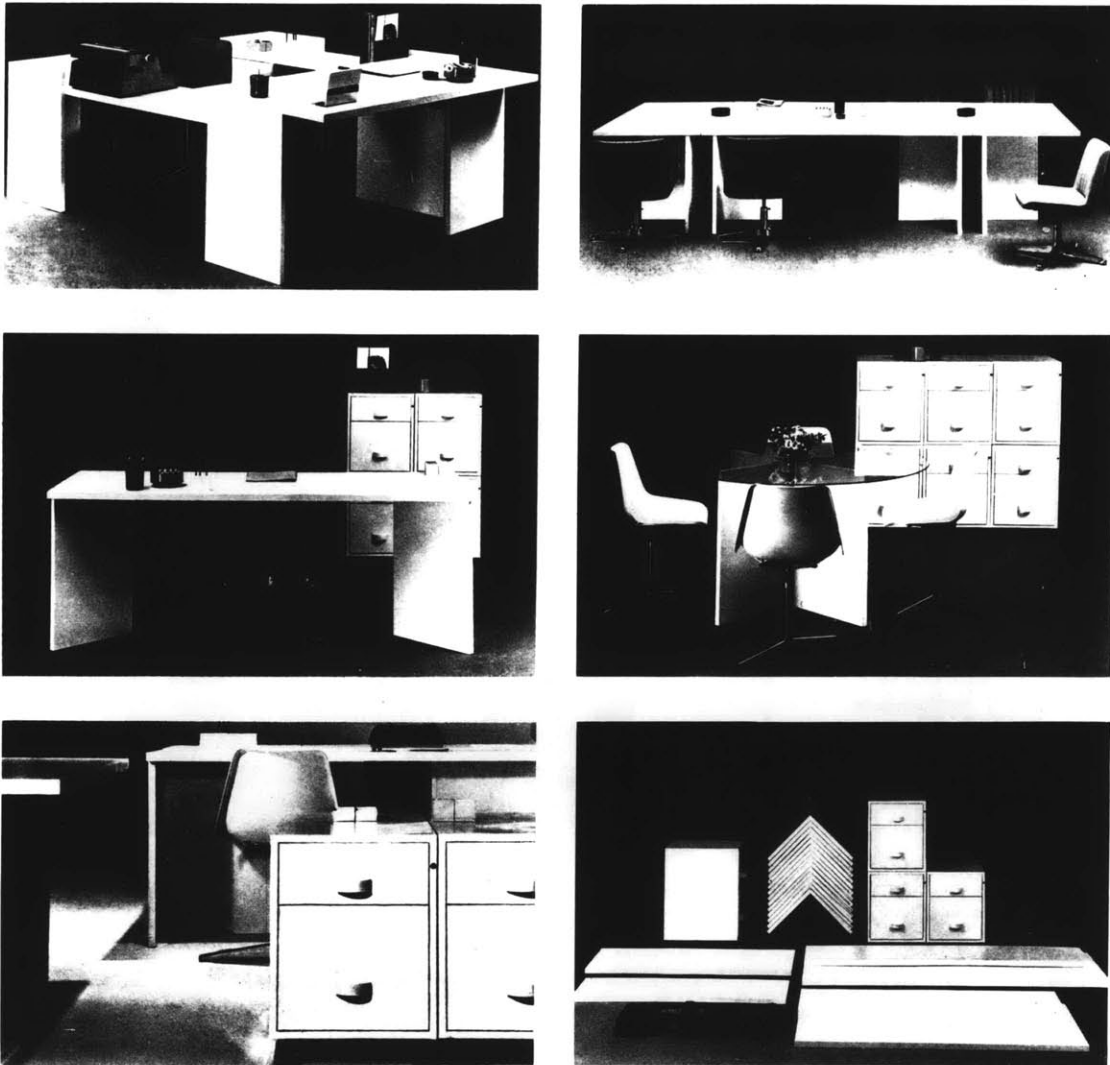


Fig. 47

The use of the right angle, plane, and box as independent associable elements.

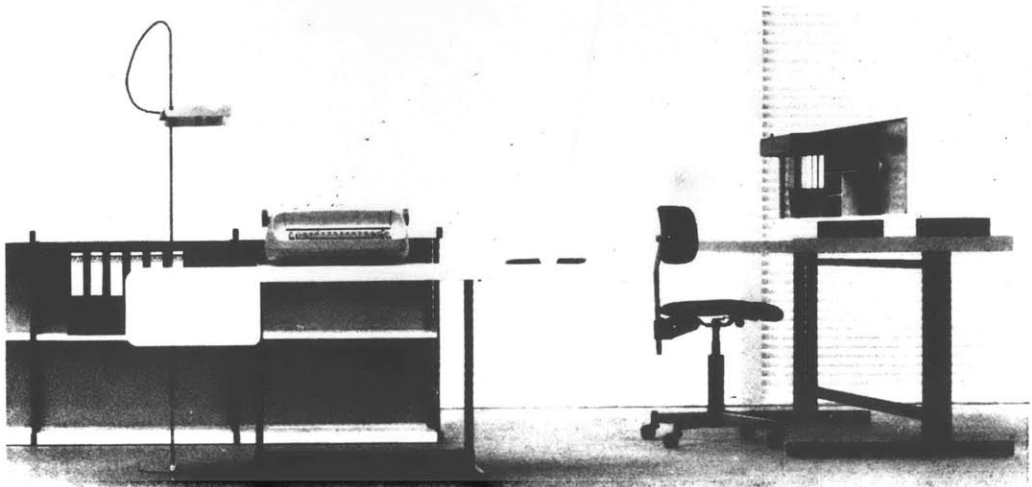
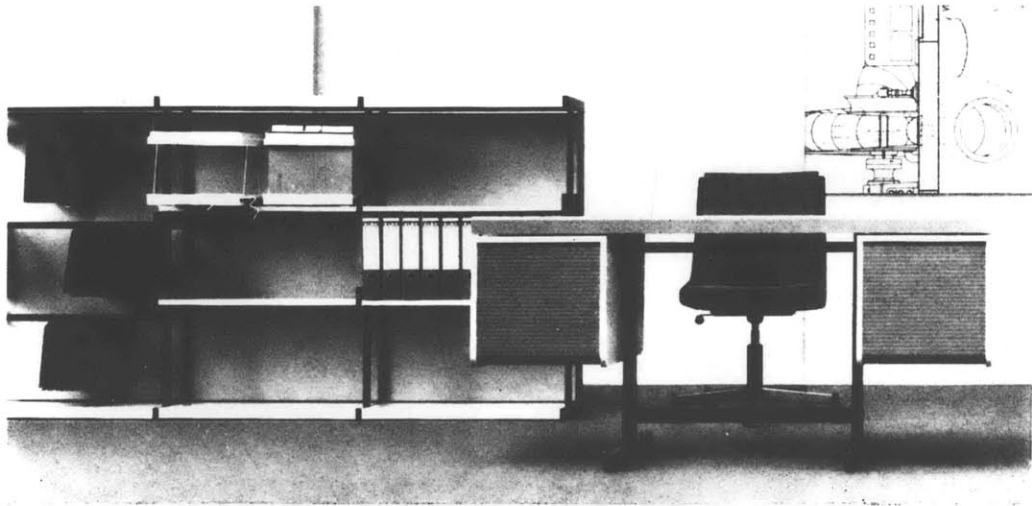
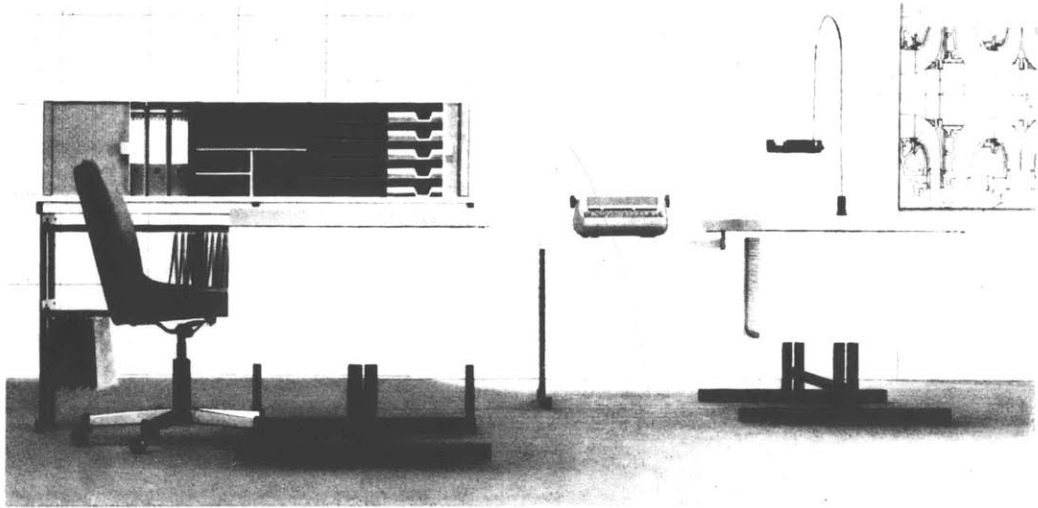


Fig. 48 Frames of steel, trestle-type design, allowing unencumbering legs.

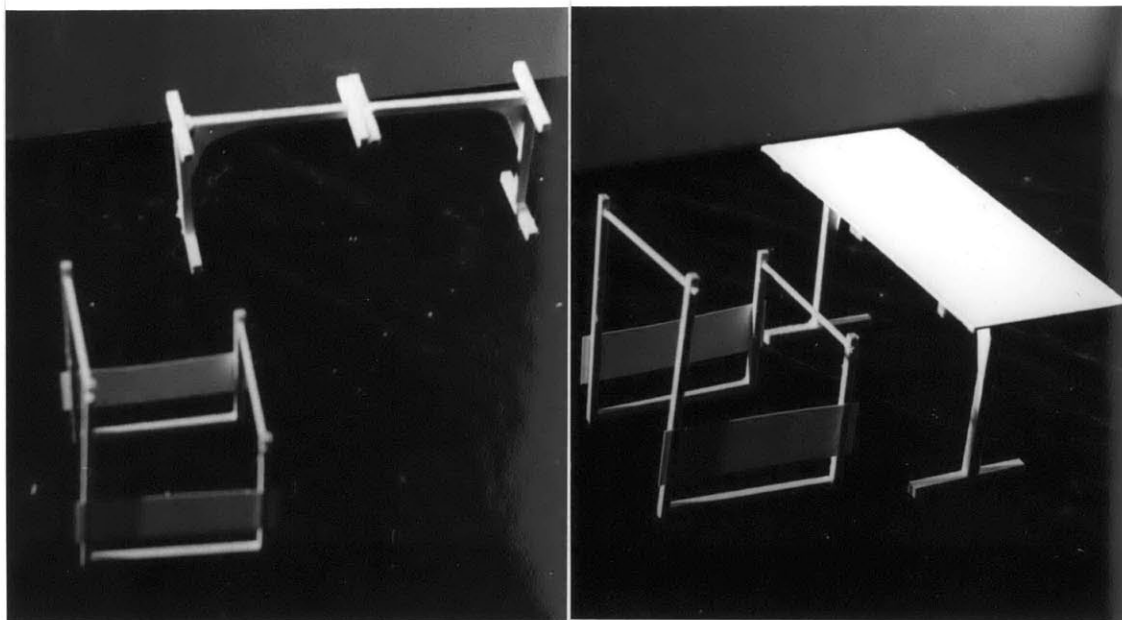
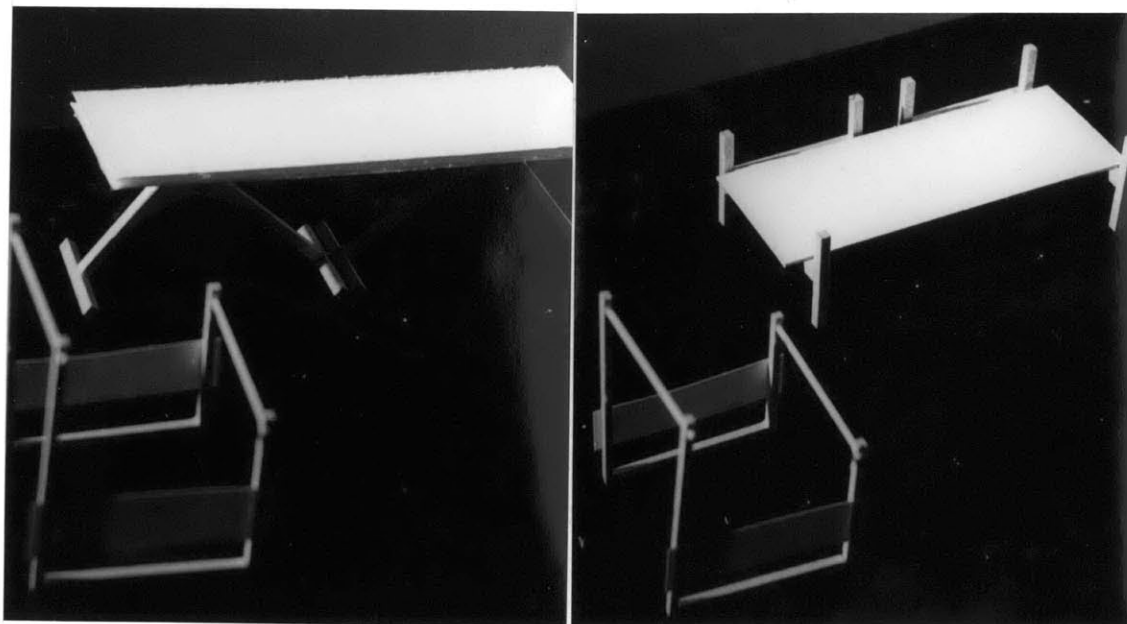


Fig. 49
Basic 'L', of 5 pieces of square steel tubing, allowing combination
by slip-joint. Basic 'L' has 4 useful orientations.



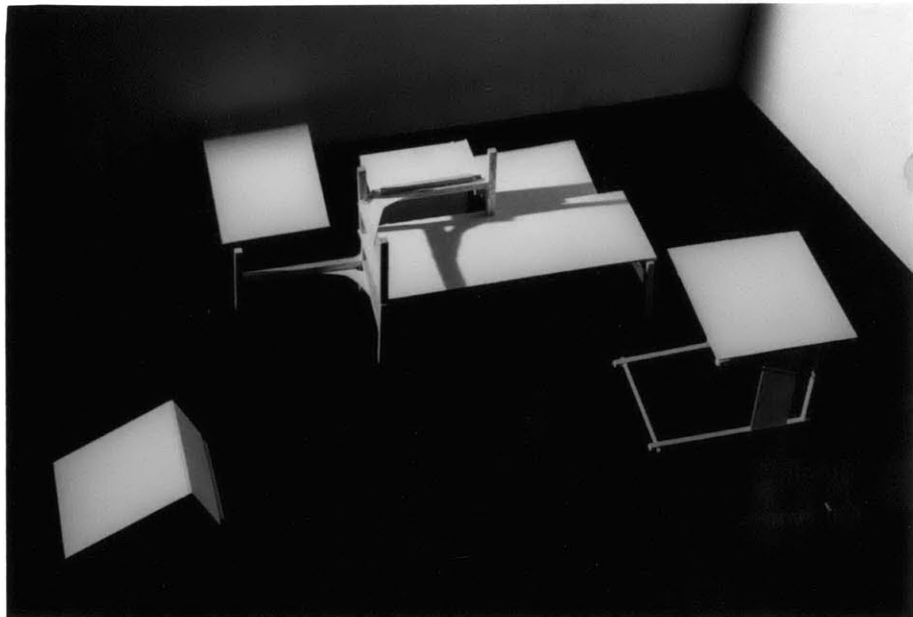
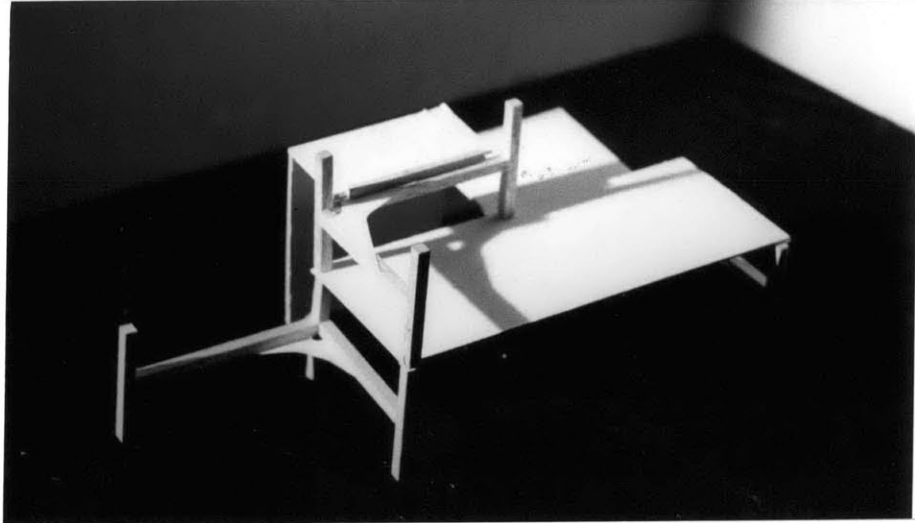
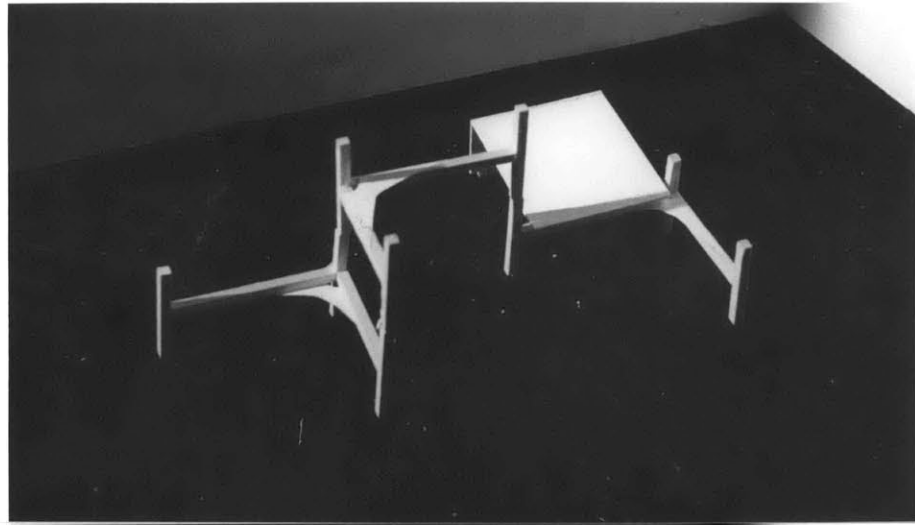


Fig. 50 Growing into a larger framework, in combination with planes.

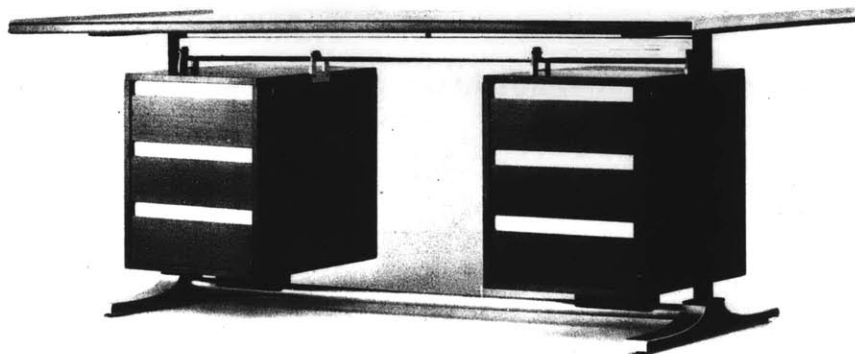
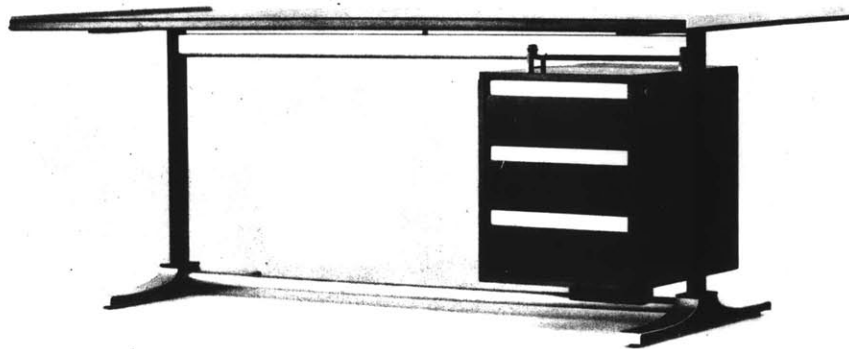
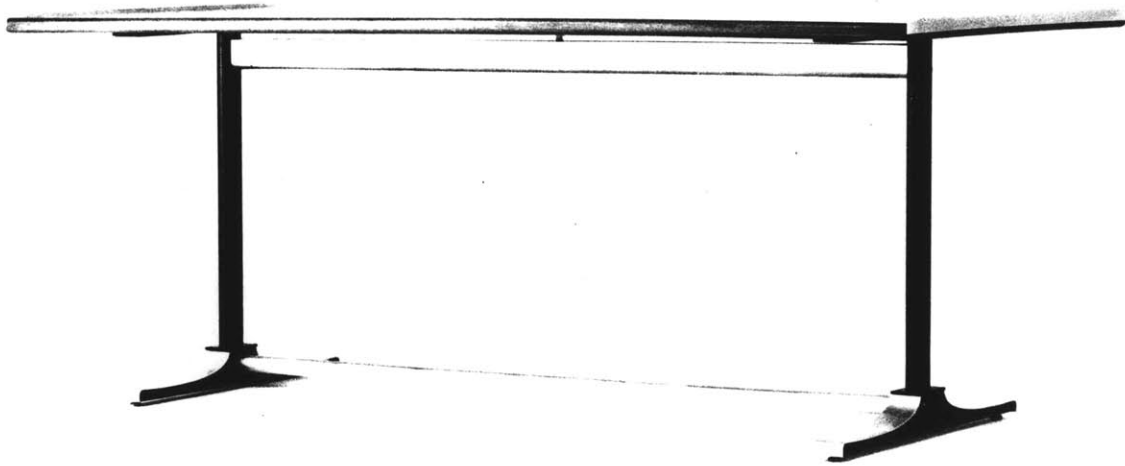


Fig. 51
Metal framework allowing sliding attachment

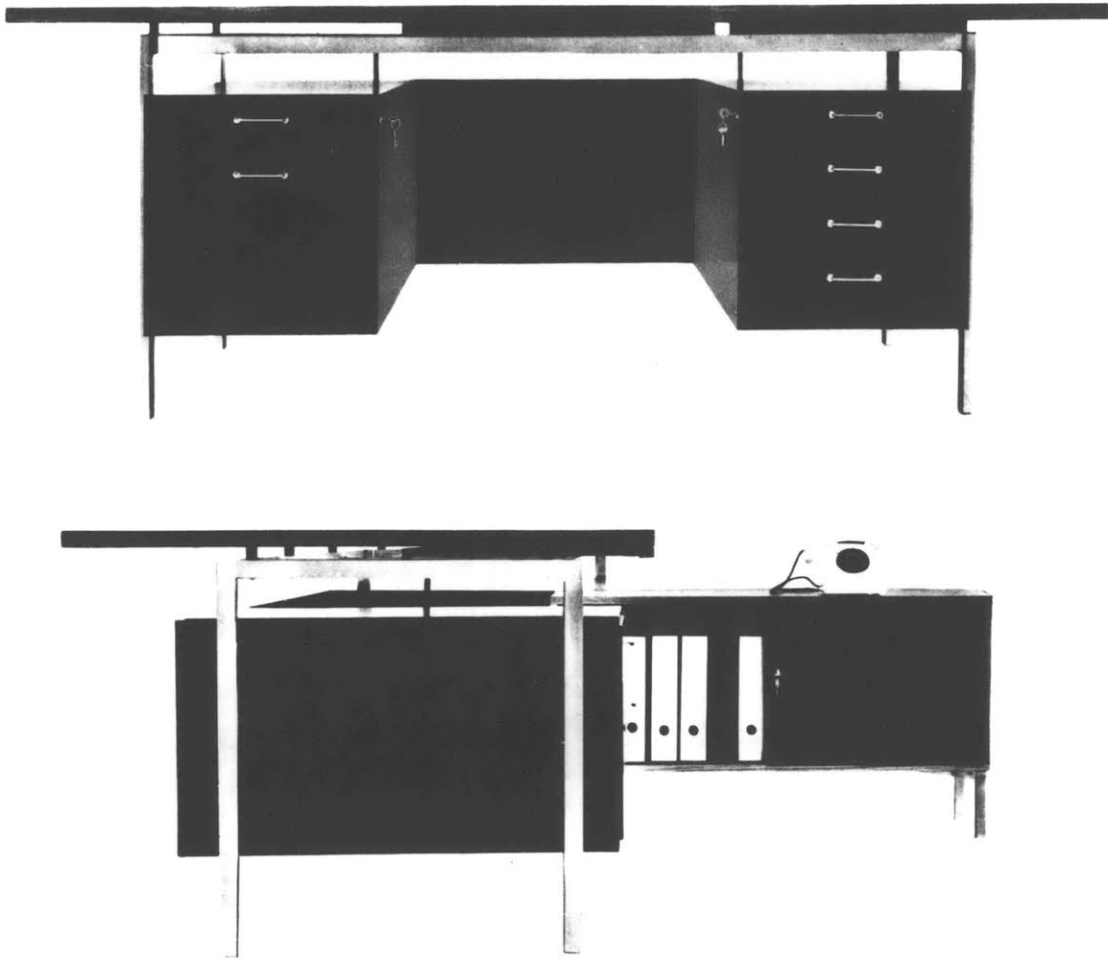


Fig.52
Metal frame allowing attachment of other volumes
which work off of it.

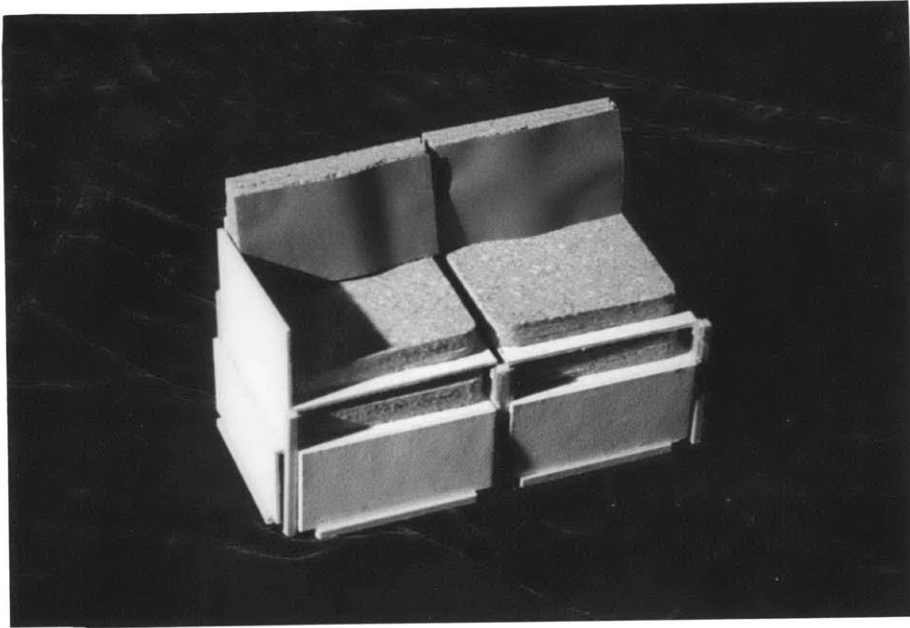
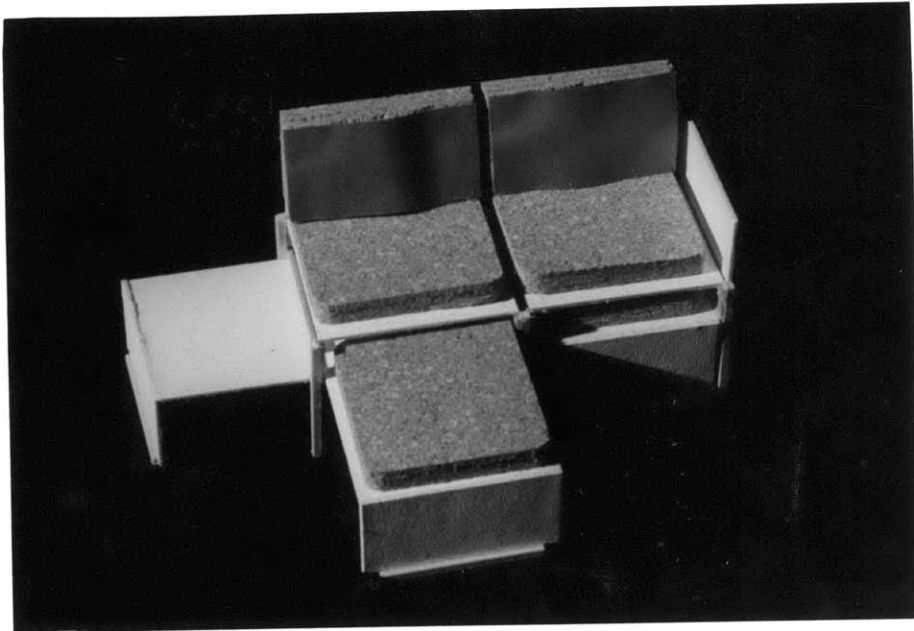


Fig. 53
Couch-scape, of metal channels and plywood, with urethane cushions. Extra seating stores below.



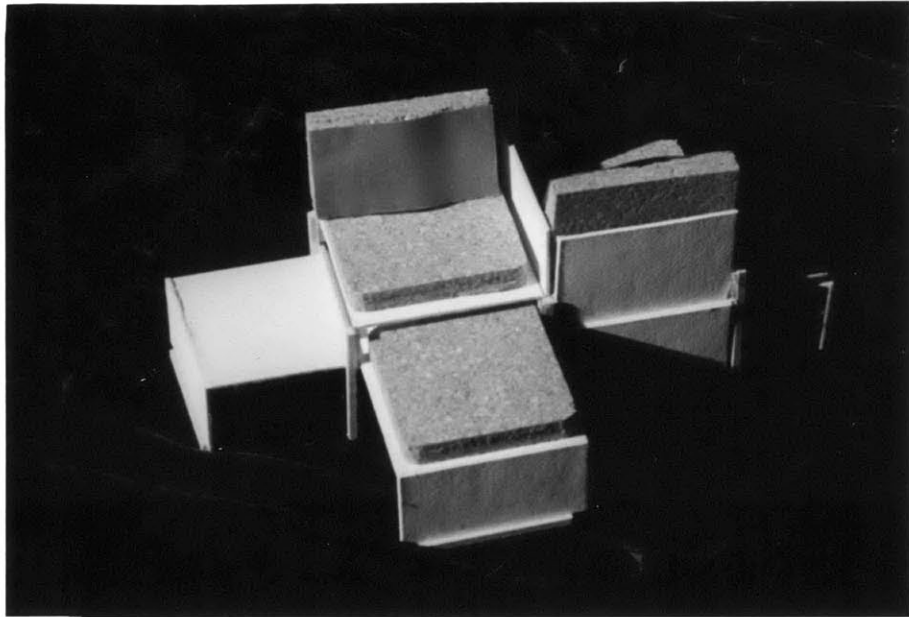
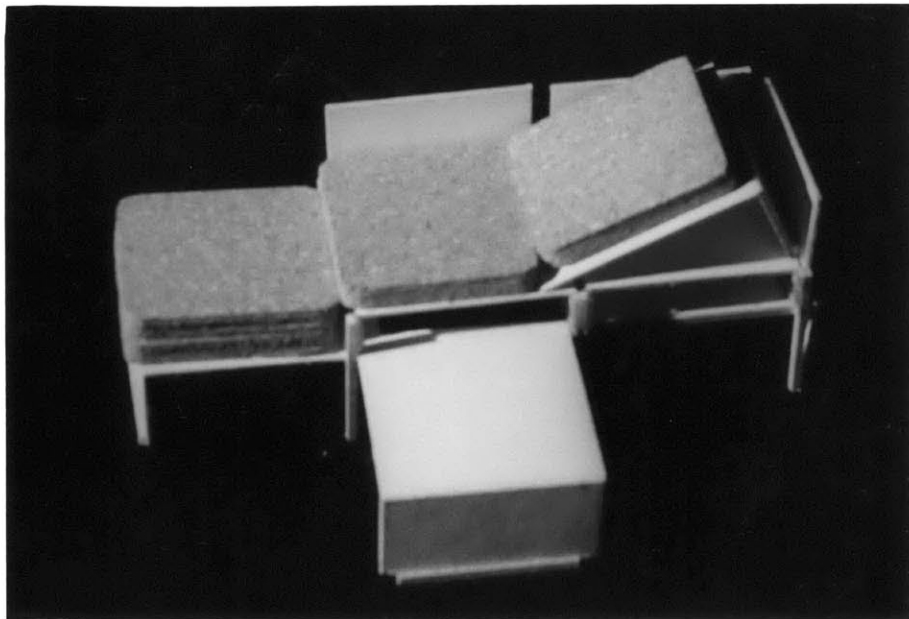


Fig. 5A
Back rests are re-orientable. Seating with cushions
is at 20", 16", and 14". Plywood angles may be used
for lounge contour.



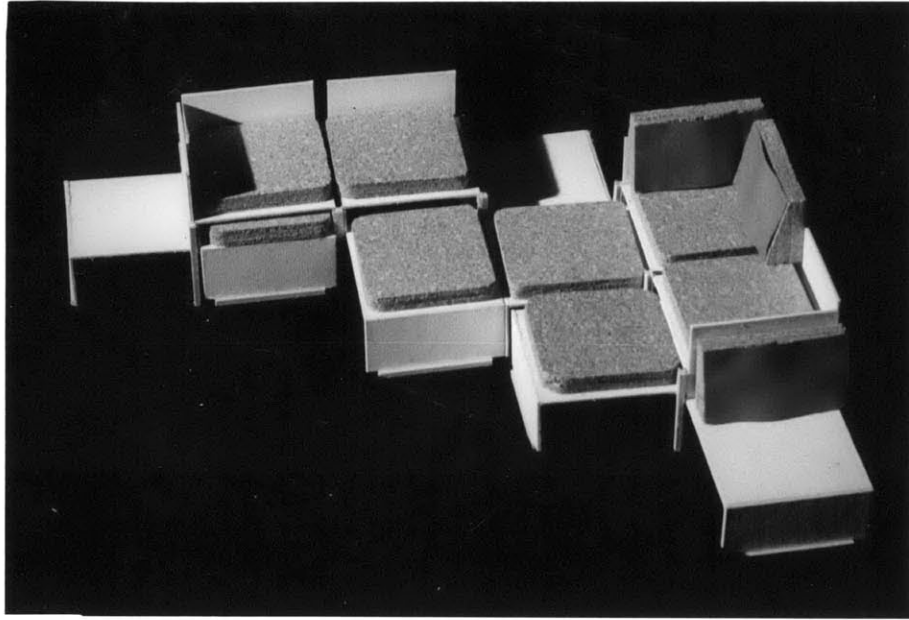
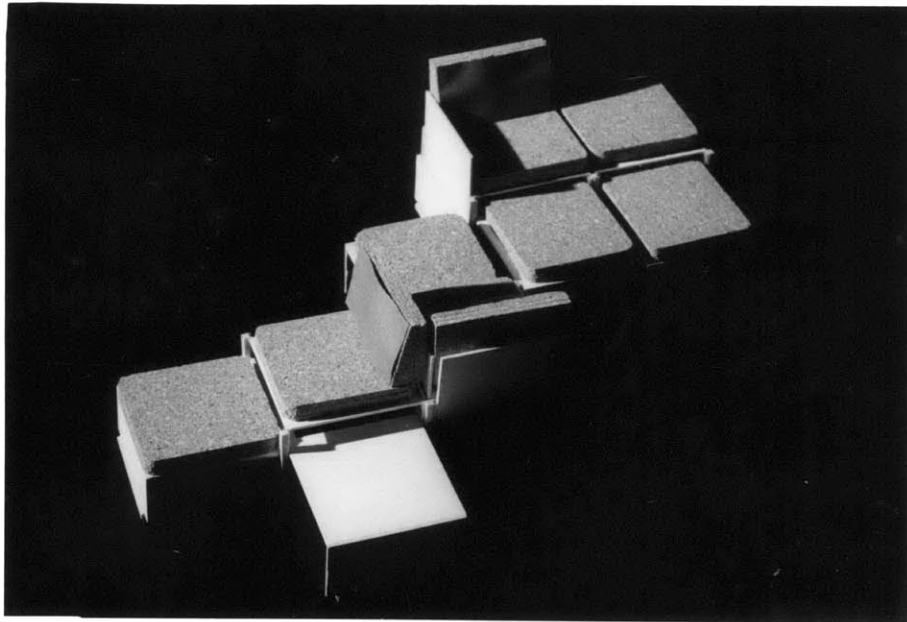


Fig. 55
When 2 units are used in combination, couch-scapes provides
a seating corner with endless variety.



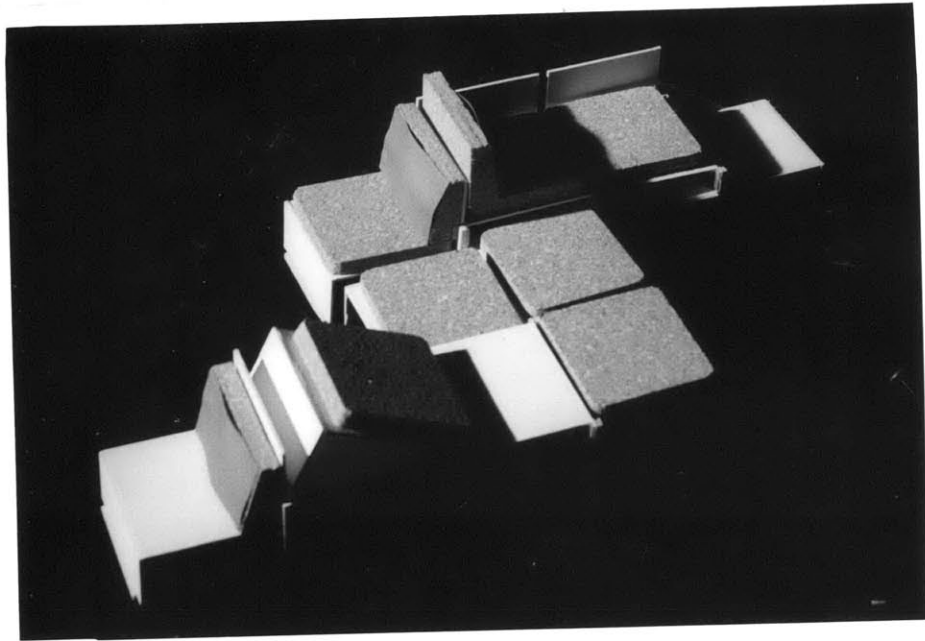
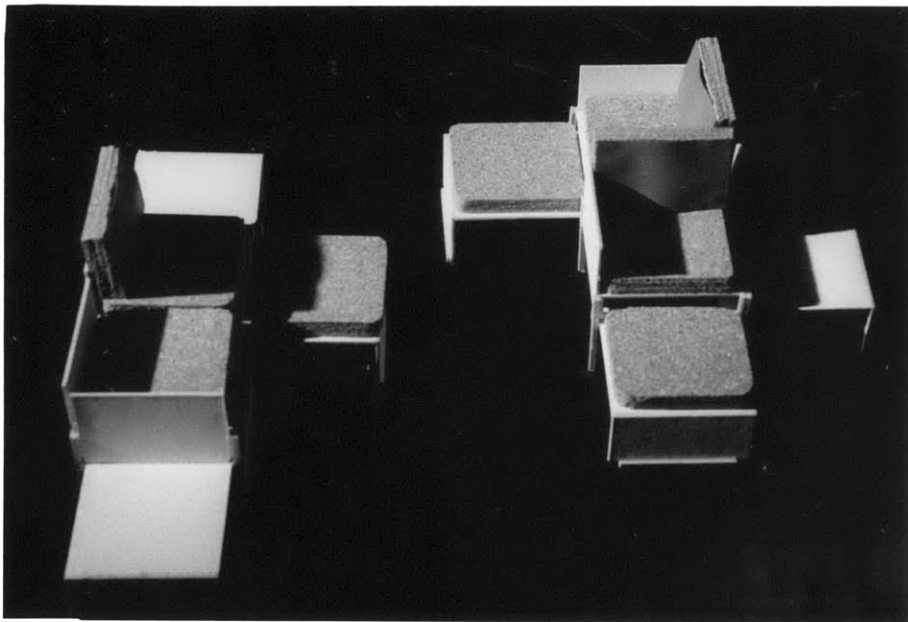


Fig. 56

Rectangular solids form rectangular voids. When separated, as below, the units form implied space between them.



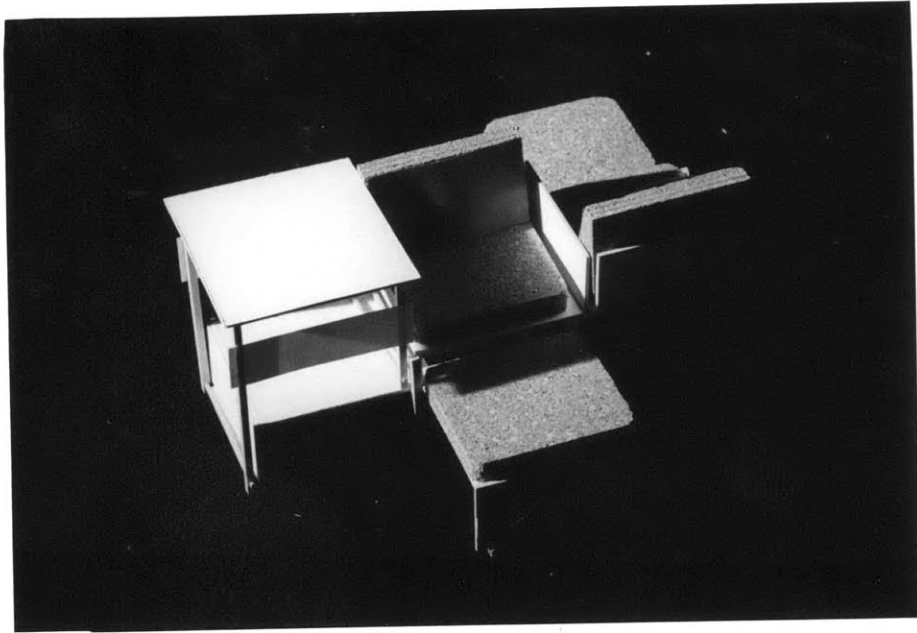
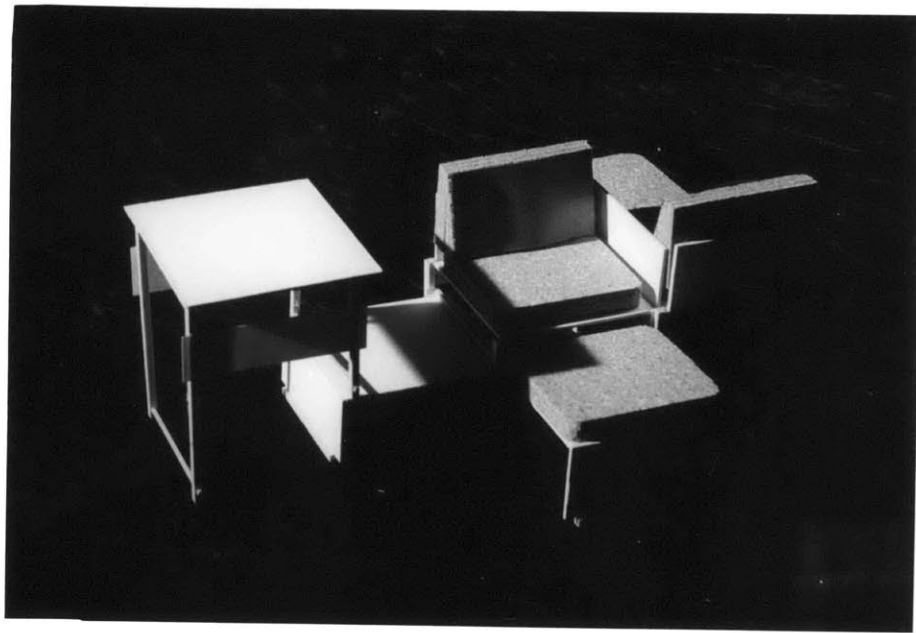


Fig. 57
The chair frame of fig. 49 is designed to translate along the 12" extension, forming a desk surface and possible shelving.



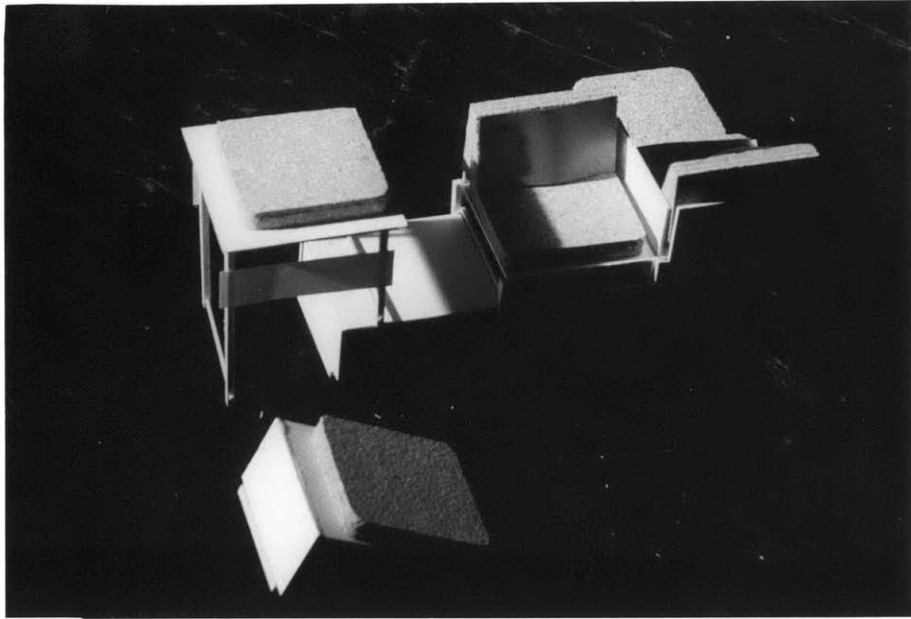
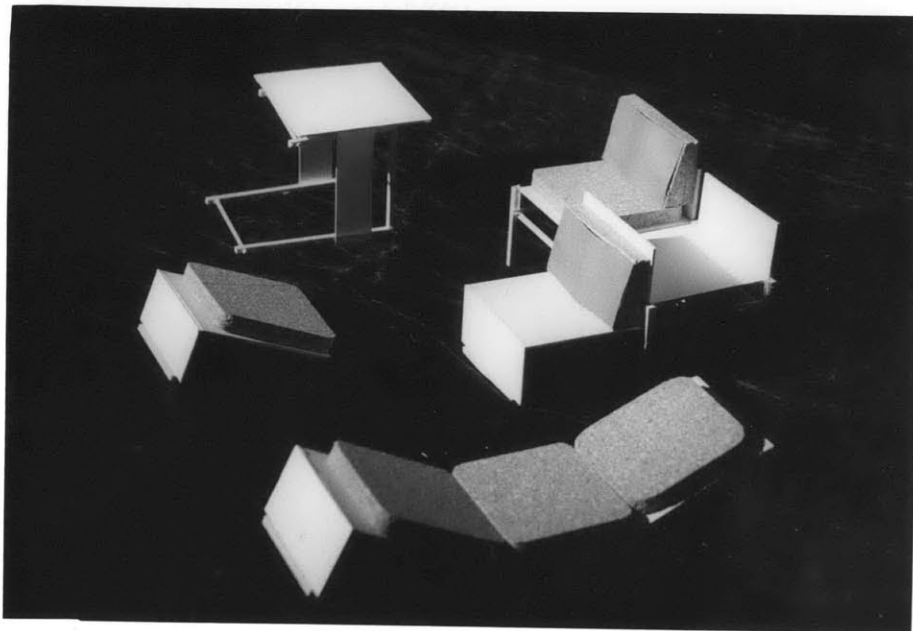
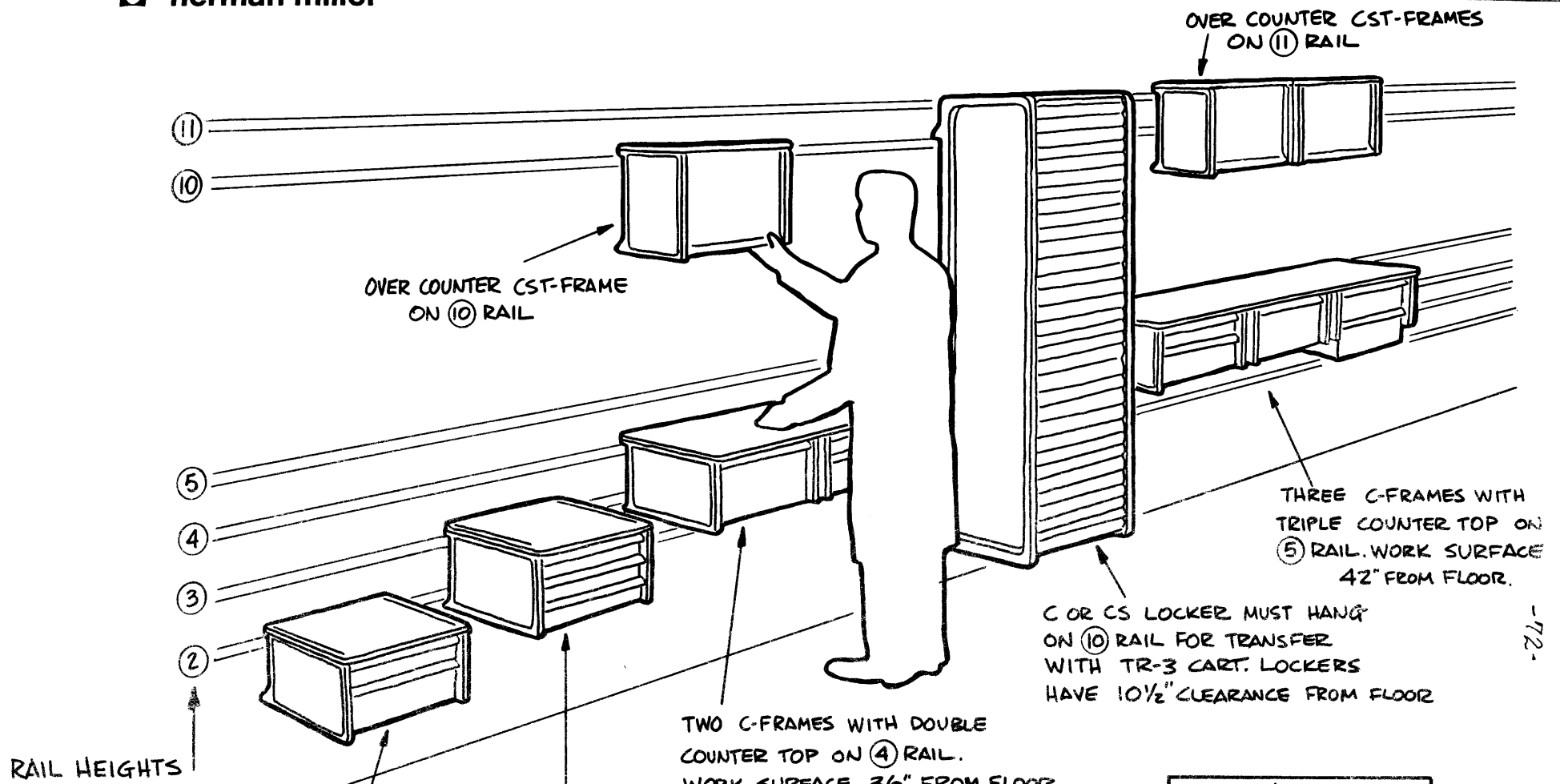


Fig. 58
With a drop-in back rest (not shown), the chair-frame allows
a seat-stool height of 20" from the supporting plane, and
32" from floor. The pull-outs may also be used independently.





RAIL HEIGHTS

C FRAME WITH LID ON ② RAIL. LID SURFACE 24" FROM FLOOR.

C FRAME WITH LID ON ③ RAIL. LID SURFACE 30" FROM FLOOR.

TWO C-FRAMES WITH DOUBLE COUNTER TOP ON ④ RAIL. WORK SURFACE 36" FROM FLOOR

OVER COUNTER CST-FRAME ON ⑩ RAIL

OVER COUNTER CST-FRAMES ON ⑪ RAIL

THREE C-FRAMES WITH TRIPLE COUNTER TOP ON ⑤ RAIL. WORK SURFACE 42" FROM FLOOR.

C OR CS LOCKER MUST HANG ON ⑩ RAIL FOR TRANSFER WITH TR-3 CART. LOCKERS HAVE 10 1/2" CLEARANCE FROM FLOOR

-72-

| ALL DIM'S IN INCHES | | | |
|---|--------|--------|--------|
| PART DESIGNATION | HEIGHT | WIDTH | DEPTH |
| C FRAME WITH LID | 11 1/8 | 22 1/2 | 17 3/8 |
| CST FRAME WITH LID | 17 1/8 | 22 1/2 | 13 1/8 |
| C FRAME WITH SINGLE COUNTER TOP | 11 3/8 | 24 | 18 |
| TWO C FRAMES WITH DOUBLE COUNTER TOP | 11 3/8 | 48 | 18 |
| TWO OR THREE C FRAMES WITH TRIPLE COUNTER TOP | 11 3/8 | 72 | 18 |
| C-LOCKER | 65 1/4 | 22 7/8 | 19 3/8 |
| CS-LOCKER | 65 1/4 | 22 7/8 | 14 7/8 |

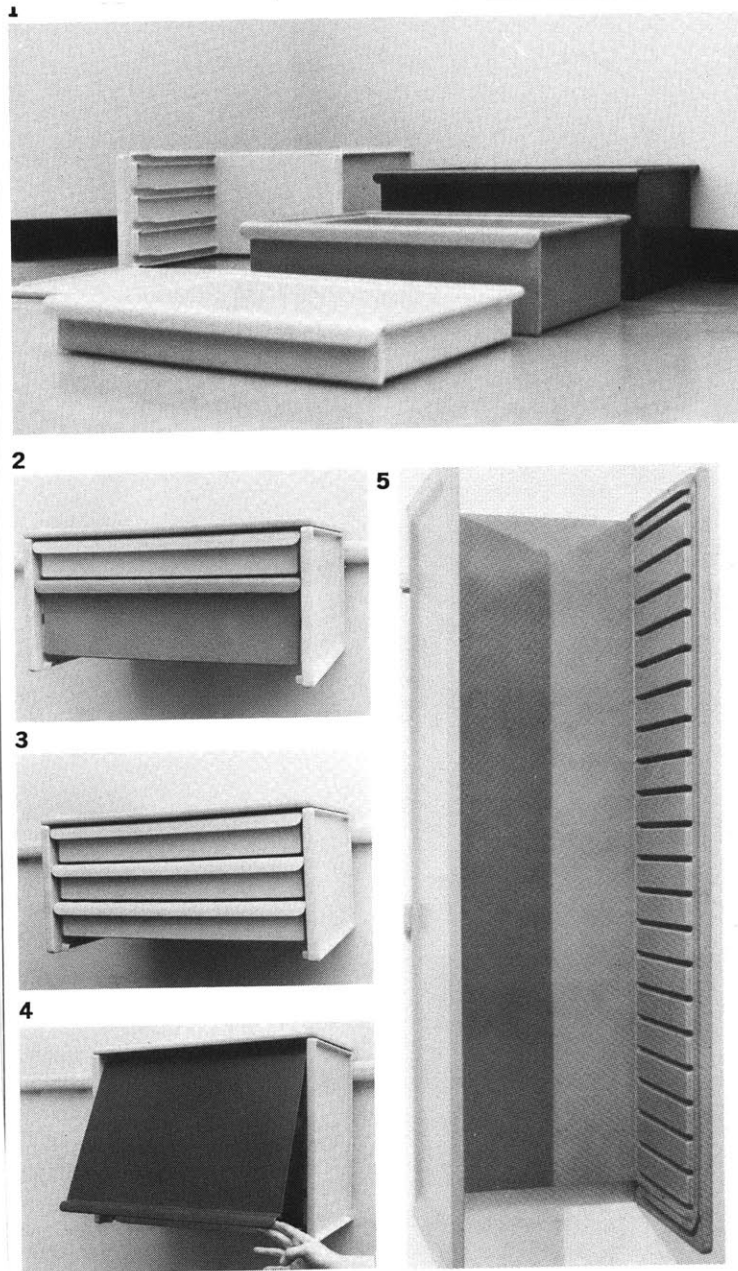
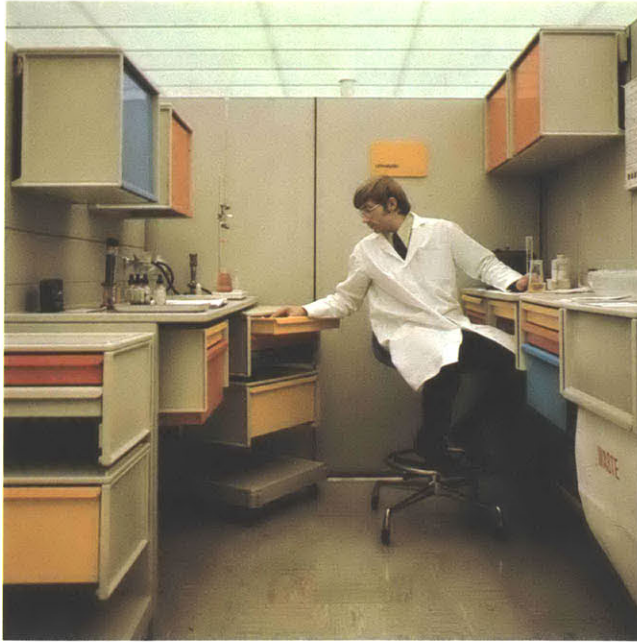


Fig. 60
The drawer-desk-shelf units hang on wall-mounted rails, and are themselves slotted to permit substructures to be added.



21 Laboratory
Co/Struc® offers flexible work stations that avoid the traditional overcommitment to fixed casework.

Fig. 61
Having rails attached to partitions which are themselves movable gives the laboratory the type of flexibility necessary to the changing space needs of a growing hospital. Drawers store in movable carts which fit beneath the counter.

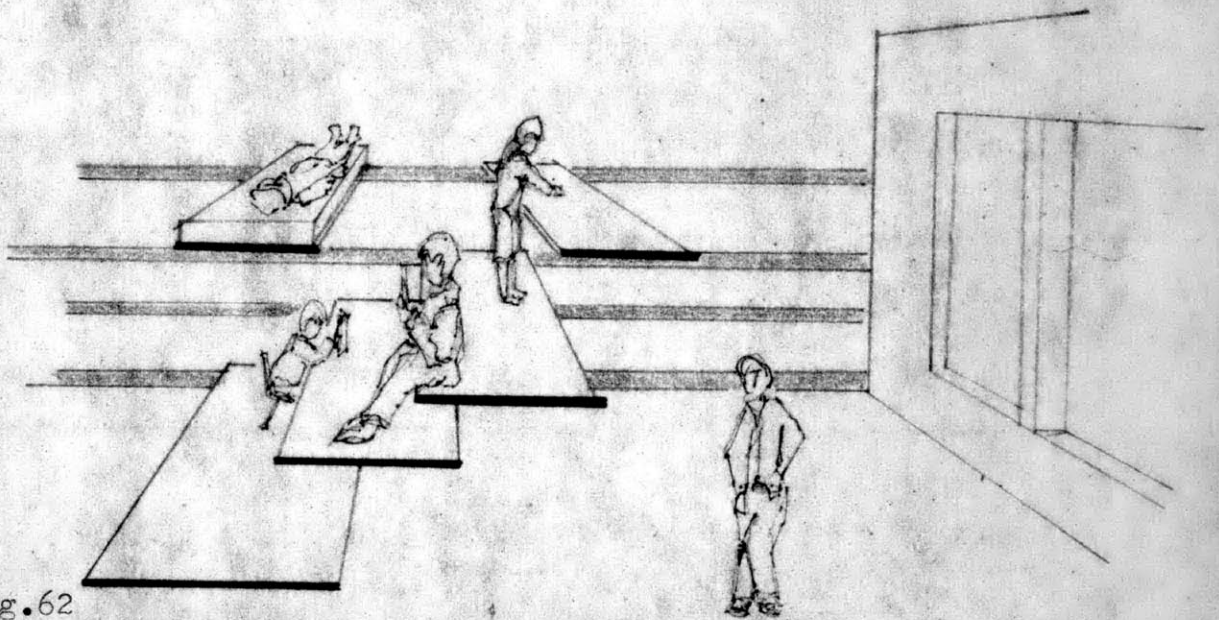
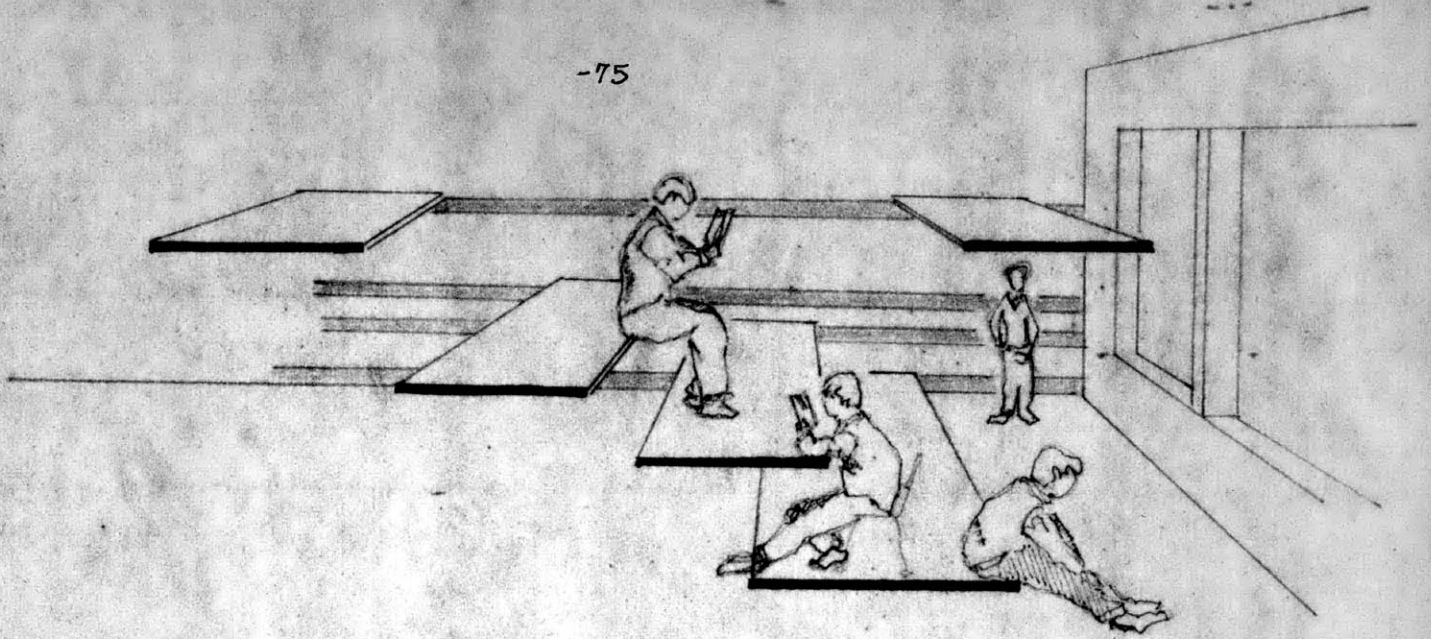


Fig.62
Study for a coordinated set of movable levels, supported on rails which themselves could be shelves which are rail mounted. The flexibility of the section allows the pieces to be used as pieces of furniture themselves, as well as having smaller traditional pieces work off of them.

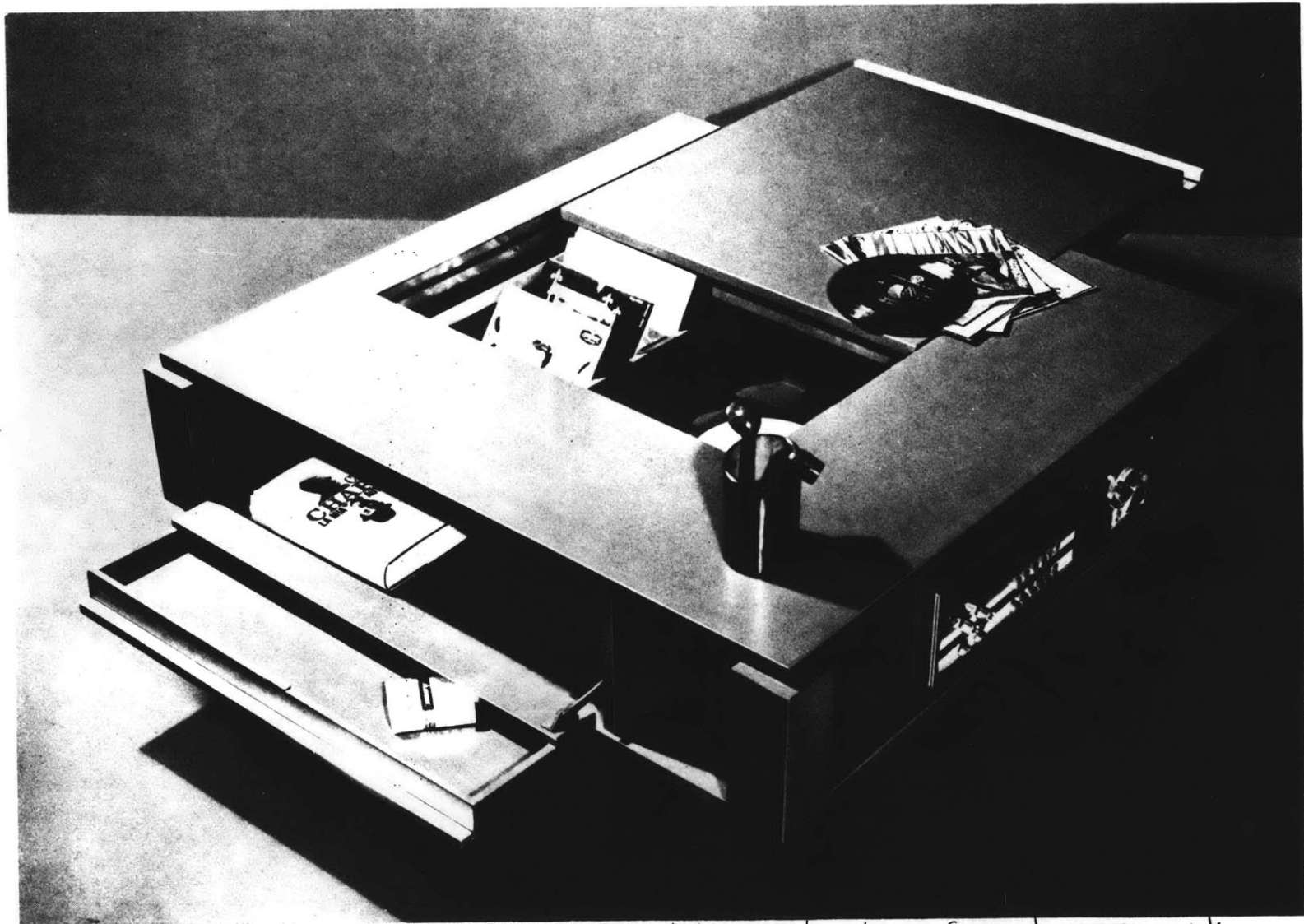


Fig. 63

A floor unit as mobile seating and storage, with extensions for greater use-association.

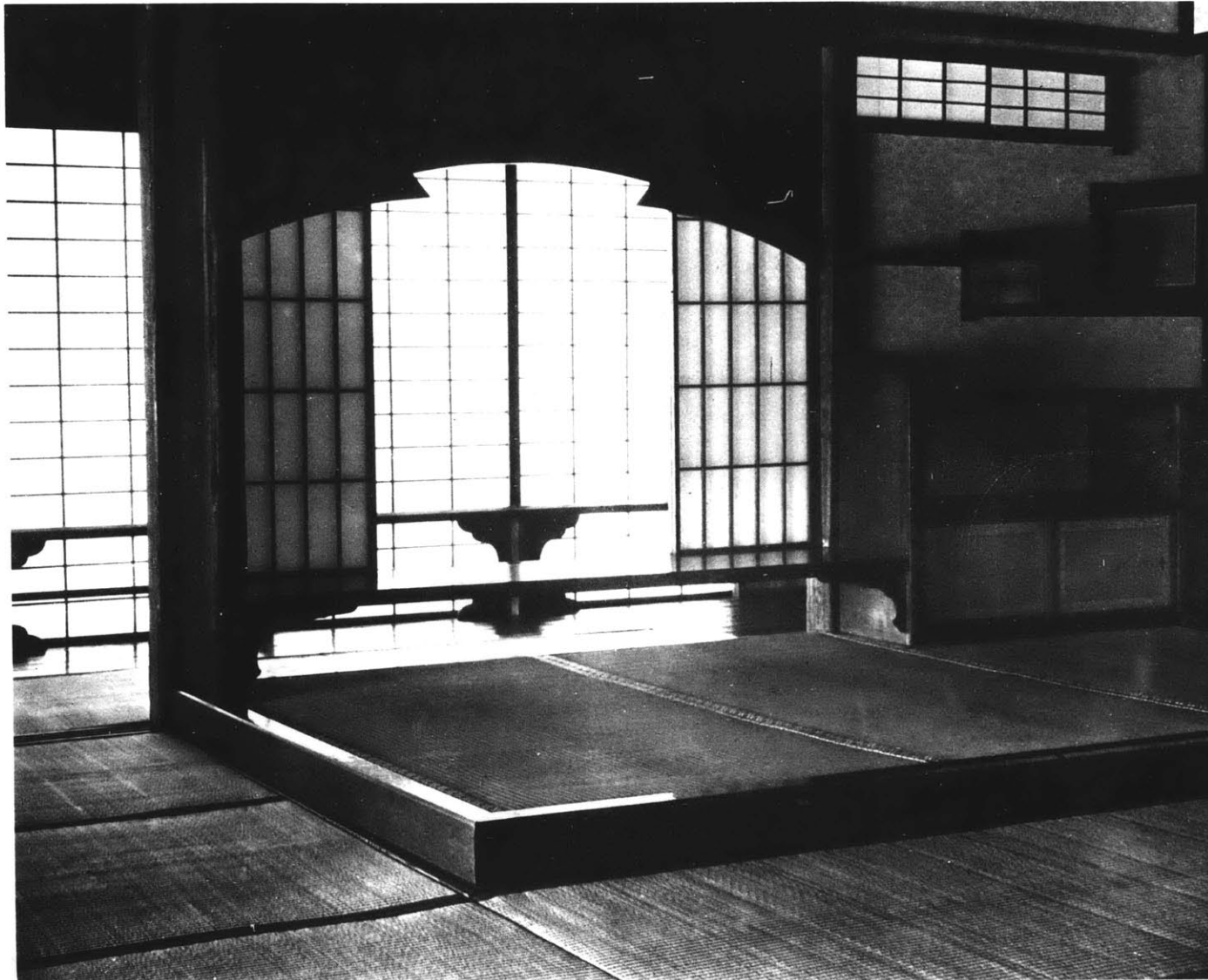
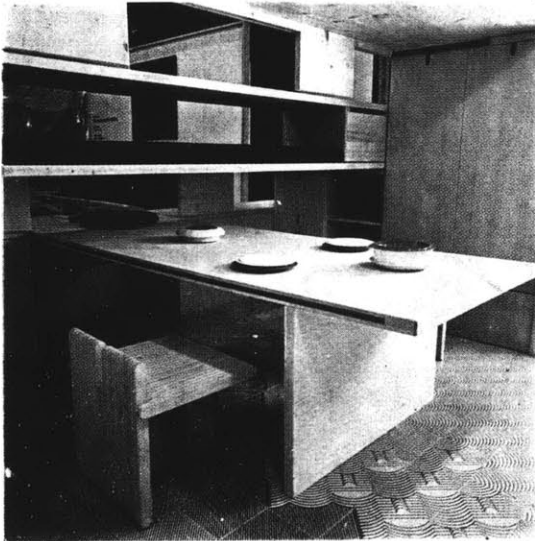


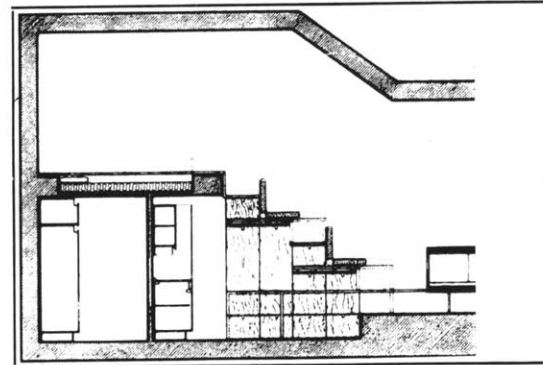
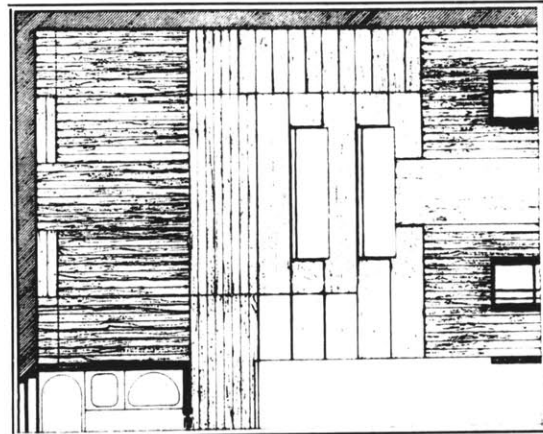
Fig. 64 The floor unit as definition. Re-directing the space around it. Providing a basic attachment point for increasingly subordinate structure.

The photo above and the drawing on the right show the two beds at the top of the stair hidden under the floor. To use them, just turn up the corresponding part of the floor.



Professional Photo

In the small coloured photo, the dining table extracted from the kitchen section. In the photo below, the same table taken from the living room section, between the two divans.



In the above section, a detail of the stair fittings with kitchen and wardrobe areas taken from below, and the upper floor with the hidden beds.

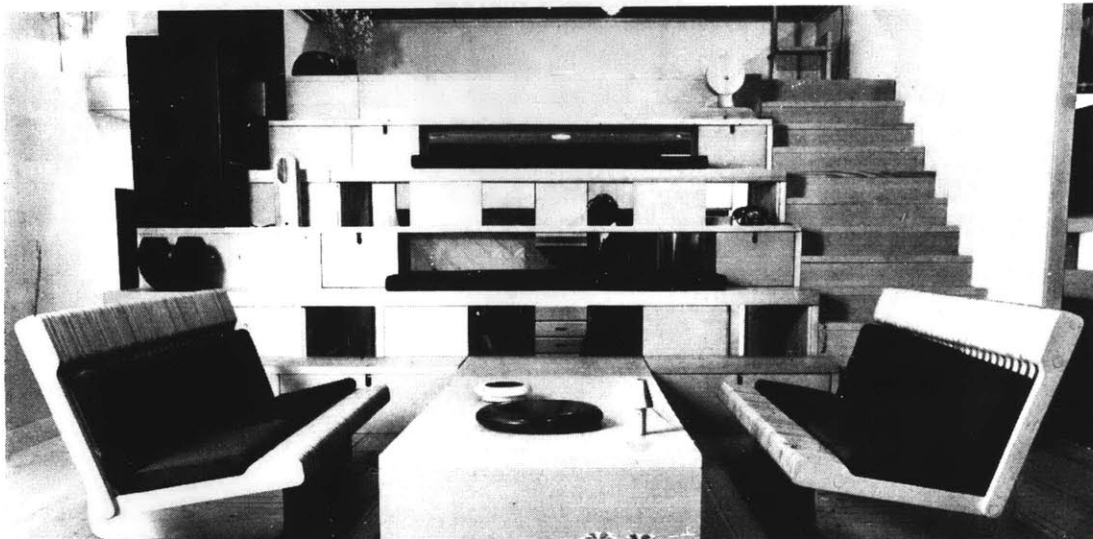
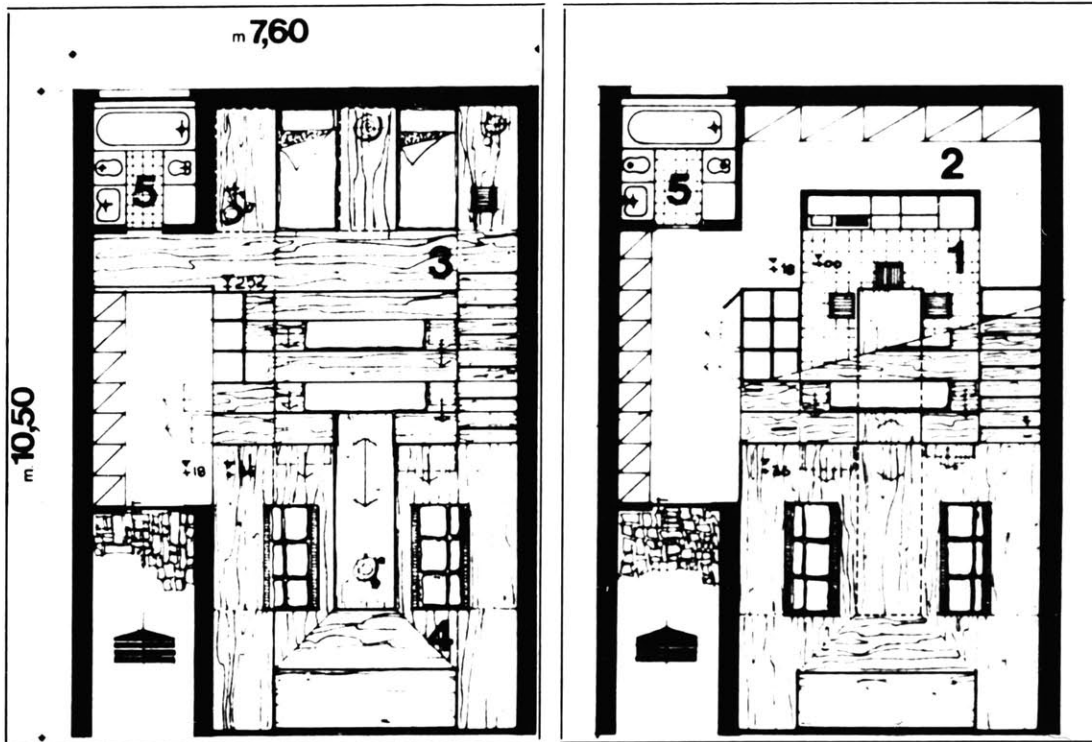


Fig. 65 A frame which is useful even before providing points of attachment. A planar version of the mountainside.



In these drawings, the plan at upper level, at lower level and the vertical section, clearly show the arrangement and use of the living space in this house.

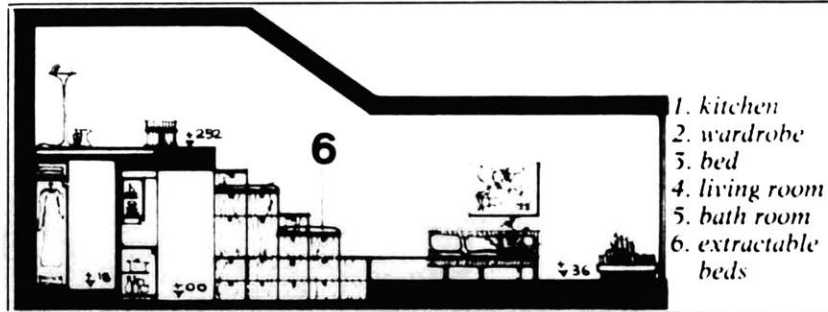


Fig. 66
Mountain and a cave, with the shell made permeable. Multi-use of both sides of the section. Planes seen as representing the edges of volumes. The scale of vertical level from left to right across the plan decreases: at the point of traffic back to the kitchen area, it is a storage wall of boxes and wardrobes. Further to the right is the couch-seat-drawer-extension. Against the right wall are the steps, some of which move onto the larger couch level. As the use becomes more private and less public, the scale decreases, with the expectation of lingering

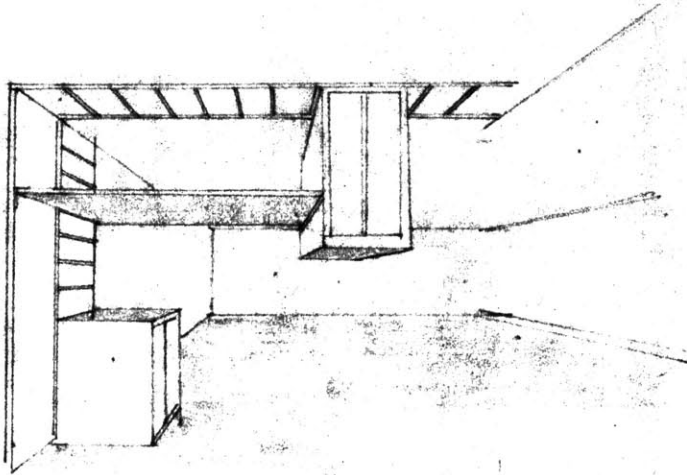
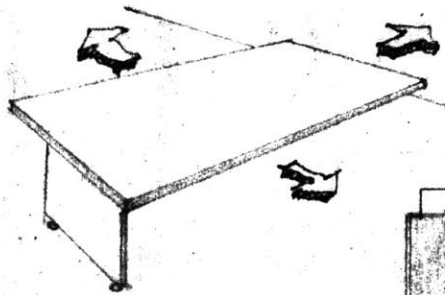
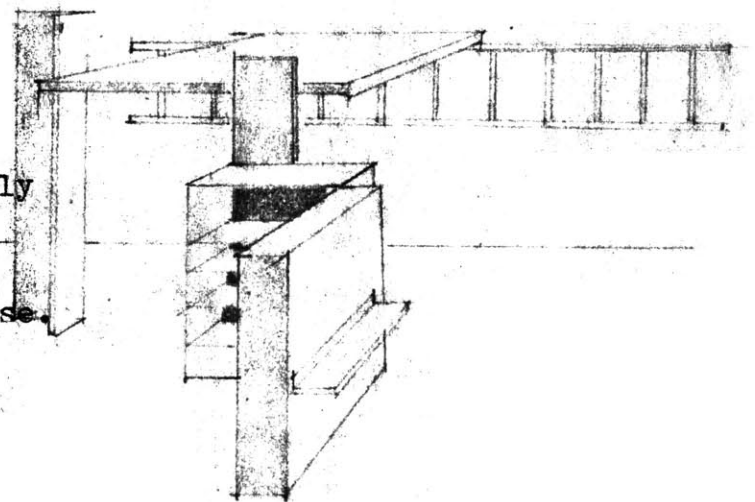
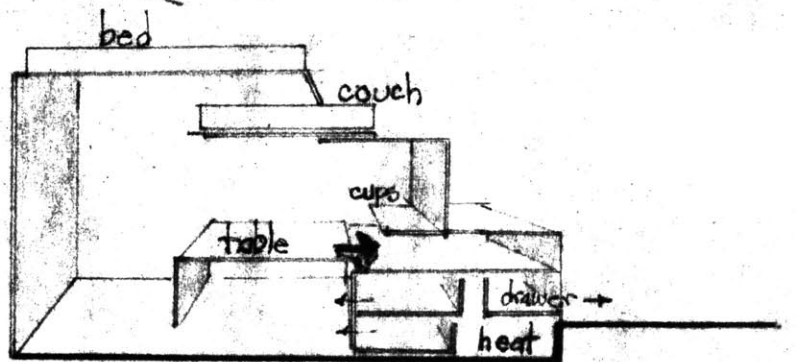


Fig.67
Rails or ladders mounted on the major structure allow attachment and realization of more definition than simply working upwards from floor. What the rails support may themselves be new frames, allowing a re-direction of use. The basic framework decision need not limit or determine what attaches to it.



This table, since it is dependent on a larger context for support, can assume more configurations than it could with 4 legs.



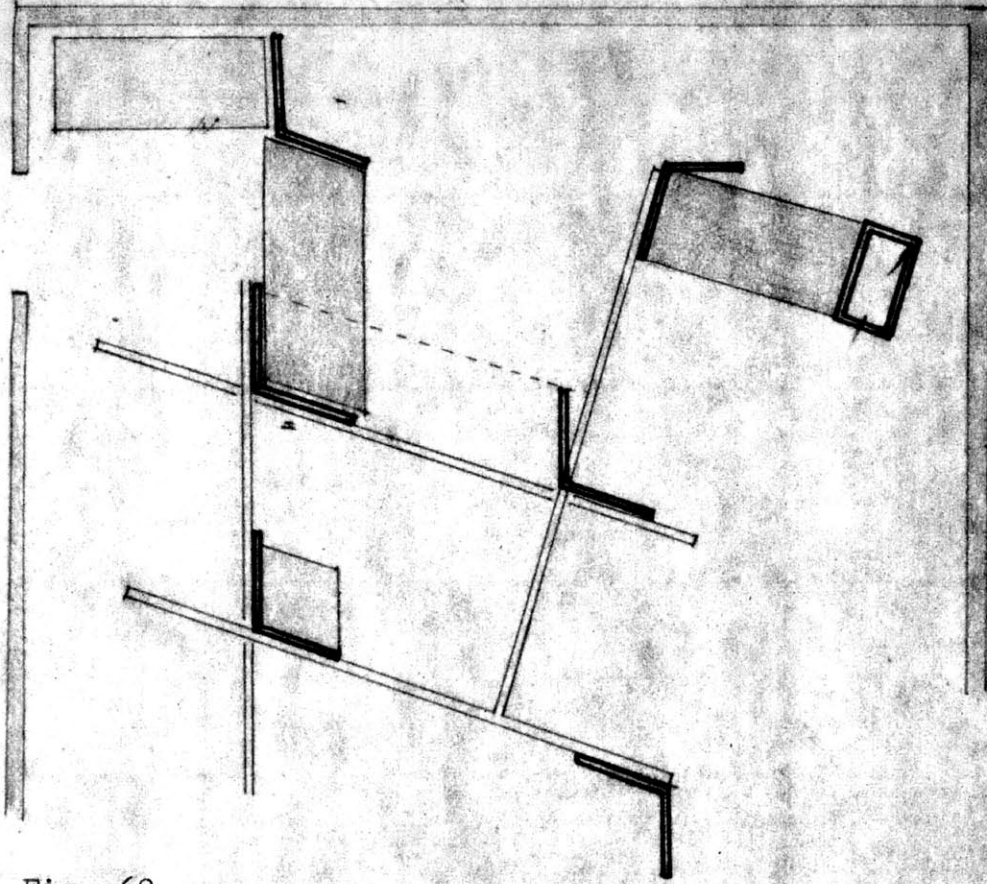
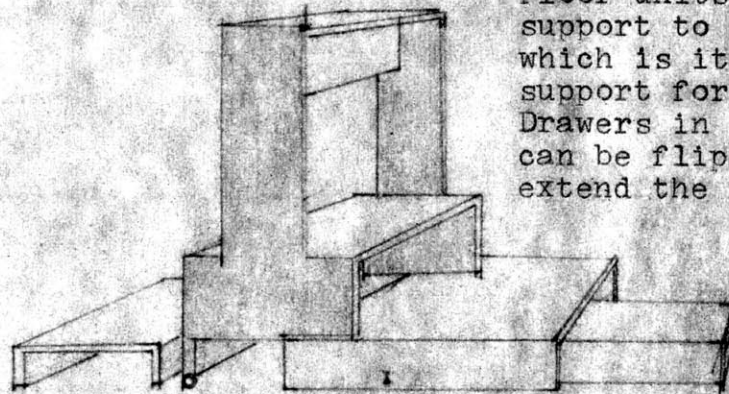


Fig. 68
Plan of angled pieces acquiring stability through attachment to others, and providing a frame for association of planes.



Floor units giving support to a table unit, which is itself potential support for upper levels. Drawers in floor-units can be flipped over to extend the raised floor.

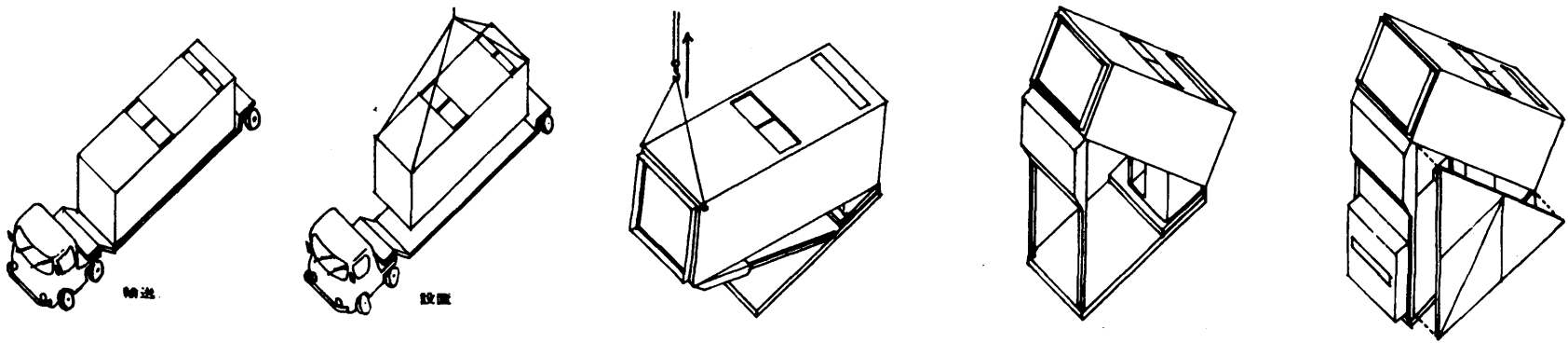


Fig. 69

Volume units which tilt to reveal packaged utilities. The translation of the volume through space creates a second volume. The framework for the new volume is both contained in the old one, and added to it.

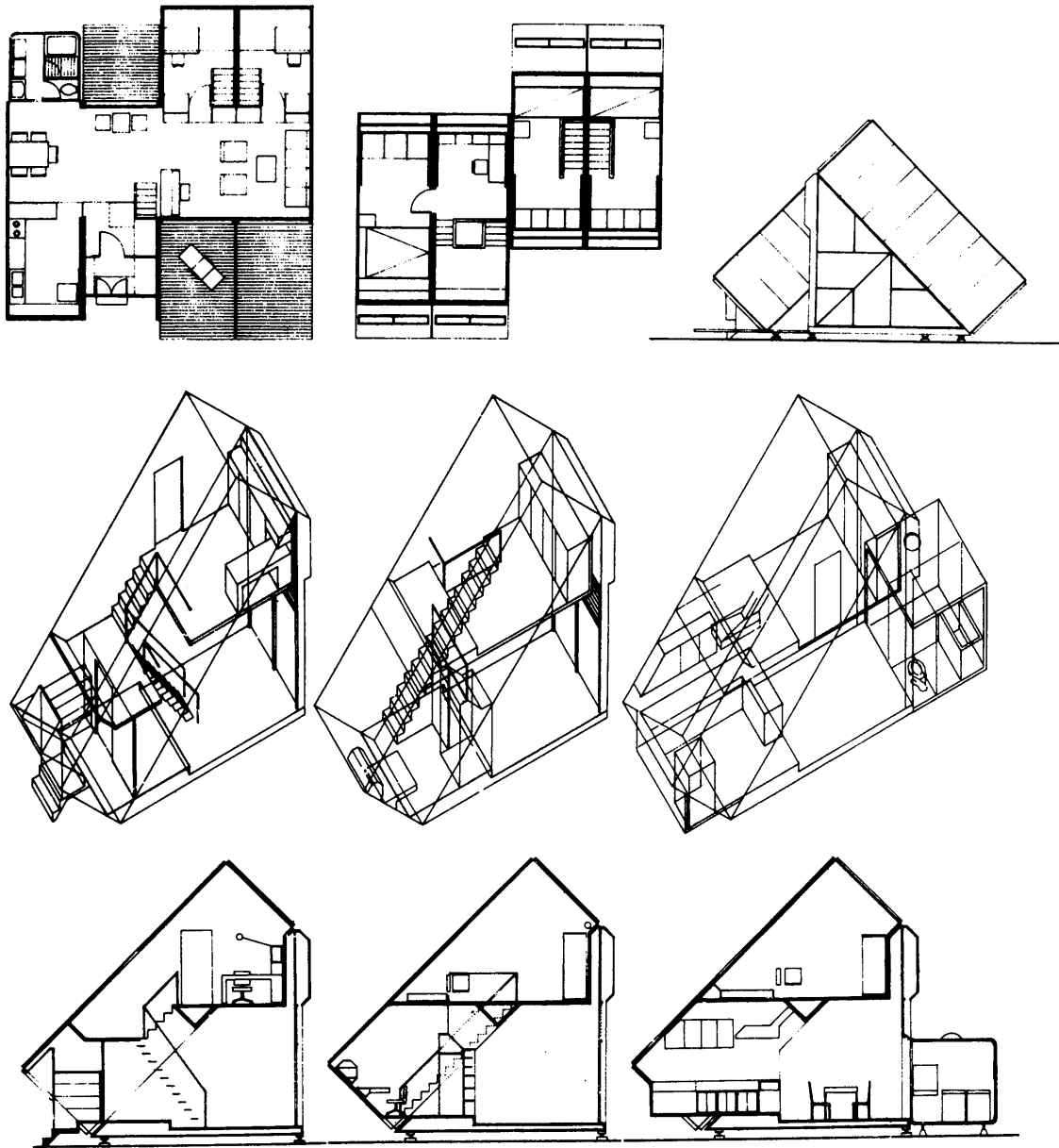


Fig. 70
Plan and section of tilted-box units. Notice the use of the tilted back wall as a door and a writing support.

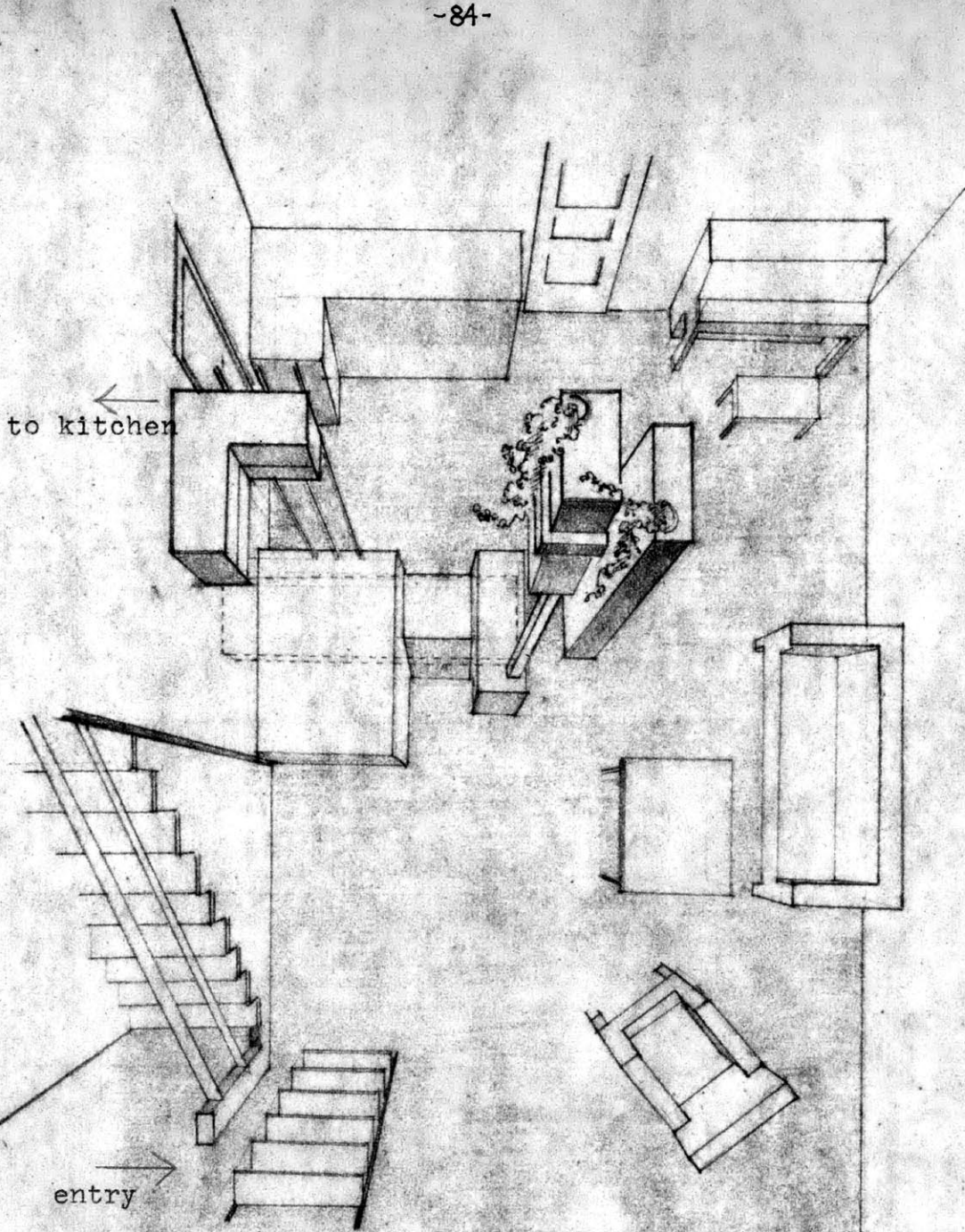


Fig. 71
Proposal for a living area, utilizing an existing column for central focus and support of shelves, recessed light, seat, rail for support of sliding desk (dotted). Association to floor unit and related shelving. Central cube is removable-translatable.