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Canada

engaging adaptation

Abstract

“engaging adaptation”

George Mitsch

March 19, 2003

Prepared in partial fulfillment of the requirements of the degree, Master of Architecture, in the Faculty of Environmental Design, The University of Calgary.

Supervisor: Marc Boutin

Adaptable architecture. This is the conceptual base within a project that deals with the relationship between an owner and a tenant. Architecture is the meeting place for these participants. It is the mechanism through which the two interact. It holds distinct meaning for each participant, and as a form in the world, also engages its place beyond either user.

This project will address the architectural relationship to place, (history, environment, and conceptual place within human place/ situation), and through this primary scope, develop the idea of architecture holding elements distinct to stability/ the owner, and variation/ the tenant or user. Those architectural parts shall interact in a manner that reinforces each, and as the architecture holds out its values, so too, the owner/ user relationship will establish itself along those lines which the architecture exemplifies.

With time as an ongoing participant in this process of engagement with architecture, the design will evolve through direct interaction with the realities of built form, varied by the hand of the owner, that of the user, and the matter of the building and site. This is the experiment.

Keywords: owner, user, place, space, time; foundation, encouragement, mechanism, imposition, lived.

Preface

This project comes out of dealing with a relationship between people that hold a common interest in architectural space. Space for living is set out in the world on the land, under the light of the passing sun, and under the rules of civilizations and individuals. The ownership of a place for living does not confine those individuals to live within that place alone. An individual may own a home of their own, along with other such buildings which can be rented out to others. This situation creates a breach between the user of a living space in the world and the control of that place by the owner. The architecture provides the framework for the interaction between these parties and is the subject of this project. I will divulge some personal history to lay the groundwork for the beginnings of this interest.

This project holds its beginnings in my father's work. From the mid 1960's until his death in 1993, my father was a builder. Up to 1977 he worked with his brother forming the company 'Better Built Homes, building housing from single homes, to duplexes, fourplexes, and small apartments. In 1977 the two brothers split to form their own companies, my father taking the name 'Better Built Homes 1977 (LTD)'. From that period, the post building boom recession, he diversified into commercial construction, building one warehouse in the late seventies and another in the early nineties. A number of buildings were retained from the entire career and are still held today as rental properties. The relationship between landlord and tenant, and the managing of rental properties has therefore been a backdrop to my life. It has been the engagement with tenants and property that has spurred interest in this project which deals with the role of architecture within the relationship between an owner of a place in the world and the user of the space contained by that place. Our residential properties, as they are now, as they were built, are typical to Calgary housing. Bone-white drywall, wood trim, rooms of average size for their use. Nothing which distinguishes the space within from a house. This project deals with a particular duplex from 1968. It is one of four buildings, all identical in plan but each given a street front variation of facade. The homes run in a line down 72 Ave. NW, with the western most building also holding a sectional schism along its party wall line that follows the slope of the street. This uppermost building was sold after construction, so its development has operated under different hands. Each duplex is a side by side bungalow contained within an exterior that links the whole through a common facade. The question became, how can the architecture of this rental property speak of its reality, that being, a money-making device for the owner, while a dwelling for the user, and one unit of six held within three buildings that share a common

owner? Defining the roles of these players and their relationships with the architecture that brings them together becomes the source for design interventions. That is the goal of this project, which will serve as an experiment in reality as the design is put into practice at the completion of this work.

As an interaction with reality, the project also deals with problems, and potentials within that field. History, cost, time, scope, etc., are all participants throughout this process, contributing to the moment of the masters degree project as a place between strictly paper educational architecture and the breadth of thought within the profession. The project straddles this line, being within several shelters, yet becoming a work within the world which will act amongst the things and people of the world. As a project in reality, the design will be put to test, for those who participate with the work as users, as well as those acting in the capacity of owner within an ongoing experience of architecture. The project is an interaction.

Acknowledgements

I would like to extend thanks to my advisors, (Marc Boutin and Dr. Alan Smart), as well as my mother, (Dorothy Mitsch). Each, in their own way, has aided my thinking on architecture and provided trust in my endeavours of this work.

I would also like to acknowledge the tenants, present and still to come, whose participation with the work will determine the evolution of its life.

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Introduction

Revealing architecture. This is the beginning within a project whose aim is to engage the relationship between an owner and a tenant. Architecture is the meeting place for these participants. It is a relationship with two bodies, each with their own interests in the space that brings them together. For the owner, the space is based in function, held by an architecture that is a mechanism for generating income. In light of this, it must operate in a well-oiled manner, maintaining itself for ongoing use. In the eyes of the tenant, the space is a necessity. It could be a point between places, or considered to be home. In either case, the architecture is the physical matter which provides this place. Returning to the beginning, I propose that the relationship between the participants is one which requires ongoing realization. Whatever the level of living that is desired by the tenant, the architecture remains the property of the owner. The framework of this interaction should then hold presence within the architecture. With a knowledge of the situation finding a presence in the physical matter that defines the space, the potential for realization of this is provided. It is a necessity for the owner to maintain a presence within the space as a reminder of the reality of the situation. This is in fairness to the tenant rather than domineering over them, as it is reality. The tenant is not lulled into a false sense of ownership, a potential for problematic behavior.

A second part to this project is the act of construction in reality. The encounter is based in a history of building and living, for landlord and tenants. This project is an enrichment and explanation of the situation based in a desire to evolve the relationship between the players. If remaining on paper as a theoretical model, it offers no potential for the experiment to move into action. Also, the project is based in a physical reality. It is a design interaction with history, building on and through an existing framework. Therefore, the project detailing and dealing with the anatomy of the real will form an essential part of the design process. It is one thing to propose a design, thoroughly thought through and researched, but the unknowns hidden beneath drywall may provide a voice for project depth, a necessity when dealing with something built in the real world and trying to further its existence through its foundation or reality.

The project will begin with a discussion focusing on the condition of the owner and tenant, and how flexibility, as an idea, may inform its place within this relationship. Flexibility is introduced as a counterpoint to stability within this discussion of the roles of the parties involved. Precedents will then be examined which deal

with the concept of flexibility/ adaptability in architecture; the potentials of architecture holding levels of design interaction, on one scale by the architect and on another at the day to day level of the occupant. Drawing on this information, the design process will develop the architectural parts, and the process of putting the project into reality will be laid out.

Chapter One, (roles).

To begin with I will address the problem of discussing two sides of an issue from my own perspective. The psychology of perception, as addressed in the text, "Design In Familiar Places", reveals that a shift within one's own mind is a possibility, as all people can understand the concept of insider and outsider, or, as citizen of a particular home place and tourist within a foreign experience.¹ Acknowledgment of varied perspective comes when interviews within the cited text revealed that tourists, when questioned about a visited city, described certain areas that they had seen as good for interest and excitement, and others as quiet and dull or inactive. Residents of the city described the same places in the same terms, however the qualities of being good or bad were reversed. That is, in the eyes of a tourist a place was good when it was bustling with activity and somewhat eccentric, and bad when it was sedate. In the eyes of the resident, those same qualities were the reasoning for identifying a place in the opposite way, those places of "interest" holding shady characters and the calm of the other neighbourhoods being desirable for privacy in day to day living. With this reversal of attitudes based on the same qualities being established, the interviews went on to question tourists on the areas that they would choose for living if they moved to the city. Once this role reversal was in their minds, and their conceptions about daily living were brought into light, then the move followed suit with residents. The same shift occurred with the residents and their ability to change perspectives. Through these interviews comes the realization that purpose determines evaluation along with type of perspective employed by any individual.²

The text information cited above, used as a factual backing, was also the source for the terminology of tourist and resident, words that are of certain use when discussing the roles of tenant and owner and the potentials for varied perceptions of space.

This shift of perception holds a place within the role of the tenant when determining their likelihood for change in perspective through the occupation of a space. The tenant begins a relationship with the space they occupy with the eyes of an outsider or tourist. In this way, the initial potentials of a place are searched for and activated. As time passes and familiarity builds, a residential perspective opens and the architecture becomes a backdrop in the subconscious while experiencing the tasks of living within. The ease of potential to revisit the perspective of an outsider, and the provision for a greater consciousness of the architecture are goals within this project. An architecture that interacts consciously and subconsciously to reassert a continuous realization of the

space.

The relationship of the rental property to the owner can be discussed in a similar way. As a constant in the mind of the landlord, the property is conceptually residential, with a familiarity built through the ongoing knowledge of the building itself and of the tenants as they come and go. However, the experience of its spatial characteristics and the realities of living in that place in particular are passing. Visitation into the situation occurs only periodically, with rent collection, repairs, maintenance, refinishing between tenants, or dropping by/ invitation for a chat. In this way, the owner becomes a tourist, the details of living with a community known at a level removed from daily experience, but somewhat revealed by each tenant as they offer insight into the situation from their own perspectives. In this way, the owner is, at times, perhaps more aware of living situations by the collective information of varied multiple opinions rather than as being within one of the roles of those who are experiencing the situation from their position alone. As a non resident, or outsider, physical experience is removed, yet as an authority figure, (who receives complaints and other information about tenants from other tenants), a level of insight is gained. This complexity is continuous: unknown experience, experience through multiple perspectives, the experience of stability as an idea bound to the property; and from the tenant: an initial experience, an ongoing experience, an experience in memory, a renewal of experience.

Individuals live within the world, not merely occupy its space. Interaction with one's dwelling speaks to this, and the manner in which it occurs reveals the dwelling, so there is an education through investigation, interaction, and creative thought and action. The owner/ user relationship frames the interaction as there are rules that follow this division of a space into the hands of two distinct parties.

Also, the idea of users interacting with the architecture they inhabit is about learning and gaining knowledge of its reality as well as the physical touch between the user and the built form. An intimate knowledge of this type of interaction is then a necessary part of the design of such an interaction. To postulate a theory about participating with a space through its form does not mean that an understanding of this physical act has developed. It is an important beginning, but is just that. The exploration at a design level must come through such interaction. In this setting, the architecture in existence offers its realities to the designer, who participates at a design level through the guise of owner. The design at this stage is an action of their role. An engagement which is not possible by the tenant, but which will leave the framework for their participation and investigation

on another level.

So the role of owner and of tenant hold means of interaction with the built form at certain levels. What then are the guidelines that establish the rules that govern these types of interaction?

Certain parallels can be used to describe the identities of the owner and tenant. The architecture is the presence of the owner, the physical matter that exists for use as a tool for generating income. To serve such purpose it must hold a level of permanence, require minimal servicing and have the ability to retain a level of quality in its surfacing and finish. It is typical maintenance for a cleaning and fresh layer of paint between tenants, with the refurbishing of flooring and other major pieces such as the roof occurring at times fewer and far between. It is also advantageous that the architecture hold a level of simplicity so that damage may be limited in cost for repair. From experience, there seems to be a tendency to use rental buildings in different ways by different people. Some may maintain the unit at an impeccable level and remain tenants for several years, others may pound nails into window frames and allow their dogs to scratch up doors. In the first instance there is a mere occupation of the unit. In the second there is a lack of either respect or understanding of the rules. With this in mind the rules and the way that the building provides for interaction by the user become necessities.

A primary parallel for the role of the owner is stability. The building itself is a monument to its builder, whose family in this case has been the owner since that time. A preservation and continuation of the building in the world supports the function of the building as a tool and sustains the idea of stability. The renter may have more concern with comfort and cost than the idea of sustaining a monument. Their participation is within this framework and the presence of this stability should let itself be known to the user for a greater understanding or presence of the truth of the matter of the architecture and its purpose for the owner. This leads to the role of the tenant.

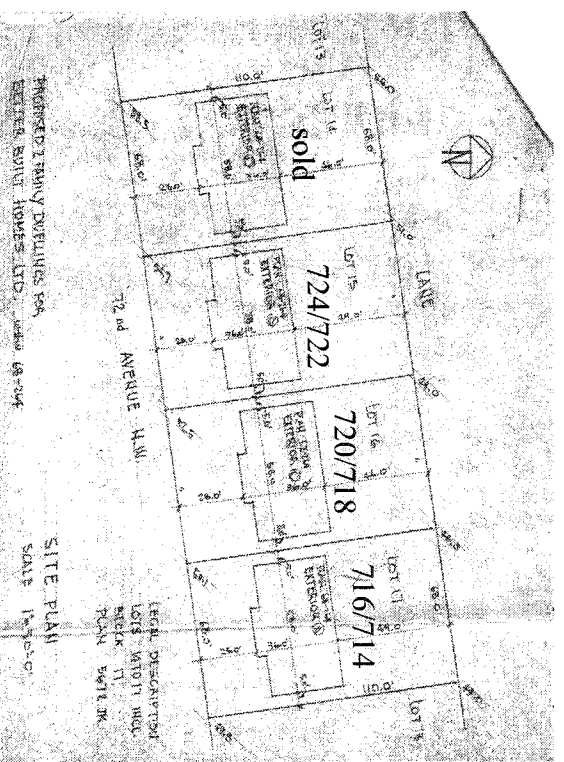
Within a framework of stability, the user is a variable. They come and go on their schedules of need while the building and its purpose remain. The architecture may then hold two distinct levels of being which correspond with the ideas of stability and variability. The stable is something through which interaction can not occur by the hand of the user, but may be by the owner. The stability's are a conceptual earth and universe through which participants live and interact. Its entirety remains although parts within may change. Its being

and rules are bound within its levels of stability and change.

Why can't I punch a hole through this wall?

This question may easily arise within a typical wood frame house, dry-walled over and defining spaces through lines initially governed by a set of rules, but then following a direction that hides this structure within a cover of layers. The rules are hidden, therefore their presence is unknown, therefore no rules are perceived to exist. For a renter, conceptually, this means that the rules of the space that they occupy, and the relationship back to the owner of that space, do not exist in a tactile, everyday way. They may reside on paper and at a level of common knowledge, but they have left the arena that is the reason for the interaction between the two parties. There are, however, rules, and they are a requirement to be followed for the preservation of the stable. Otherwise, the stable may be chipped and cracked into destruction through a thousand holes.

The site of this project offers two examples of user misunderstanding, (fig. 1). Tenants in the second unit from the top of the row, (722), built an addition onto the balcony in the back garden. The structure of the original was a cantilever of joists from the building's internal floor. The addition was tacked on to the end of the original structure and given posts only at its new end, not at the joint between new and old. This created a structural shift, where the weight of the new was stressing the old. The addition was inspected after the tenants had moved out and the landlord incurred the bill for installing a proper post and foundation under the addition so that its weight would be relieved from the original. A second example occurred in the eastern most unit, (714), the neighbouring unit that shares a structure with the subject unit of this project. The tenant here felt a need for more open space in the undeveloped



basement, so he removed a telepost structural column by hacksawing the bottom from its security within the concrete floor, detaching the top from the central beam of the unit, and laying the remains against a wall. This action was unknown by the owner until after the tenant moved out and the building was being inspected for painting needs. At this point the basement discovery was made along with a sighting of a gap beneath the baseboard surrounding the corner of a wall that sits above the column's place. To fix this, the beam was jacked up into a level position and another column was purchased and put in place, again at the expense of the owner. The tenant in this case was a carpenter who evidently felt that he had a know how of the structural requirements of the building, and so was content with such a renovation!

Positive engagements with the building and land have also occurred within this series of units. At 718, tenants added a basement washroom, (with landlord approval), which has created greater building use for tenants and value for ongoing rental. Another example can be seen in recent conversations with the tenants at 714, who have asked if we, (the landlord), can bring in additional soil so they can develop a garden space. The key difference between positive and negative actions by tenants with the places they inhabit lies in discussion with the landlord. When actions occur behind the back then problems tend to arise.

The idea of the stable and the variable can also be related to certain other participants within the field of architecture. There are constants in the world with which architecture interacts. The ground, the sky, light, and climate. All basic and all meaningful for determining our relationship with the earth and our evolution upon it. These speak to place; to Calgary, Alberta, Canada, North America, as well as to person on land, beneath sky, within a universe. Physical representatives of the role of owner can be found in certain parts of the architecture that can be considered untouchable due to their requirements for the preservation of the structure, i.e. enclosure walls, bearing walls, columns, beams, and roof, as well as service pieces within, such as plumbing piping and heating ducts. This has its parallel within the idea of variable, which will be explored and defined through this project. The variable is sought through parallels at a physical and conceptual level, i.e. moveable pieces within the framework of the building as well as a heightening of the presence of light as a conceptual variable. Stability's are seen in the land, the built form as a whole within and upon the land, and the owner, as a conceptual figure, being a constant in the relationship. Variables are seen in respective forms to the stability's as light passing over the land and built form, the missing architectural variable, and the tenant as an ever-changing participant.

To expand on these points, land is regarded as a presence of stability as it relates to our occupation of its surface. It is a solid to varying degrees, and can be manipulated in varying ways by large and small amounts of physical and technical effort. However, it remains as a mass, those parts occupied by any individual or work of architecture being only a fraction of a larger whole whose stability is governed by its internal functions and greater relationship to other such bodies within the solar system more so than the actions occurring on its surface by human or any other physical means. In light of this, the interactions with the land that do occur through human means can be seen to hold a similarity to the way in which a building may experience alteration to those parts that make up the rules of the architecture. It can be presupposed that extensive interactions with this level of stability, or the rules, can lead to a significant redefinition of that level, or change it into something that is different than before. If this occurs, then the idea of stability within this level is lost. It is the maintenance of this level that insures a continuation along a stable line of existence, either as planet or as rental building.

In relation to the land comes the presence of light. Its passing over the surface of the land is a continually shifting and varied experience to those who perceive it below. No two days are exactly alike due to the ever-changing filtration between the land and the sun provided by the gases and vapours of the atmosphere. Water is the major player in this filtration role and can also be seen as a factor working on the stability of the land and of the corresponding level of architecture. In this comparison, light may hold the role of variable participating with the land and those things built on and into it, while water is a force that will have its presence known, acting through its various forms to create marks within the land. This force may be aligned with the wear and tear that will occur through the use of a building, (the finish on a door around the knob being worn through its use, as the gravel is moved around a low slope roof from the action of H₂O in various guises). Light is also what brings life to the world, and it is the role of the user that brings life to the space of the architecture and the purpose for which it was made.

Climate around the earth is the initial determining factor for architecture. The need to build shelter stems from this along with human requirements. Buildings allow for our life globally rather than equatorially. A relationship between person and place through architecture is a constant reminder of the world and its variations. Architecture is pushed and upheld by climate, in that it creates the need. This is found through all species and their attempts to make space suitable to their purpose. In the way they create, using found materials

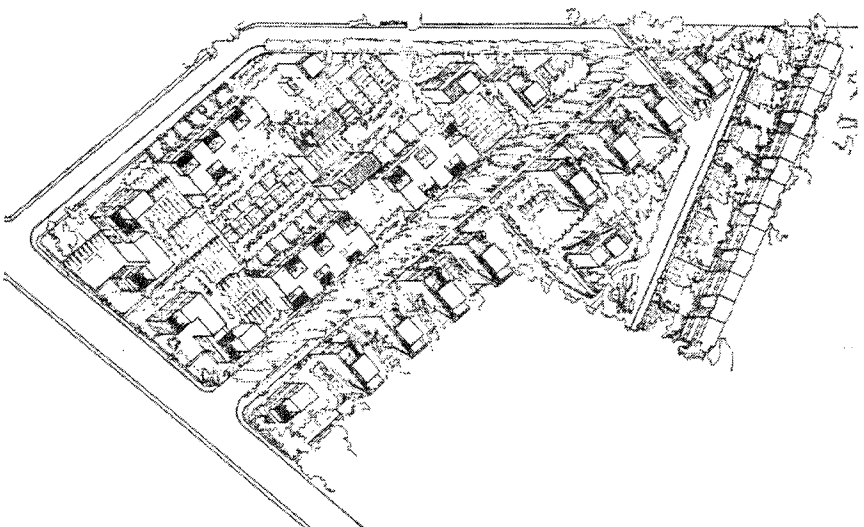
and shaping through themselves, other creatures' dwellings hold a relationship with nature in that the dwelling is formed from surrounding materials through a natural form. (i.e. a gopher burrow suits its proportion and needs because its body dictates and defines the space. Bird nest, bee hive, etc., all use the body as a space definer. In this way the space they make suits each particular form in proportion with their body and needs). This project is a search for a corresponding user manipulation within the stabilities of the situation of place, divided into two manners of control. The shanty town may be the last remaining vestige of being individually interactive with material to create space within human architecture; formulative traditional methods may have worked this way as well until a standard had been given a place within cultural acceptance of what a dwelling may be and an equation for building was followed. Mud brick and thatch, teepee, etc., any space made by hand by the user without prescribed plans, either physical or cultural. In the situation of this project, stabilities and variables guide levels of interaction, each setting out a structure for interpretation and adjustment by the owner and user.

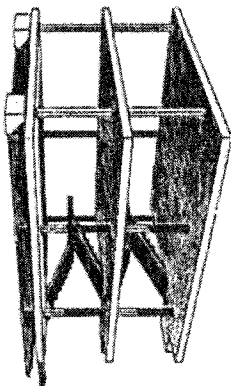
I now turn to this missing piece within the parallels established above. The counterpoint to a stability within the physical architecture; variability in architecture found through the idea of adaptation through flexibility. This concept will be discussed through an investigation of precedents that deal with the idea of flexibility leading to adaptability as a means for involving the user of a space with the architecture that they inhabit. The idea occurs in forms both designed for such purpose, as well as claimed by the users of built form. A spectrum is offered to illustrate the eventual design position taken in this project as it relates to the interests of both parties and their roles.

Chapter Two, (precedent cases).

Precedent one, (foundation).

The Quarters Modernes Fruges is an early work designed by LeCorbusier under the patronage of M. Fruges for a workers village at Pessac in the Bordeaux region of France, (fig.2). Although just 51 of the planned 200 units were built, the results that followed through their adaptation by owners and renters seems to be a force that the completion of the project would hold little sway over. The buildings vary from a two-storied, terraced house type, to one with arcades and terraces at ground level beneath the arcades, to semi detached at ground-, first-, and second-floor levels with access to a third-floor roof garden via an outside staircase, to a two-storied, detached type with access to a second-floor terrace via an outside staircase once again. It was a creation in reaction to the needs of the time for quickly, efficiently, and economically built homes that would be lasting and hold the values of their contemporary times.³ These values were defined by LeCorbusier as the provision of light, air, and well-designed space, and the resultant forms explored his architectural ideas based on the domino, (a concrete slab construction supported by a minimal quantity of columns to free the space within as well as the facades, fig. 3). The use of concrete and machines, (seen as the progressive technologies of the time), were to ensure solidity and presence to the new vision of architecture, finding a place within the world in an expeditious time frame. M. Fruges was in agreement with these visionary principles and supported the effort throughout. Contemporary ideas of art were also brought into play, through the arrangement of buildings and the use of colour working together





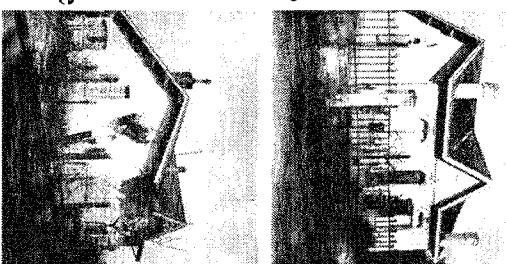
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to define the realities of the units in themselves along with each other as a conceptual whole.⁴ This was done by painting the exteriors of the complex with the colours horizon blue, golden yellow, jade green, off white and maroon, so that the architectural elements served the idea of units being linked within a single construct. The community is a unified work with its forms holding place over the actual division of space within.

Reinforced concrete walls, ceilings, and roofs were the structural keys that allowed for an opening of interior volume. The walls are used in plan to increase privacy between units, and the reversal of space usage within the buildings from unit to unit provides an additional level of physical and psychological separation between neighbours. What this means is that the kitchen of one unit is to the south while its neighbours' is to the north, and so on with all interior functions, so that the activities of each day will be private due to the occurrence of those activities during the same time periods. In this way, the architecture is a form of planning within the community, which builds on the idea that all parts of the work are acting in unison to produce a whole.

These ideas were set in place with an inauguration on June 13, 1926. The initial reaction of the region was against the work on a formal level, with comparisons to all manner of foreign buildings, (Moroccan being the typical reference),⁵ due to the outer appearance, especially so for the flat, occupiable roof tops, and the covered terraces that are featured throughout. Protest was first sent by city hall with the refusal to link the community into the city utilities.⁶ This was overcome due to the occupation of the buildings and the requirement of those services, but the mood of reaction remained an element of strength throughout the continuing development of the housing.

Further to the idea of owners defining their buildings as they wish and to their needs, the Bordeaux region holds a tradition of lean-to construction,⁷ (fig. 4). This is the act of adding on to an existing house by attaching a smaller structure on an outer wall, often the back or a side, anywhere additional interior space is desired. This act can, however, lead to the darkening of interior rooms, with windows being set out beyond there designed means.



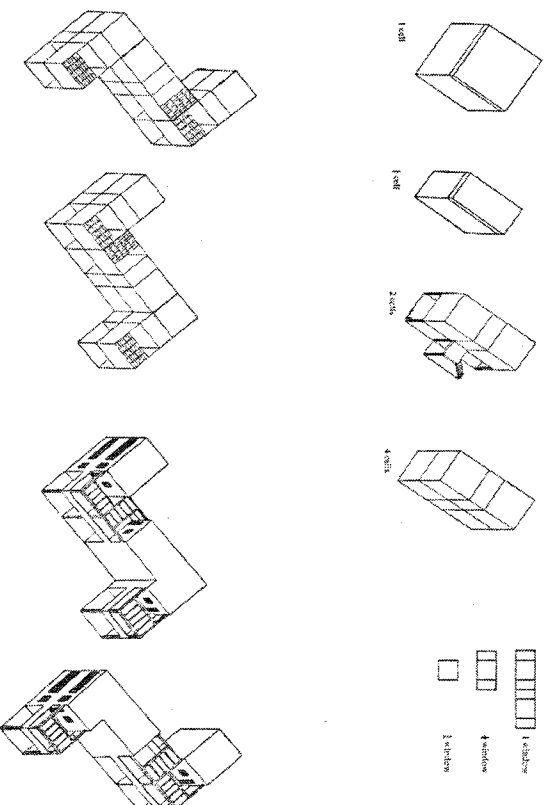
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It is a regional culture of adjusting your interior spatial needs for yourself. It is the act of individual owners building the area by building on to their dwellings. The community designed by LeCorbusier and M. Fruges was to be a new potential for the exploration of this tradition.

The alterations that occurred and continue to occur use the foundation laid by the architect as something that can be built upon to give each unit a personality and function reflective of the owner, (fig. 5). All structures are proportioned from a common base, that of 5m x 5m in plan, to be combined with a split unit and quarter unit. Through this sharing of proportions, the community was again unified, while LeCorbusier designed variation within this unity. This was also part of machine construction practices and the ability to take standardized elements and, through the careful thinking and planning of the architect, arrange them to suit the ideas of living in a variety of ways. Using a system of proportions that related each part with the next, and working with the freedoms of space and open facade that the structure provided, the residents at Pessac were given the opportunity to adjust their spaces to their liking with a great freedom.

The residents of the Quarters

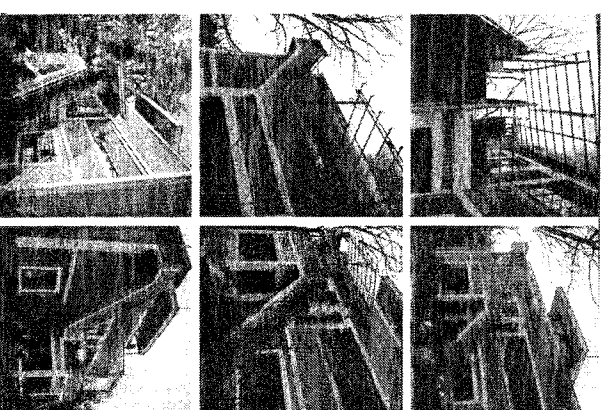
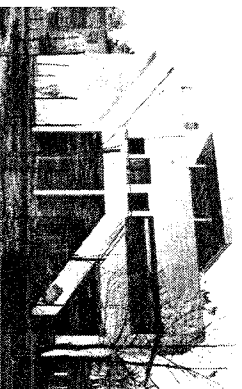
Modernes Fruges took what was given for their occupancy. The alterations that occurred can be viewed as reactions to an “outsider architecture”;⁸ one perceived as foreign, from an existing external culture, or as the new international, which is of an aesthetic that does not belong to any culture in particular. A home must have a relation with the user. If it is perceived as foreign, then it is not your own, and either modifications will occur to change



that, or the occupancy will evaporate. LeCorbusier designed Pessac with the greatest of intentions, using his theoretical stance based in the modernist desire for fundamentals, (air, light, and space), and numerical relations with nature and the human form, (the golden section),⁹ but reaction came nonetheless. This reaction was based on superficial terms at one level, as an act against the new aesthetic and its foreign nature, or perceived break from tradition, as well as being a continuation of interacting with one's dwelling built into the culture of the region. The users demonstrated in their own words an understanding of the potentials offered along with the difficulties that are present in the situation, "...its good...and its not good at one and the same time...and that's what's good about it."¹⁰

The transformation of Pessac anticipated the desire of the post-modern reaction that occurred thirty years later. Visual, symbolic history was lost, destroyed by war and replaced by a universal model. The architecture of LeCorbusier, however, sustains itself as an armature for further interaction by occupants, and succeeds in bringing new spatial potentials into public perception. Any perceived failure is the failure of imposed modernism as a whole. The public was overwhelmed by the shift and reverted into the known and memory from before the war. Pessac holds a level of

order, possibly imposing, but which is the key that provides the framework for the residents and their ideas. It is not a continuous concrete mass, but rather a production based in standardized elements and proportions, maneuvered for varied creations by the author architect, yet providing for the authorship of the owner as well. An illustration of this can be found in the external stair and landing that create a portico space or patio outside the kitchen of one unit type, (fig. 6). The completion of the enclosure changes certain fundamental ideas, (the internal and external blurring of boundaries, effects of light, air and space, etc.). The user, thinking they can gain extra space by enclosing it creates the traditional,



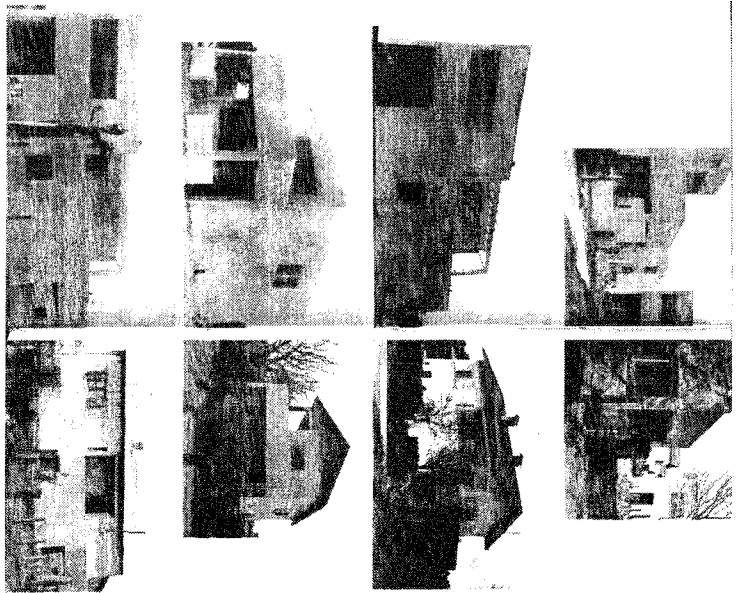
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(a clear boundary of interior versus exterior, with space being enclosed seemingly having a greater value).¹¹ This displays a thinking tendency towards traditional values.

The materiality within Pessac holds importance when discussing flexibility. Reinforced concrete is not easily reworked. It is a strong permanent. The use of this for the housing project ensures its durability and leads to a certain type of interaction, i.e., in-fill. As a mass framework that holds difficulties when removing or punching through walls, floors, ceilings, the housing superstructure/entire structure becomes something to work on. Therefore, additive measures are the only means of renovation, and the provision of in-between spaces leads traditional vision to certain conclusions, (fig. 7). Areas of space originally open were in-filled, windows were in-filled and re-sized, and moldings and other decorative elements were applied. LeCorbusier provided an initial stability. His authorship is found in the original design as well as within the stability which upholds the wishes of those who dwell and work within this armature.

Through the types of reworking that occur at Pessac, the idea of fondness towards memory is established rather than an acceptance of reality and its potentials.

The architectural laboratory. This term was coined by the patron, M. Fruges. His conception was of the site as a testing ground for the application of those same technologies of mass production, through the speed and accuracy of machines, that was so efficient in war, to be used as creative means for a settlement evoking the clean air values of post war life.¹² A utopia born out of destruction. The community is a social experiment in that it brought out the mood of the populace. It is architecture designed by one source for the use of another group. In this way it is about an imposed ideology interacting, and here losing, to the public of the region. When designing for an unknown, the potential for

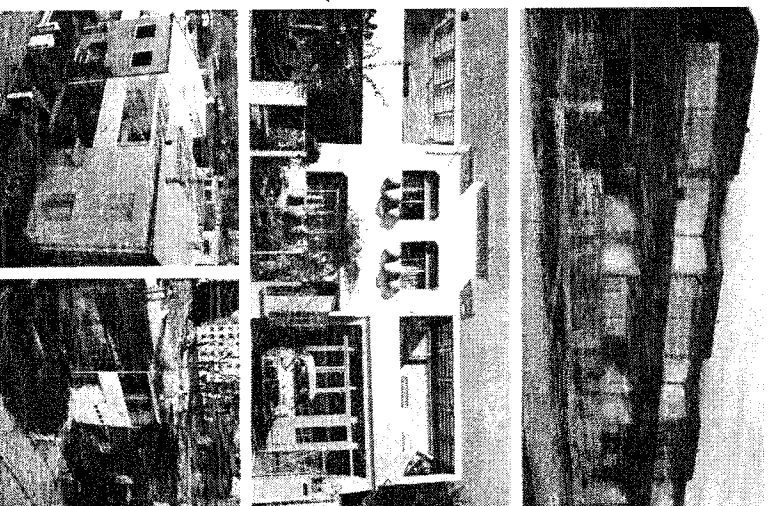


alteration by users must be factored in. This provides for the inevitable users who could not have been predicted and are offered the opportunity to adapt the architecture to themselves rather than the inverse.¹³ At Pessac, the architecture has provided for such bending to public will, whether this was the point of the design or not, and therefore this project is an example for the potentials in user flexibility at a built scale. The circumstance of ownership provides for this.

In my opinion, the living habits of a person are not necessarily governed by their habitat. An architecture may set up certain circumstances and potentials, but the user is not a neutral factor in the evolution of the home. If raised within one habitat then a familiarity may become part of that individual and a way of living unified between user and space may occur. Since the architecture of the Quartiers Modernes Fruges was revolutionary, it is understandable that the buildings have had to bend to the users' will. This does not mean that the project is any less successful as a proposal for a way of living with architecture. It simply means that the potential has been put into the world for experience, and its levels of embeddedness within our common consciousness will develop familiarity over time.

Cultural perception plays a guaranteed role within architecture;

“...he had not been rich enough to buy a house with a proper roof.” This is a statement from an interviewee who freely spoke of his use of the roof-top terrace as a dining and summer sleeping space, (the latter point being a custom of the Bordeaux region). This is contrasted by another who only used the same space for annual check-ups for repairs, yet enjoyed the ability to be up there.¹⁴ The users are all individuals, with varied thoughts, lifestyles, and tastes, yet all were offered the same living potentials en masse. Identity crisis and its resolution are the result, (fig.8).



8

The roof as a sign of shelter and traditional familiarity may allude to a psychological comfort. The

removal of this architectural piece and replacement by the benefit of space and elevated surface under the sky for view, light, and air, means that a new psychology is brought out; one of values shifted ideologically away from past views; views holding power when thinking of a dwelling within the world; a place of protection from the world. LeCorbusier's architecture, offering the world through the architecture, is a fundamental shift and adds to the response against the modern by a public front.

Residents of Pessac display interaction with their dwellings at a variety of levels. The idea of in-filling to claim and/or divide space is common, as is the alteration of facades to suit the image that each household wished to portray. This ranged from filling in the original window space that spans the entire facade from one structural party wall to the next, so that a traditional size is found, to retaining the original. Reasons for this particular type of alteration were also of a range, from complaints about heat, to maintenance and repair, to the image just being strange.¹⁵ The facades now hold colours that are particular to individual units as well.

Terrace spaces have been enclosed, roofed over in a traditional manner, or left alone.

The interiors of many units have been rearranged several times over. Some owners thought the space too large and without a proper hallway, so they put up a dividing wall.¹⁶ Others divided the ample single living space into several smaller rooms for their own reasons.

Rooms have been rearranged throughout Pessac in all manner of ways, as have facades and exterior spaces and finishes. They have sometimes been reworked to resemble the original design. This evolution of a community through the ideals and endeavors of those who live there all occurs through the order put in place by the architect and patron. The level of permanence offered by the basic parts of the structure of the buildings is the counterpoint to the workings of the residents within this superstructure. Thus, the evolution of the project is a marriage of the origin of ideas with the lives of ongoing users.

Precedent two, (encouragement).

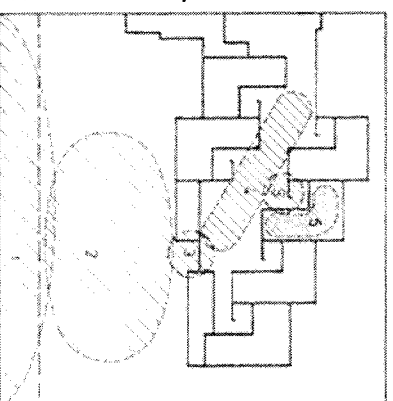
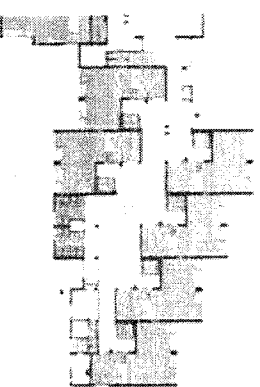
Two projects by Herman Hertzberger will be discussed in this section. As a broad opening statement, his architecture is bound to the variance of potentials that architecture can provide to varying users. This is united with ideas on private and public relationships and the concept of ownership as it relates to the users, (whether technical owner or not), who have cause and opportunity to claim possession and/or responsibility of a space.¹⁷ The first example project is Montessori School, in Delft, the second is the Diagon Dwellings, also in Delft. In both works Hertzberger lays out his proposals for living spaces with a reference to the cultural consciousness of the Dutch people as a foundation that leads his work naturally through the way of living built-in to that society in particular,¹⁸ but of importance to all people and a way of living through architecture from the scale of a front porch to that of a city. Both works are about how architecture elicits response through spatial and qualitative means. They are not about flexibility so much as being about the invitation of the individual into the architecture, and as this occurs in a communal way, the relationships between individuals, architecture, and each other facilitating a way of living.

Project one, (Montessori School).

Montessori School is a primary level education facility serving children at the beginnings of their public education and interaction level. The building is designed as a city, meaning that spatial organization follows a development of public and private domains that reflects the order and situation of a traditional Dutch city. This point is of importance for Hertzberger's work in general. He feels that the play between public and private realms within a city develop the life of the city as a whole, where each is invited into the other through the decisions of the citizens and their definition and use of space. Developing an architecture along this line means that a hierarchy of spaces is laid out in a certain way by the architect, (Hertzberger allowing for the honesty of structural function to develop the concept of hierarchy), for a specific program, but built into this, throughout the whole, is the potential for user definition. The building holds streets and structures, each defining the other, with the threshold between places being the place for user relationships between the public and private. So too, Hertzberger asserts that cities should be viewed and designed as buildings, so that they may develop as

a complex whole of spatial organization, shifting from public to private through threshold.¹⁹ The plan of the school follows this route. Organization is along corridors, or public streets, that provide both circulation and gathering place as would occur along a city street,²⁰ (streets having space for movement and casual interaction at benches or cafes, while leading to plazas for larger group gatherings and ceremony). To accomplish this the hallways were widened slightly so that the minimum circulation requirements could give way to space that is useful for other activities. This added dimension provides the space necessary for stopping without halting the function of movement, and changes the perception of the space as a mere people mover into something more akin to a typical pedestrian or traditional European street.²¹ This space moves through the centre of the building between the classrooms, (fig.9).

The conception for the classrooms is of autonomous units, or homes, situated along the school hall, communal street. This analogy brings out the ideas and associations with understandable public and private realms. As much is included within each unit as possible so that the idea of responsibility becomes part of the user experience. Each room has its own cloak room as opposed to pegs in the hall, and although not in place, Hertzberger held the same intent behind each unit having its own toilet. (This was acted against by educational authorities who required separate boys and girls toilets, adding undue cost and space. To this Hertzberger states, "...as if they have them at their home too.")²² The architect sees the association between home place at school, and home their house, as something that will transfer response from each environment to the other; where responsibility, found in keeping either place in good repair and holding care for it, is drawn out of the user relationship with the architecture itself, as the built form invites it. This develops by the architecture offering itself to the hand of the user so that responsibility for the whole comes through what the individual has done to the space to lay a claim to it. This idea of opening up the building to the user rather than fitting them into its mold is accompanied by the necessary consent of the Montessori programme, that calls for partial student duties in daily house-keeping activities. Students are invited to bring in a plant of their own, which they maintain, and ideas of personal space and responsibility



are brought into activity by the use of special rugs that are brought out for activities and replaced in open cupboards afterwards. Actions within the space and interaction with the architecture and individual pieces within through daily lessons builds the idea of responsibility, knowledge of public and private organization, and the relationship of self to whole.

Hertzberger also talks of an individual need for a “home-base” or “nest”,²³ as a place for the individual, of and by the individual as a reference place for interaction with people, places, and things beyond. Without having such a place one may lose an understanding of where they stand in the world. Security in the knowledge that such a place will be respected is an essential part of the children’s experience, so a certain level of insulation must be in place if multi-functional spaces are to be put to task. It is better that the users of a space maintain it so that an external cleaning staff does not work against the idea of a sanctuary for the individuals and their rights within.

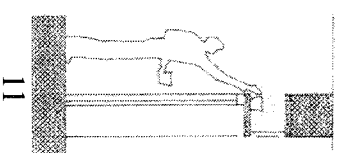
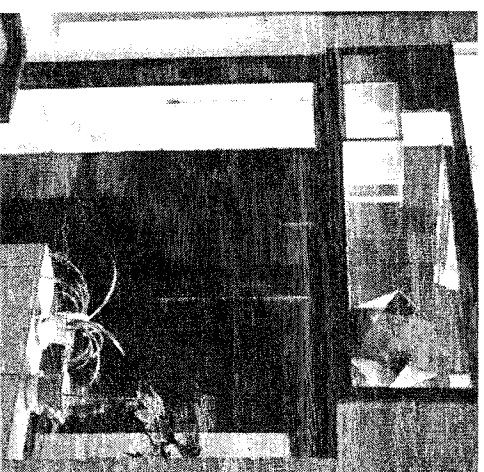
The idea of threshold between the public and private spaces is the place that Hertzberger exploits as a juncture that each realm may infiltrate into the other depending upon the treatment of that place. Giving this task to the hands of the users allows for the relationship of individuals to the communal to adjust along lines suited to those who occupy the space, and therefore require a bond with the situation. In Montessori school, each autonomous classroom enters into the communal street through a series of opportunities and spaces. Display cases are present within the division wall between classroom and hall so that the individualism of those within may hold presence within the public realm in a tangible way, (fig. 10). Siting the case in-between is a function for the wall but more importantly is about the private invitation into engagement with the public through either a dissolving or reinforcing of that boundary between. It is not a window into the classroom space, nor is it a cabinet within the middle of the hall, so its



positioning is reflective of a particular idea about the nature of public/ private relationships. Another example of this use of the threshold of the wall is in a built-in shelf located above the door between classroom and hall, (fig. 11). It is a potential to participate through the act of addition, but does not require any interaction to maintain a function for light transmission as the shelf back is glass. The shelf opens towards those who can claim ownership, the students of the classroom, as it is the doorway that belongs to the room with a public face towards the hall. Even though the school is a collective of spaces and function, the use of the shelf on the class side offers interaction by users of that space, while a shelf open to the hall requires either collective thinking and action or the assertion of the class to take a move into the hall. The simple placement of a plane of glass makes all the difference for the perception of ownership. Where is the line, and which side can be considered as personal property?

“...the street space is formed in such a way that it can serve as a catalyzing agent between the local inhabitants in everyday situations,...the spatial organization may serve to stimulate social interaction and cohesion.”²⁴

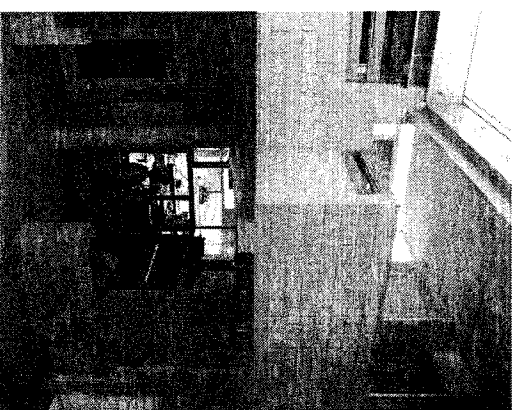
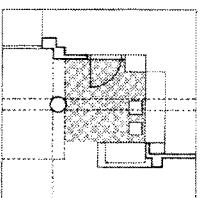
With the autonomous class building, a conscience of responsibility and ownership develops within the student, and the sharing of this private space into the communal hall, by all classrooms in their own way, to the student body, provides an initiation into societal living. Personal place and public presence develop through the architecture that provides for this through its interaction. Hertzberger uses the weaving analogy of a warp and weft to discuss the relationship between the architecture and those who inhabit the space. The warp acts as a basic ordering system with strength, yet subdued, while the weft holds presence as the life and colour. Together they fuse into an, “indivisible whole, the one cannot exist without the other, they give each other their purpose.”²⁵ The threshold of the classroom units also moves into the space of the communal street.



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The classrooms reach into the hall as a front porch on a house may reach into the street space it is a part of, (fig. 12). The association of this space with the classroom is developed through both enclosure, by a half-wall containing seating, work surface, and lighting, and an inclusion into the interior space of the class by a passage, provided by a half split door that offers the same physical height and separation between the defined room and this space as to the defined hallway. In this way, students participating in the threshold space hold a link to the home base of the classroom while participating with the space of the public street. The psychology of the space as an in-between area builds the students' understanding and comfort of traversing this line of separation from private to public, by offering both simultaneously so that familiarity and connection with one space and situation may lead to a comfort with the other. It is not a simple case of being included in one place and shut out from another. Each area infects on the other through the space of the threshold. The communal street of the hall extends invitation for use through a system that can be engaged by the students themselves.

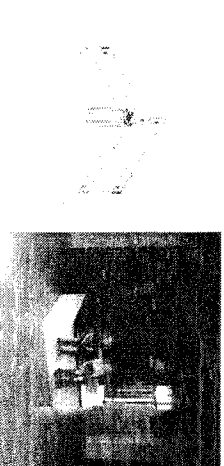
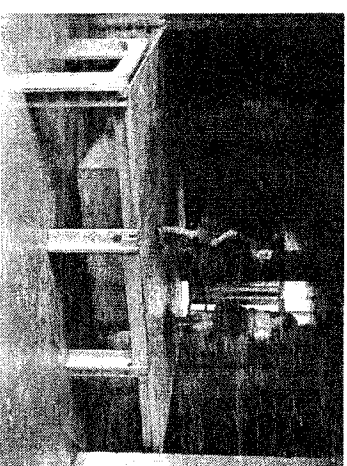
The communal street offers two distinct opportunities to students for an engagement with the space of the hall through interaction with architectural parts. Firstly, a brick podium block sits at the centre of the hall street as an "inescapable presence",²⁶ with its stability found through mass and construction, (figs. 9 and 13). Large enough to serve multiple functions, (a seat for several people, a low table, a podium for display, a stand for a speaker), for use in multiple situations, (class work divided into groups, class room intermittent space, and centre hall), all within the comfortable distance for individuality of groups yet not lost from their

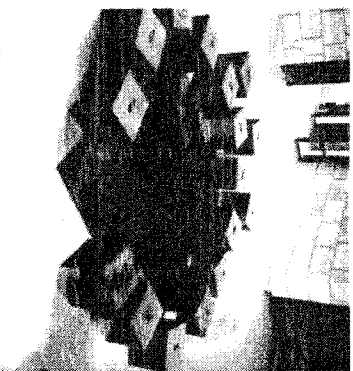
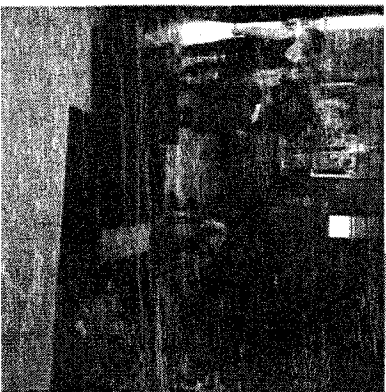
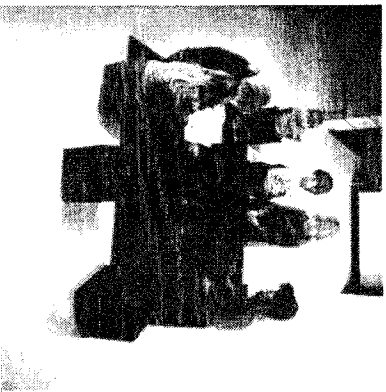
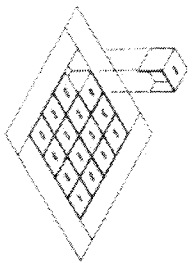


“residence” and assembled learning family. “The block becomes a “touchstone”, and contributes to the articulation of the space in such a way that the range of possibilities of usage increases.”²⁷ The block is expandable by six in size through wooden sections kept within the block for a larger stage platform for class seating and working surface. This large setting, and all stages in-between, can be assembled by the students themselves, so that the platform can function for student use during break periods while adding construction technique, investigation, and sense of achievement to the curriculum by inducing response through creative results of play rather than instructional methods.

The kindergarten area continues this philosophy with a space set into the floor of the hall, (fig. 14). The sunken square holds sixteen cubes, each being a seat to be removed and positioned by the students themselves. The whole is of a scale suited to the users, and creates a defined gathering place through the combination of the lowered centre and raised enclosure formed by the seats and the students using them. In this way, through the circle of children facing each other using the positive and negative parts of the seating place, a sense of privacy is accomplished within the public street, leading to the experience of comfort in this sort of situation. The experience of education is leading towards a way of experiencing the world beyond. Hertzberger describes this situation in particular as a lake in the landscape of architecture, as the platform is an island.²⁸ Both are forms of singular place within a larger realm, a place that can be engaged and focused upon while occupying a larger shared area. Both create a sense of something special within the whole, given a position by the architect, but a limitless potential of life by the users.

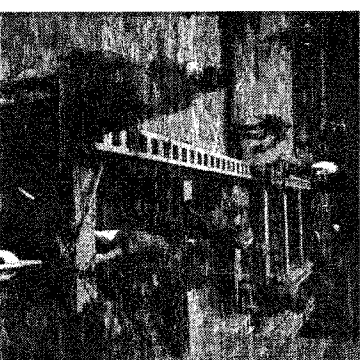
A third example of student freedom to interact with space and





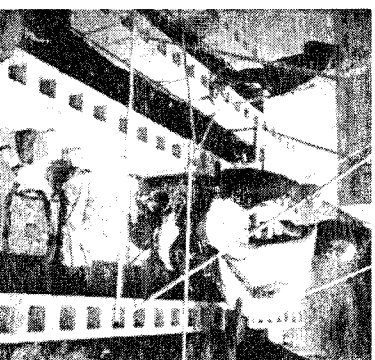
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built form is found beyond the enclosure of the school in the landscape that sits behind it. Here, a variety of spaces defined by low cinder block walls offer layouts for sand pits and gardens for the children's use, (fig. 15). The blocks aren't capped, so that smaller vessels can be found within the make-up of the whole. These can take on varied roles, from seating, to work surface, to planters, to additional play spaces. They also provide points to stabilize poles for the creation of tents and other structures. This example, along with the two above, is fitted to the scale and use of the particular children of intention, who gain the potential to create and interact as a group through the experience of their learning environment. The interactions are also all occasional, meaning that they are enacted at points in time through the general experience of the building and student lessons, which also builds a notion of spontaneous interaction with place in a casual way later on in life. This contains Hertzberger's ideals for all individuals to interact with public space through their lives within the community of the city and

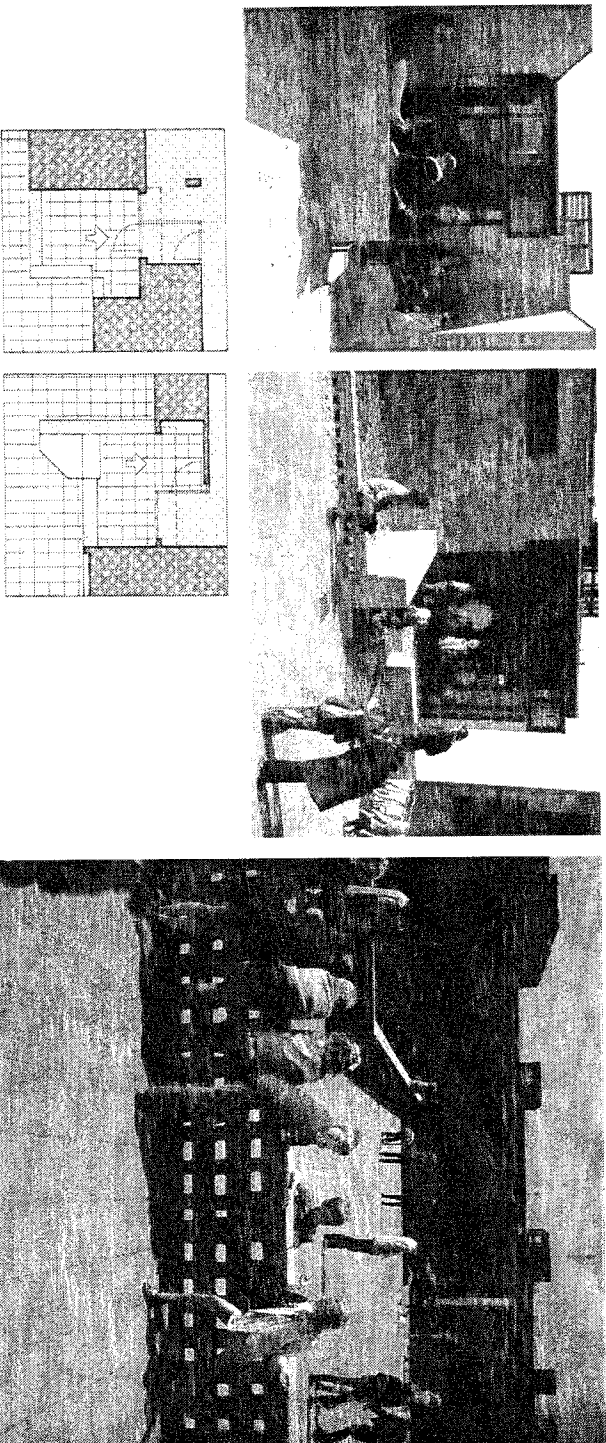


buildings.²⁹

The idea of threshold is dealt with between the building whole and the surroundings as well. The entrance space is viewed as a place for before and after rather than as a portal between two defined spaces, (fig. 16). This activates the place for common activities that act alongside the function of the space. Students arriving early have a place for association with each other. It acts similarly as a spot for those leaving later than most. It becomes a place to hang out. For parents it acts as a drop off with the child entering on their own and as a place for adult association while waiting for their children after school. In this way the place gains a life beyond its function. Hertzberger has three elements that are desirable for this type of space. An essential is a partial wall at a height to define the space along with being approachable as a seating surface. It is better still if the space is sited in a corner to provide shelter, and best if given a roof to add to the level of comfort for occupation. The entrance at Montessori School originally lacked just the roof, but as a result of a conversion in 1981, the space no longer exists at all.³⁰ The idea remains, however, that through the manipulation of these parts the place becomes a space for user appropriation and life rather than as a permeable spot along a line of division between public and private.



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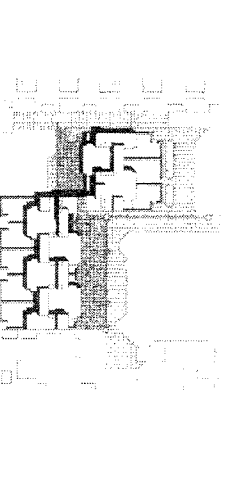
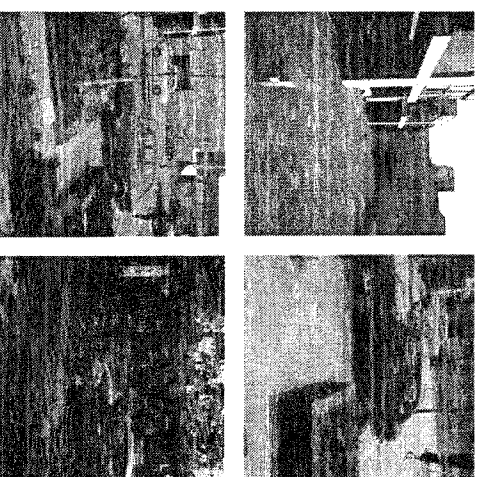
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Project two, (Diagoon Dwellings).

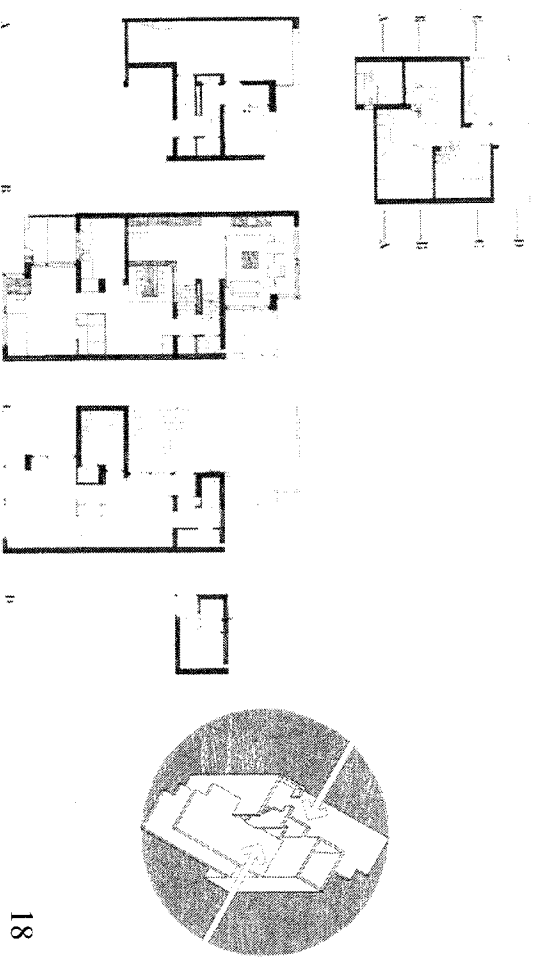
A second project by Hertzberger illustrates a continuation of the ideals set out at Montessori but in ways that relate to the users in a new way. The Diagoon Dwellings begin a relationship between themselves and the surrounding area by creating a public zone that flows around and about the land for the housing complex and throughout amongst the buildings, (fig. 17). This move calls the inhabitants into action with the surrounding space as they choose to engage it, each in their own way. All is presented as public within this surrounding realm through the use of continuous paving that follows suit with the local concrete tiles that cover the streets of the area. Although each resident has purchased a part of this paved landscape with the ownership of their home, it is left up to their hands to alter it from the public into the private. This idea of claiming territory within the public is brought into use following Hertzberger's beliefs on the need for people to occupy the world in a communal fashion. This occurs to lesser or greater extents set out by individuals, and builds an education of responsibility for place, community, and city through an encouragement to take part in it and develop

attachment to it through its use and creation. In this way, the architect provides a beginning for the completion and continuation of the space and form through those who participate with it. This engagement occurs at the Diagoon Dwellings through careful choosing of materials and forms that relate ideas and use to the inhabitants. The tiles of the public street are of a size that individual action may alter the landscape for the addition of planters or definition of an exterior space particular to a unit. The individual moving out into participation with the public displays individual intent and carries individual responsibility alone. It also shows the community that individuals are at work within it, whether they are known to each other on a name or face, family or friendly basis. Thus, the community encourages interaction between its users through engagement with the built landscape, its occupation and its forms. The idea that the housing project as a whole is grounded upon an encompassing public area rather than as a series of private spaces is a profound method for leading people into action with their community. The stark appearance of the area as a paved landscape is also part of the design to engage. No trees are designed in particular places, nor are front paths, parking stalls, gardens, patios, etc. . If the space remained unaltered it would speak of a certain popular conscience for a closed society of individuals held up within their own worlds of their choosing and leaving the outside to its own devices. The fact that the area was engaged is telling of a culture of individuals showing presence in the world beyond their private realms, in ways particular to each person and contributing to a complexity of experience that the community develops through its life.

The housing units are duplexes, intentionally left in an unfinished state by the architect allowing the potentials that are alluded to by the spatial arrangement to be accomplished by the owners. The plan of each unit holds two service blocks, one being a stairwell and lavatory, the other

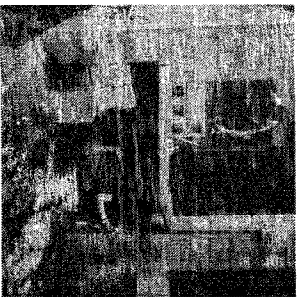


a kitchen and bathroom stack following plumbing lines, (fig.18). Space rises five levels adjacent to the vertical stacks in a way that may lead to certain actions to decide and/ or further define and use the space, but which is left to the user. The idea is of a series of spaces not divided by distance, (as the levels are only one half storey divided vertically), to create an enclosed community of living that finds reference between the stacks. Sections may be defined for multiple living areas for each resident rather than a living space for all, separate from a sleeping place. The concept of a city within a building, here, is maintained, with the public and private zones interacting through user participation and shifting from private to public while experiencing the home as a whole.



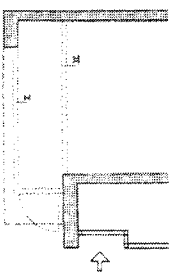
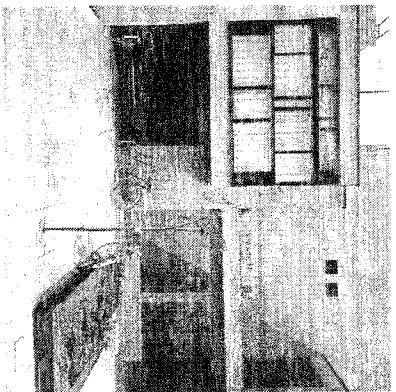
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Returning to the exterior, material choice offers directions for the users. In the garden space a low block wall is placed to demarcate property limits, however, the residents are left to develop this in their own way, (fig.19). It is a beginning that allows for a comfort for interaction, the foundation being ample for brick or wood walls, yet low enough that earth could be sloped up to the edge for a continuous plane between neighbouring gardens. Whatever the result, it is an action by the residents rather than a proscribed arrangement, (in physical terms, while legal lines are present within this beginning). At the front of the building, piers at the car port are suggestive of varied wall organizations, (fig.20). There is an intentional positioning here of a less obvious solution for finishing the space. This is done to provoke the idea of a problem for multiple choices, rather than the provision of an organization that is straightforward, which may then lead to obvious solutions less particular to individual residents.

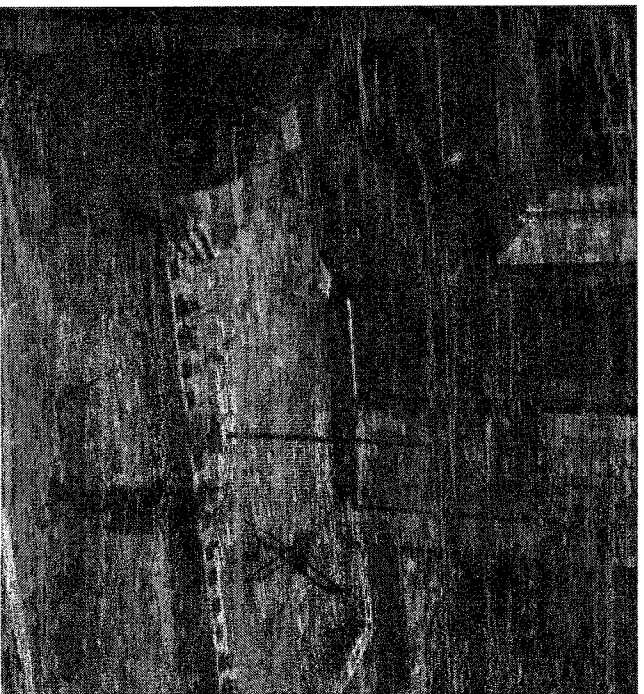


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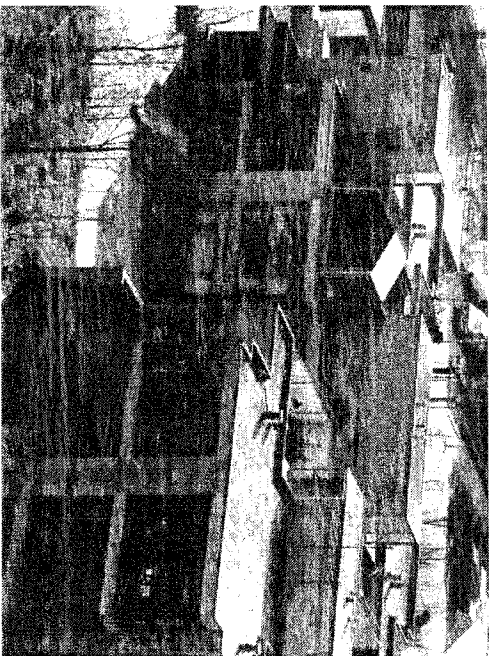
Roof terrace spaces are divided with the same blocks as the property line, and the addition of a pole system provides for hanging dividers and/or shelters, 31 (fig.21). While the terraces at the Quarters Modernes Fruges were adapted after being placed in a finished state, Diagoon offers adaptation clearly from the start. In this way, users are encouraged to act through the architecture rather than against it. The Diagoon system holds a continuation from the sand park spaces of Montessori School, with the use of those same hollow core cinder blocks that provide such varied use for activity. The blocks are found in the solid structure of the built form as something to work with rather than as monolithic planes that define interior spaces from



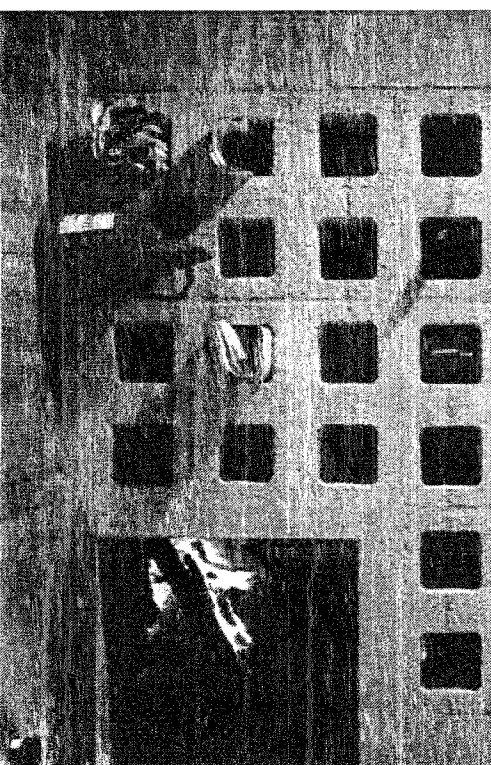
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exterior, (fig.22). Within the buildings, an example can be seen in the wall area of the fireplace, (fig.23). In this instance, the blocks are set in place to provide pockets of space within the wall surface, allowing for the activation of the surface and mass of the wall into the users' purpose. Back to the roof, one individual built a greenhouse, (fig. 22), it was later removed and an extension of interior space took form.³² As many details as possible speak to interpretation for usage; space left above the front door; the carport could be a garage or a room with its own external access; window walls hold segmented frames providing a rigid level for in-fill in varied ways with varied materials; this is all in keeping with Hertzberger's statement, "...we must confront him, (the user), with stimuli that will elicit interpretations and usage's in the way best-suited to his own purposes."³³ He acknowledges that all design for people of any situation is based in stereotypes, but, so long as the user is offered a variety of spaces and stimuli to engage the architecture, further definition of ones place of living may be brought about by their own hand.³⁴ Further to this, the initial state of finish found at Diagoon Dwellings is of a quality that requires action for its completion in some way. This brings immediate thought on what to do, and therefore brings out residential influence over the architecture. This is seen in examples of structure above as well as at the location of entry into the garden space from each unit, (fig. 19). None were provided with a stair from the level of living space inside and corresponding deck outside, but rather a small metal step ladder

affixed to the adjacent wall. Here, the moment of threshold between building and garden is not defined by the architect except by an essential functional requirement. The glazing areas of each unit follow the concept of manipulation as well, offering a framework to be in-filled with either glass or solid panels, (fig.24). In this instance, the building structure offers a place between floor level solids which is then detailed through a framework of casings that offer a variety of dimensions for windows and panels. By breaking the surface area into manageable pieces of varied alignments, the owners may engage light and view to suit their internal arrangements and particular tastes.

The potential to renovate develops out of the fixed beginnings, with levels of finishing occurring differently through the varied systems that govern the built form. While landscaping foundations are quite primary, the window frames are quite rigid, and the interior lies between these, holding potentials within the space of the interior set through walls and the stacks. Throughout the design, the elaboration of the building experience is for the owners to define, which will speak of their individual relationships between spaces of private and public, (or semi-public), zones, and develop the community as a complexity of choices.



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Precedent three, (mechanism).

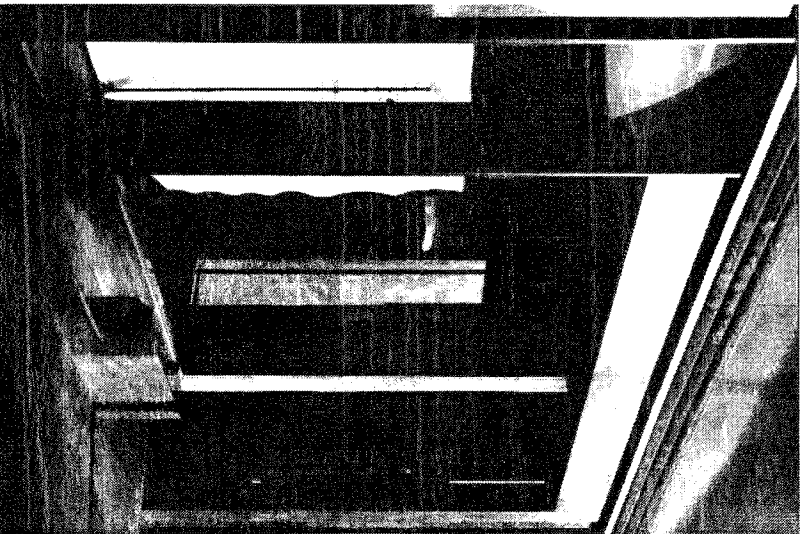
Certain works by Steven Holl offer the experience of architectural space through user activated alteration by apparatuses within the designed framework. Two examples are offered here, the Giada Showroom of New York from 1987, and his Housing project in Fukuoka built from 1989 to 1991. Both works are instructive of Holl's intent to open up the definition of spatial operation and dimension to the user. However, the architecture as structure and as designed space by the architect is retained in a fixed manner through the use of carefully defined spatial harmonies and finishing techniques. Interaction with spatial configurations is opened up to those who occupy the space through simple mechanisms that follow suit with those same defined harmonies and finishes of the whole. In the Giada Showroom, the space is confined, the floor space is restrained, it's dimensions being 14' x 30'. This fact required that the space be used and finished to a high degree of intensity; no space could be wasted. Holl took this into meaning for floor space function as well as appearance.

Project one, (Giada Showroom).

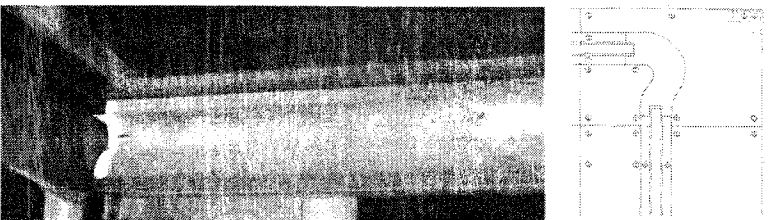
A concept to govern design of the Giada Showroom was spawned from the particular qualities of the site. It is a place of compression, laterally from the mass of each neighbouring building that border the property lines directly, and vertically from the presence of height in the city community. Conceptually, this situation is described by Holl as, "...gravitational force; economic pressure and time pressure...like an invisible vise grip..."³⁵ The formal expression of these qualities was designed into the exterior presence of the shop, while the interior countered the effect, becoming a space of opposing ambiance and experience, (fig.25).



To this, the facade holds materials of perceived density, (fig.26). Plates of brass create a sculptural mass to house the window display and entry. The glazing is a 3" slab, with a moment of condensing at a corner joint where a cast glass curve bends in form to complete the case, (fig.27). The touch of passage into the shop is between the user and a door handle of brass that is peeled out of the door, (fig.28). This facade has been carefully proportioned and refined to express an architectural idea that is the art of the architects' work. Holl employed the golden section as a part of his work, which can be viewed down to the arrangement detail of screws securing the brass in place at the base of the cast glass corner. The use of this system of proportion for

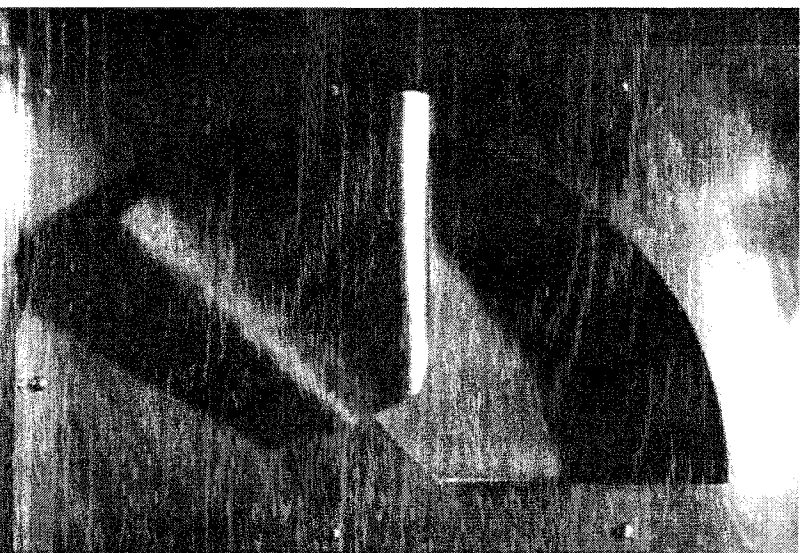


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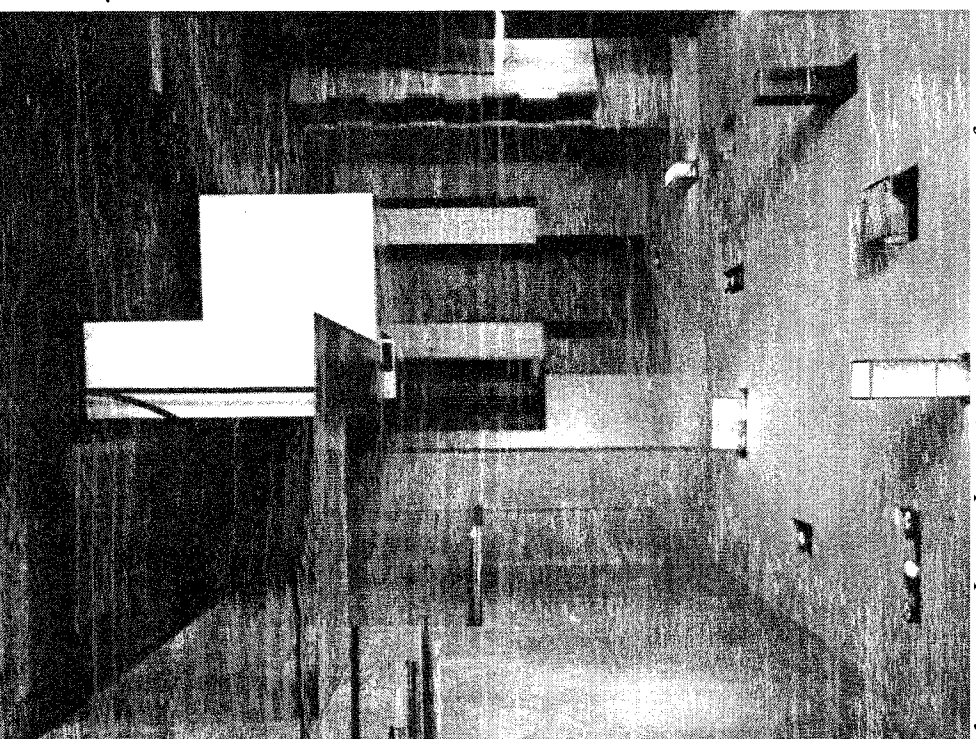
spatial and form finding measure is not treated as the alpha and omega of design, but rather as a method of refinement. This adds to the experience of the architecture as something set in place by the individual architect and client, with a composition that does not cater to continual adjustment or interaction, except in a passive way, and contrary to projects discussed earlier.

The interior of the store continues the trend of highly designed and detailed organization, form and finish, (fig.29). Materials, again, were chosen for particular expressive purpose and for the benefit of building everything in so that space is maximized. Bronze wire screen, brass mesh, and spun aluminum convert the experience of density in metal found outside, into light and open forms. It is in use as shelving floating off of the wall surface, a thin plane for the main counter top, and the support structure for this piece being built of petite and curved skeletal



posts. The store mannequins continue the detailing of the whole, with a unification of interior and exterior elements seen in metal wire skeletons with cast glass shoulders, density and lightness completing the whole.

The flooring surface begins to participate with those working in the store by holding an eight inch void below the surface of, (as Holl describes it),



“floating”³⁶ panels of solid finish terrazzo, surrounded by the hand-sprinkled terrazzo of the remaining floor. These voids are pockets and trap doors that can be engaged for exhibition uses, but again fall into the defined locations set out by the architect.

Other parts of the interior seem to float as well. A reveal at the base of the walls and solid counter add to this effect, as do reveals around lighting boxes that are suspended from the ceiling. The change rooms at the back of the space complete the experience. They hold light ash doors that open as wall corners rather than as doors within a wall. In this way, the closed space of the change rooms can be given back to the space of the whole. These doors act as mechanisms that can alter the perception of the space depending on their functional usage. In this way, the space becomes activated by its users, however, the results are fixed to a set of rules that is in the realm of device rather than framework. Movement of parts is held and confined by the hinge, and expression by individuals is guided by an interaction with those details set out for use. This showroom relates function with users and the experience of internal spatial experience in a passive manner. The tools of the building interact with those who use the space, and the relationship fluctuates along the lines defined by the tools. The particular experience in this case is a unification between flexibility, or adaptability, and the detailing of the hinge and door. The complete vision of the concept is linked to user interaction through this arrangement with flexibility.

Project two, (Housing at Fukuoka).

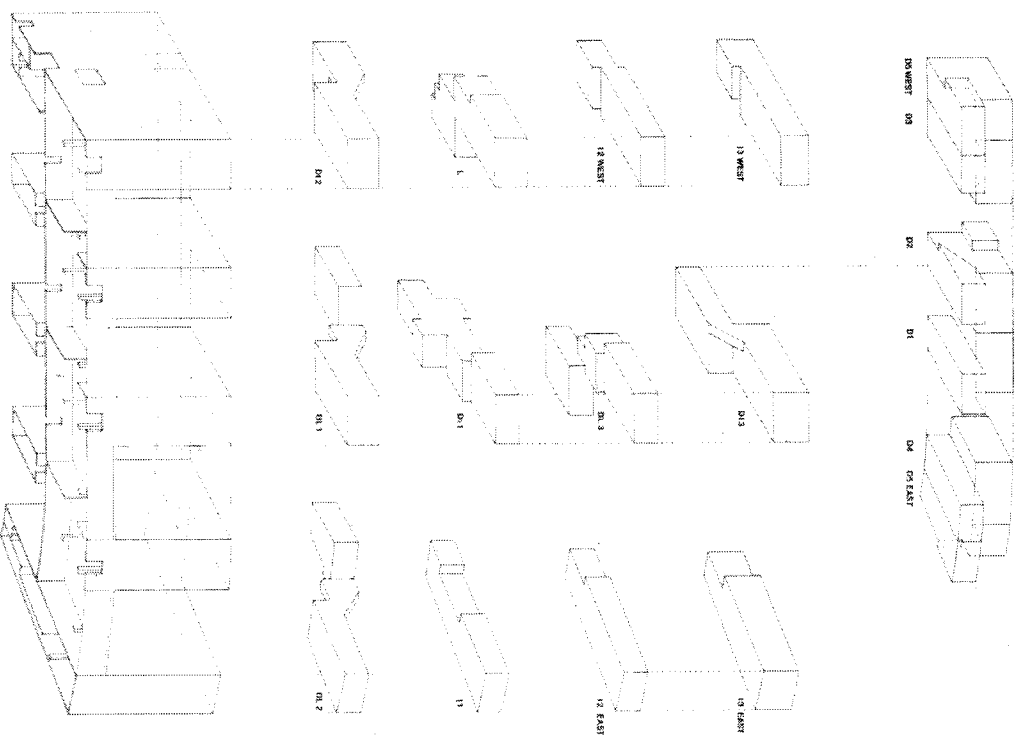
The housing project in Fukuoka maintains a strong relationship of unification between a particular level of finish and a complementary form of flexibility. Overall, the building carries varied



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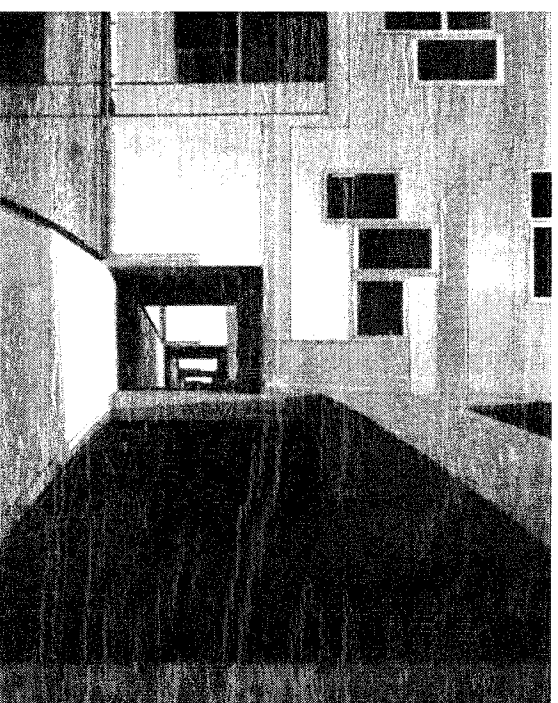
manipulations within a whole of seemingly repeating forms. These positions are set in concrete by the architect, so their meaning is continually in place. The complex of twenty-eight units is set into five towers, each being four levels high with commercial and communal spaces, like a playground, as a public zone between living spaces above and parking below, (fig. 30). The towers are given individual space with the use of four interstitial voids, taking in the sun and sky to the south, and each completed with a reflecting pool base. These are spaces of contemplation, the still water and appreciation of exterior space given volume by the building forms that frame and are filled with light. The public patios open on to these communal voids, serving as space between neighbors across the way, and as gardens of light and space for appreciation by the individual units and public areas. This public space is the base layer of a circulation spine that links the towers together into a common whole. The prominent material composition of these regions is concrete, relating an idea of permanence to the situation of the whole and the arrangement of spatial sequences. This articulation is one part of the concept, the other part being variety.

Spatial compositions within the towers themselves contain living arrangements that



are particular to each unit. There are eighteen incarnations of five typologies, (fig.31). This enables variations in plan and section through the use of an L-shaped type, a linear type, a bi-level type, and combinations from these. In doing this, a flow of space may be traced from living unit, to void space, to living unit, continuing across the complex so that a unification forms, and through this, each living unit is offered multiple experiences of the tower they occupy and the water courts that they share. This variation expresses the ideas of the architect, but, so far, remains the set form that is to be occupied by residents and activated by their presence, becoming an armature for the interiors and potentials for user manipulation.

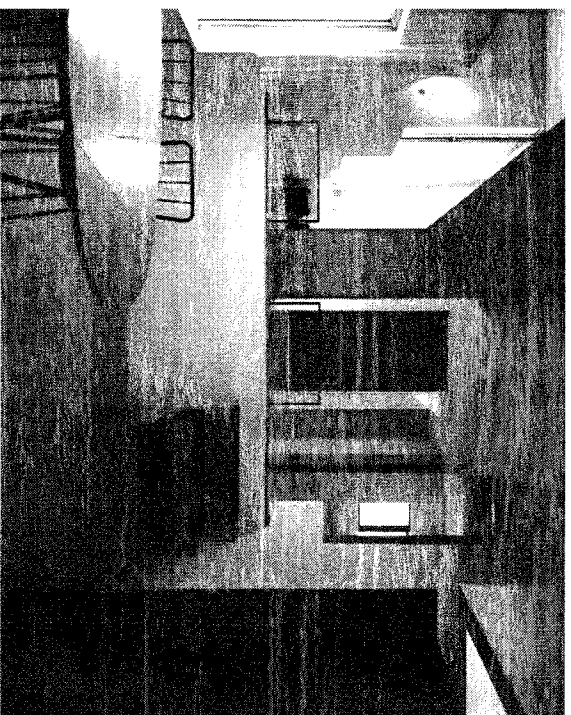
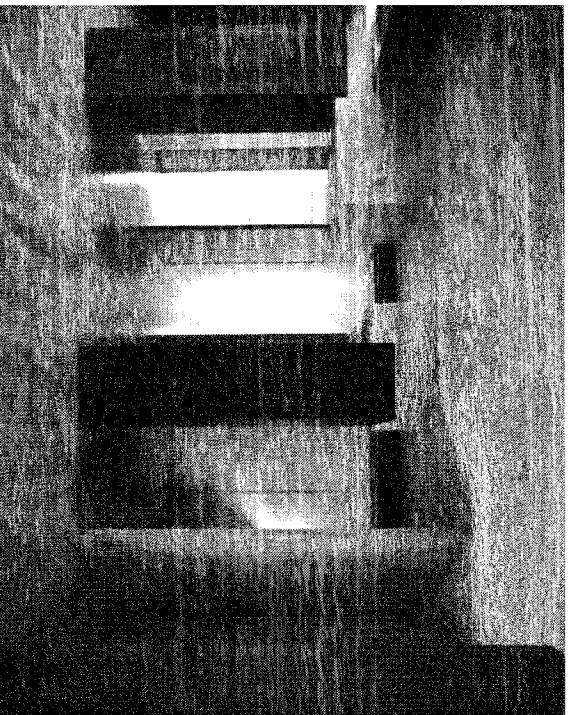
The ability of residents to alter their spatial situation does not occur with the potential of buying out the neighbour and re-configuring the two units into one. This action would be expressly counter to Holl's careful manipulations and permutations of units for the purpose of a set variety. The stability of this setting finds materiality in the use of concrete for unit enclosure and partition, which illustrates its form through the courtyard facades, where the concrete reveals its location and the space it supports, (fig.32). This creates a reading of the configuration, including floor planes and stairs to level changes, for the inhabitants. The care of placement of this stability interacts with the court facing in-fill facades of each unit comprised of walls, screens, and windows. The composition of the windows follow proportions that are found throughout, fine tuned again with golden section lines, however the reading could also create an impression that the placement of each pane of glass follows interior needs for function rather than following a strict exterior requirement for a unified facade. This is realized through the free placement of openings between the concrete floors. In this way, residents may be encouraged to add or remove windows within this zone freely as their uses of interior space may shift. The building expresses its structural boundaries through the revealing of its presence by materiality and experiential placement both visually on the exterior and physically on the interior. In this way, the building holds



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an immortality in its wholeness and the community of spaces that this sets in place, along with a level of being open to individual needs for change within. The method of flexibility open to residents found on the interiors continues this theme.

Spatial manipulation by residents is offered through the provision of mechanisms. These are door-like in appearance and action in that they are wooden panels that pivot on a point at their edge, (fig.33). The sizing and individual forms of each piece distort the door reading into one of small walls, as does the usage of the panels as space shifting devices instead of acting as passage from one space to another. Each unit holds several of these doors that can be moved into a variety of positions, many interacting with others to unite and complete a configuration together that substantially alters the experience of the space. The tradition of this sort of manipulation has roots in traditional Japanese housing which employ sliding screens to open, close, and re-configure spatial uses and experiences within the home.³⁷ In this case, the panels offer variety, manipulated by the user, for the experience of light throughout the day, seasonal shifts, and weather, along with spatial preferences for occasions within the home, and the functional needs of space as they may change over time



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periods, both short term and long.³⁸ Each door/ wall panel is stained individually with its own colour, also being sized individually to suit different purposes. With a restrained palette of wood, (clear stained on the floors), concrete, (remaining bare as a mark of its function), white walls, black metal railings, and the shifting doors of colour, the experience of the space is one of a careful composition. The habitation of a painting. These factors combine with the explicit settings that can be accomplished to define a situation of flexibility bound within an overall sense of design set in place by the architect. This being said, the presence of structural elements is clear, rendering the walls and panels of the interior as in-fill within the structure. Following this, users are given the realization that the possibility of renovation manipulation could be extreme. The action of the door/ walls illustrates freedom within the space of the whole interior, and room divisions, with which the panels interact, are freely composed, at times being suspended from the ceiling. This free-form interior interacts with the openings of the free-form facade to develop potentials of spatial freedoms within a larger stable structure. With mechanisms in place for specific spatial organizations that interact like a puzzle with the walls and each other, residents may be content in the variety that is provided and carefully composed. This method of living could be called an occupation and interaction with a work of art. However, the manner by which Holl has laid out his composition leaves the situation open to the inhabitants to create their own composition if they so choose. The building is a mechanism for experience in either case, set by the hand of the architect or user if they like.

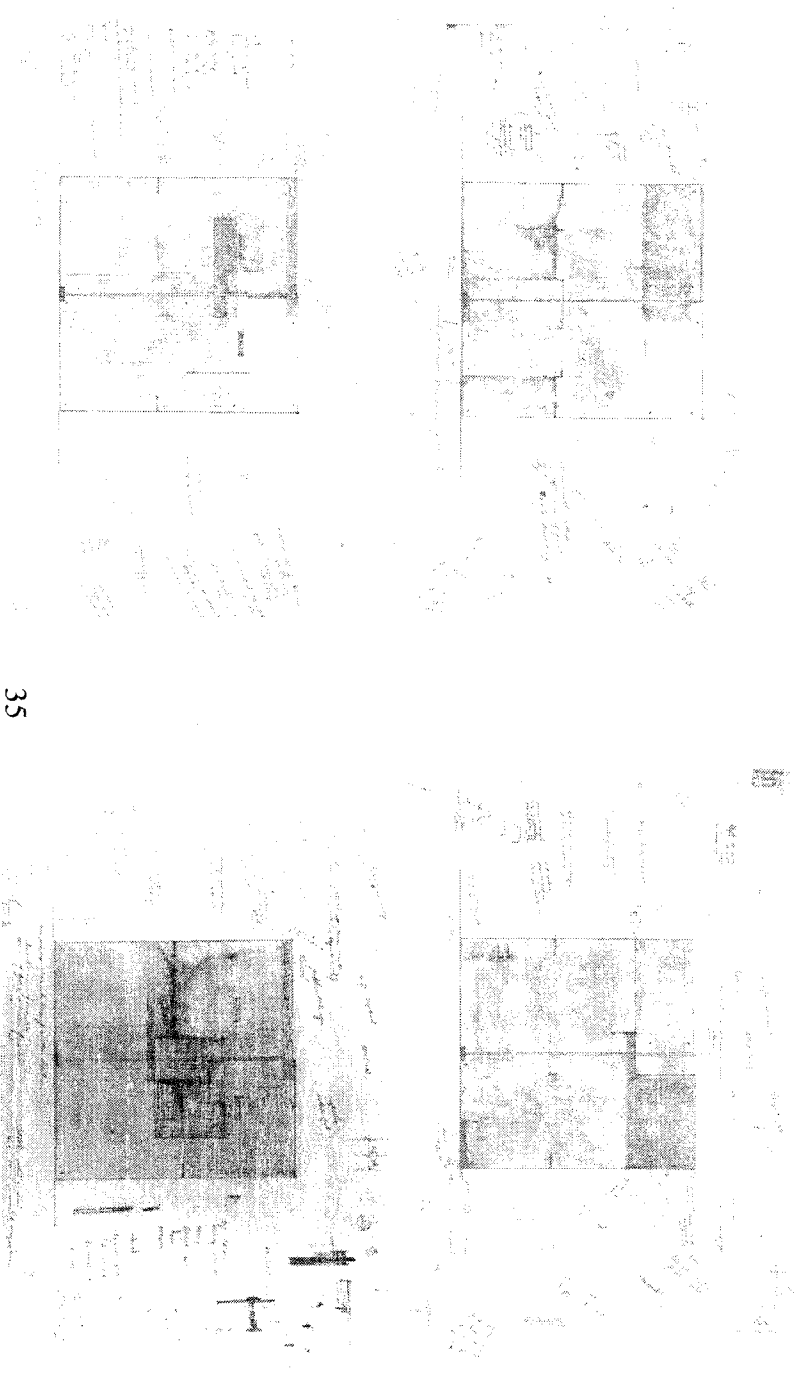
This ease of interaction, as found through mechanisms, is straightforward, as opposed to the effort required of residents at the Quarters Modernes Fruges and Diagon Dwellings. In all cases, the assertion of the users drives the level of engagement, however, the offering of mechanism means that commitment can be bound to the function of the use of mechanism as a tool. The residents at the previously discussed projects took up tools and acted to physically alter the built form, meaning that their efforts and the quality of their productions were in pursuit of something their own and more than what was provided. Choosing to interact at this level of construction is telling of the potentials inherent in both designs along with the stimulus of the projects over the residents.

Precedent four, (imposition).

This example of flexibility and user relationships is John Whiteman's project for a pavilion, Divisible by 2, to commemorate the shift of the capital of Lower Austria from Vienna to the rural town of St. Pöhl. The intent for exploration was the political in architecture, and was treated as an experiment drawing on social norms and the relationships between building, image, and word.³⁹ The building, or model, (either term being applicable by the architect), takes the user through a sequence of visual and spatial shifts that attempt to foil the experience of something that is typical and expected in building forms at this time in history. The building presents itself as a public washroom facility, with the words "dammen" and "herren", (ladies and gentlemen), inscribed upon two central doors set side by side, (fig.34). This is found on each side of the square planned structure. Each set of doors are set as a plane, or section of the facade, with the use of language as a first sign to function and the presence of door handles as a second. The doors, when closed, form a square, although the detailing of each door was manipulated to reflect variance between the "American Graphics Standards" definitions of male and female anatomy,⁴⁰ (fig.35). This is found through material applications and chemical treatments that unite the composition of the doors along with their combination for harmonic dimension found in the square, while mark making, scratches, burned, and inscribed points of the surface are found at key locations of vulnerability for each anatomical standard, (fig.36). These are, (as listed in Whiteman's text), the knees, genitals, stomach, breasts, eyes, and head.⁴¹ The doors are also unified through these points as the placements are set so that one door completes the figure composition of the other. At this stage of experience, the user has the perception of unity and the comfort of expectation built through the cultural knowledge of what is to be expected of a utilitarian building as such. Here, though, a preface for things to come lies in the subtle shift of placement between the doors, (fig.37). Although they are unified in textures and the form of the square, each door is set to a skewed tune. That is, one door is dimensioned slightly smaller than the other, a fact that may read as a simple construction error or as a mis-hanging. This is the theme that



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runs through the structure and mechanism of the building. It is of setting out perceptions of harmonic stability and classical mass, along with cultural norms of functionality, in a perceivable way, while manipulating those standards at a fine degree. Engagement with the form in a physical way reveals the existence of those parts that control and manipulate the standard into space and form which foils expectation and causes specific reaction by the user, who is transformed into a performer. The experience sought was of evolving contradictions, the facade doors initiating the beginning through their subtle compositional unification while simultaneously announcing their variance through their labeling.

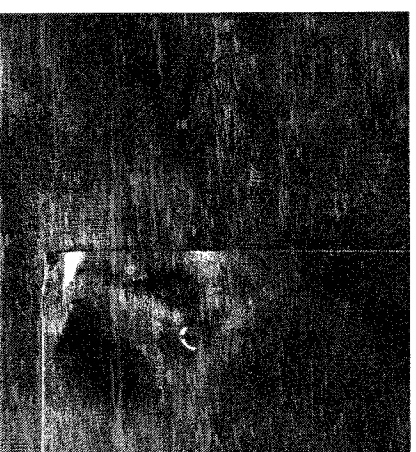
The building, as perceived from the exterior, sets out the balance of harmonic proportions along with

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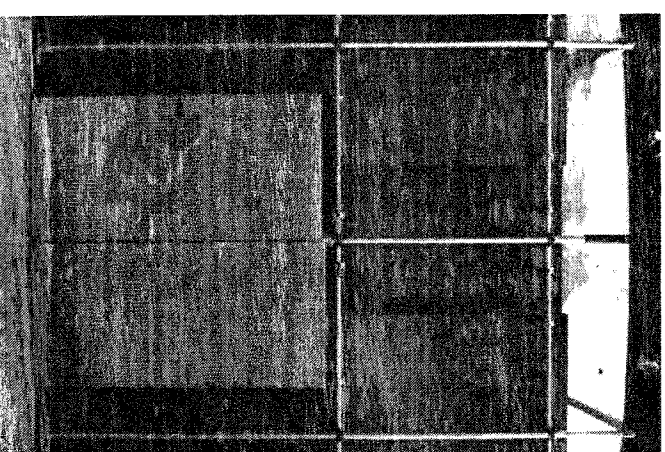
discordance. Each facade is composed with the dimension of the square face of the doors as a base, the building width being three squares across and two squares high. The facade is symmetrical and holds the harmony of thirds, (seen in the three double-door width), fourths, (in the exposed aluminum frame), and fifths, (with the external face of the structures' panels). Along with this are atonal rhythms, (right panel, door, door, left panel), occurring as the centre panels shift place behind the doors and reveal the aluminum frame.⁴² The system of frame and panels is deceiving at the structural level as well, the frame seeming to support the panels yet actually being the unifier of the panels to each other, not being able to stand without the rigidity of the panels to complete the whole. Dimensions of stability and classical strength are found in the proportions, but they are undermined by the dissolve of the buildings corners into empty space, achieved by giving each face frame its own corner post and setting each corner post in so that neither panel nor frame occupy the space. This relates to the roof, which channels water to each corner so that active water is all that can occupy these voids.

The roof curve takes its section from the plan and the shifting of panels along a curve that moves through the plan of the frame, (fig.38).

Returning to passage into the structure, tactile experience now comes into play with the act of grabbing the door handle. This functional part is set in too close, so that the users' hand will slide against the surface of the door. Here, again, is the play between expectation and reality. The handle, as a sign of function, has induced an interaction with the material of the architecture. This can be explained away in the users mind as another slight error of design or construction as in the variance of door dimension. The intent of Whiteman is for architecture to gain a presence through its use. In his writing on this project, the architect states that functionalism

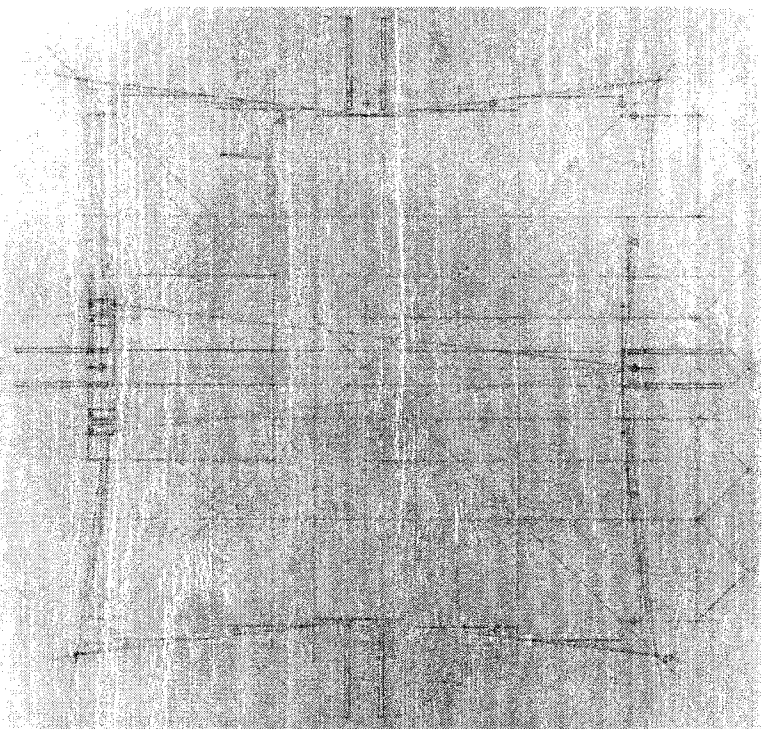


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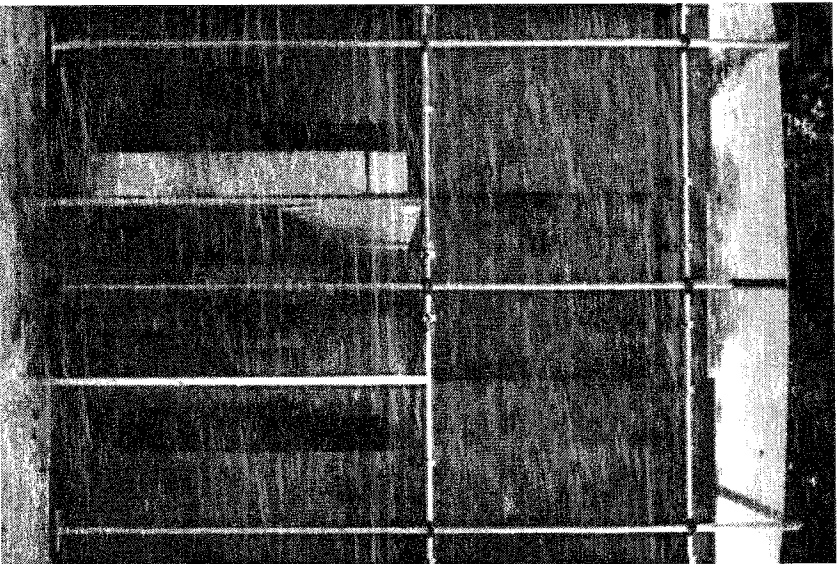
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has reduced architecture to the banal, a machine that becomes invisible through the ease of its use and the commonplace of its workings.⁴³ The public lavatory is his chosen example of spatial experience architecturally reduced by its expectations and norms. Here, Whiteman attempts to bring the presence of the architecture itself into the consciousness of the user through the use of manipulation of perception and the revealing of that shift from the typical by exposing the functional parts that are the cause of the change.⁴⁴ Further to this, the user experience is designed so that the reaction is forced upon the individual, who becomes a performer within the interaction that the architecture brings about.⁴⁵ Architecture is forcing itself into perception through a play with the users' knowns. Flexibility, in this case, is found in the ability of the architect to manipulate the architecture to varying degrees so that particular perceptions may result from interaction by users. It was possible to tune the building so that its discordance becomes blatant and recognizable in a glance. The scenario set in place by Whiteman was one of subtle shifts so that the realization of the architecture would build itself slowly through a series of perceptions and sensations, climaxing with an interior that inflects itself with force.

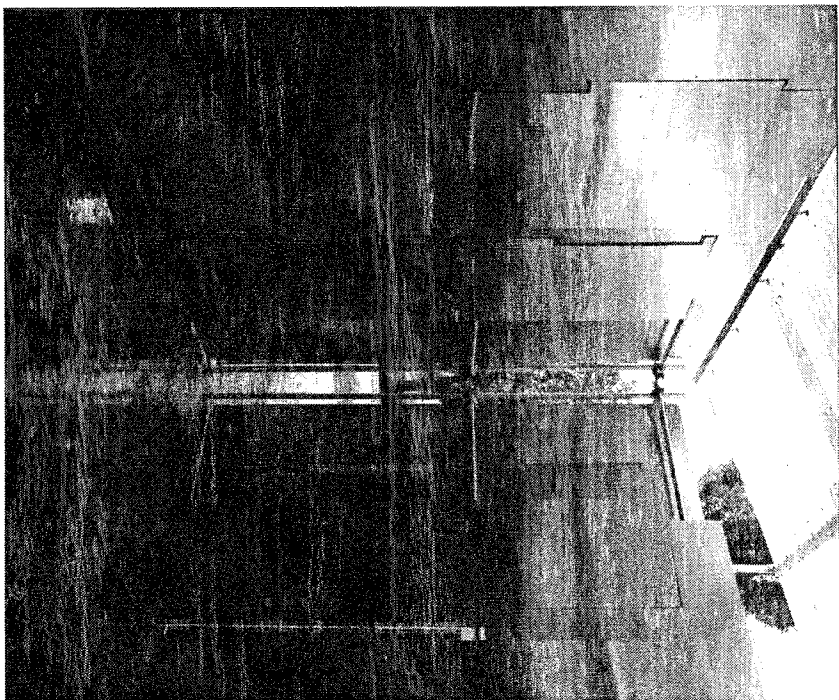


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Passage through the facade door gives rise to the surprise of a secondary door, an experience not typical in that this next element is a steel panel in line with the wall panels above and right next to the place of the facade door, (fig.39). This panel pushes inward to reveal the interior space, (fig.40). The panel closes by itself to return the interior into a completed space. What is given to the inhabitant of the space is a severe break from expectation. Firstly, the building is offered as a single space shared by all who would enter by any of the doors. Second, the materials create a sensation of occupying an exterior space as the flooring is made of materials



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from out of doors suspended within a clear and shiny high-polymer resin. These are “devices of organization, pleasure and figural beauty from the city- lipstick, shaving mirrors, razors, cigarettes, signs, money.”⁴⁶ As a comment on the unification of city and countryside by the placement of the new capital, the above listed objects are given a backing base image of tar and straw. These details were likely less present in the users’ mind since the walls of the interior were tuned for drawing out a particular action. The wall panel directly across from any door is in orthogonal alignment to it, so that an experience of stability can be realized. However, the panel next to it was placed at a slight angle and set back in plan so that a visual distortion would arise in the perception of the room. This continued further with the final corner wall panel. Also, the panel facing the door intended

for use by the other sex was out of alignment from the position of view by the entrant, occurring because fine tuning allowed for the positioning of each view to relate to the specific place that any person would enter, that being off centre to the door and towards the handle side. This means that an angling of the panel facing the door directly would account for this side entrance for each door, so that the experience of the other panel directly facing the other door is skewed ever so slightly in the wrong direction for a perception of stability. This mis-reading of the space intended the user to rotate towards the adjacent wall to locate an alignment that would restore stability. Finding nothing but the same play with their senses the rotation continues, with users becoming transformed into performers acting by the instruction of the architecture as tuned by Whiteman. The architect makes the comment that these performers then tend to drift in position from a central location, where the building exerts an inwards pressure, to a corner, where the space is perceived as offering a nook of refuge to the individual going through the experience.⁴⁷ When sunk into a corner, the perception of the pressure of the architecture and induction into rotation was revived, although escape through the centrally placed doors became out of reach. Adding to the confusion was the surface annotation of the panels which were a brushed steel material. The panels were all discordant to one another, continuing with the proportions of male and female anatomy, but broken and composed to offer no sense of stability or harmony with the experience of people in the real. The lighting was diffuse, entering by filtration through a groin-vault curved corrugated fibreglass material that glowed whether the day outside was sun-filled or overcast. Any direct sunlight hitting the structure could break through the corners and reflect off of the steel and resin to add further complexity to the experience of discordance.

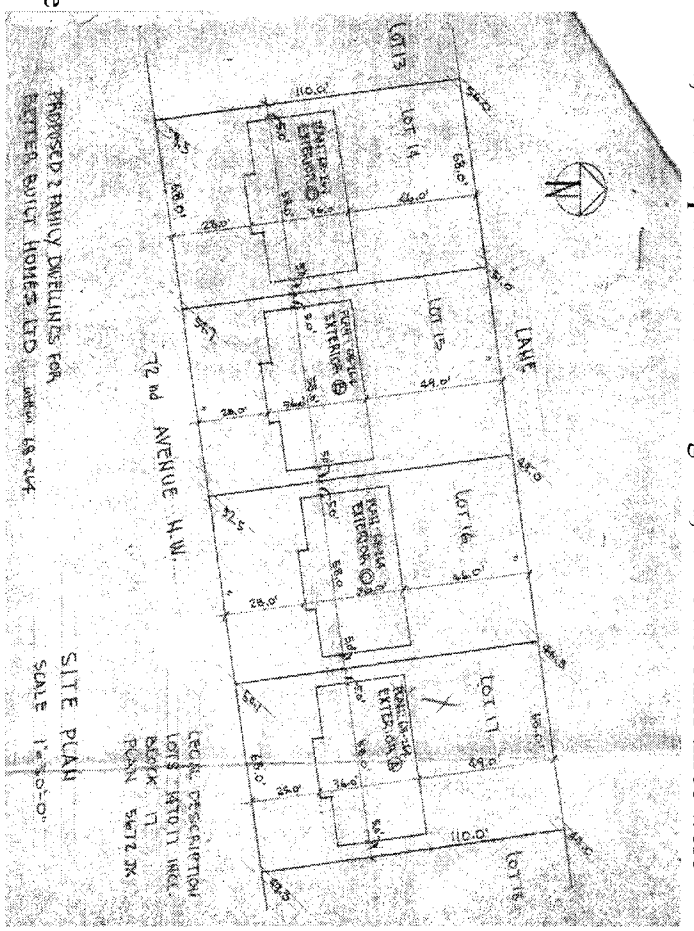
Divisible by 2 no longer exists. It was fire bombed on a Sunday night, July 28, 1988. The work met disapproval by right and left wing political affiliations alike, and those responsible for the destruction were unknown.⁴⁸ This action against Whiteman's project displays a desire to engage the building in a way quite distinct from the previous precedents. Each is telling of a strength within architecture that moves users into engagement, and through the provision of beginnings, potentials, tools, and rules, users of architecture are brought into action.

Chapter Three, (project).

The precedents discussed above intend to offer an overview of ways that flexibility, and/or adaptability can be examined. The particular case of the landlord/ tenant relationship leads to a choosing of a particular type of flexibility best suited to the requirements of the situation. Design in this situation should offer benefits to each party, with the architecture gaining a presence that is in keeping with its varied role. It is my opinion that places of threshold hold a key to the arrangement.

The building for this project is number 716, 72 Ave., NW. It is one of six rental units in a series of three duplex bungalows that neighbour each other, (fig. 41). A fourth such building sits directly to the west of these, all four being built by my father in 1968, but this particular one being sold, while the other three were retained as rental buildings. All four share a common plan, but each holds an individual facade, and the sold property has a split section between its units following the slope of the land. Of the three rental buildings, all but the one in question have an alley-accessed garage. Other than these differences, landscaping and spatial qualities are similar from building to building and unit to unit.

The interventions are in relation to structure and space that is already in place. From this situation, the proportioning and finish of all parts reflects the original. This is not a scheme to modernize the building interior or exterior, it is an attempt to initiate forms



that act as catalysts for engagement by the inhabitants of the space, and through the handling of these parts, allow for the architecture to reveal itself as the presence of the owner, (as a conceptual part of the building), while providing functions that maintain the structure as a device for the owner. Stability is conceptually and physically reinforced and introduced where it was lacking, and in so doing opens up the potentials of user adaptation of the space through interventions that invite an engagement. Themes within each sited precedent are also found in this work. Foundation, encouragement, mechanism, and imposition. Levels of each are to be seen throughout, as their value is applicable.

A manipulation of threshold is offered, with the shifting potentials of this zone being reflective of the residents and their desires within the living situation. As the place between private and public living activities, individual wishes for how one may interact with each zone are essential parts of the comfort of a home.

Offering instigations as beginnings for determining levels of particular privacy and/or public friendly relations is hypothesized as a method for individuals to create a personal sense of home place tuned to their mind sets and needs. Through the unit, a linear path can be found that develops the domain of threshold. This line runs from the front street sidewalk, along an entry path, to the porch, (fig. 42).

At this point there is a juncture between the physical space of outside and inside. A critical moment. The line continues within, moving along a central wall that divides bedroom access from the interior public space of the living area, (fig. 43). To the west of this wall, one bedroom falls into the public side of the line, although its internal space is contained by a wall, opening into the private realm through a door within the threshold wall.



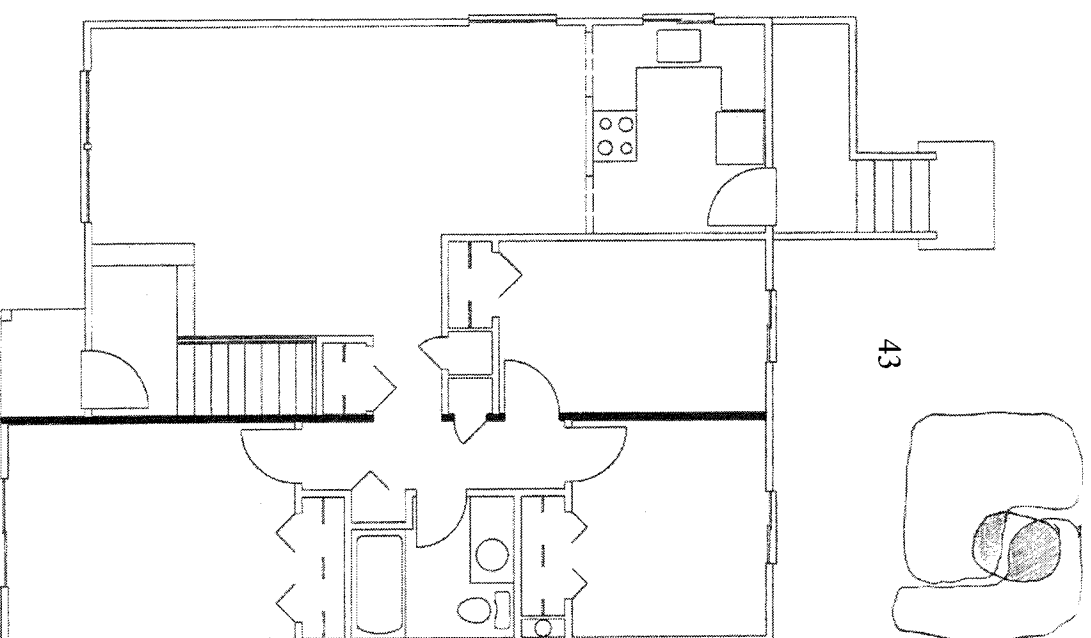
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The zone of interest then moves out onto the back deck, which is elevated to the point that each unit's deck space can view its neighbours deck, from the eastern-most unit to the western-most. From here, a path runs to a gate leading into the back parking area. The garden space is contained by five foot high board fencing, and the alley-way for vehicle circulation completes the property sequence from south to north.

It is supposed that by reworking three spaces of threshold, (the front garden, the interaction between the western bedroom and the living room, and the back garden), the interests of both owner and users will begin to participate with the form of the building. The design of the exterior spaces will occur individually at each of the six units, so that the threshold of neighbour to neighbour relationships can be offered into manipulation by the tenants.

South garden, (lateral occupation).

The front entry garden acts as a position between the activities of the street and the living habits of the users, (fig. 44). It also acts as a place between neighbours, (fig.45). In this situation, each duplex reads as a single building, with a common facade, but with their entry porch spaces being divided by a central building mass. This acts to separate the front door place of each by both distance and vision. A more direct relationship exists between the entry space of one unit to

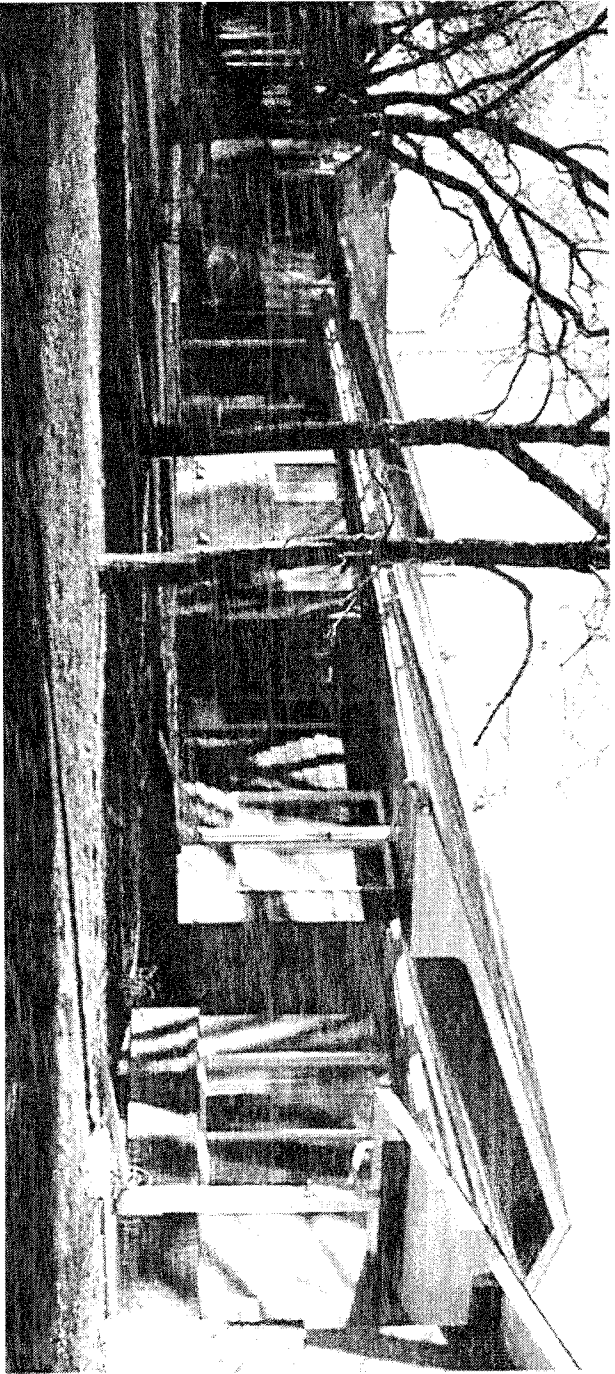




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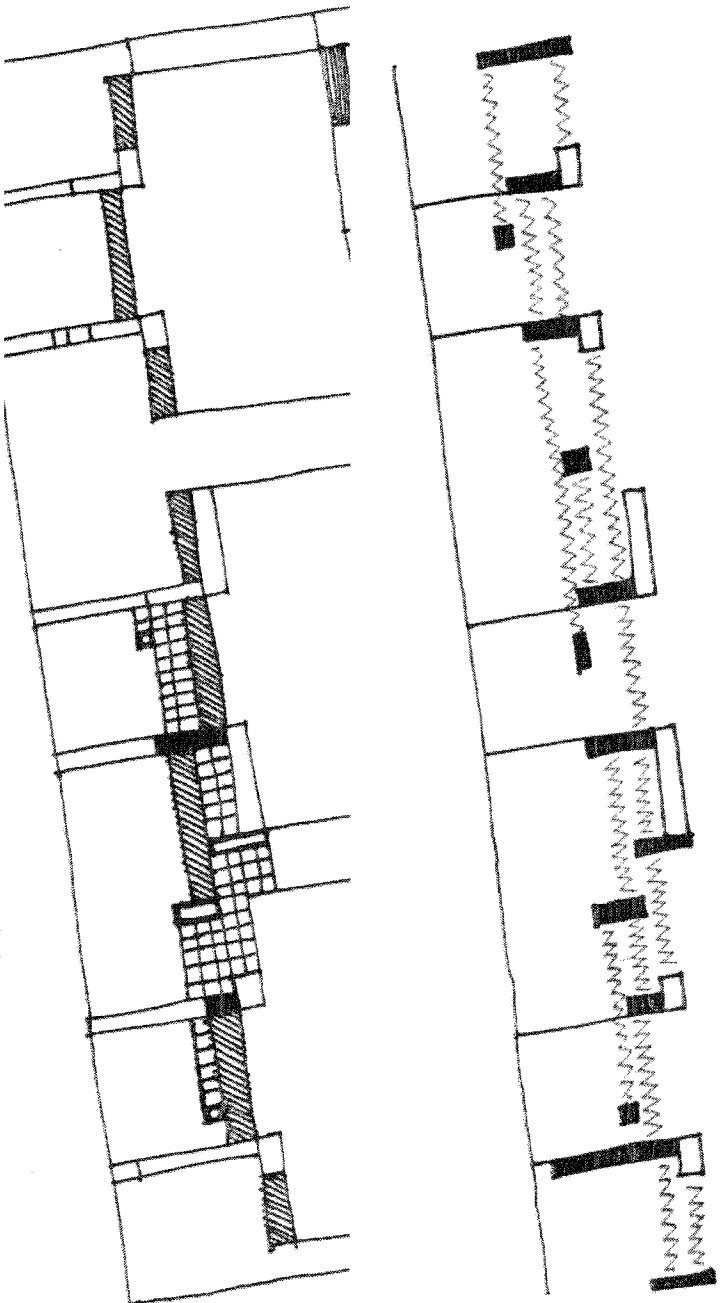
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its neighbouring duplex unit than to the one that shares its face and land, (fig.46). The in-between zone is clear, (fig.47). Here, entry porches are aligned with the public zone of the interior living space, so the siting of interior and exterior public spaces of each unit to its neighbour are brought into association with one another, while the privacy of the interiors are revealed through the separation found within the layout of each building facade. This relationship exists between the three buildings and continues towards duplex buildings that sit to both sides. The design intervention of the spaces at each entry reflects the relationship of each to their neighbour in a way that offers invitation into usage and particularisation through a beginning of foundation and maintenance. The threshold between living unit to street and each unit to its neighbour is engaged, revealing opportunities into determining levels of public and private experience.

Materials are chosen and set into place in a way that speaks to the stable and variable qualities that reflect both parties of interest. Those parts conceptually of the owner provide cornerstones to a spatial sequence that frames the areas open to users. The in-between places are laid out in material that can be rearranged with a level of ease, if the user chooses to interact with the space at a constructive level. Whether the space is altered or not, it provides a setting for living occupation that can then be adjusted through the use of the stable parts as foundation elements. These stables gain their presence by weight, both visual and physical, and, through this, act as pieces to react to. Concrete is used, creating mass that offers a variety of uses depending on how it is added on to or filled in. These solids could be benches, planters, bases for the attachment of screens, ledges to contain space and act passively as impromptu seating and/or a surface for flower pots, etc.. The goal is



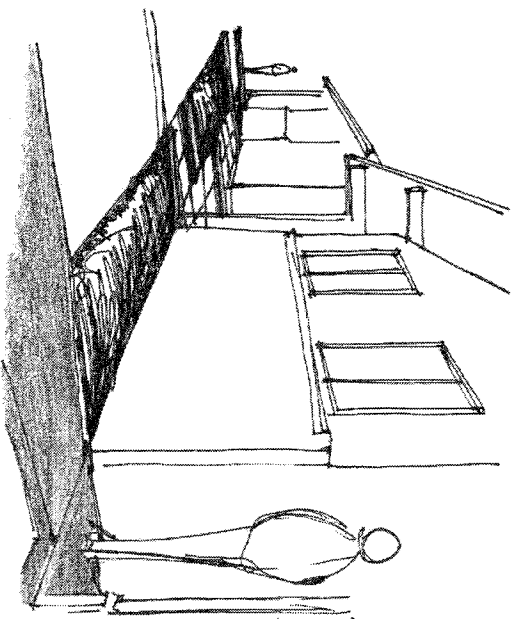
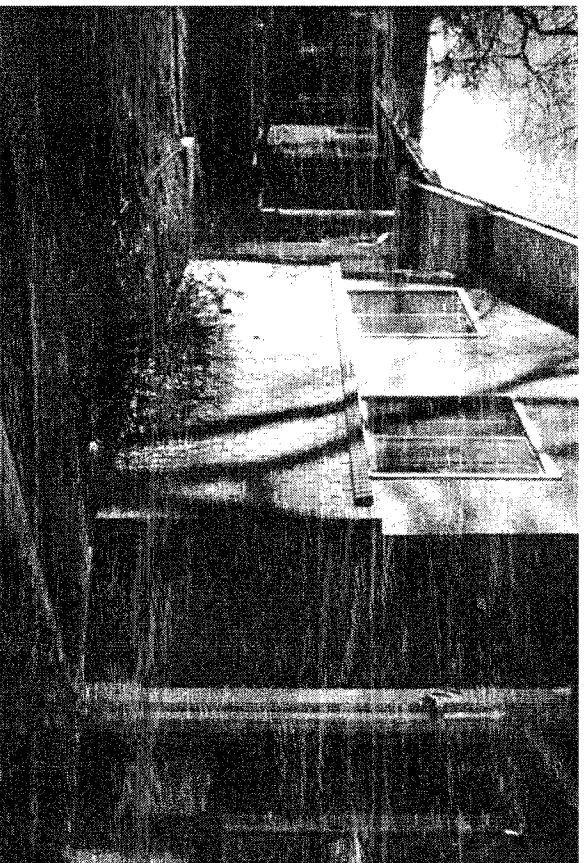
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to provide pieces that can retain their presence through permanence and the ability to accept variable pieces that change the function and character of the space as a living situation for varied users over time.

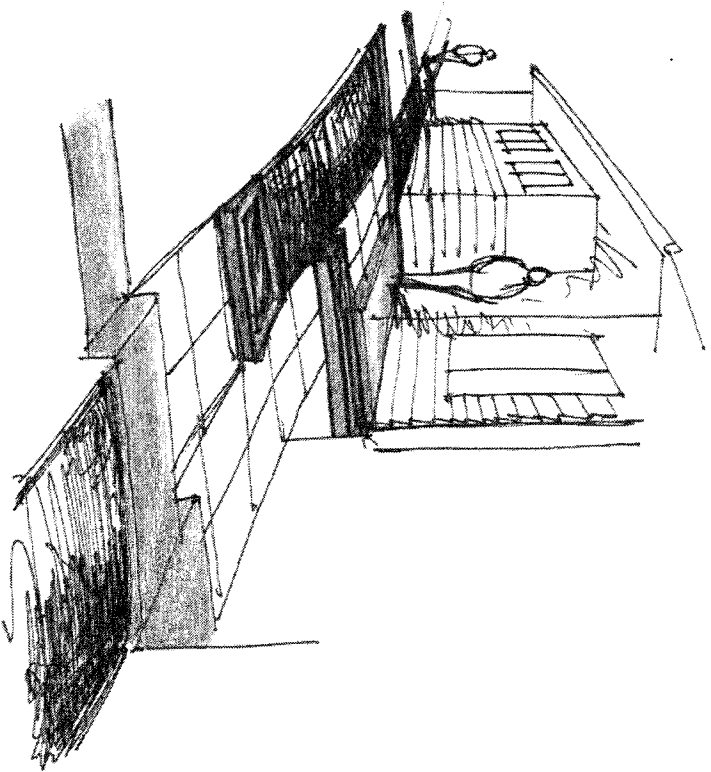
The interaction between the intervention at 716 and its neighbouring units is laid out by the solids, with the arrangement alluding to a sharing of space in-between. It is a situation of lateral in-fills that take place between the solids, paths parallel to the street that thread the units together, (figs:48- 52). The solids are cast in place concrete, holding positions that relate one unit to the next across the garden space of all six units. Existing solids sited on the entry paths from the front street, (represented with solid black forms in the lower sketched plan of 716 to 718 interaction), are cast-in-place steps that were set in the spring of 2002. Taking these as beginnings, the solids proposed, (sketched as outlined rectangles), interact to form book-ends, with bands of in-fills playing off of these stable parts set at different times. Initial in-fill between these reference

points will take form as general beginnings that may serve as circulation, seating, and planting spaces. Some in-fills are to begin as completed lines, traversing from solid to solid, while others are partial. In this way, the concept is demonstrated to the tenants, with further manipulations drawing from this instigation. These workings will occur by the tenants choosing and alteration of those variable pieces within. These variables are concrete pavers, represented as grid lines in the sketches. While the solids are set and finished to reflect permanence, the pavers are more mobile, so that, as individuals may desire, garden living spaces may shuffle, expand and contract, or link paths with a neighbouring tenant to layout a physical dimension to a particular relationship. They act similarly as beginnings to planting areas, with removal of the pavers revealing positions for in-fill, so that if a tenant wants to plant nothing more than a small patch of flowers, they need only reveal that amount of soil. The potential for layering these variables over each other also allows for their occupation of a minimal footprint if they're not needed for creations of hardscapes and paths. The solids may also be used by tenants as base positions to erect screens to shield views and access between

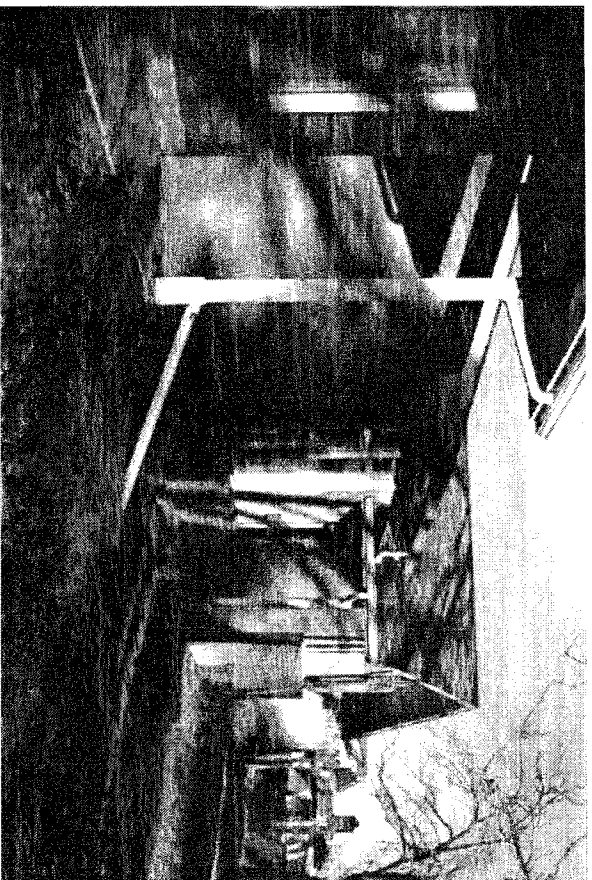


units and/or the front street. In this way, the users have an opportunity to fine tune their living situation to suit their comfort, and by engaging the space through the reference points of stability, the position of the owner gains a presence as an underlying governance.

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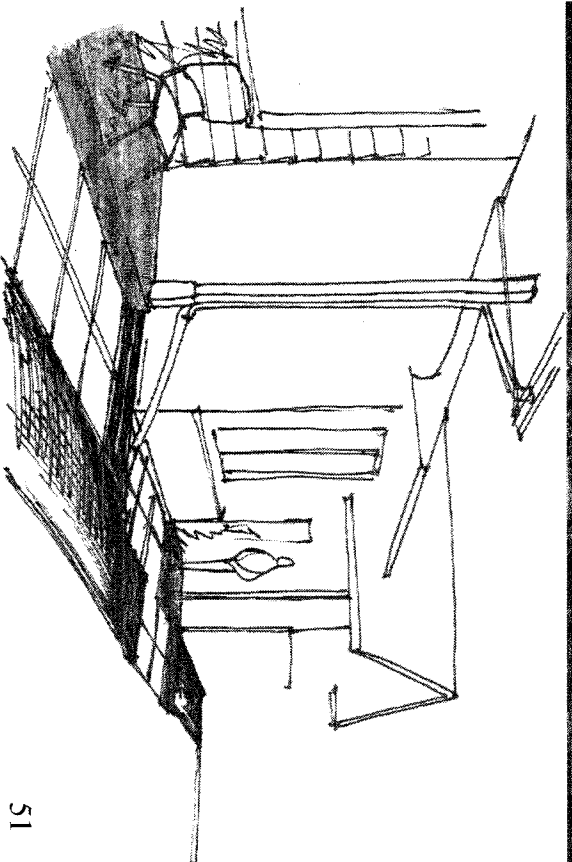


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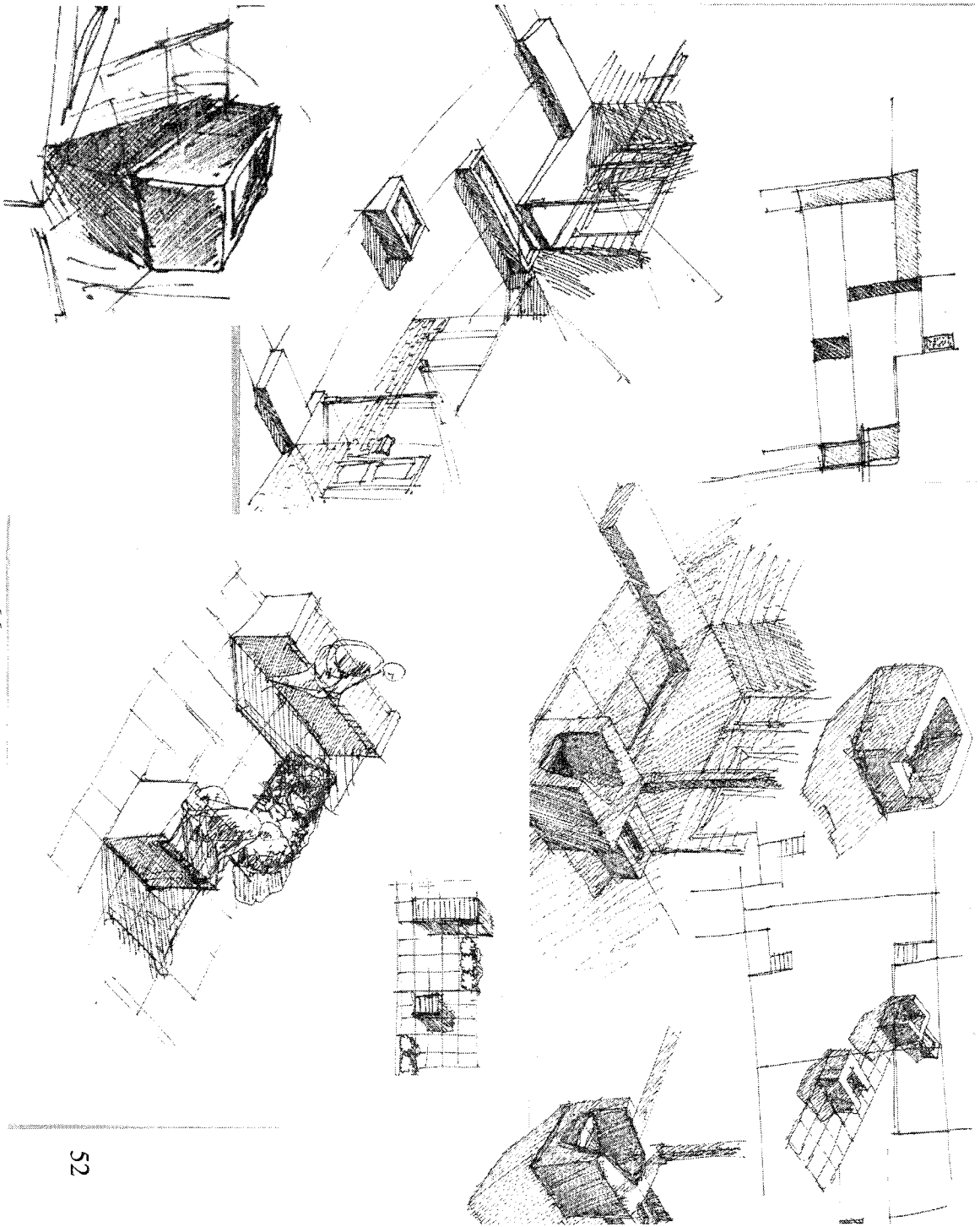
As a passive part of maintenance, it is speculated that the positioning of the pavers will naturally follow the usage of the area by the users. If they often traverse a particular route, then the pavers may be adjusted by them for their own needs of keeping their feet out of the dirt, and in so doing, to the benefit of land maintenance and owner needs, by halting an erosion process.

The layout of the front garden thresholds, as defined by the solids, is reflective of the greater area of the public street and social pleasantries that may occur here. To this, each unit space is extended towards its neighbour and opened to the front path as a gesture of engagement. The provision of the solids as foundations for screening out these interactions allows for the possibility of individuals not wishing to move into this arena, or to do so in a way that they may define on their own.



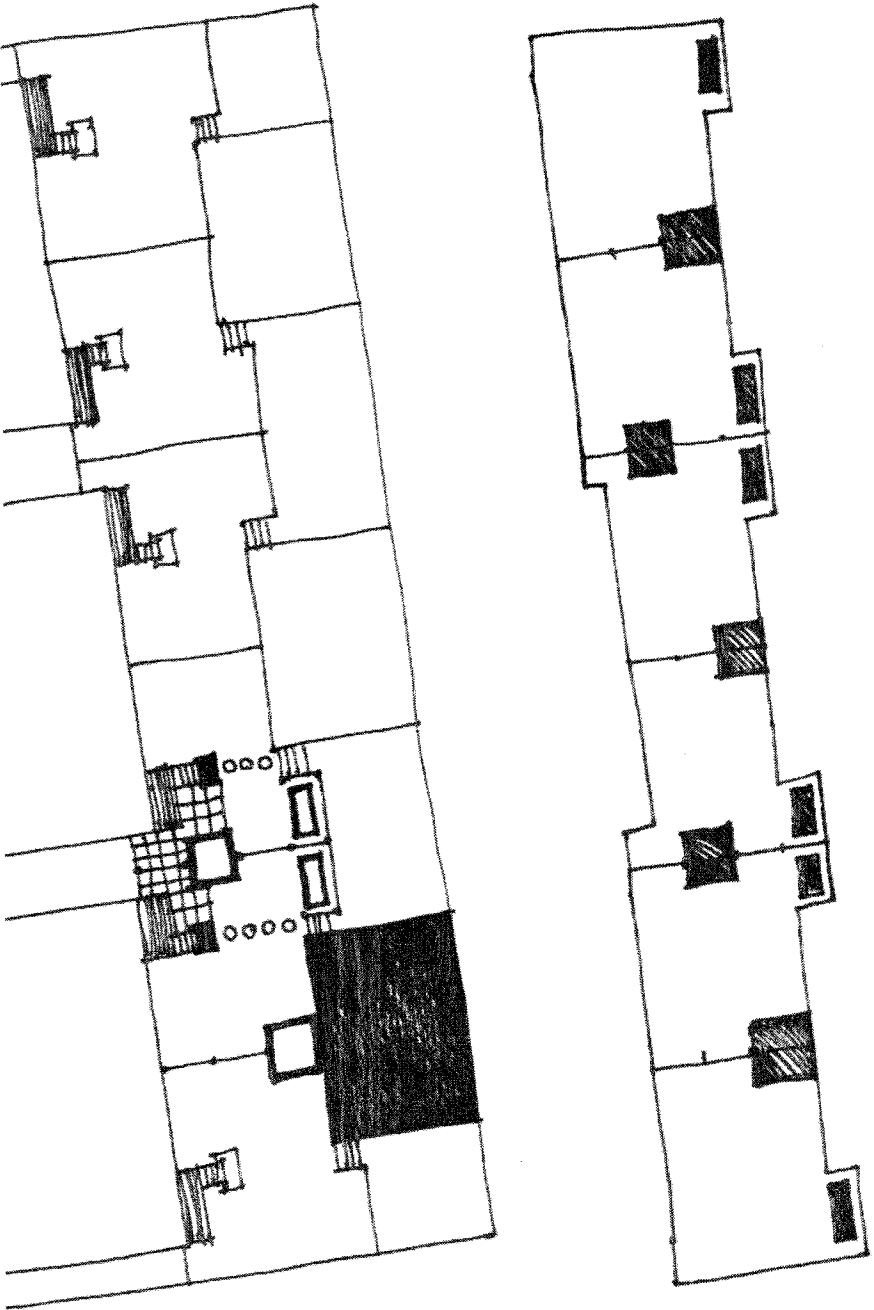
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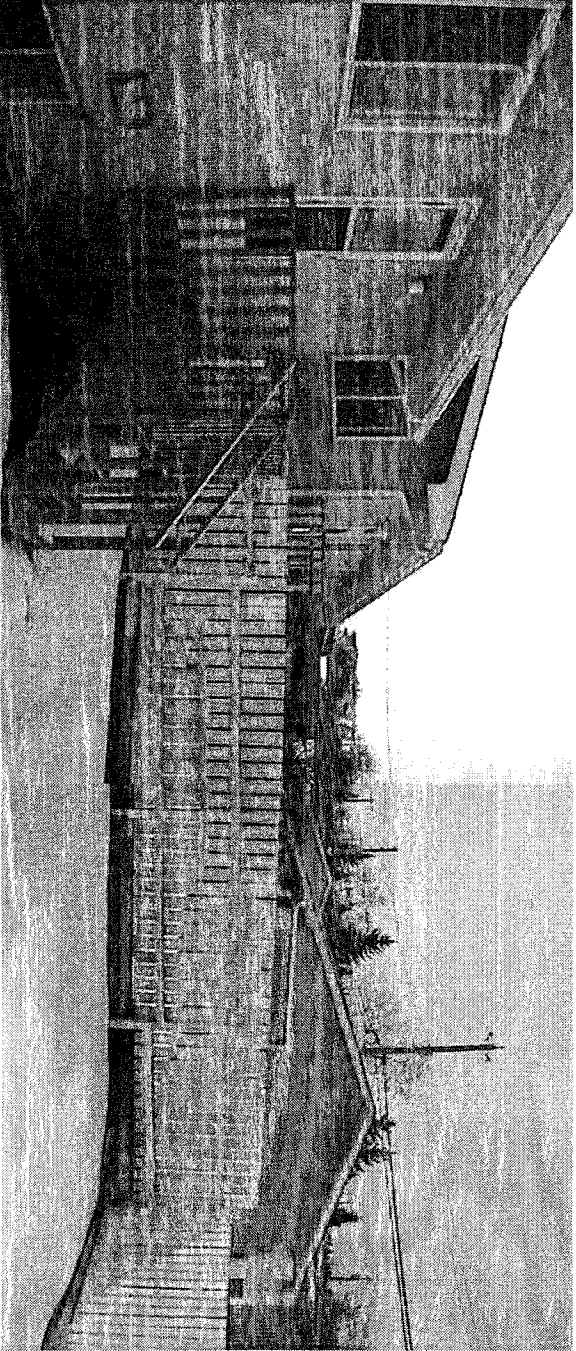
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North garden, (border-line occupation).

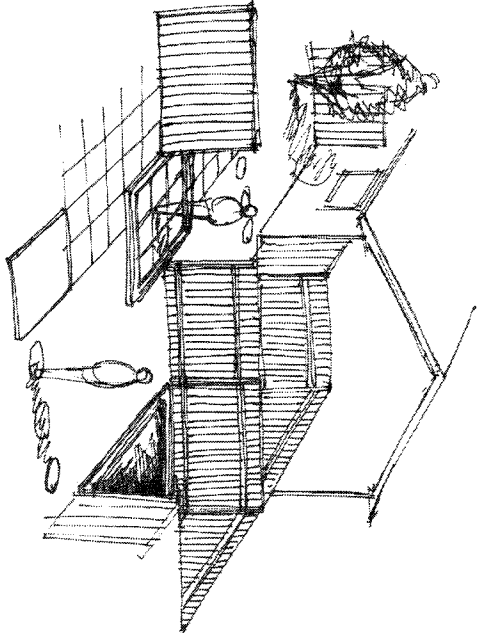
The north garden spaces follow the lead of the south, except that the overall layout is guided by an interest in developing private and semi-private relationships between neighbours and the alley-way. As stated above, all buildings, excepting 714/716, have a garage to the back, which offers itself as a mass to buffer the garden both visually and spatially from the alley-way. For this purpose, and for the benefit of function, a third



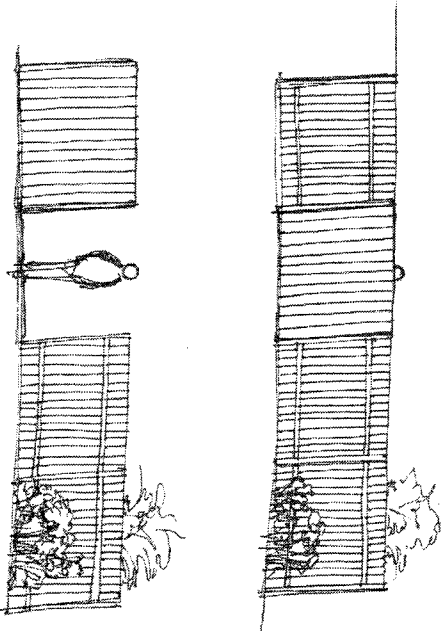


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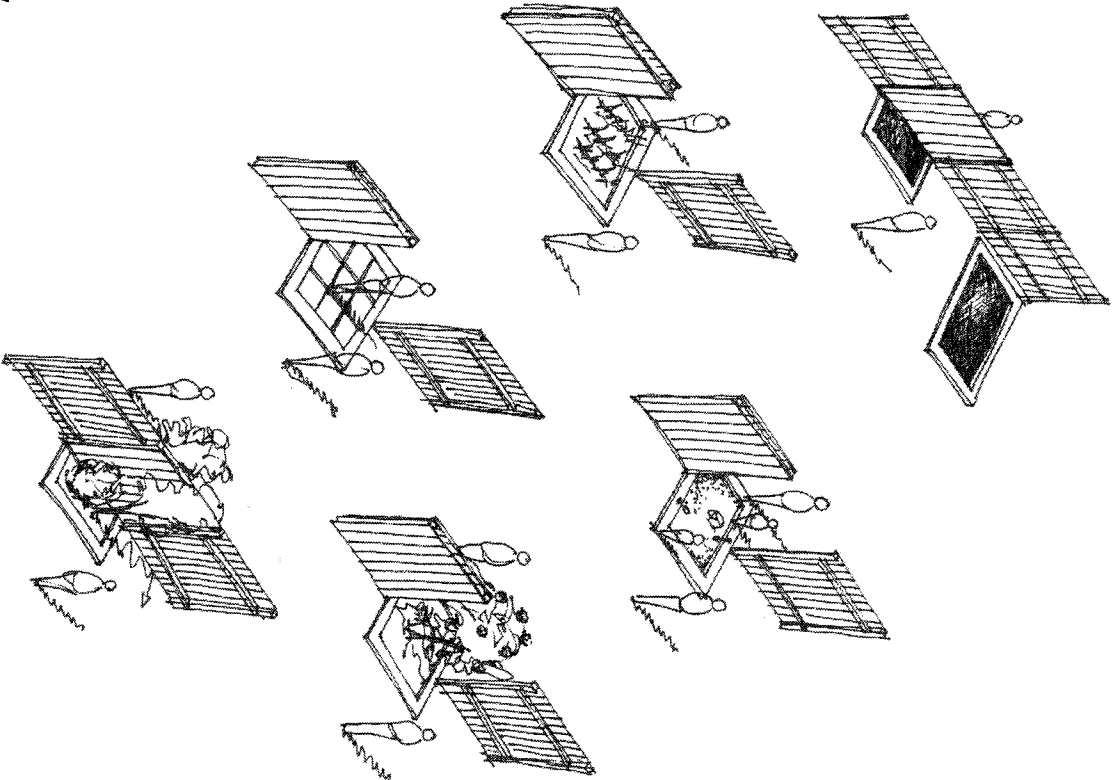
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garage will be built to complete the series, (fig. 53). Its form and finish will follow the others, which have proven their worth since 1968.

The privacy of the garden space interior begins from the home with a descent from the overlooking deck. As a counter experience, the transition from the alley-way into the north garden is a rise of steps. With the space being enclosed at ground level by a solid board fence, the experience becomes both internal and vertical, shielded on all sides, but open from the land to the sky. The intervention plays into this by offering solids which, again, allow for in-filling themselves while engaging the existing built forms to develop lines of threshold through use. Two sites offer potentials to further this idea.

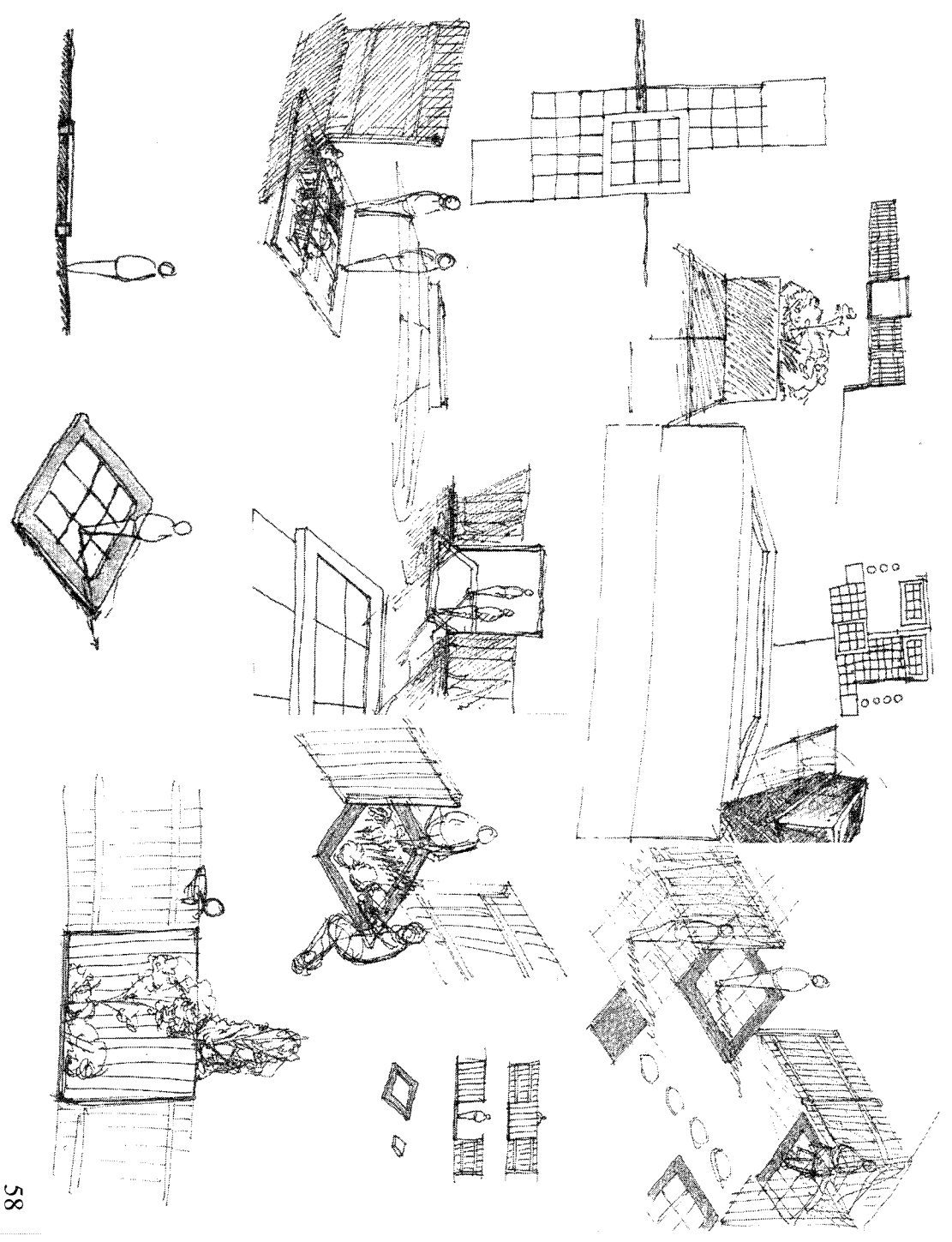
With the garage in place, a section of land at the north-west corner becomes enclosed on three sides by fencing. One solid is to be cast-in-place within this position, (figs. 53, 54). The space is large enough, (seven feet deep by fourteen feet wide), that by in-filling the solid with paving stones, it can be used as a seating space open to the sun. With ample light, this site is also suited for vegetable and other gardening practices. In this way, and depending upon the individuals using the

space, the garden may become more private or less private with its relationship to the alley-way and the housing beyond. Although this spatial situation has been in place since construction in all units to the west of 716, it has rarely been put to use other than by various occupations on the grass. The hypothesis is that the provision of this beginning will call the tenants into engagement with the solid and the potentials that it develops.

The next proposed solid interacts with an original line of reference, that being the fence that divides property space between 716 and 718, (figs. 53- 58). One section of the fencing is to be removed from its stable placement and re-set to form a mechanism by hanging it with sliders from its neighbouring section. The moveable section is mechanically linked to the fence whole as it is a shared piece of the fencing, not a belonging of one of the units. This intervention becomes part of an adjustable line that can shift to facilitate exchange or closure between neighbours as circumstances may change and vary. As a base solid to this threshold between private/ semi-private zones, a cast-in-place concrete foundation frame is set into the earth, straddling the line of the fence. Here, the stable element offers the same opportunities seen in front garden solids and alley-side solid, but now occurring at a juncture that lies within the realm of private or family space, as opposed to the public nature of the front street. In accordance with this, a general privacy is offered as a beginning, to be evolved through user actions on both sides of the line.

The gateway between can be used in a casual manner, so that spatial organization may shift for occasions, (barbecue, etc.), with the potential for long term interactions occurring alongside. This is reflective of the idea of a back garden functioning as seasonal, event oriented, and living and play space. The intervention is an instigation, a beginning. Common dimensions, shared by the south and north garden solids, are based on the sizing of standard concrete paving blocks, so that engaging one part, (i.e., a removal of in-fill pavers between solids for planting), calls another intervention into action, (the placement of spare pavers as in-fill within a solid to serve as a patio). Tenants may act on their own within the confines of their property lines to develop outdoor living patterns, or may join schemes with their neighbours to suit particular relationships. Some may choose to change nothing at all. In any case, the solids lay down a foundation for potentials, which will take on life through the actions of the users of the space.

As in the south gardens, pavers are placed as in-fills for partial occupation of the free spaces in-between solids so that the concept may reveal itself for further manipulations. Taking the shared solid, fence line,



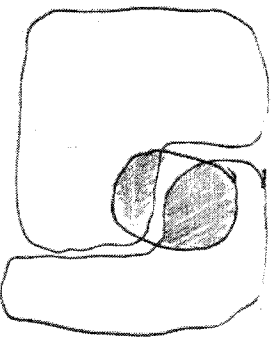
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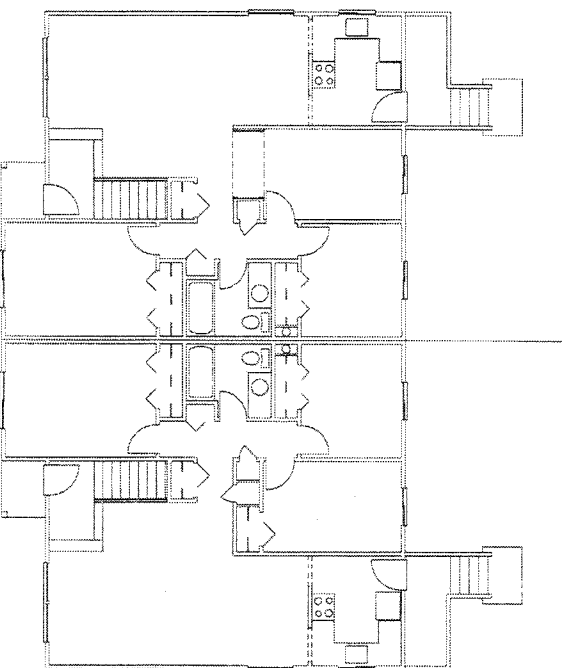
building, and balcony lines as beginnings, the space adjacent to the deck is given a blanket of pavers, (figs. 53, 54). This is acts as an example for interaction, a maintenance function for drainage, offers a platform space into the garden, and serves as a quarry/ storage for pavers. These variables are directly associated with the solid intervention discussed, however, another such threshold intervention is set straddling the line of 716 -714 next to the garage addition, (fig. 53). Both of these positions are engaged between each of the rental properties to create a shifting series of potential thresholds of neighbourly interaction. As foundations, the solids lay out an order to the space that promotes privacy, yet this restraint is not heavy handed, so that a more public, neighbour to neighbour situation may arise. The privacy of these internal experience exterior spaces is offered as a retreat of sorts, with the space not being completely isolated from neighbouring contact as the balconies already offer a bough for interaction and sight. A variation of living experiences is initiated, with the users detailing of the spaces heightening or acting conversely to the situation provided. This may occur through the positioning of activity spaces adjacent to a neighbours' of similar usage, or by creating buffers. The intervention acts as a signal that interaction is encouraged, while laying out the limits as a reference to the owner.

Interior, (wall occupation).

The interior line of interest is the south facing wall of the western bedroom mentioned above, (figs. 59, 60). This separation between distinctly private and public zones was made up of a series of closets, one designated for linens,



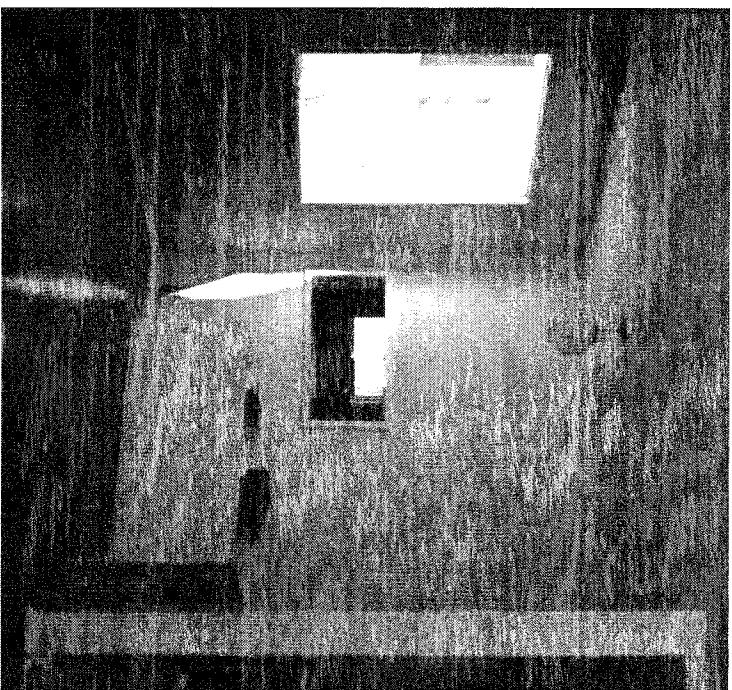
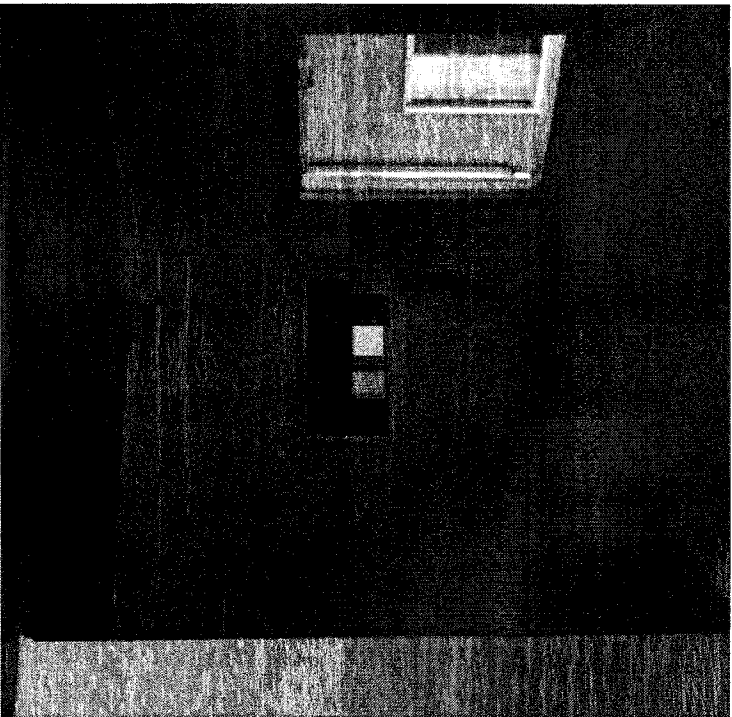
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one for brooms, and one for the clothes storage of the bedroom. A design heightening the use of this wall as a storage unit is chosen both to reveal the workings of the building while simultaneously offering a level of flexibility that can alter the spatial experience, usage, and visual impact of the home along this particular threshold.

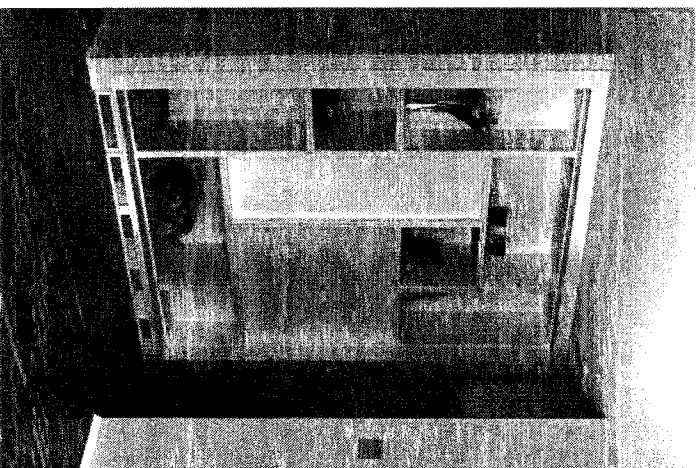
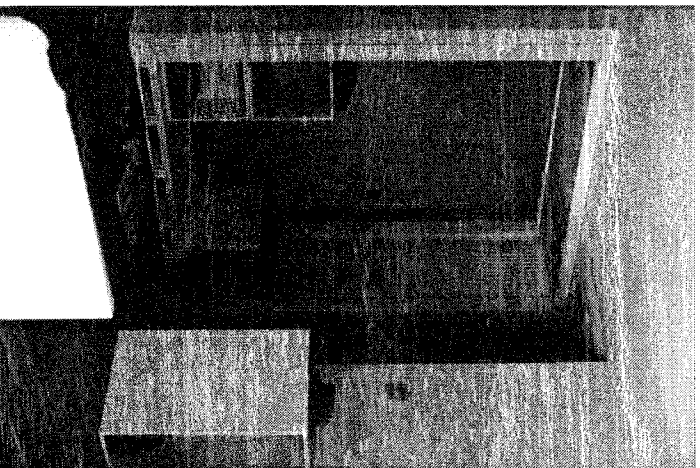
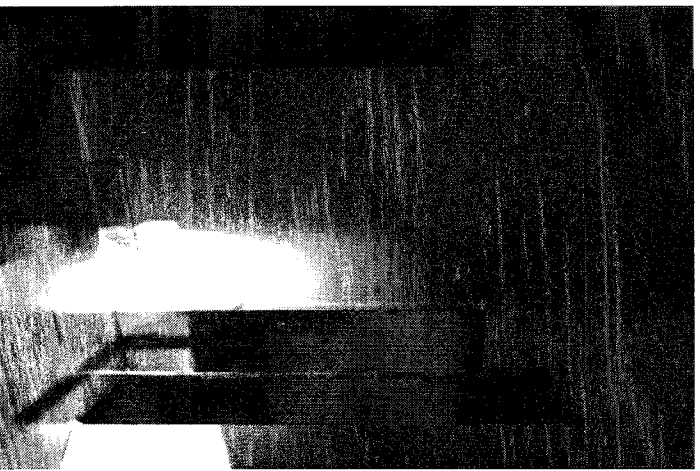
The area is opened up with the removal of the original walls that determined the layout for the broom and bedroom closets. This leaves the linen closet as a block that works with the opposing coat closet to set the living area off from the hallway of the bedrooms. The two form a gateway in the threshold line between the private and public zones of the interior. The space of the west bedroom has now come into play with the



space of the main living room, and a view from the front hall through this new opening continues into the north garden by sight through the bedroom window. However, this room, in its open state, is no longer a bedroom. It has become part of the greater living space and may be of use in whatever capacity of public living that the tenants may find of it, (home office, library, seating area, music area, etc.). In this state, the property becomes a two bedroom unit with additional living space, however, the detailing of this hole in the wall develops its role as a site for ongoing manipulations.

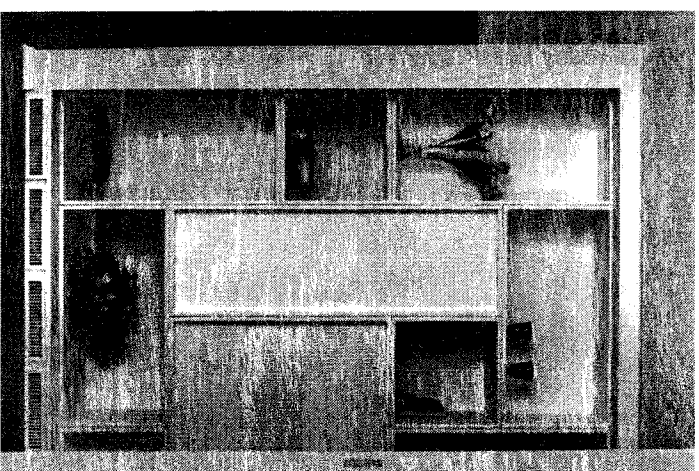
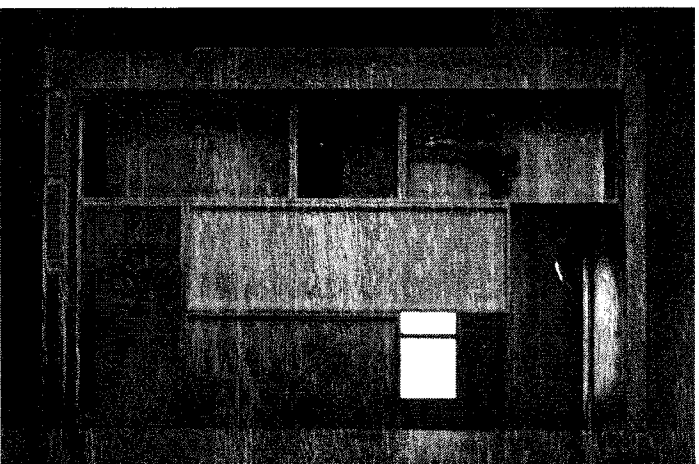
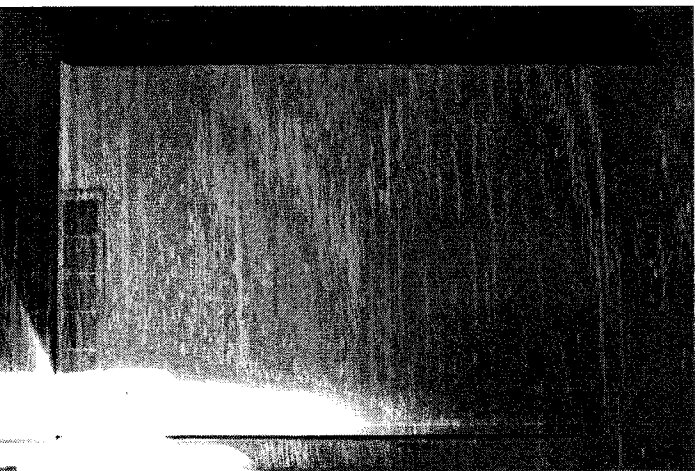
The hole is actually a punch that is held within the wall itself. Following the precedent of a pass-through window in the kitchen, (fig. 61), this intervention is a framed step-through threshold, that activates the 2x4 walls as an armature for the opening., (figs. 62- 64). The punch follows the combined dimensions of the original closet spaces, with a depth of 32 inches, width of 70 inches, and new height of 88 inches. The vertical

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dimension has dropped from the standard 96 inches as a result of the step and framing of the opening. As mentioned above, the detailing of this opening as a punch within the wall relates to an existing occurrence, the intervention then finding a resonance with the original. Conceptually, the activation of this particular threshold as a heightened experience of passage from one place into another was desired as an expression of the moment. The movement through this opening becomes a conscious act, with a step up, and provision of depth that allows for two steps within the frame of the box opening held by the wall. These acts are not inconvenient, as the height of the step is just four and a half inches, and the depth is comfortable for occupation, but are separate enough from typical housing experience that they become realized. After this moment within the frame of the box, a step down completes the move into the room. In this way, the north room, formerly the west bedroom, becomes part of the public experience of the living area yet retains an experience particular to itself discovered

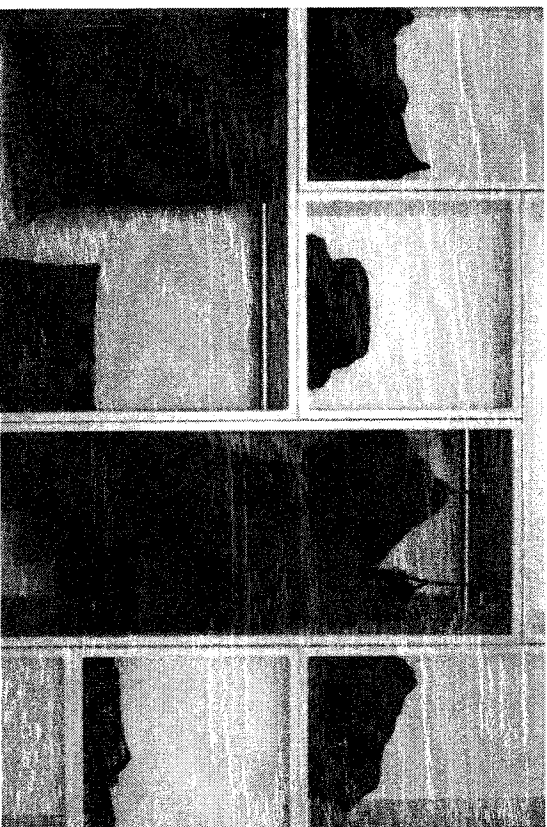
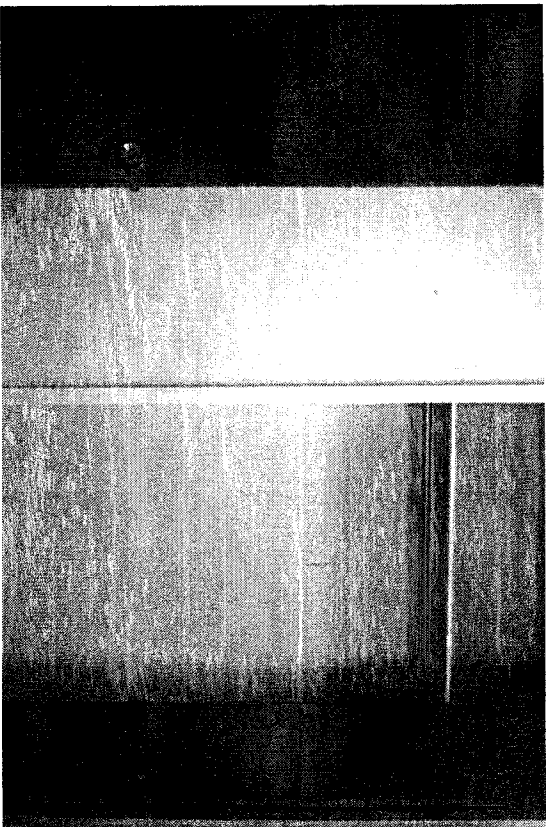
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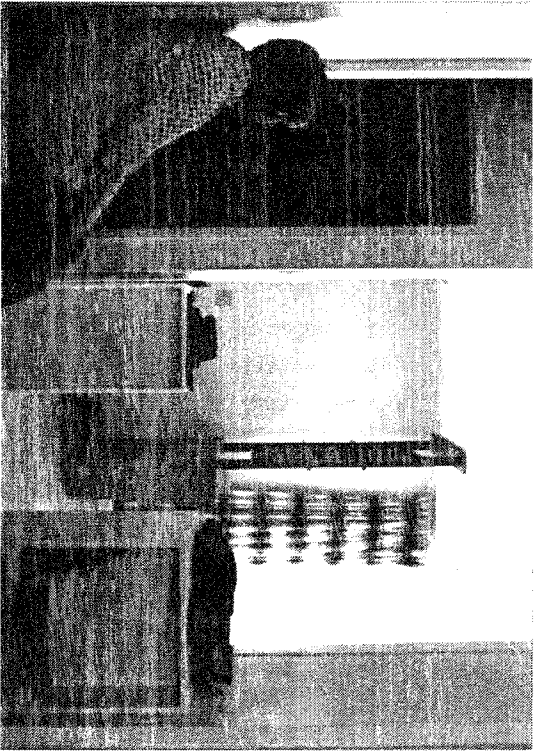


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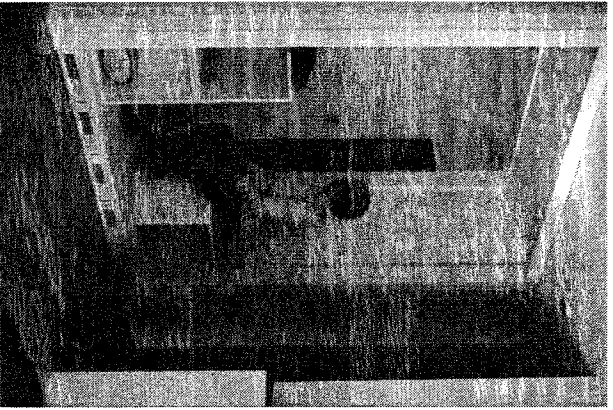
through the transition of this threshold. In this situation, the frame becomes the solid, here held up by the wall, that provides a foundation for the positioning of variables within.

Boxes of varied dimension can be arranged within the frame threshold to redefine the nature of the north room, (figs. 64-72). If the frame is completely filled, then the room returns to its privacy. If the frame is partially occupied by these boxes, then the use of the room may take on semiprivate, semi-public characteristics. When minimal or no boxes are in place, then the room becomes associated with the public interior. Here, the variables interact with the stable to allow for user determinations of spatial needs. The boxes are provided. They number more than needed to complete the in-fill so that the surplus units may function as furniture and storage units elsewhere. In this way, they become autonomous units that may or may not congregate within the armature that is provided, serving other needs as they may arise from tenant to tenant. The relationships of the boxes to each other within the frame and elsewhere can be manipulated as they share related dimensions. This allows for varied organizations of the boxes and the spaces they provide so that variations can occur





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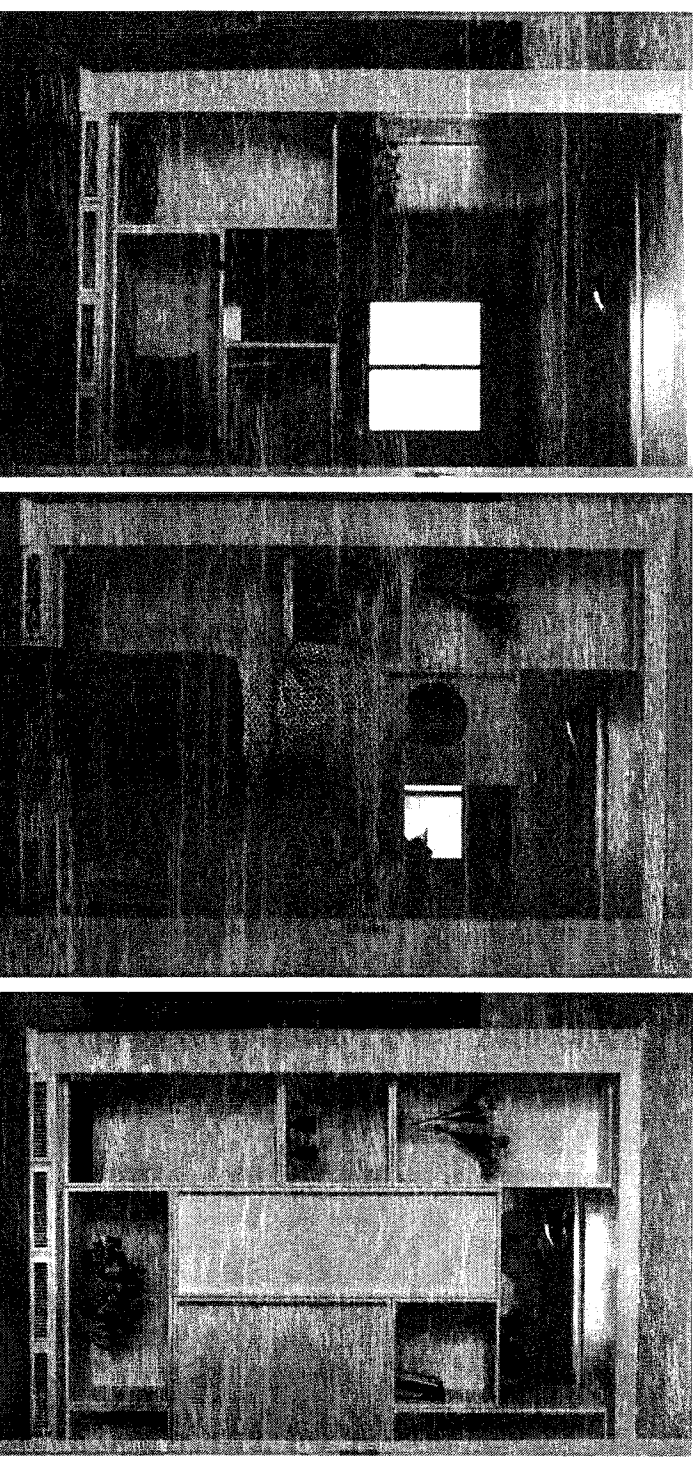


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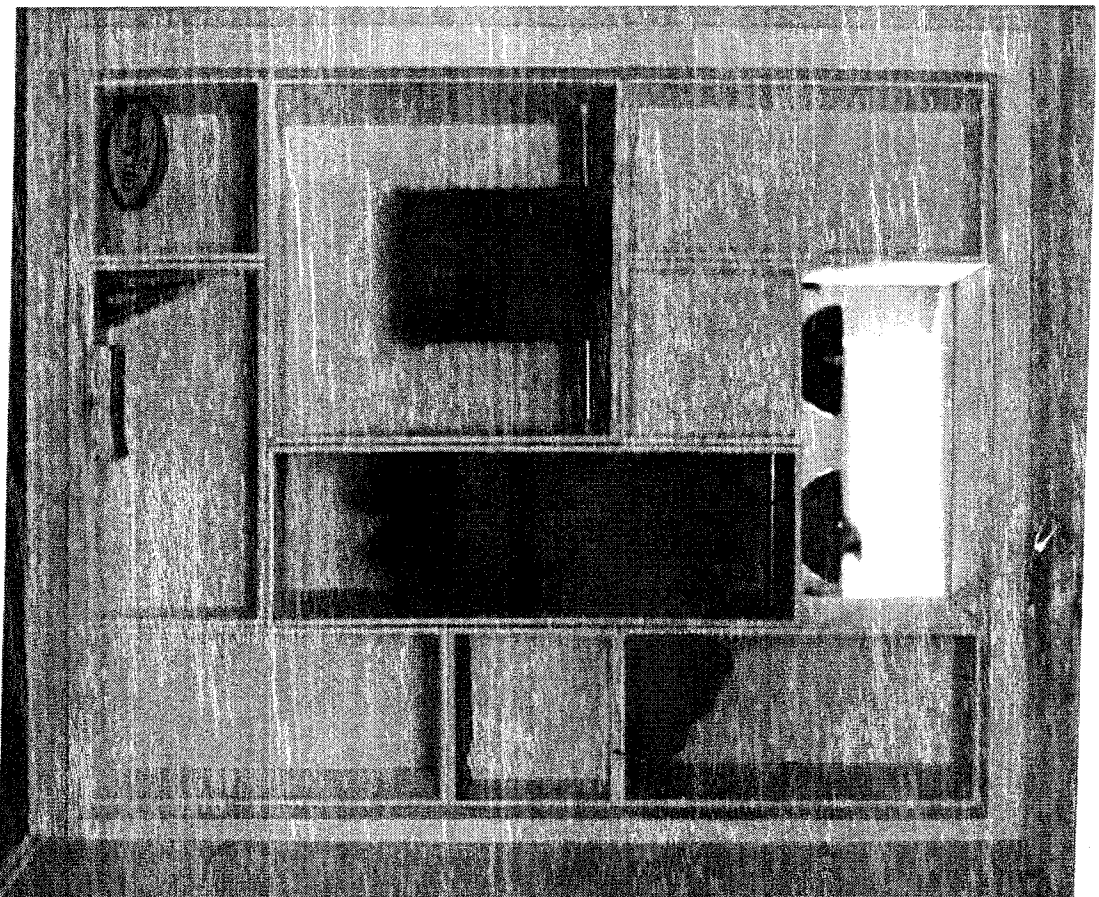
throughout the occupancy of one tenant as well as between tenants. As an example, if a couple moved in they may want the north room to be open to the living room for more living space. If they have a child, or a relative moves in, the frame may be in-filled to provide a private space. As the child grows, or as other users may require, closet boxes, (with hanging rods), may be rearranged so that they are in a more usable position. If the child, (now teenager), goes away to university, the boxes may be rearranged so that the room becomes usable for guests part time, and related to the living space as well with certain openings. This example follows a long tenancy, but each part may also occur in different combinations and situations between tenants, as expected.

The method of creating assemblies of boxes is simple stacking, either within the frame or not, with attachment points clamping the surfaces together using quick connect hardware with allen key faces. This solution maintains a level of simplicity when engaging the boxes.

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The function of the frame and of the boxes is in line with the exterior solids and variables, all with the purpose of relating physical form to the situation of the parties involved in a relationship with a particular type of architecture.

Process.

A comment on design. The process of the physical manufacture of this project began through investigations into the building by studying plans, exploring the walls with a stud/ wire finder, breaking through drywall to reveal the underlying framing situation, and removing lumber and measuring to find the exact dimensions offered. Prior to this engagement, sketches and dimensions were evolved into the design concept, but the result gained its fine tuning from the realities of a building that, although solid, has settled into its own particular comfort. These are details of function and experience, involved participants in the perception and use of the intervention.

Using a hands-on approach to

design carries the dangers of the unknown, which is also what drives invention and evolution in ways perhaps otherwise blind. It is in this participation with the built form that the project becomes a realization of owner interaction at that level of determining stabilities and rules. One example is the raised platform of the punch upon which the boxes rest. In early sketches this was not in place. Although the return air vent was evident, it was assumed that an alternate location could accommodate needs. As construction and investigations developed alongside one another, it was discovered that a new furnace, (installed in the summer of 2002), required greater amounts of air than the original, and the positioning of beams and joists did not offer new opportunities for the siting of this main return duct. The decision was made to raise the boxes on a platform that could then provide for return air. The raised boxes were also now at a more appropriate functional elevation, so that when sweeping the floor dust is kept at bay. Conceptually, this platform added to the experience of the threshold space to heighten an awareness of passing through the transition, and when occupying the space of the frame, (to sit for example), the raised level provides a position distinct to itself within the whole of the punch-frame rather than on the floor beneath a doorway-type frame. This raised level may also encourage the use of the frame as an occupiable space, a position of interest or peculiarity that spurs interaction.





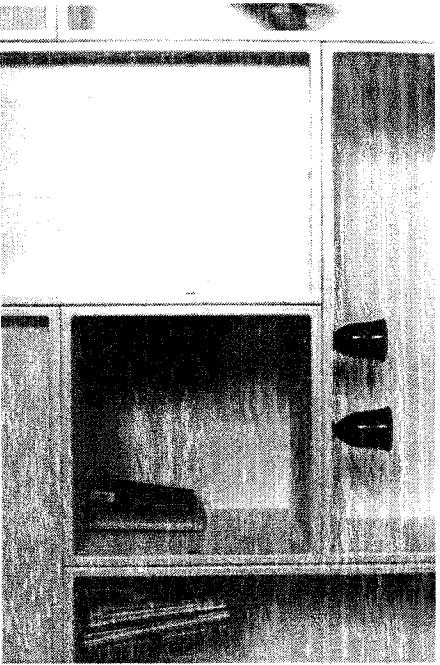
Another example is in the material of the boxes. MDF was chosen for its surface, lack of grain, and weight, (this latter point being thought important as the combination of boxes were to compose a wall, which could then offer itself as a solid mass worthy of a place between private and public living areas). The resulting mass, however, proved to be somewhat cumbersome for the movement of the boxes, the largest of which requires two people to lift, move, and place comfortably. It is possible for an individual to handle them and add and remove them from the punch-frame, however this results with the interaction perhaps being classified as an event based opportunity rather than casual. This limits engagement, but is reflective of the purpose of the boxes as furniture pieces and in-fill wall, neither of which are casual opportunity elements. If another such intervention has cause to be built in a neighbouring unit, plywood will be the material of choice.

This engagement is true to the potentials of the owner, and the armature which results as a place for variables.

The representation of the garden interventions remains in a state of sketch as this owner level engagement has yet to have the opportunity to occur. This is to come during the spring and summer months of the year, when the ground is accepting of

interaction.

Taking the concept of these sketches, which are based on realities, the garden interventions will likely evolve to take on forms that the land and unknown elements will refine. In this way, the process of engaging design offers up its potentials. The design result becomes an adaptation of the concept as it participates through the process of implementation. Parallel to, and eventually superseding this, is the evolution of the landscape, with the engagement of those variables through the reference places of the solids. The design of this shared architecture continues as an evolution of the relationship between the owner of place and the user of its space.



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Conclusion

The experiment is ongoing. Firstly, the completion of the garden interventions, documented here as design sketches, may evolve individual realities through their construction. Secondly, through the interaction of tenants and the resulting affects, issues, and comments offered, the remaining units may receive interventions distinct from those offered here. So, too, these interventions may, at some time, require alteration themselves, at that level enacted by the landlord of re-setting the architectural rules. The setting of rules and participation through them is a framework of adaptation between owner and user. This project, and the relationship that gives purpose to it, are bound to engagements in architecture.

As an idea, this has evolved out of an engagement of myself within a particular framework of history, program, site, materials, and individuals. The issues raised hold information concerning the potential of adaptability and living with architecture through an active participation with its matter. At the core is an idea of living through place, rather than merely occupying the space provided by built form. Developing this concept through the mechanism of adaptability, as an integral part of architecture, the thesis may continue as a theme through which other varied programs, sites, etc., may initiate architecture into this sort of relationship with its users.

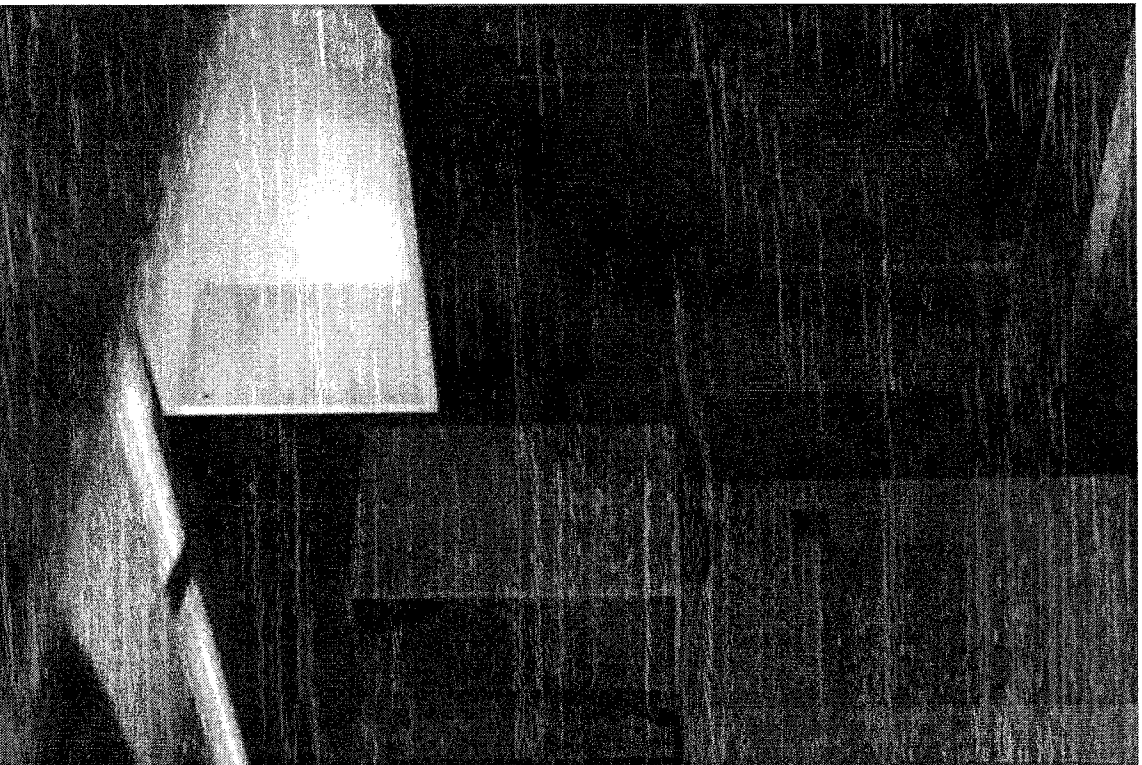
Taking on the specific case of a landlord and tenant relationship resulted in a particular way of finding adaptability through an existing built form. It was not a situation of lone ownership, educational forum, apartment living, etc., and therefore emerged as a form distinct to itself. The limitations and potential of each program and project are expected to result in varied manifestations of adaptability as each case may arise.

As an example, the situation of an apartment tower may require a conceptual foundation and mechanism for adaptability, within a common public area, distinct from any such design actions within the privacy of each rented unit. The idea of offering threshold, as a place for individual determination of relationships between private and public zones of living, may be restricted to relatively thin sites of circulation within, while the shared land of the building may require processes of communal consensus at one end, or individual allotments of exterior space at the other. These particularized systems then function as means through which the people using the space may interact with it themselves rather than the lands being managed by out-sourced companies.

As constants, limitations can be seen as situation imposed, (program, client, etc.), cultural limitations, (as to what is accepted as a way of living within any particular societal framework), and as an imposition of the rules by design, (which is always a constant when one source is creating something for another). Each situation will lead to its own sets of strengths and weaknesses in terms of choosing adaptability as a way of living.

As an example of a way of engaging adaptability through the lens of a particular situation, this project may be seen as further investigation into an ongoing topic of adaptability in architecture. Its limitations lie within its requirement for rules, but through these rules the user gains participation with their place of living. This is the case of adaptability in architecture.

Through the physical construction of this project, the idea of investing oneself into architecture, in whatever capacity the built form and situation allows for, becomes an action of participating with the physicality of the world. It is through this engagement with actual form, as opposed to paper/ conceptual form, that realities of materials and dimensions, (weight, surface, ⁷²actions of lifting, sliding, holding, and using), reveal themselves. The face edges of the box



variables created in this work are rounded both inside and out in response to multiple needs discovered through their production. The MDF held a sharp edge, and necessitated change for comfort when lifting and handling the units. Also, these sharp edges tended to dent, so rounding them off provided for an idea of maintenance, (where an already rounded corner may allow for less actual and perceivable damage through wear and tear over time). And as an architectural detail, this edge creates a shadow line that defines each box as an individual even when aligned with each other and linked within the frame.

Acting through the role of landlord, the detailing of the stable and variable parts takes the process of construction as an evolving form of engaging architecture. It is now in the hands of the tenants, whose involvement will occur as a relationship between their own personalities and abilities, and the potentials that the interventions provide. These users, dynamic variables, create the possibility for unknown actions through the use of the space and place in which they live. It is this which will further the project, as an ongoing relationship between owner, user, and architecture.

Notes

- 1 Sidney Brower, Design In Familiar Places (New York: Praeger Publishers, 1988), p. 50.
- 2 Ibid.
- 3 Philippe Boudon, Lived-in Architecture (London: Lund Humphries, 1972), p.7.
- 4 Ibid, p. 10.
- 5 Ibid, p. 90.
- 6 Ibid, pp. 14, 15.
- 7 Ibid, p. 16.
- 8 Ibid, p. 90.
- 9 Ibid, p. 22.
- 10 Ibid , p. 46.
- 11 Ibid, p. 82.
- 12 Ibid, p. 8.
- 13 Ibid, p. 124.
- 14 Ibid, p. 84.
- 15 Ibid, pp. 80, 81.

- 16 Ibid, p. 115.
- 17 Herman Hertzberger, Lessons For Students in Architecture (Rotterdam: Uitgeverij 010 Publishers, 1990), p. 25.
- 18 Ibid, p. 34.
- 19 Ibid, p. 62.
- 20 Ibid, p. 28.
- 21 Ibid, p. 63.
- 22 Ibid, p. 28.
- 23 Ibid.
- 24 Ibid, p. 63.
- 25 Ibid, p. 108.
- 26 Ibid , p. 153.
- 27 Ibid.
- 28 Ibid, p. 154.
- 29 Ibid, p. 63.
- 30 Ibid, p. 33.

- 31 Ibid, p. 159.
- 32 Ibid, p. 160.
- 33 Ibid, p. 162.
- 34 Ibid, p. 158.
- 35 Steven Holl, Anchoring (New York: Princeton Architectural Press, 1989), p. 113.
- 36 Ibid.
- 37 Francisco Aensio Cerver, The Architecture of Multiresidential Buildings (New York: Watson- Gupthill Publications, 1997), p. 182.
- 38 Ibid.
- 39 John Whiteman, Divisible by 2 (Cambridge, Massachusetts: The MIT Press, 1990), p. 7.
- 40 Ibid, p.21.
- 41 Ibid.
- 42 Ibid, p. 36.
- 43 Ibid, p. 12.
- 44 Ibid, p. 16.

45 Ibid, p. 40.

46 Ibid, p. 37.

47 Ibid, p. 40.

48 Ibid, p. 7.

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