Everything is related. Some of the relations we see, some of them we don’t. Architecture is a synthesis of elements, relating to itself and to the outside. A challenge in this project lies in the recognition of the relationships which occur within the context and their translation into a form of architecture.

Architecture can be considered as relations in which we live.
relations

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Thesis submitted to the Faculty of
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of
MASTER OF ARCHITECTURE

October, 1998

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THE SITE
U.S.A.
Vast land + advanced technology
One of the most automobile-dependent countries in the world.

VIRGINIA
Appalachian mountains running through the state.
Blacksburg located at the foot of the mountains.

BLACKSBURG
A typical college town inhabited by 60,000 people, more than half of them being students of Virginia Tech.

DOWNTOWN
Most potential to develop frequent contact between people.
Original sixteen blocks in the Town of Blacksburg as a backbone and the oval Drill Field as a center of Virginia Tech campus.

Aerial photograph of central Blacksburg. Scale = 1:15,000
Site location in a map of buildings of Virginia Tech (solid) and town buildings (hatched).
Impetus

The site, situated between campus and downtown, is a perfect place to locate an apartment for those students who live without a car, for example international students who spend only one or two years.

There is a possibility to be able to gather those students into an already existing community and even though their stay is short, they have a chance to be involved in many activities held downtown. Here, I am proposing an extraordinary condition which will provide greater opportunities to share their culture, to be involved in the society, or just to make friends.

Relationships which occur within the context in various levels should be considered to translate into a form of architecture. At the same time, I will be investigating the definition and meanings of architectural elements such as walls, columns and stairs, trying not to be restricted by their pre-existing ideas.
Relations to the surroundings

A. Large scale entranceway to campus which is under-utilized by traffic. In spite of an uphill walk, the site is considered as a shortcut to the northeast part of campus from downtown. The existing seven foot wide concrete walk indicates the volume of pedestrian traffic it handles.

B. Pedestrians are currently blocked by two buildings: Henderson Hall and Squires Student Center. An alternative route can be formed by creating a path interweaving those buildings.

C. Facing toward a row of buildings holding retail hints a potential for urban environment.

D. Walking access is intercepted by a steep hill before reaching North Main Street. There is only a visual connection to the other side of the street rather than a physical one.
Inherent possibilities

The existing grass hill is often used to catch some sun, eat lunch, or simply rest and relax. The reason for this is not only because there are take-out food stores nearby, but also because of the topography of the site. The elevation of the hill aligns with the roof level of the buildings across College Ave. This condition makes those people on the hill to have a bird's-eye view of downtown Blacksburg. A closer examination reveals that another layer of an interconnected planes exist at the roof level. It provides people living on an upper level with a place to extend their daily life such as watching an evening dusk, having a cookout, or sun bathing.

The inherent value of this site comes from its location, situated on the edge of the campus where college and town merge and becomes exposed to the main stream of the public pedestrian traffic. The site has a great possibility to incorporate an architecture which helps the linkage between the two.
Lyric theater stands as a visual anchor when seen from the existing passage on the hill. There is a communication between the hill and the row of buildings in front.
Events provide unexpected discoveries in the space. Architecture can set the stage to experience events. The introduction of an appropriate condition into the space is the key in designing a place to host an event. An architect should anticipate events and provide necessary elements that promote interactions.
A discovery of a hidden event in the context.
THE PROJECT
Initial study of master plan.
Complex buildings accommodating retail, apartments, theater, cafe, grocery, and bus stop were proposed to create community within the area.
Master plan

The initial master plan was made by analyzing the potential path within the site.

Four major points emerged:

1) Arrangement of the building should yield to the potential needs of passage.
2) Align the building parallel to College Avenue to complete the urban setting along the street.
3) The design of the facade to the street should allow radical engagement with the street.
4) The project should be composed of a collection of rather small buildings in terms of mass, to break down the scale of the adjacent building.

The initial master plan, accommodating retail, apartments, theater, cafe, grocery, and bus stop, conflicts with the idea of ‘relations’ because it becomes to self-supporting, without promoting communication with the outside. Hence, instead of covering the whole area with a number buildings, one building which is significant to the site was selected to be designed. Open spaces remained will guide in the surroundings.

After all, the master plan phase was a ‘searching’ phase to answer few basic questions.

What is important in the project?

What type of building function fits the most within the context?

What of the site effects the building design?
Receiving Draper Rd.

Located a block away and parallel to Main Street, Draper Road supports downtown in terms of parking space, retail, and services. The road ends, blocked by the site. In other words, the site receives Draper Road, not just physically, but it also has to accept the urban activities especially when there is a street fair or festivals on the street. The proposed building will set the concave stage for the ending street.

Urban setting

Downtown is the only place in Blacksburg which has a scale for pedestrians. Urban settings will be completed by installing the building corresponding to the existing retail and apartments along College Avenue. At the same time, it will be the gateway to downtown (photo below).
Path: A generator of form

Path. Sidewalk. Corridor. These elements are understood as a synthesis of linear movement of people. It can be said that it is a collection of the origin of the line of sight. Since the proposition here was to design a building that will have a radical engagement to the animated street, the arrangement of the building was to locate its front as close as possible to the streets or sidewalks to interact with them. There were two main axes in terms of flow of pedestrians. One is the sidewalk along College Avenue and the other is the concrete steps cutting through the site up the hill.
Time
No matter how strong the architecture is made, time will change not only its physical appearance, but also our way of observing, just like when our culture, technology, and social values shift.
When we add a new artifact to a site which contains an exiting structure or order from the past, interpretation of history becomes one of the biggest concerns. Primarily, it appears that two distinct opportunities for architecture exist: the inheritance can be demolished, or by coexisting, it can start to influence the relationships to the new. By contrasting the new with the old, we can feel the breadth of time.

Existing fence
Divided by a series of brick pillars and iron fences, the distinction between on campus and off campus is clearly made without taking advantage of the site's possibility. It can be a place where college students and faculty and town residents intermingle and contribute to the community. In fact, at the moment, outdoor concerts are occasionally held at this site in the summer time. Thus, my first decision was to break down the iron fence.
Tension and relief

Form of the building.

*Straight facade to the straight street,*
*gently curved facade to the hill.*

People will cross the line, penetrate into the building and to the hill.
An initial structural order was given to form the backbone of the building referring to the context of the site, including the surrounding condition. A steady keynote that is the essential condition for developing the free play of local varieties is generated. Next, the structure and its intended ‘function’ communicate to develop rooms inside. During this process, a system of mechanical equipment (infrastructure) operates like a vein, always being allowed to collaborate with the structure. Also openings to let natural light enter the building coincide with the structure. As a result, the initial structural order will be changed or modified to accommodate the functional needs. For example, secondary structure was given to frame bedrooms on the second floor. I see this adaptation as a maturity or evolution in its design.
Structural order given for the new building.
Scale = 1:1,000
An outdoor stage and the storage for street vendors along College Avenue. It is constitutive of the building as a part of the structure which diminishes towards the east end of the site.

An idea of 'light fin' to deliver the natural light into each bedroom, appeared in the early model.
Invisible forces

Two objects about to touch each other set up tension between the two, an invisible force, similar to a magnetic field. Observing it this way will give us a clue when we deal with two syntactically different objects. With a traditional Japanese card game called 'hanafuda', there is a strong image regarding touch. Two objects, the moon and the earth, are just about to touch each other. Moreover, the force exists not only between two objects, but among several elements.
Existing pillars are aligned in sixteen foot intervals connected by iron fences. Those pillars will remain at least conceptually, as a memory of time and as the giver of the structural order for the new building. There exists an opportunity to think of how the artifacts from different times can coexist. Relations between the old pillar and the new column or wall can be considered as one of the driving forces to shape the facade of the building facing towards the street.
Study of meaning and relation between the two objects. The existing pillar and the new column.
Room configuration

Although words like kitchen, living room, and bedroom are used just to give an idea of the use, the way we name a room is not imperative in this project. The use of the room will be decided from its territory and hierarchical relations leaving the possibility of the temporal shift in use.
Second floor plan

- Person
- Semi-living room
- Main living room, service room
East-West apartment

The hierarchical structure of the room configuration is apparent from the diagram (opposite page). Each group of two or three roommates share a semi-living room in front of their bedrooms. They are closer than the other half of the roommates in the same apartment unit. Crossing the bridge to the other side of the slanted concrete wall, they will merge with the other roommates to share a main space which houses the service rooms such as kitchen, main living room, and bathroom. This main space in the unit opens to the balcony shared with the adjacent apartment unit. The hierarchical configuration is accomplished without doors except for the entrance of the apartment and each bedroom. In this project, it is the spatial depth that defines and controls the sense of territory or privacy.
Hierarchy of the room and the depth in its territory determines the ‘expected’ use of each space.

The space used will be determined according to the roommates and their relationship.
Retail spaces are located on the ground level facing College Avenue. They relate with the apartments above through the adjacent entrance hall and through the natural light or rain drops which wash the slanted reflecting wall. It is a space defined by layers of threshold. It is a space that can evoke outside without literal transparency.
North-South apartment

A corridor which runs through the apartment will be divided into three sections by a main structural wall giving them a sense of territory for each shared living room in front of each group of two bedrooms. At the same time, the corridor is designed to formulate a certain amount of traffic within the apartment unit. This is achieved by placing service rooms at both ends. Within this setting, the chance to engage with other roommates will increase simply by passing in front of each shared living rooms.
Ordering the structure and bedroom configuration doesn't match. Discrepancies between the grouping of bedrooms and uniformity of columns. Structural order, bedroom grouping, and core are well regulated all together.

Rhythm of the structure - function - structure interlocked.
living room in NS apartment.
Hierarchical depth is less here than in the East-West apartment but the adjacency of a few different spaces with different characters in one place holds a potential quality as a room.

A corridor becomes a medium and a buffer zone among the bedrooms and living rooms.
The meaning of walls

A wall, is just a wall.

We spend most of our days and nights surrounded by walls: moving through walls, directed by walls, restrained by walls, protected by walls.

A wall, is just a wall.

Few of us take the time to stop and reflect on the emotional effects of such a basic structure.

A wall, is just a wall.

Among the artifacts of man’s making, is there anything we encounter more often? Is there anything more important to our comfort, security and survival?

A wall, is just a wall.

Walls bring us together and drive us apart. Walls separate us from danger and enclose us with that which we value.

A wall...is just a wall.

Frost’s poem implies that a wall can evoke emotional value. Walls can inspire feelings of security, separation, support and enclosure.

Christian Norberg-Schultz, a psychologist noted for his observations on the perception of space, states: “The simplest model of man’s existential space is a horizontal plane pierced by the vertical axis.” The ground plane is the realm of men and women and without definition, it is meaningless and imperceptible. We need walls to define our spaces, and in so doing give definition to our lives.


by Pearce Scott
CRIT vol.35
A wall raised up from the ground.

The main structure comes independently from the wall.

Secondary structure and in-fill inserted between the structure.
Study of reflecting wall

A relationship between the apartment building and the reflecting wall has been studied and altered in terms of structural order. As a result, the reflecting wall remained independent from the structure of the apartment building to keep its purity and invite natural light into the rooms of the apartments and retail. At the same time, the openings for beams to pass through the wall changed, giving the visual sense of structural continuity to the other side of the wall.
Man invented the concept of layering floors. Maybe it was initially intended to raise the floor level a few feet above the ground to protect themselves and their food from animals and water. As the building developed, man started to overlay many floors, often for functional and economical reasons. In this project, neither of the two previous reasons was dominant. I wanted to concentrate on natural light and its relation between each of the floors. When it comes to designing an apartment for the students with retail shops on the ground level, a two-storied building seemed to be the simplest and the strongest to establish the relation between the public and the private, by means of a special lighting condition.

The space for natural light in the building is just like the space utilized for the elevator in high-rise buildings. The higher the building, the more space should be given to provide ample natural light or visual wholeness of the building. An atrium, or void open space, combined or included in a high-rise building would be a good example.

A comparison of the area which the elevator occupies in the typical floor plan of high rise buildings.
This is a junction and merging place for the roommates in different clustered bedrooms. It is the place for the momentary and coincidental contact between residents beyond the apartment unit.

Bridge

A bridge passing over the reflecting wall, connects the two parts of the apartment unit. Standing on the bridge, in a slit created between the wall and the building, is the place that one can look through the whole building longitudinally. A line of sight passes through the upper portion of the entrance hall, and other apartments.
Given the nearly 'forced' opportunity to contact with others, bedrooms will be the stronghold for them to be serene, yet still maintaining the sense of togetherness from the 'light fin' running straight through their bedrooms. It is a stand-alone vertical plate which has sufficient presence to trim all the walls that define the bedrooms. Delivering the natural light into rooms, it is also a device to group all bedrooms and their residents together in its metaphorical expression.

Part and whole

As the hierarchical depth increases, the rooms get more privacy. Naturally, the deepest room in its configuration will be the bedroom for each individual.
View towards the semi-living room from bedrooms which are tied together with the solid 'light fin'.
Space definition

The space is defined by an enclosure and also by the density of objects in the three dimensional space.

The enclosure is not always comprised of physical materials. It can be made of light or sound or something else. Then it can be said that the spaces are held by some sort of resistance which faces the space.

The architectural space begins with the placement of an object into the space, giving the scale and order of man.

Beginning of the architectural space

It started to rain.
Plucking a leaf of banana,
I held it up over my head.
I made a little 'space' to avoid the rain drops.
Moistened by the rain, the leaf is clear green.
Rain drops sound on the leaf.
It must be raining hard.

By Ryuzo Yoshisaka
Forming an entrance

There is an issue of space definition at the entrance where the transition between public and private occurs. The existing brick wall will remain, at least in concept, contributing to the spatial shift within the entrance area. Residents will enter the building by crossing the line of the old brickwork along the raised metal walkway protruding towards the sidewalk. Then they will be gradually enclosed by the building.
Recycle

Blacksburg is a typical college town, with students moving in and out of the town within a few years. This creates the need for an efficient way to resell furniture and other belongings. Residents of this apartment who want to sell their belongings will come to the “recycling” booth located at the entrance of the apartment and leave them in the showcases or transparent display lockers which face towards the passage running through the building. The recycle booth provides the potential buyer a chance to visually inspect the actual object which is on sale.
Functionally, the recycle booth act as a mediator between ‘unspecified’ street walkers and ‘particular’ residents. The recycle booth is a neutral buffer zone installed between the two distinct spaces with different occupants, thus refusing to be touched by elements from those spaces.
The mailbox for the residents is also in the entrance hall, and it expresses the same idea which is directed to the recycle booth in terms of public and private and its role as a mediator between them.

It is one of the connections between the residents and outside public. Therefore, ‘a room to receive mail’, as an extension of the apartment, has been reconsidered and has formed its design in association with the entrance hall.
In an era of TV, radio, e-mail, and internet, paper envelopes and newspapers still have a potential. It is not a matter of the information they carry, but the fundamental role of the mailbox, which is for handing the materials from the deliverer to the resident. The mailbox is the point of connection that maintains the physical relation to society.
Small showcases for the retail are formed in the concrete block work facing the street.

Facade
East-West apartment

Facing College Avenue, residents will be given an opportunity to extend their activities to the balcony attached to each of their bedrooms and overlook the lively street. This is the place where each individual encounters the public. At the same time, it establishes a correspondence with the apartments on the second floor of the building across the street.
A balcony extends towards the space above the pillar establishing a relation with the sidewalk, and the apartments across the street.
Filter

I originally thought of a filter as a means to separate people. In order to let the two spaces breathe, an opening will be made in an opaque wall. The wall becomes a filter between the two spaces. With further investigation of this idea, the relation between the spaces implies people in two different domains. The wall can be a synthesis of vertical plates, with a series of openings.

For example, two corridors with a separation in the middle divides people physically, but given unexpected adjacencies and encounters through the controlled lines of sight, they will acquire a mental relation or consciousness to the other side.

In this project, aligned vertical plates allow a sequential change of a view as a person walks which creates a filter between two distinct domains. Their intention is not to separate people but to offer more attention to the other side which is concealed. The instantaneous appearance of a human figure or other representations will emphasize the image itself.
Light hits material, material reveals.

"I sense Light as the giver of all presences, and material as spent Light." (Louis I. Kahn). However, darkness provides an opportunity for the light to perform within the space. There exists a juxtaposition between light and dark. Therefore, to think about light is to study and prepare darkness so that the light can enter into a relation with it. In this project, the dark is modified to contrast the light. The light is led into the dark to hit and reveal the material.
Study of the power between the two distinct materials.
Facade
North-South apartment

Since the east side of the building is facing the hill with an outdoor stage, its facade should form a proper filter to mediate the private and the public.

There is a passage deck along the facade of the building which leads to the entrance of the North-South apartment. In spite of its requirement to reject, it should not be completely locked by doors or gates. Those elements are not the only architectural elements that we can operate. In the course of exploring a new spatial condition, a metaphorical transition of the space has been developed instead of a physical separation.

A visitor must descend the stairs, turn, go through the vertical surface (the wall), experience the discrepancy of the path, then ascend the stairs. At the same time, one will gradually be stepping into the structure and be enclosed by the skin of the building when they approach the entrance of the apartment.

This requires space definition, enclosure, and the spatial influence of the artifact.
CONCLUSION
thoughts

site, surroundings, function in relation

I cannot design architecture without an actual site. Probably that is why I was struggling until I selected the site for the thesis. Although, the selection is not critical, as the site is normally given. The important point is how one reads the site. It is the site and its relation to the surroundings that determines the architectural function of the building. This is because they all are related.

Tadao Ando designed this Row House in Sumiyoshi in 1976. It seems that he discards the relation to the other row houses and the street in front. But there still is a strong relation between the two. For example, being concentrated at one place, an indent for the entrance implies the life inside the wall.

Then the function or use is the driving force which starts to generate the form of architecture. Architecture with good natural light and space is derived through the careful consideration of the function in order to withstand the shift of use over decades. 'Permanent' idiosyncrasies of the building are created by 'initial' and 'temporal' function.

During the process of design, I have experienced several events on the site, and off the site:

One cafe opened.
One restaurant was renovated.
Two street festivals, and
At least four outdoor concerts were held.

Every time I saw a change, I ran to the location, with camera and a sketch book in my hand, expecting some discoveries or learnings.

This project was truly a deep experience for me.

I think I have made a work of architecture.

Now, there is a last question to ask myself:

"Korewa ii kenchiku desuka?"

Is this a good architecture?
Reflection

What I learned from the project.

Just because we associate architectural elements with a certain meaning, it is easy to make one element to have only one primary role. Instead of merely attributing it with one meaning or function in one particular context, I wanted to explore the possibility of its other meanings or functions in architecture. For example, a wall, functionally, is often understood as a separation between two different domains. Will this always be true?

In the project, an inclined reflecting wall defines street side and hill side, separating the room and the outside, acting as a boundary. However, it also connects the room and the outside, acting as a canvas upon which parts of nature can rest, such as natural light and rain drops. Also, allowing the natural light to infiltrate, an outside space inserted between the wall and room joins two different levels of the building.

Another issue, related to the previous, is about the definition of space. Instead of placing one strong element in the space to define the space by layers or adding a gradual 'resistance' in the space, there should be a way to define space by layering, adding a gradual 'resistance' in the space. This was accomplished through a collaboration with different elements and objects. The quality of the space is determined by the mode of interaction formed by different elements and objects.
Notes / credits

Unless otherwise noted, images are reproductions of original drawings, renderings, and photographs by the author.


p80 Row House in Sumiyoshi from *Tadao Ando: Details*. 
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Thanks Bill Brown, Bill Galloway, Michel O’Brian and Heiner Schmidt for your knowledge, understanding, and sharing the ideas.

Thank you to all my friends and family, I am here because of you and always will be. Thanks Mike for all the stuff about computers. Your idea confirmed my position against new media. Thanks Jennifer for bringing enthusiasm to my work. Thanks Jorge for giving me an idea of constructing. Thanks Noriko for English lessons. Thank you Noi-san for accompanying me when I am in night shift. Thanks Koichiro, Masaki, Tomomi, and Atsuko for a great expectation and patience.
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