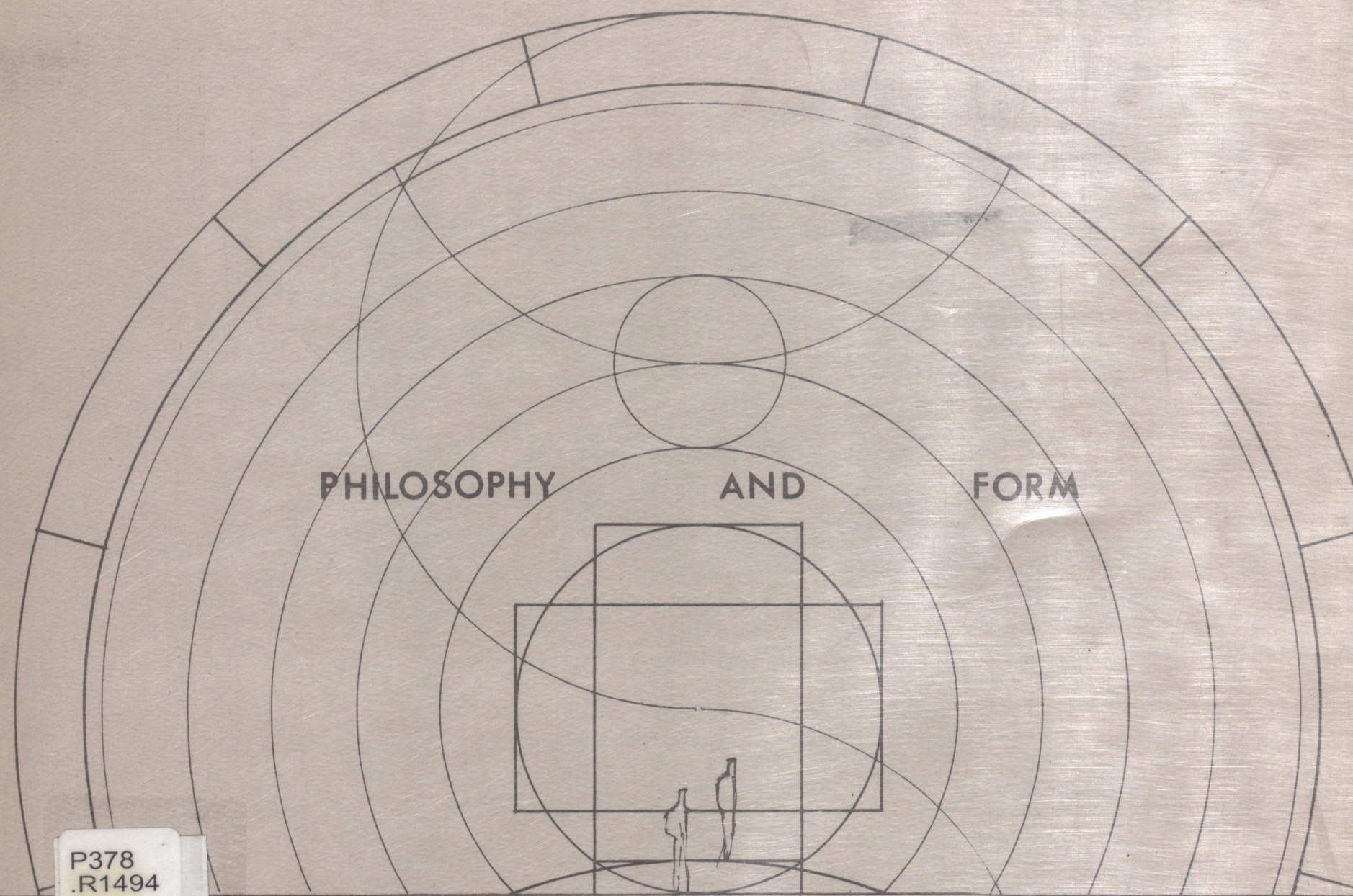




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AND

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onal Martial Arts Center
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Montana State University

San Francisco
By Blake Ramsey

Winter 1985

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Philosophy and Form

International Martial Arts Center
San Francisco

Architectural Thesis
By Blake Ramsey

Thesis Advisor: James Mitchell
Montana State University
Bozeman, Montana
Winter 1985

To all the teachers in my life who have shown
me a part of myself.

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To all the teachers in my life who have shown
me a part of myself.

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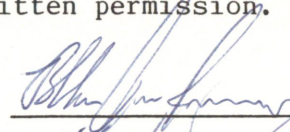
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Introduction

Somewhere along the way I became interested in the philosophies of the far east. It wasn't the active seeking out of any certain type, but the introduction of them on me at various times in my life. I don't know if it started with watching "Kung Fu" or if I picked it up in something I read.

Never-the-less, it seemed to be always related to some form of martial art. As I looked into these interests of mine, I found that the martial arts have a variety of philosophies that were not just intellectualism, but actual ways of living everyday life. The idea itself, that these philosophies were wound in a fighting art, seemed to me very odd at the time. Violence and pacifism are supposed to be incompatible. But as I looked even deeper, I realized it is neither violence nor pacifism, but harmony and balance with the world or nature that these were trying to teach.

With the popularization of the martial arts, many of the philosophies have been lost in the 'ability to beat up your opponent' attitudes. It is seen why this might be in that the martial arts were introduced to the U.S. by way of the military because of the effectiveness of this 'hand to hand combat'.

With this idea of 'whose tougher than who', many problems exist between some of the different systems of the martial arts.

More and more, these philosophies are coming back into martial arts in this country. This seems to be attracting a lot of people, but where to go?

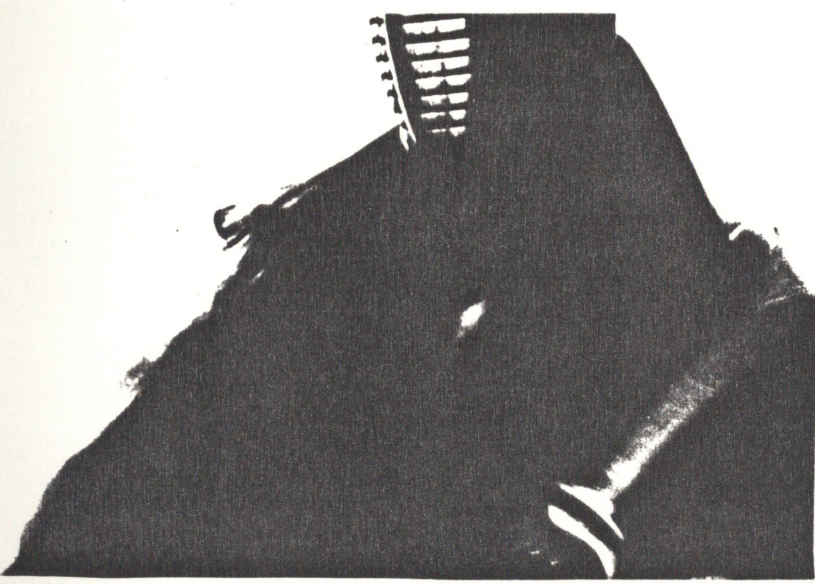
Which one to pick? This is partly why I decided to design the International Martial Arts Center. It would be a place for those interested in learning and practicing a martial art. It would also be a collaboration of information concerning all fighting arts and systems.

Martial arts is an art and has exhibitions and performances like any other art. Therefor, in furthering the education of people in the martial arts, the project incorporates a performance area.

In bringing various systems together, practitioners can learn from other systems and hopefully find value in different approaches and ideas to further enhance and develop the martial spirit surrounding this art.

By martial spirit, I mean the honor, respect and peace that is gained inside, as well as outside, of a person. To live in harmony with nature, the way.

In designing a martial arts center, I wished to explore some of the symbolisms and philosophies of the martial arts in relation to architecture. I wanted this to be a 'place' of the martial arts, and to hopefully enhance and emulate the martial spirit.



The Origin of the Martial Arts

Some may think that Bodhidharma, an Indian monk who supposedly lived in the 5th and 6th centuries B.C. and brought the Buddhist religion to China, invented the martial arts as a way of keeping the Shaolin monks in shape for the many hours and sometimes days of meditation. He may have made his own martial art for this purpose, but it was not the first evidence of such.

Yang Lu, or properly name, yang fu, is a general term meaning "the mastery of an art, an accomplishment, a difficult task through highly concentrated effort."

The concept, yao, in Chinese, for the martial arts is yao fu, meaning militaristic, and yao, meaning technique, appeared in bronze inscriptions about 1200 B.C.

"Although precise historical records either never have existed or have not been located, scholars generally accept the thesis that the rudiments of martial arts began in different parts of Asia and were perfected in China."

The beginnings of martial arts has a hazy origin because a lot of the ancient Chinese history was passed down through generations in the form of stories.

In effect, the generalities of these stories are most likely true, but many of the details become obscured and exaggerated. This does not mean that all the myths and legends are probably true, this is just taking the view from a general sense that something that exists now, like yang fu, can be generally traced to the farthest place in time by the culmination of

The Martial Arts

Yang fu, can be traced to the Neolithic Age approximately four thousand years ago. The earliest form of martial arts appears in the story in which legendary Yellow Emperor, Huang Ti, fought and defeated his enemy, Chi Yu, by using classical Chinese wrestling methods.

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Kung fu, or properly named gung fu, is a general term meaning 'the mastery of an art, an accomplishment or a difficult task through highly concentrated effort.'¹

The correct term, in Chinese, for the martial arts is wu shu. Wu, meaning militaristic, and shu, meaning techniques, appeared in bronze inscriptions about 1200 B.C..

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During the Shang Dynasty (1523-1027 B.C.) this type of wrestling was incorporated into a folk dance to show strength and virility. Many of the movements in these dances closely resemble the type of movements observed in the martial arts.

In the Chou Dynasty (1027-256 B.C.) we see that the main schools of philosophy begin to take hold.

During the second half of the Chou Dynasty there emerged a distinctive fighting class of knight-errants that were skilled in military arts with special emphasis on swordsmanship. These were not bandits, but chivalric knights that not only served royalty, but peasants as well.

"A knight (shih) dies for one who appreciates him."⁴

"The moralistic principles of the knights-errant, coupled with their chivalrous devotion to visionary ideals, made a powerful impact on succeeding martial arts masters who became convinced that their power should be used only for self-defense."⁵

This is the earliest known precept to the now current philosophy of most martial arts today. This was the time that Confucius and Lao Tzu were being born. For the first time, fundamentals of a systemized martial arts were being formulated.

Most martial arts, through the years, change to the point, sometimes, that the latter may barely resemble the original art. Still, most carry the same philosophies and ideals. Mostly it is technique that is lost, not taught, or improved upon throughout time.

Styles of Martial Art

As a person gains more experience in the martial arts, one sees that all differences in style and technique blend into a single continuous spectrum, limited only by the range of human movement and imagination.

"In their most extreme forms, differences in style may be discerned by the practiced eye, but there are overlapping grey areas that sometimes make it impossible for even very observant students of the arts to say exactly where one style 'begins' and where it 'ends'."⁶

Okinawan styles are closely related to some Japanese styles, and some Japanese styles are similar to certain Korean styles. Chinese gung fu systems have influenced a great number of asian fighting arts, including the Okinawan, Japanese and Korean arts.

These make up the four major identifiable martial arts traditions. Although some have a number of common techniques, theories and methods, it is still possible to make general distinctions between them.

In general, Japanese styles are characterized by wide, solid stances and forward, aggressive attacks.

"The Japanese martial artist does not usually advocate retreat."⁷

They prefer to 'drive in' and apply a sweep, throw, straight punch, or grabbing technique.

Sometimes this idea of not retreating comes in a more subtle form. A story was related to me to illustrate this point.

A master was sitting in front of many students when he suddenly jumped up. The students also jumped up. The master proceeded to run off and the students began to chase him. As soon as the students were spread out in a long line, the master suddenly turned upon the first student behind him and attacked him so as to eliminate him from the line of pursuers.

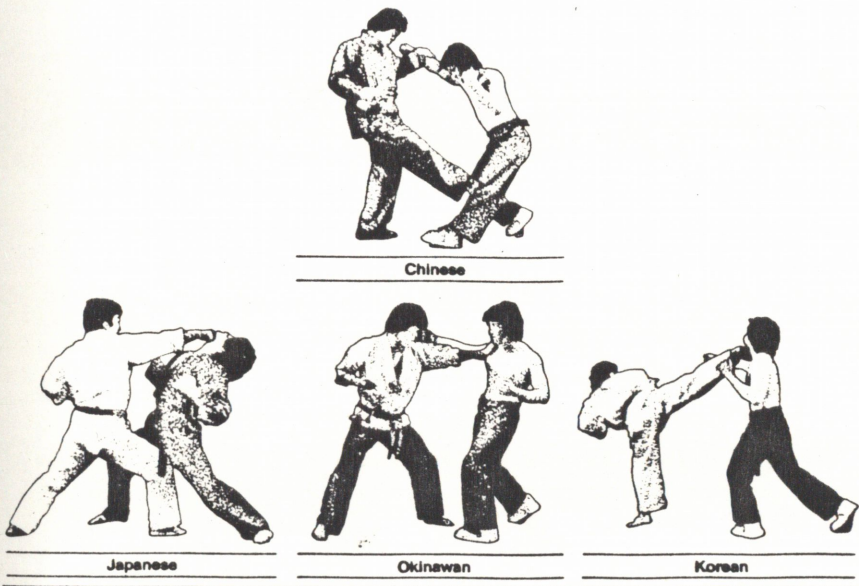


Fig. 2

Off he ran again until the next student got close and again the master stopped and attacked the next closest student. The master continued this until all of the students had been defeated. In this instance the master was using a plan of attack, not merely running away.

Okinawan styles tend to use a more upright stance than most Japanese styles, which may sacrifice some degree of power for more mobility. The Okinawan fighter does not necessarily assert continuous forward pressure. This stylist is able to be more elusive when the circumstance demands it and powerful when necessary. Kicks are relatively low, and hand techniques are fast and penetrating.

There is such a wide range of Chinese styles that it is difficult to put them into one category. But in general, the Chinese arts are more subtle and sophisticated and tend to emphasize yielding to force rather than trying to take the aggressive attitude.

The Chinese stylist will rarely attack directly with brute force, although some of the styles do.

It is more likely that one will hit and run, use counter techniques, and pick the opponent apart until he is out of position and open to a 'finishing technique'.

Some of the Chinese styles use circular defensive motions to set up strong but compact offensive techniques.

Korean styles, too, are varied, but most place a greater emphasis on kicking than other techniques, although they still have strong hand techniques as well.

Most Korean stylists will use a straight linear attack combined with circular or spinning kicks.

Some of these styles incorporate pressure point attacks, joint locking techniques, and throws.

The modern, eclectic methods, such as the famous Bruce Lee's Jeet Kune Do, do not favor any particular artistic or stylistic traditions. These arts are designed to be 'streamlined' and efficient. Some of these use full-contact sparring in training.

Modern systems may still feature theories, philosophies and techniques from traditional arts, combined with forms and methods from other sports such as boxing or wrestling.

"Behind technique, know that there is spirit:
It is dawning now; open the screen, and see the
moonlight shining in!"⁸

- Yagyu Tajima no Kami Munenori



The Philosophies

In explaining the following philosophies I choose those that seemed to be in most of the martial arts.

It is the spirit of the martial arts I wish to express, rather than any specific number of arts.

Along with the explanations I have provided some representational interpretations to help explain them further.

Also included are some ideals and philosophies of oriental architecture that I felt pertained to the expression of this spirit.

Philosophies of the Martial Arts

Taoism in the Martial Arts

"Tao is the Absolute Void, a metaphysical principle and the origin of all things (the ways of Heaven and Nature)."9

Dualism: Theme of Opposites

Chinese philosophy is rampant with dualisms in which their respective components and elements are regarded as complimentary and mutually necessary rather than hostile and incompatible forces. In Chinese cosmogony there are two cosmic forces, yin and yang. Yin is translated to 'inactivity' and yang is translated to 'activity'. Yin is considered the female force and yang is considered the male force.

These represent opposite poles of the same object.

In many martial art systems the circle is employed in their symbols. The yin-yang symbol is incorporated in most of these.

The dark represents (Fig. 4) the yang and the light represents the yin. Each has a small circle of the other within to show the need of one with the other or opposite.

"One is admonished not to have a mind which is narrow or myopic. Rather one should have a mind which is emblematic of the circle - to allow for a variation of possibilities and alternatives."10

This is present in the philosophical foundations underlining the martial arts.

"Herein lies a major East-West difference in philosophical attitudes. The westerner, a la Shakespeare's Hamlet, would say, 'To be or not to be? That is the question.'

The taoist sage, on the other hand, would say, 'To be and not to be. That is the answer!'"11

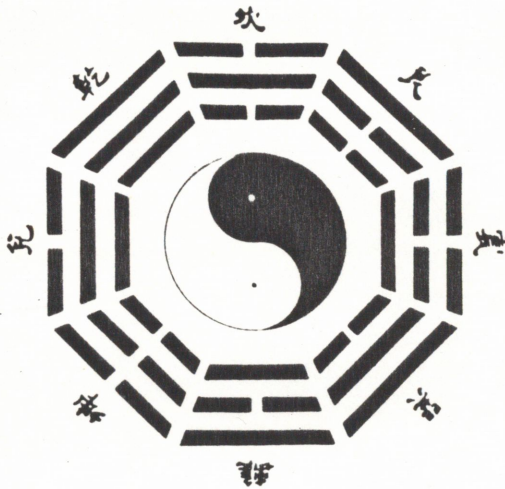
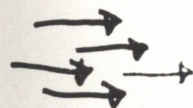
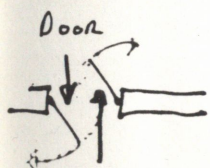


FIG. 4

Non-Action



Non-Grasping



YIELDING TO
FORCE



ADAPTING FORCE
TO A PURPOSE

Tao Te Ching, a Taoist classic, lays the groundwork for the lifeline of the Chinese martial arts by the use of the action in weakness of the Tao.

"The most submissive thing in the world can (overcome) the hardest in the world - that which is without substance entering that which has no crevices.

That is why I know the benefit of resorting to no action. The teaching that uses no words, the deed that consists in no action, these are beyond the understanding of all but a very few in the world."¹²

Another passage from Lao Tzu's Tao Te Ching illustrates the point of 'no action' (wu wei) further;

"In the world there is nothing more submissive and weak than water. Yet for attacking that which is hard and strong nothing can surpass it. This is because there is nothing that can take its place."¹³

On the surface 'no action' means 'not to do anything' or 'to remain totally inactive'. To most people this might seem to be a ridiculous concept of inconsequential idleness. 'No action' does not mean idleness, apathy or indifference to the Taoist.

It rather implies the unresisting attitude that he adopts as he abides and communes with nature.

"The way never acts yet nothing is left undone."¹⁴

The passive principle of 'no action' or nonaction means spontaneous responsiveness to nature.

In the martial arts, a person trains for years seeking to attain this spontaneous responsiveness in order to react in accord with nature. Any oncoming danger could be neutralized by an intuitive or natural response from the fully developed protective visceral reflex.

With the Taoist view, one would never overcompensate.

To blend, advert, avoid or neutralize opposition is to follow the natural path. One only uses what is necessary to balance an opposite, not to conquer or overcome.

Chuang Tzu, Lao Tzu's successor, wrote that nonaction meant a totally unassumed, unstrained doing.

It is the perfect action of doing nothing that is forced or unnatural.

The application of this nonaction takes a number of forms in the martial arts. Different styles

use nonaction in different ways. One might let the attacker wear himself out before taking action or will use the attacker's force in other ways like to throw or unbalance the attacker.

Ch'an Buddhism in the Martial Arts

"'Bring me', he said to his son, 'a fruit from a banyan tree.'

'Here is one, sir.'

'Break it.'

'It is broken, master.'

'What do you see there?'

'Some seeds, exceeding small.'

'Break one of these.'

'It is broken, master.'

'What do you see there?'

'Nothing at all.'

The father told his son, 'My son, that subtle essence which you do not see there - in that essence stands the being of the great banyan tree. In that which is the subtle self, all that exists has its essence. That is the true, that is the self.'"¹⁵

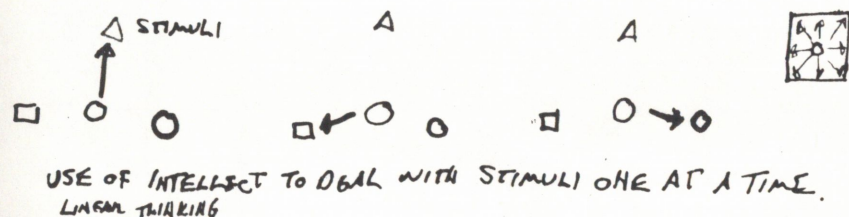
Taoist philosophers believed that all things have non-being as their origin, while the Buddhists asserted that all things are naturally void. For the Buddhists, emptiness represented the highest truth.

In Buddhist thought, also called zen in Japan, sufferings are produced from an individual's fundamental ignorance of the nature of things and objects.

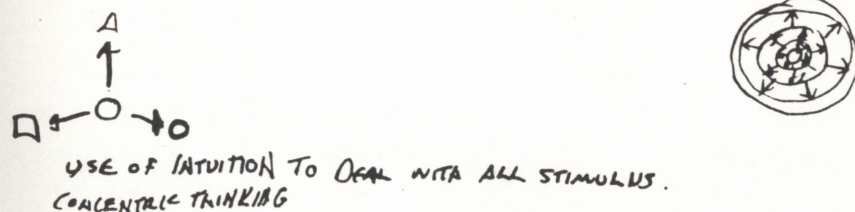
This ignorance bounds a person to the wheel of birth and death, and signifies the craving and clinging to life and hence the absence of enlightenment. The only hope for escaping the cycle of birth and death is to replace ignorance with enlightenment.

During this process the individual must collect karma in order to ascend this continuous cycle of birth and death. Karma means deeds or actions, but it does not necessarily mean an overt action,

MINDNESS



NO MINDNESS



but includes what a sentient being speaks and thinks.

Whenever an individual acts, speaks or thinks, the on-going process in the mind will produce results in the future. Thus, it is believed that an individual is made of causes and effects.

"Karma is the cause, and it's retribution is the effect."¹⁶

Karma frees oneself from the tendency to crave and adhere to material objects. Once this karma is accomplished with the attainment of enlightenment, the individual reaches a state of nirvana. Nirvana is the original identification of the individual with the universal mind, called the Buddha Nature.

The object of Ch'an Buddhism was to wipe out the impurities in the mind, which would allow the perception of self-nature. Ch'an, in its essence, involved the process of searching into the nature of one's own being for freedom and enlightenment.

The influence of Ch'an Buddhism upon the fighting spirit of martial classes is best reflected by Taoist priests, Shao-lin monks, Chinese soldiers, and samurai of Japan. The moral and physical training of Japanese samurai swordsmen have long been considered the ultimate in discipline. This discipline should never be misunderstood as being a matter of mere physical techniques and physical conditioning.

At some point in training all techniques should be forgotten, and the body and limbs should be allowed to function freely without the intervention of conscious deliberations, ie., thoughts, feelings, desires or calculations.

The cultivation of this mental faculty represents an essential part of mastering the martial arts.

This is called the state of 'no-mindness', which assimilates an instinctive awareness and ability to achieve instantaneous and spontaneous mobility.

"Ch'an teachings stress this cultivation, and their Ch'an tendencies complement the fighting spirit."¹⁷

Ch'an appeals to this spirit morally and somewhat philosophically and stresses intuition rather than intellection. Ch'an Buddhism teaches that intuition is a more direct route to the enlightened truth.

Some Ideals and Philosophies of Oriental Architecture

Non-being or Active Negativism

This principle states that every individual 'thing' has its insufficiency, negative and intangible content. This intangible content or non-being in material things is not itself material, but yet is still regarded as something real.

In the book, Dao of Architecture, Chang describes this as "the formless form or intangible phenomenon."¹⁸

Without this intangible content, the potential of growing is exhausted once the point of tangible fulfillment is reached. By a thing's intangibility there is an unending possibility of change for further potential in growth.

"Moulding clay into a vessel, we find the utility in its hollowness; cutting doors and windows for a house, we find the utility in its empty space.

Therefore the being of things is profitable, the non-being of things is serviceable."¹⁹

This relates the importance of not just solid and void, but the combination of the two.

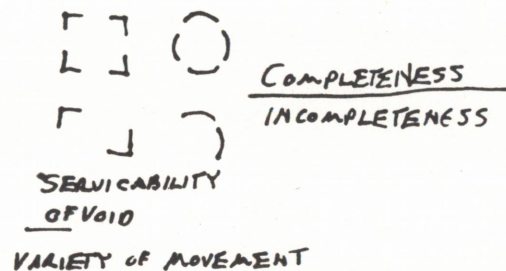
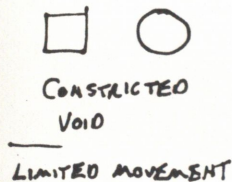
Dualism

In Dualism there are exact opposites; solid/void, light/dark, hot/cold, etc.. These opposites always have a natural balance. There cannot be one without the other. Here, the balance of these opposites is the important factor.

This balance, in architecture, is carried through by the thought that man is a part of nature.

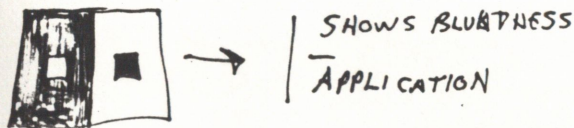
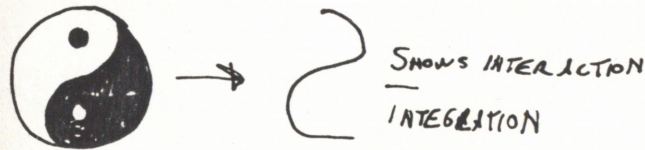
"With a natural pleasure at the idea of being alive, a kind of gratitude tempered with elements of stoicism, the Japanese fitted themselves into the geologic faults, around the mountains and along the streams, considering themselves an intrinsic part of the total environment."²⁰

THE BEING OF A THING IS PROFITABLE,
THE NON-BEING OF THINGS IS SERVICEABLE.

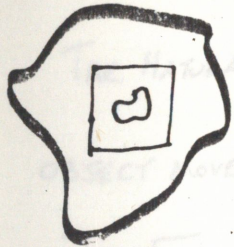


DUALISM

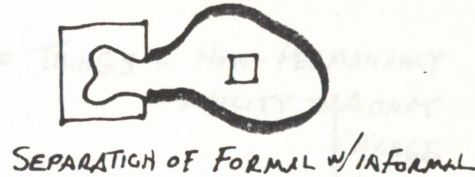
YIN-YANG



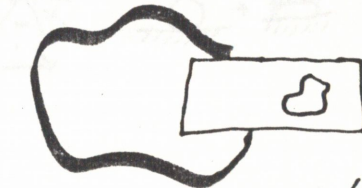
BALANCE OF FORMAL TO INFORMAL



CONTAINMENT



SEPARATION OF FORMAL w/ INFORMAL

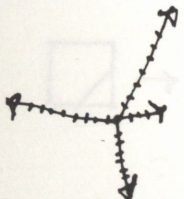


SEPARATION OF INFORMAL w/ FORMAL

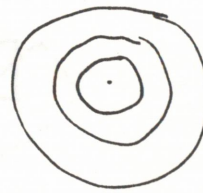
MERGING OF INDOOR/OUTDOOR

HARMONY OF BLDG. AND IT'S SURROUNDINGS.

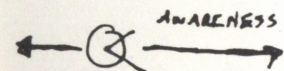
QUALITY OF DEPTH



WESTERN VIEW

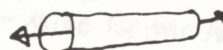


EASTERN VIEW

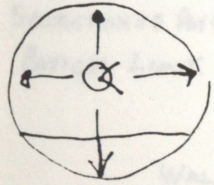


THINKING IN 2-D

LINEAR
SECULAR



CAUSE → EFFECT



THINKING IN 3-D

CONCENTRIC
TO TAL



EFFECTS

Through this comes the balancing of the formality of the building with the informality of nature, the merging of indoor living with outdoor living.

This does not just consider the balance and combination of these, but the harmony of a building and it's surroundings as well. This stresses conformity with nature. Meaning to take advantage of a site's natural features and conditions.

This love for nature is also expressed in buildings in the form of a garden, the oriental symbol of nature's landscape. These gardens are made up of parts of nature by the use of water, shrubs, trees, flowers, rocks, etc..

"The chief aim of a Chinese garden designer has been to heighten and intensify the effects of nature."²¹

In this, the designer provides pieces of natural landscape as a combination of miniture scenes.

At one point a rock is a mountain, while below it a pond becomes a lake or ocean.

Water running over a rock becomes a waterfall and so on. There is no specific pattern or amount of details required. It comes from inside the designer as to the what's and where's in the garden. It is thought that the intuitive sense of decision is the natural way.

"The garden is developed to be lived in. They tend toward the individual treatment of each flower rather than the massing of them and always there is a building of some kind which connects man with the scheme of nature."²²

In the garden there is always a form of man's existence in nature, such as a bridge, pagoda, pathway or as an actual building. There may be only one of these or a combination of many.

Quality of Depth

This is not so much philosophical as it is cultural. The quality of depth is viewed differently in

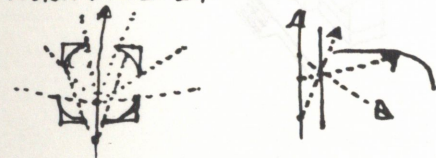
THE NATURAL CHANGE OF THINGS - NON-PERMANENCY

ABILITY TO ADAPT
CHANGE
VALU

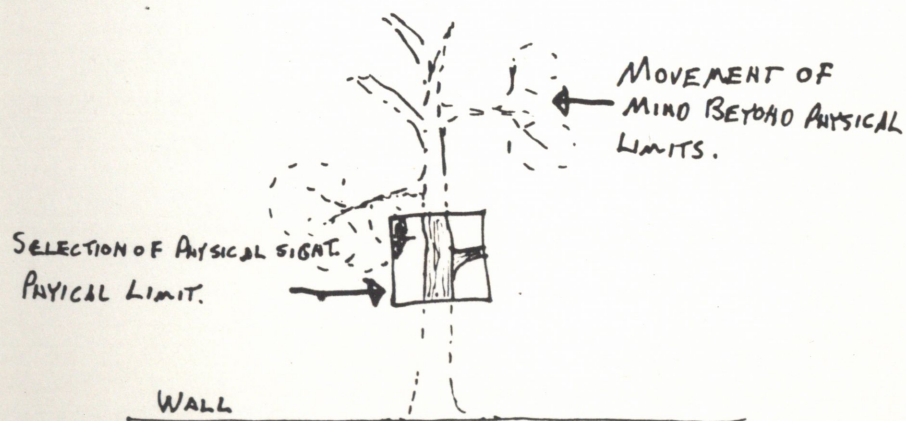
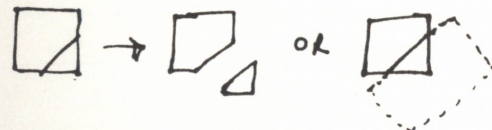
OBJECT MOVEMENT



VISION MOVEMENT



PERCEPTION



the East.

"Oriental ways of seeing, or representing what one sees as a matter of how one feels about things, are very different from those of the West. The quality of depth in the East is perceived by concentric rather than linear means, by patterns, vistas, or groups of vistas, horizontally or vertically extended or behind each other, rather than by direct means of linear perspective."²³

Each relates to three-dimensional space, but in different ways. The East views this space in a spheric quality to take in the whole picture.

The West usually considers the quality of depth as points along a line or a specific view, but does not usually go beyond the perceived depth.

In the East, reality is to be apprehended by a process which does not extend logic but which deepens emotion.

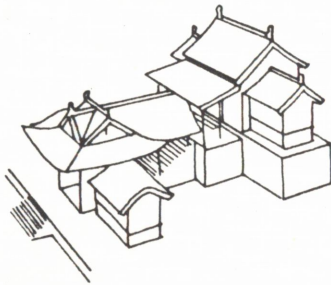
The Natural Change of Things

This is mainly perceived as the movement of nature. Whether it is the movement of tangible phenomenon such as objects, position, or quantity, or of intangible phenomenon such as thought, perception, or ideas, all carry a potential of change. The idea is not to contain these phenomenon, but to enhance the movement or change of them.

Example Studies

Using architectural examples, I wish to show how the philosophies may be expressed in built form.

The examples are not necessarily direct design intentions, but examples of how one might look at the philosophies.



Example Studies

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The examples are not necessarily direct design intentions, but examples of how one might look at the philosophies.

Dualism

Figure 16 shows the dualism between a built environment and the natural environment. Here it is shown the balance of the formal with the informal.

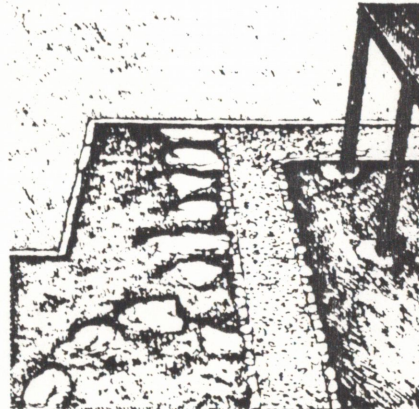
The building is placed at the center of the clearing so it will have an equal balance around it. Both are in a strategic location in relation to one another. One is not lesser than the other.

Figure 17 shows a more subtle approach incorporating a series of balances interacting with one another.

In the Acropolis (Fig. 18) there is a less apparent dualism, that between Heaven and Earth. The temples are the balance point, again at a strategic locale between the physical life and the spiritual life.

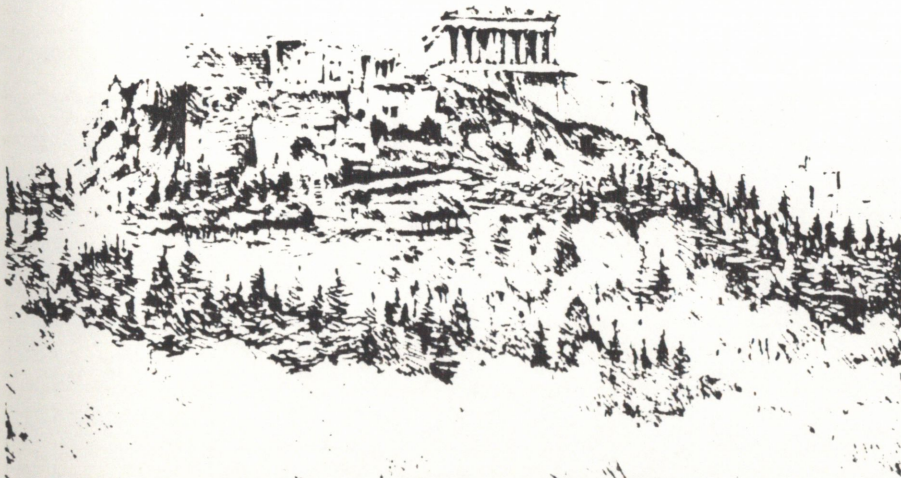


FIG. 16



BUILDING-TO-SITE TRANSITION: IMPERIAL VILLA, KATSURU

FIG. 17



THE ACROPOUS, ATHENS

FIG. 18

Quality of Depth

The series of elements blocking the sight and directing views in figure 19 adds to the awareness of depth by not just standing alone as a point, but relating to the surrounding area by the use of courtyards, walls, entrances and other elements as extensions of depth.

Figure 20 shows this type of depth within the building itself. From the center the awareness of depth reaches out to infinity. There is a subtle suggestion of including the sky above by the intersection of the roof plane with a cylindrical element.



FIG. 19

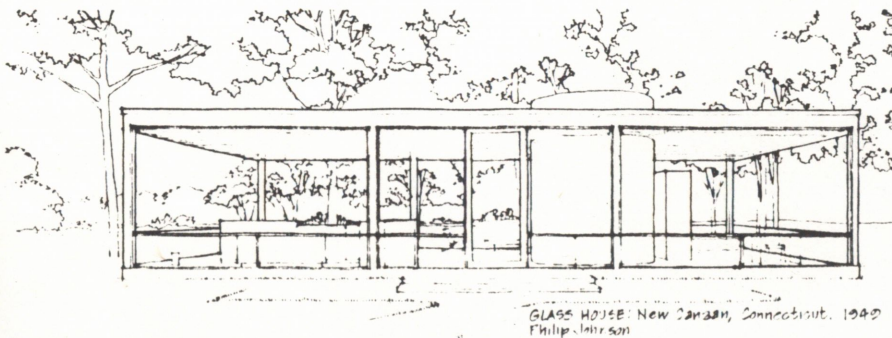


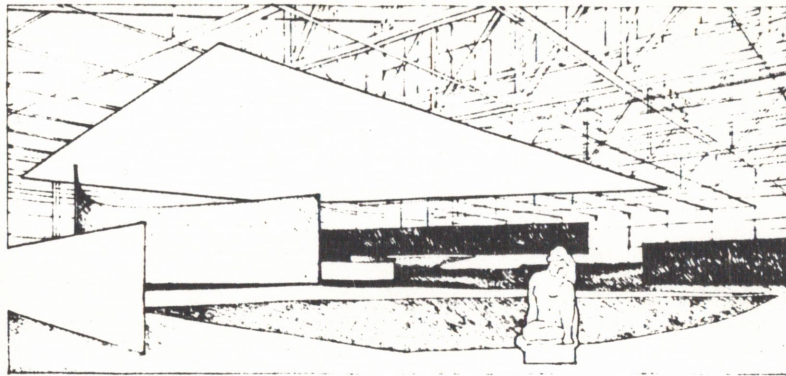
FIG. 20

Quality of Depth (cont.)

This example (Fig. 21) shows more of a spherical depth through the placement of the building. The building uses nature as it's extensions of depth.

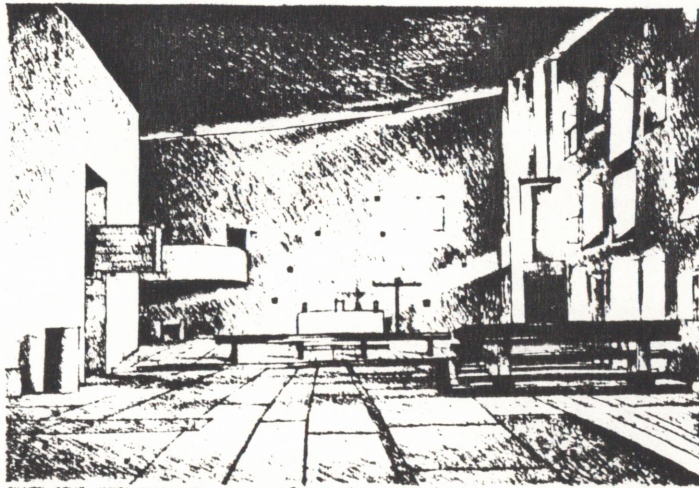


FIG. 21



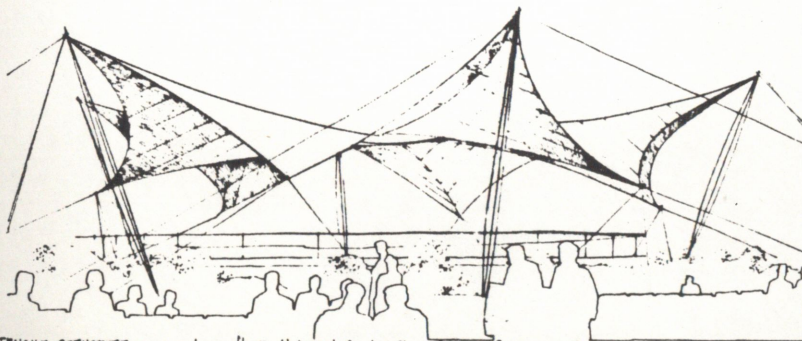
CONCERT HALL: Project, 1942 Mies van der Rohe

FIG. 22



CHAPEL SPACE: NOTRE-DAME-DU-HAUT, Ronchamp, France. 1950-55. Le Corbusier.

FIG. 23



TENSILE STRUCTURE over a dance floor: National Garden Show, Cologne, Germany. 1957

FIG. 24

No-mindness

These examples show the intuitive nature of design going beyond requirements and intellect to provide a total space. The needs are all dealt with by the inner self's feelings.

Non-being

Figures 25 and 26 show a direct sense of non-being. It is not just the void among the solid, but also the utilization and intent of the void.

The reaching upward void of a pavilion or the reaching outward of the emperor's seat.

Yet the solid is inclusive to this idea as shown in figure 27. Here there is a different perspective of what the building is.

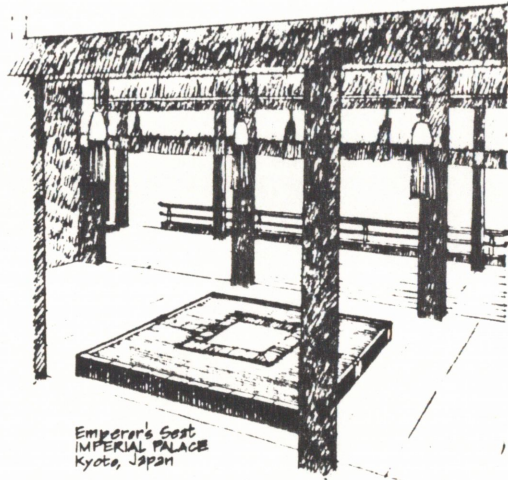


FIG. 25

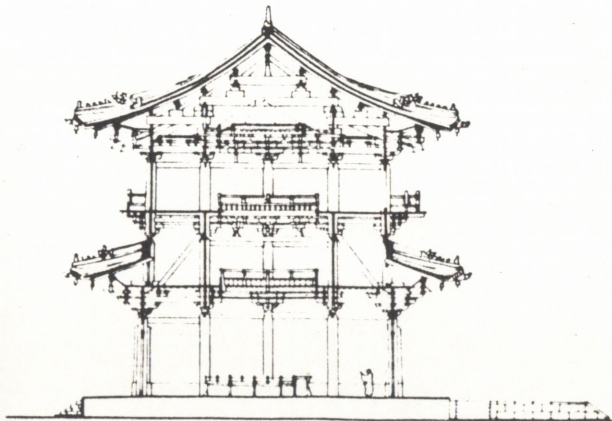


FIG. 26



FIG. 27

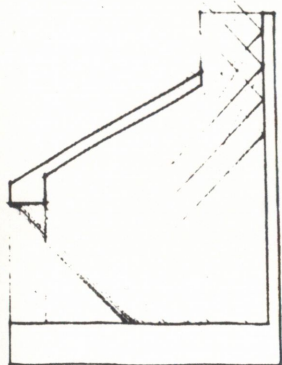


FIG. 28

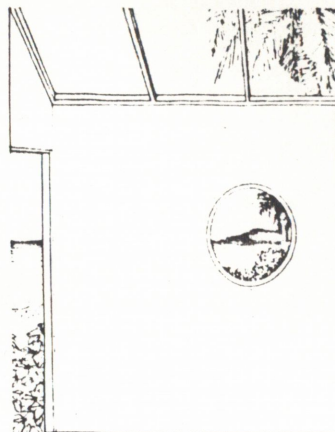
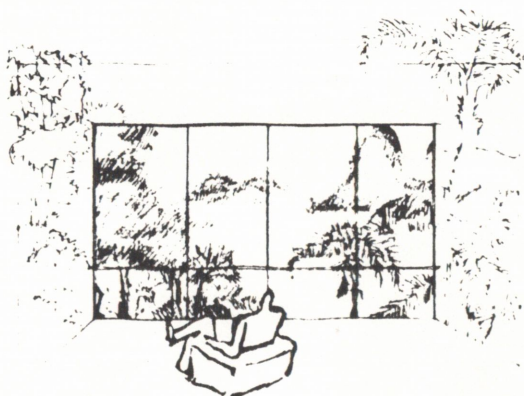


FIG. 29

The Natural Change of Things

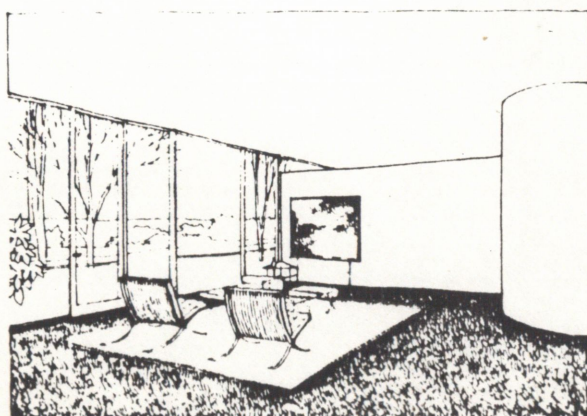
Figure 28 shows how a static form can produce change in the way of light. This can be carried over into sound, smell and touch, all of which are able to change the perception of a form through the movement of each sense.

Figures 29, 30 and 31 show the movement the mind is able to make by itself. The mind moves beyond the physical stimulus to incorporate it's own idea of what the senses would or should perceive. Given cues, the mind gives different perceptions for each individual and for each state of emotion. These perceptions may again change due to experience.



VISTA: Based on a sketch by Le Corbusier for the design of the Ministry of National Education and Public Health in Rio de Janeiro 1936

FIG. 30



INTERIOR: GLASS HOUSE, New Canaan, Connecticut. 1946. Philip Johnson

FIG. 31

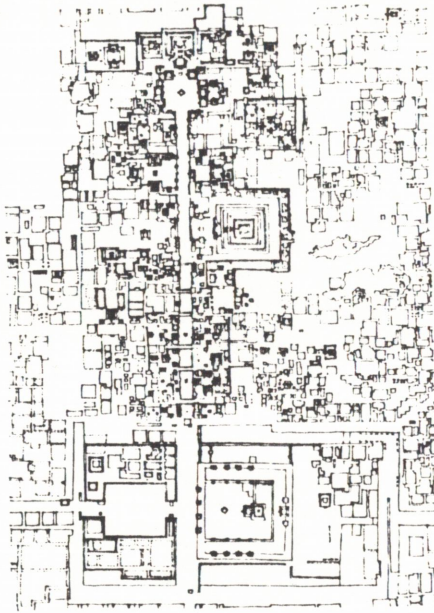
Nonaction

The direct, unopposing void of the throughway in figure 32 is a simple example of nonaction.

It does not resist against the flow going toward the center point or destination of the action.

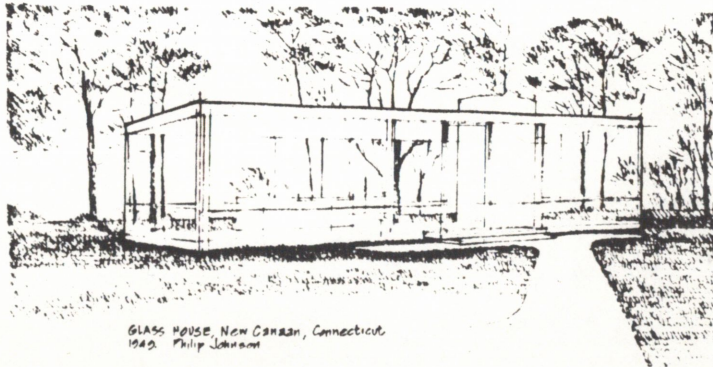
It 'goes with the flow', so to speak.

Figures 33 and 34 show the nonaction towards an action's flow toward a view or goal.



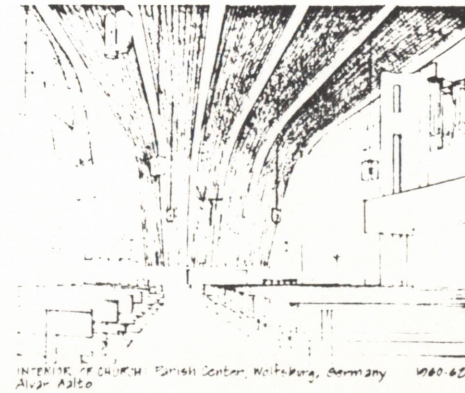
TEOTIHUACÁN Pre-Columbian city in Central America.

FIG. 32



GLASS HOUSE, New Canaan, Connecticut
1949 Philip Johnson

FIG. 33

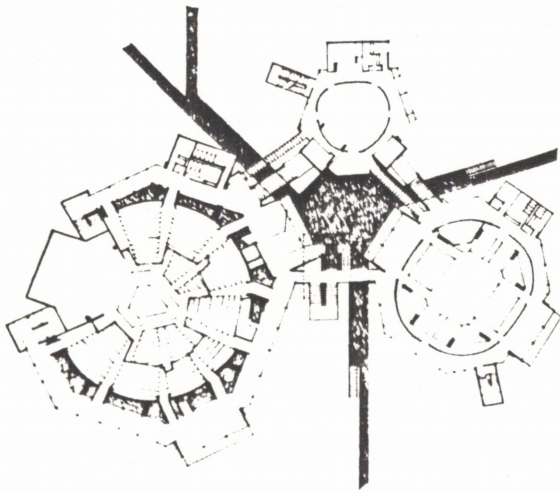


INTERIOR OF CHURCH Parish Center, Wolfsburg, Germany 1960-65
Alvaró Siza

FIG. 34

Nonaction (cont.)

Nonaction does not necessarily mean a straight path. In figure 35 and 36 the action is not opposed, but guided to a destination. The force is used to achieve continuity or a goal.

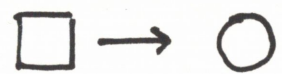


NEW MUMMIES THEATRE: Oklahoma City, Oklahoma 1970
John M. Johansen

FIG. 35



FIG. 36



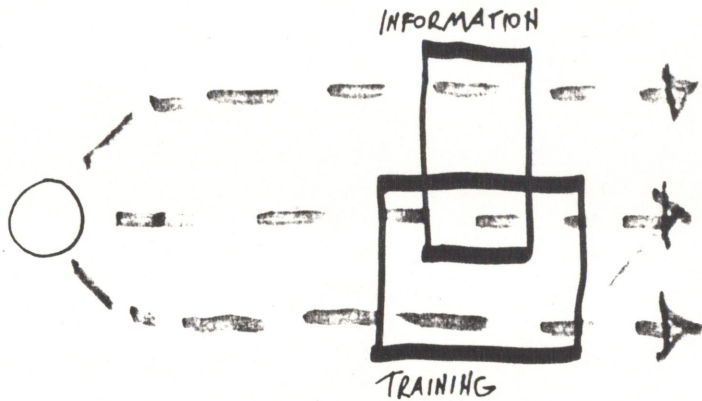
Goals

Listed here are some of the major goals I perceived as important to the design. Other goals and such are listed under Programatics in the appendix.

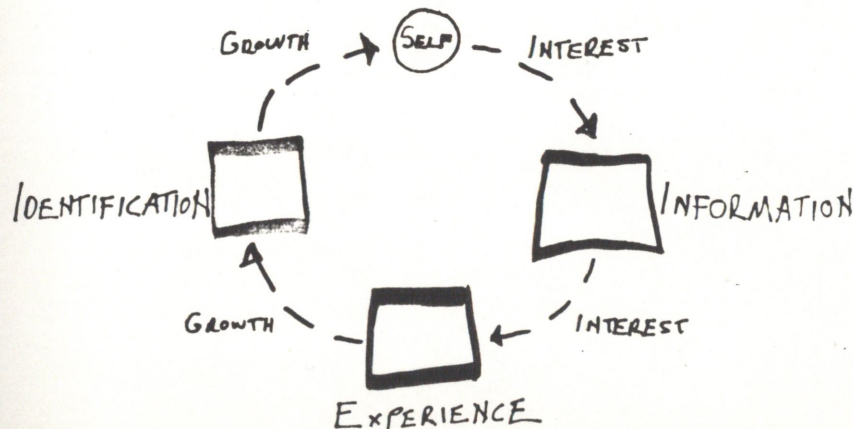
First of all is the provision of a place to find information on all aspects of the martial arts, as well as the provision of a place to observe and/or participate in a martial art.

As an individual gains interest in finding out about the martial arts, the facility would be able to provide information necessary to promote further interest in the experience of the martial arts.

Both the experience (observing, participating) and the building should provide a growing identification with the arts. Hopefully this would lead to growth within the individual and to add to the interests of the person, thus providing a continual progression in the understanding of the martial arts.



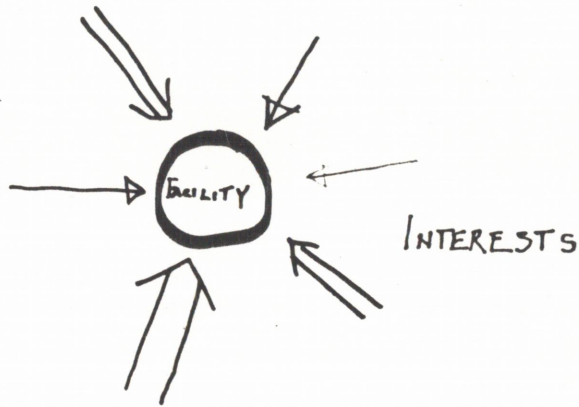
PROVIDE INFORMATION AND TRAINING.



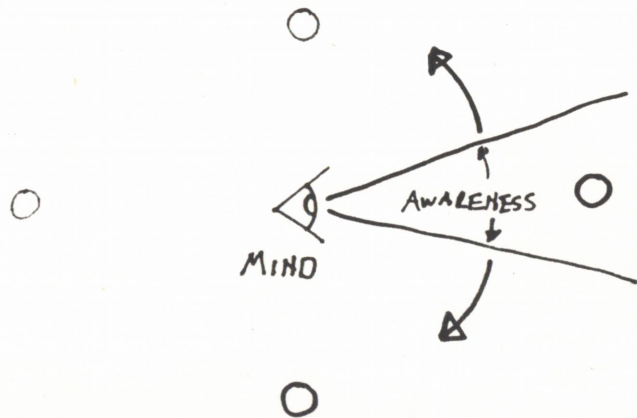
PROVIDE INTEREST AND GROWTH IN EDUCATION, EXPERIENCE AND IDENTIFICATION WITH THE MARTIAL ARTS, AND WITHIN THE SELF.

Since there are a variety of martial arts, the center would be able to accomodate any martial art that has enough interest to facilitate it being incorporated into the programs of the center.

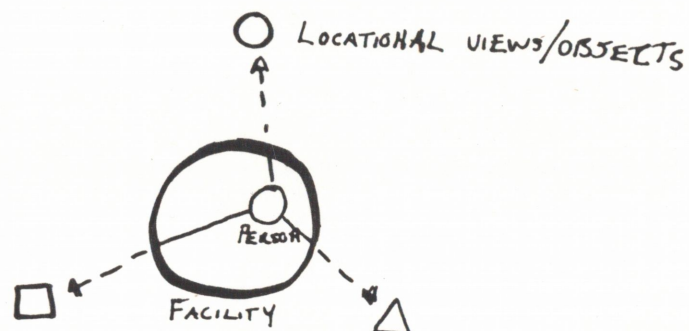
The building would provide a number of spatial experiences to open the mind to what is going on around them. Thus increasing their awareness of all things in more of a concentric way.



PROVIDE A NUMBER OF PROGRAMS FOR VARYING INTERESTS.



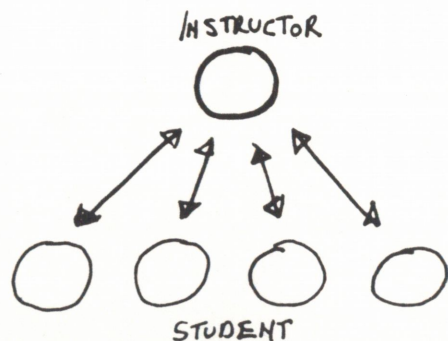
OPEN THE MIND AND INCREASE AWARENESS.



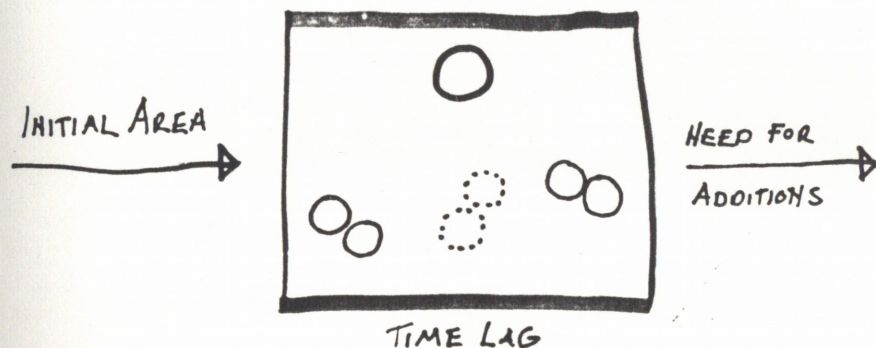
In this idea of enhancing awareness, the building should relate to the surrounding area and site as to provide a sense of location of the building. This might be done in the way of views, extensions and the actual placement on the site.

A good relationship between the instructor and student is a necessity in the learning of a martial art. The design of the areas of teaching need to enhance this aspect.

PROVIDE AWARENESS OF LOCATION: INSIDE ↔ OUTSIDE.



PROMOTE A GOOD RELATIONSHIP BETWEEN STUDENT AND INSTRUCTOR.

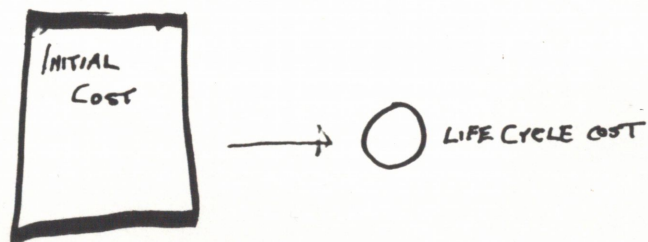


PROVIDE ROOM FOR IMMEDIATE EXPANSION/GROWTH BEFORE ADDITIONS ARE FEASIBLE.

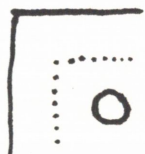
At first, the number of students would probably be small, but as the center is discovered and used by others it should provide additional area for growth.

This mostly will be taken care of in the scheduling of the areas, but also should include some sort of projection as to a maximum number of students to which the facility can still function properly before another facility is needed. It is intended that further growth, after the center's capacity is filled, would be in the way of satellite facilities in surrounding areas where the need for such has been determined. This would provide a close-proximity to a facility for a specific area's growing interest in the martial arts.

The design would provide a low life-cycle cost, in the way of durable materials, natural lighting, etc., in order to receive a maximum income for future projects and such to further enhance the spirit of the martial arts.

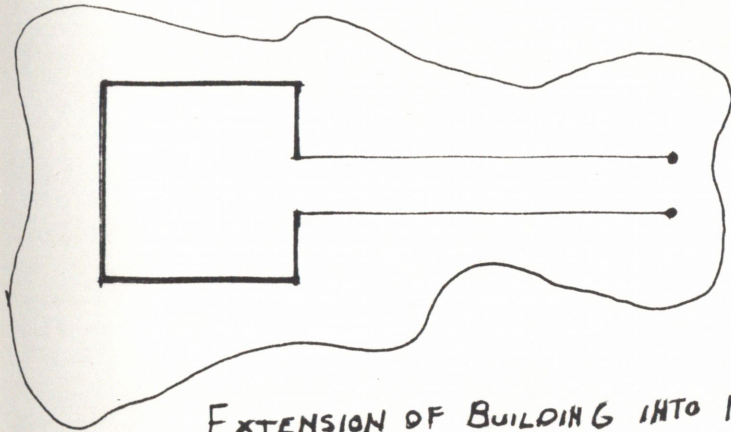


PROVIDE A LOW LIFE CYCLE COST FOR MAXIMUM INCOME.

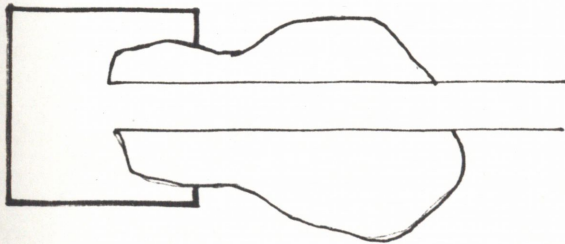


The Areas

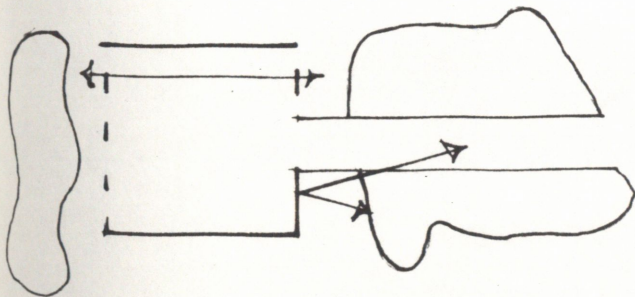
The following are descriptions of the individual areas and the requirements of each. Included are a few sketches and comments on the philosophies of most of the areas.



EXTENSION OF BUILDING INTO NATURE



EXTENSION OF NATURE INTO BUILDING



TRANSPARENCY OF BLDG. TO INCLUDE
NATURE, AND REFLECTION

Area Characteristics

Area: Entry

Function: Access and egress to and from the building and waiting area for the general offices.

Capacity:

Environmental Needs: Lighting should be 20 foot-candles
Two sets of doors for better climate control.

Equipment: Magazine racks, couches and chairs, tables.

Circulation: Adequate room for constant flow of traffic both ways.

Security: Locked after hours.

Mood: Anticipation of entering; excitement.

Character: Main entry. Importance.

Quality of Space: High. Promote interest.

Proportion: Somewhat elongated.

Volume: Varying.

Area Requirements:

Related Areas: Offices, common area and cafe.

Materials: Wood, glass.

Area Characteristics

Area: Common area.

Function: Center focus of building. Circulation and buffer between areas. Leisure area and intermission for exhibitions.

Capacity: 500

Environmental Needs: A maximum of natural lighting and 20 footcandles of artificial light. Adjustable ventilation.

Equipment:

Circulation: Simple, direct and indirect path with adequate room for leisure and a large flow of traffic.

Security:

Mood: Social.

Character: Natural and built form. Inspiring.

Quality of Space: High. Garden design and intuitive space.

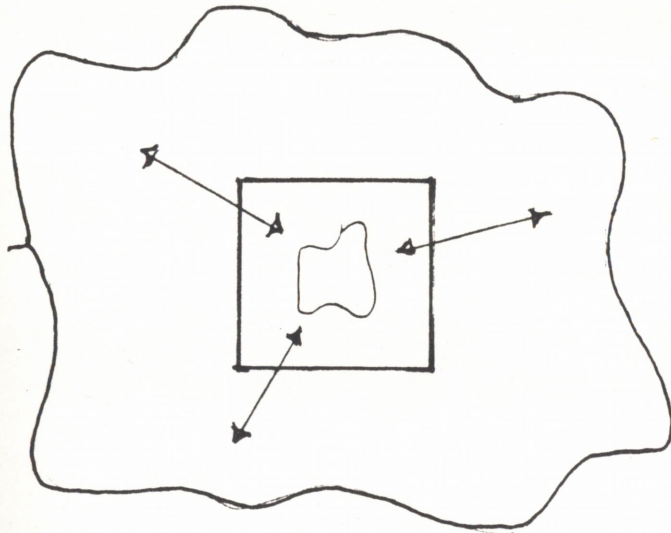
Proportion: Even.

Volume: Fairly large.

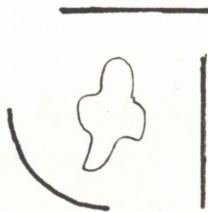
Area Requirements: 10,000 sq.ft.

Related Areas: All

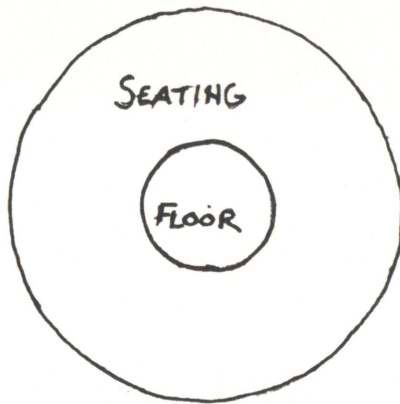
Materials: High mix.



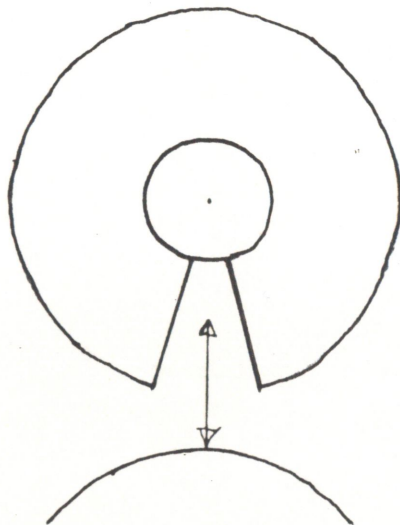
RELATION WITH OUTSIDE NATURE



NO MINDNESS ENCLOSURE



EQUIDISTANT FORCE - BALANCE



DIRECT CONNECTION WITH COMMON AREA.

Area Characteristics

Area: Exhibition

Function: Exhibit performances, contests, demonstrations, etc., of the martial arts.

Capacity: 1500

Environmental Needs: Natural lighting and 30 foot-candles of artificial light for seating and variable (50-70 foot-candles) light for the main floor. Heavy ventilation.

Equipment:

Circulation: Simple path to and from seating and adequate area for movement between rows.

Security:

Mood: Excitement and inspiration.

Character: Dramatic

Quality of Space: Simple

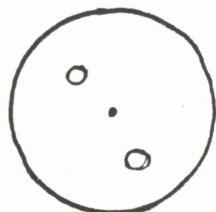
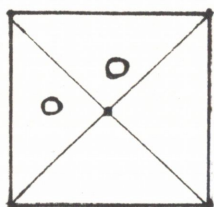
Proportion: Even

Volume: Large

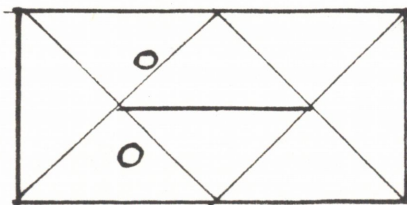
Area Requirements: 25,000-30 sq.ft.

Related Areas: Common, dressing, service.

Materials: Wood, canvas, conc., some metals.



CENTER POINT TOO STRONG.



FLEXIBILITY OF CENTER POINT.

Area Characteristics

Area: Practice areas

Function: Instruction of classes

Capacity: 25/general, 6/individual.

Environmental Needs: Containment of noise within the individual areas. Natural light and 50 foot-candles of artificial light. Heavy ventilation.

Equipment: Special training devices for some of the martial arts.

Circulation: Ample room among the areas for practice and waiting. Ample room inside for extreme physical activity.

Security: Locked when not in use.

Mood: Somewhat disciplined.

Character: Light and inspiring.

Quality of Space: Simple.

Proportion: 1:2

Volume: Comfortable

Area Requirements: 1750/gen., 875/individual.

Related Areas: Dressing, instructor offices, service.

Materials: Wood, glass block and canvas, conc.

Area Characteristics

Area: Library

Function: Availability of information and copying.

Capacity: 20-30

Environmental Needs: Noise buffer, diffused natural light, 50 foot-candles artificial light, and light ventilation.

Equipment: Stacks, chairs, microfilm equip., copying equip., card catalog, etc.

Circulation: Adequate room for 2-way traffic between stacks.

Security: Locked after hours, security system against theft.

Mood: Enlightening

Character: Simple and comfortable.

Quality of Space: Simple

Proportion: Vary

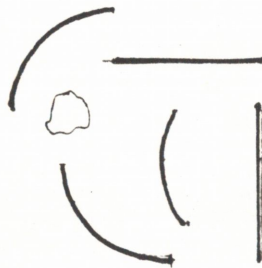
Volume: Vary

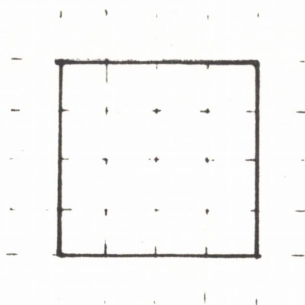
Area Requirements: 2,000 sq.ft.

Related Areas: Gen. offices and common.

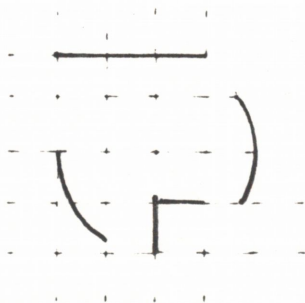
Materials: Wood, glass, plaster.

CONTINUAL MOVEMENT OF
PERCEPTION.





SENSE OF ORGANIZATION



ENJOYABLE ENVIRONMENT

Area Characteristics

Area: General offices

Function: Reception, coordination of activities, sale of tickets, information by mail request.

Capacity: Director and 6 secretaries.

Environmental Needs: Natural lighting and 30 foot-candles of artificial light.

Equipment: Computer system and general office equip.

Circulation: Adequate room for busy movement.

Security: Indirect access to director's office.

Mood: Cheerful and productive.

Character: Approachable yet important.

Quality of Space: Simple

Proportion: Even

Volume: Wide and low.

Area Requirements: 1,500 sq.ft.

Related Areas: Library, common, entry.

Materials: Wood, glass.

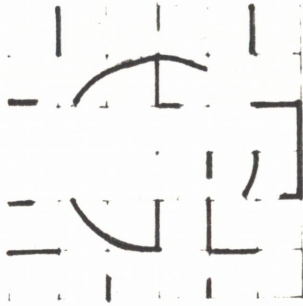
Area Characteristics

Area: Instructors offices

Function: Social and work area for instructors.

Capacity: 24

Environmental Needs: Noise buffer, natural light, 30 foot-candles of artificial light.



Equipment: Chairs and fixed desks.

Circulation: Central approach and peripheral among the desk areas.

Security: Locked after hours and visible from gen. offices.

Mood: Cheerful and relaxed.

DEFINE TERRITORY BY SUGGESTION

Character: Adaptable

Quality of Space: Simple

OPEN PLAN FOR INTERACTION

Proportion: Even

Volume: Vary

Area Requirements: 3,000 sq.ft.

Related Areas: Dressing, practice, common.

Materials: Wood, glass, plaster.

Area Characteristics

Area: Cafe

Function: Lunch and possibly other times.

Capacity: 40

Environmental Needs: Natural light, 20-30 foot-candles of artificial light, heavy ventilation and power, plumbing.



OPEN PLAN

INSIDE AND OUTSIDE VIEWS

OPEN TO COMMON AREA

Equipment: Medium commercial cooking.

Circulation: Adequate room for constant movement.

Security: Locked after hours and one entry next to cashier.

Mood: Social and relaxed.

Character: Soft

Quality of Space: Simple

Proportion: Even

Volume: Low

Area Requirements: 1,000-1,500 sq.ft.

Related Areas: Entry, common, service.

Materials: Wood, glass.

Area Characteristics

Area: Dressing rooms

Function: Changing and showering.

Capacity: 300 student area, 24-50 instructor and exhibition.

Environmental Needs: Heavy ventilation, 30 foot-candles of artificial light, plumbing, toilet facilities.

Equipment: Towel disposal, locker facilities, tack boards.

Circulation: Adequate room for movement among lockers and simple path through to practice areas.

Security: Person on duty.

Mood:

Character:

Quality of Space: Simple

Proportion: Elongated

Volume: low

Area Requirements: 3,000/student, 1,000/faculty.

Related Areas: Common, practice, exhibition.

Materials: Conc., wood.

Area Characteristics

Area: Services

Function: Laundry and maintenance.

Capacity: Equip. and storage, 10.

Environmental Needs: Heavy ventilation and power, plumbing, 30 foot-candles of artificial light.

Equipment: Laundry equip., general and special maintenance equip.

Circulation: Adequate working room for on foot.

Security: Locked

Mood:

Character:

Quality of Space: Simple

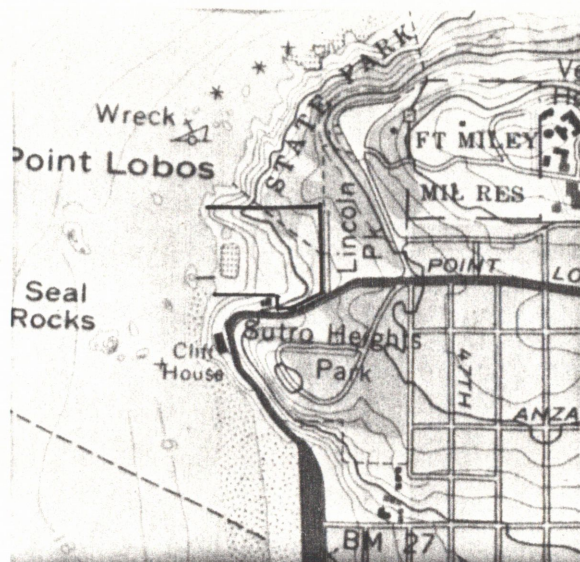
Proportion:

Volume:

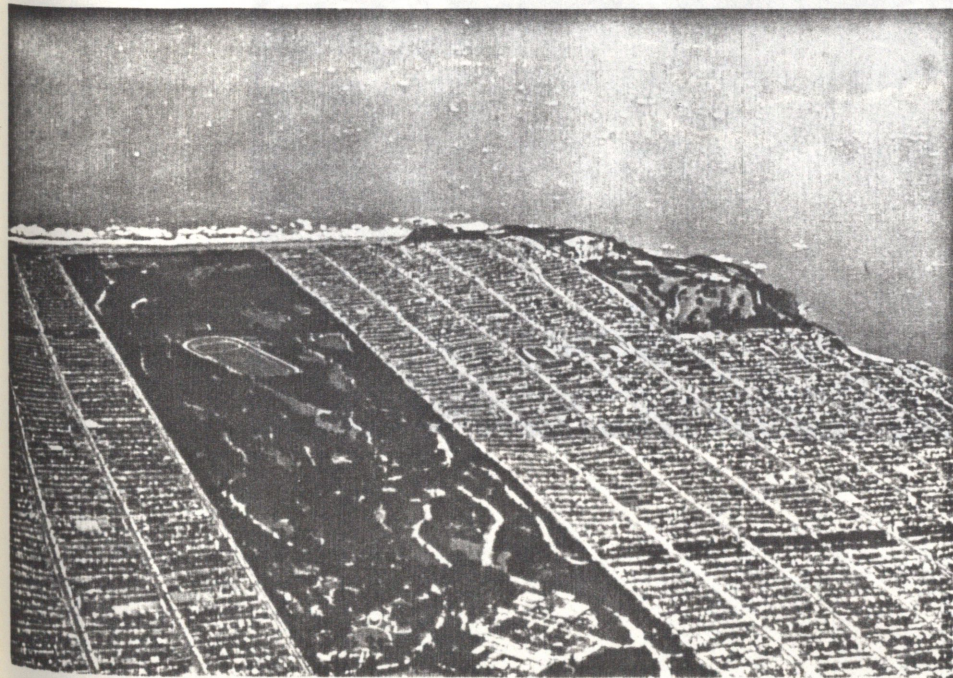
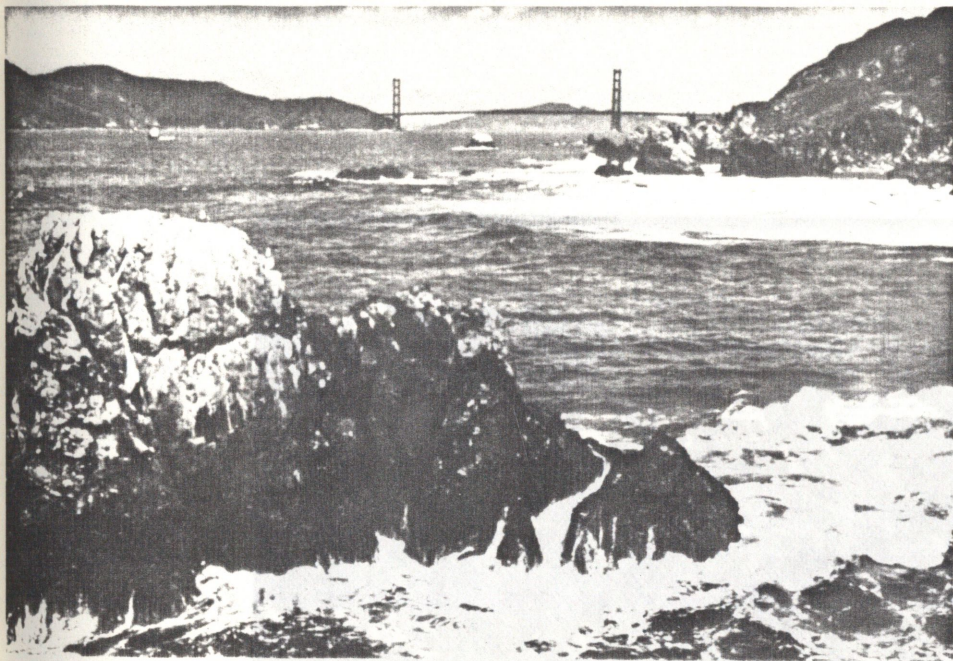
Area Requirements: 3,000 sq.ft.

Related Areas: All

Materials: Conc.



The Site



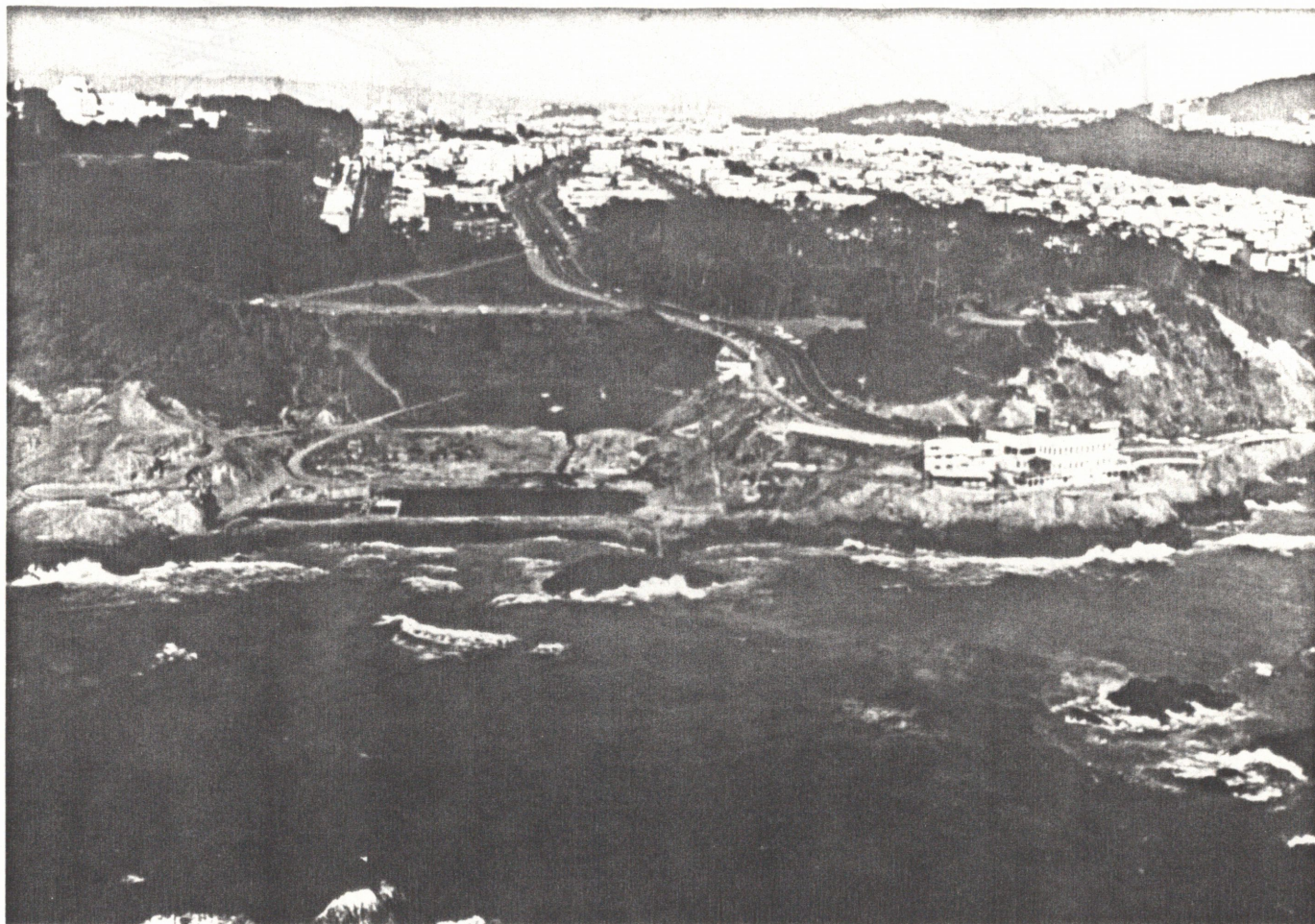
I chose San Francisco as my site because of the established concentration of martial arts already in the area. My intension would be for other countries to become involved with the center, therefore San Francisco is large enough ot substantiate the center as being international. It is also my intension that this would be the first in a series of many centers that would be located throughout different countries in major cities.

The area I chose in San Francisco is called Point Lobos. It is located next to Lincoln Park just off a main access to the downtown area. Situated on the coast line, the sight offers spectacular views all around. With parks on either side and the historic Cliff House, the sight nuzzles down in a small bowl where once used to sit the Sutro Baths. After this building was torn down, nothing was done with the site.

Most of the ground area is hard and rocky. There exists two drawing pools that were left over from the baths. The site was more or less dug up for this salt-water bath facility and left a mess. The site needs something done with it. I wish to enhance the site with my proposed building. I feel that this strategic location should be renewed with something that all can enjoy.

Located on the north-western tip of San Francisco, overlooking the Seal Rocks, the site could well stand out as a sort of beacon point for the south side of the entrance of the San Francisco Bay. The areas to each side are well preserved, but the site itself needs work to provide a continuity with the building.

The site has the dynamic and dramatic quality that I am looking for.



OBSERVATION



CLIFF

TREE LINE

50'

0°

25°

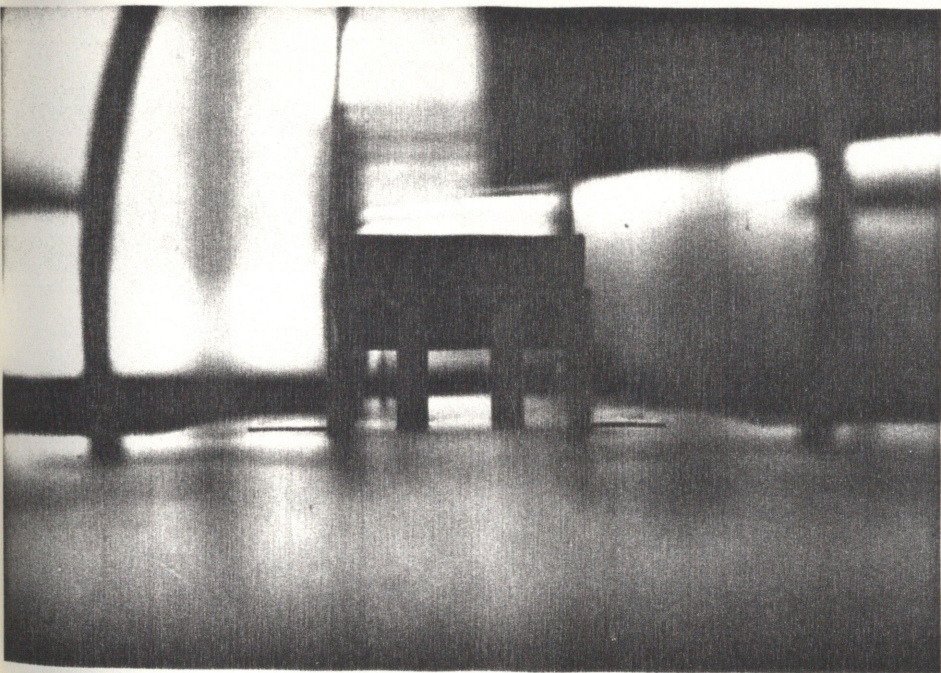
50°

75°

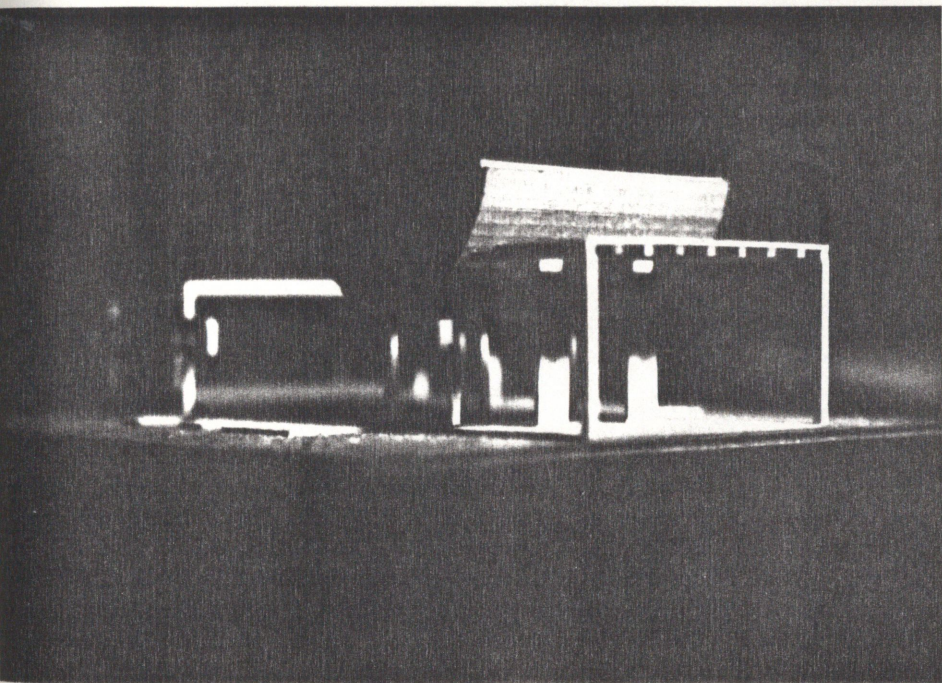
100°

125°

150°



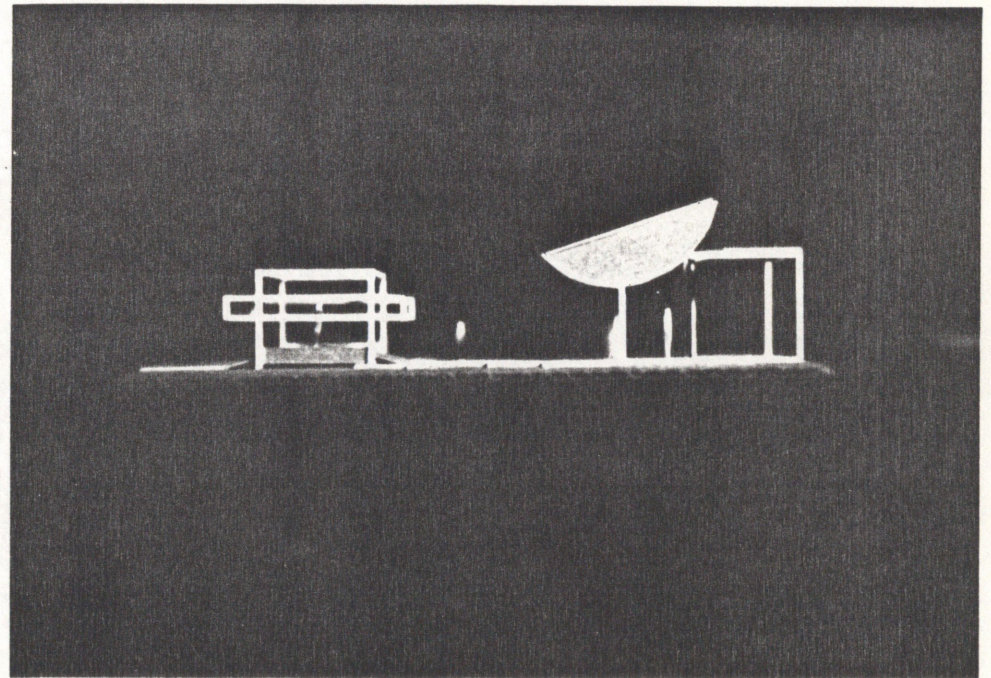
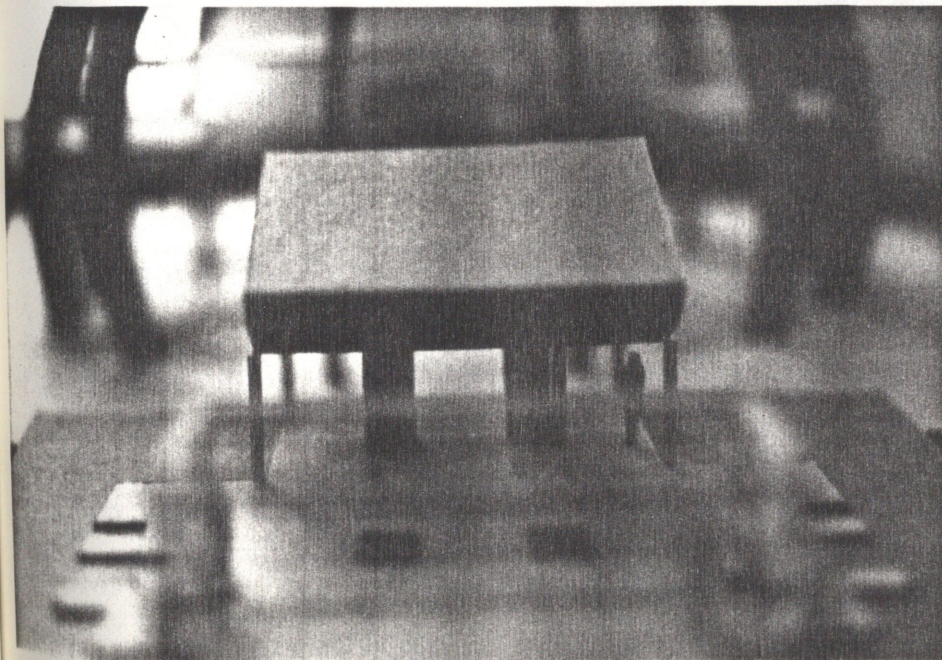
Studies

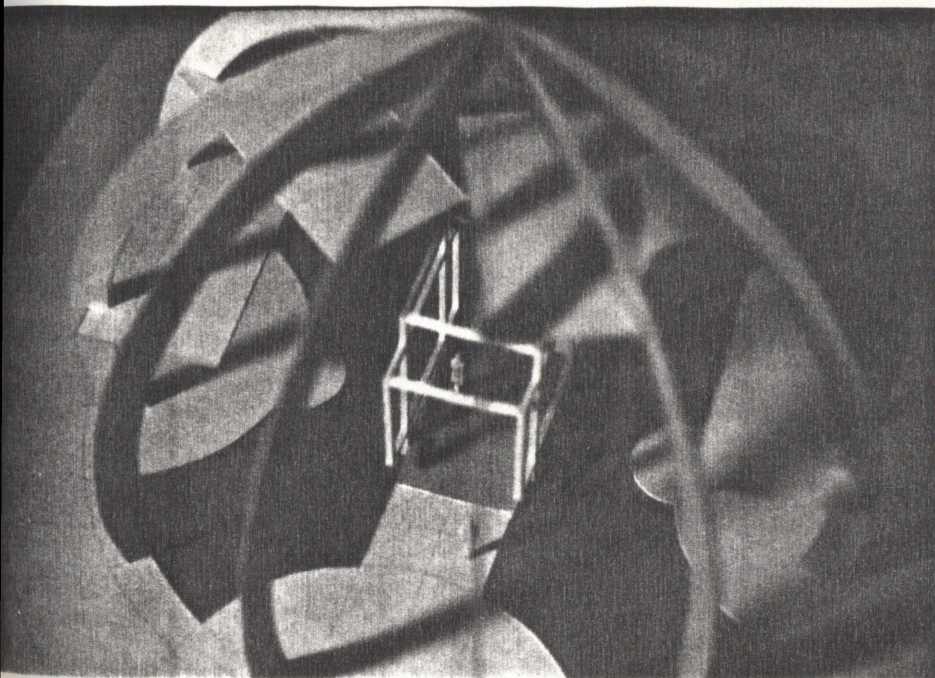


Here are some of the initial studies done and some of the ideas sketches leading to the design solution.

In the entry I was trying to establish a transition point that expressed and cross-over into a new realm.

This is mostly expressed in the footbridge preceeding the entrance. The entrance shape came from a desire to express movement, which is one of the goals in this project.

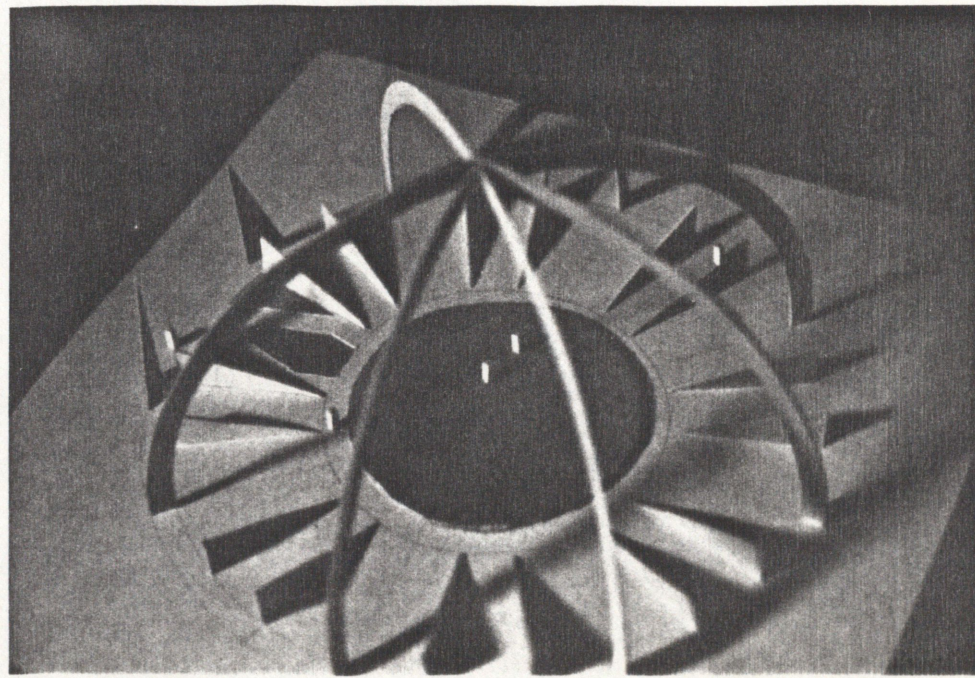
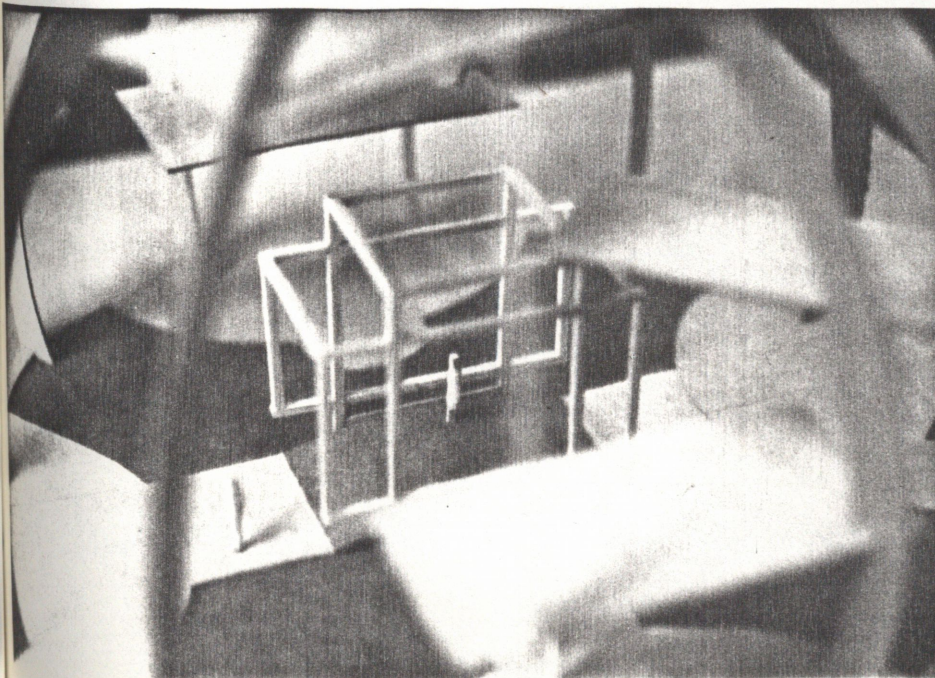




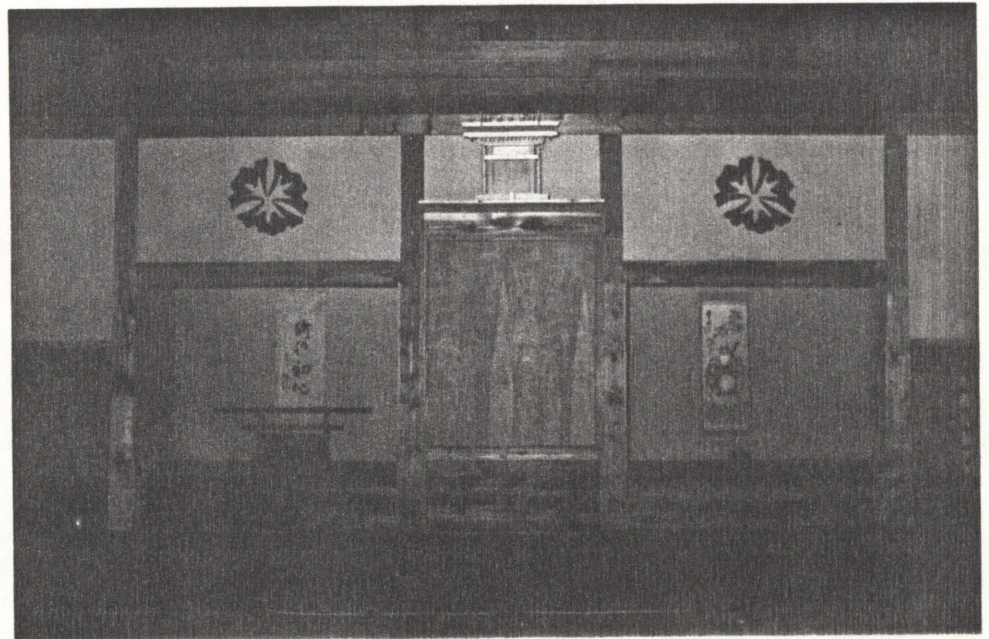
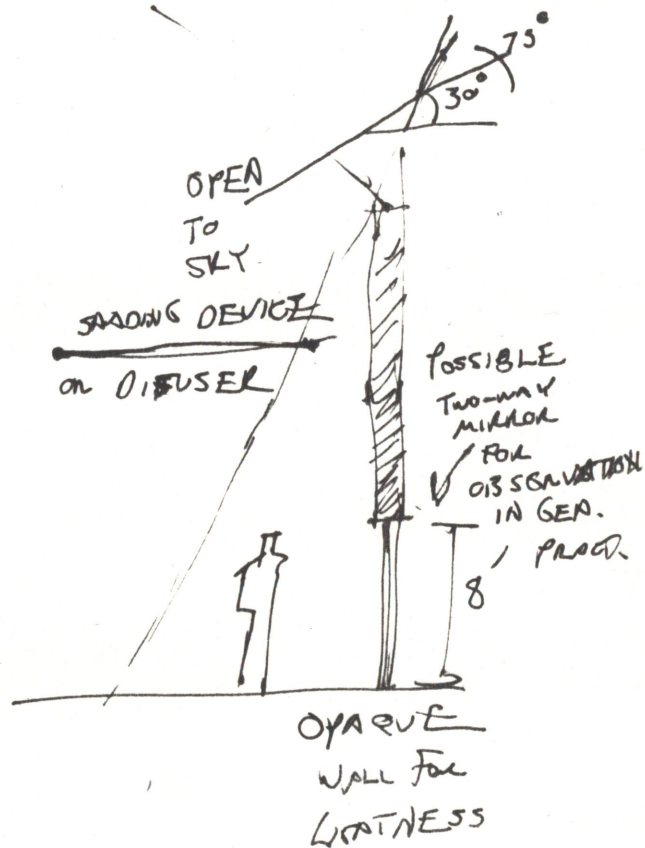
The common space came from the idea of concentric thinking. I wanted to capture a spheric quality by putting another 'cross-over' point at the middle.

The planes within the sphere represent a more chaotic order within the strong element relating to the no-mindness philosophy. The structure of the bridge enhances the directness of the center point of the sphere which represents the observer of the universe, man.

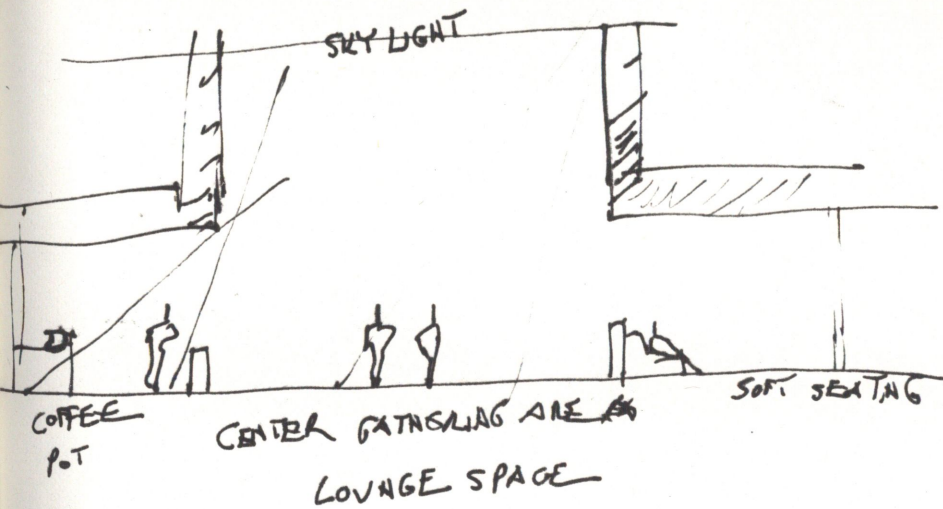
Again, in the exhibition area, the idea of the sphere was used to provide a direct focus upon the event. As the last major cross-over point, a definite sense of entrance was needed for this end point in the building.



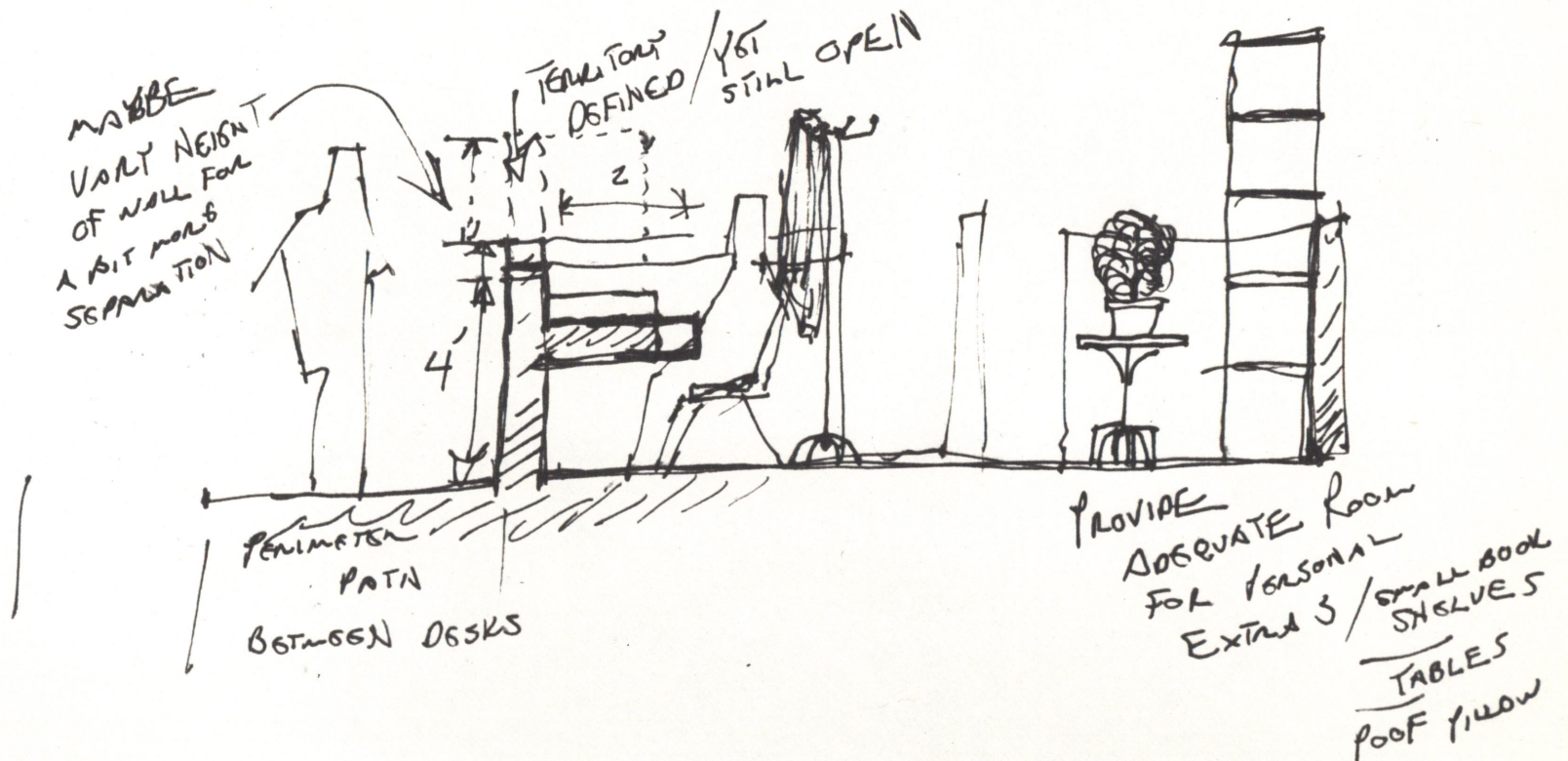
In the practice areas I wished to provide a simple enclosed space shut off from the rest of the world yet not to the point of seeming confined. I took the idea of the Japanese paper wall to lighten the space in a physical sense as well as a psychological one.



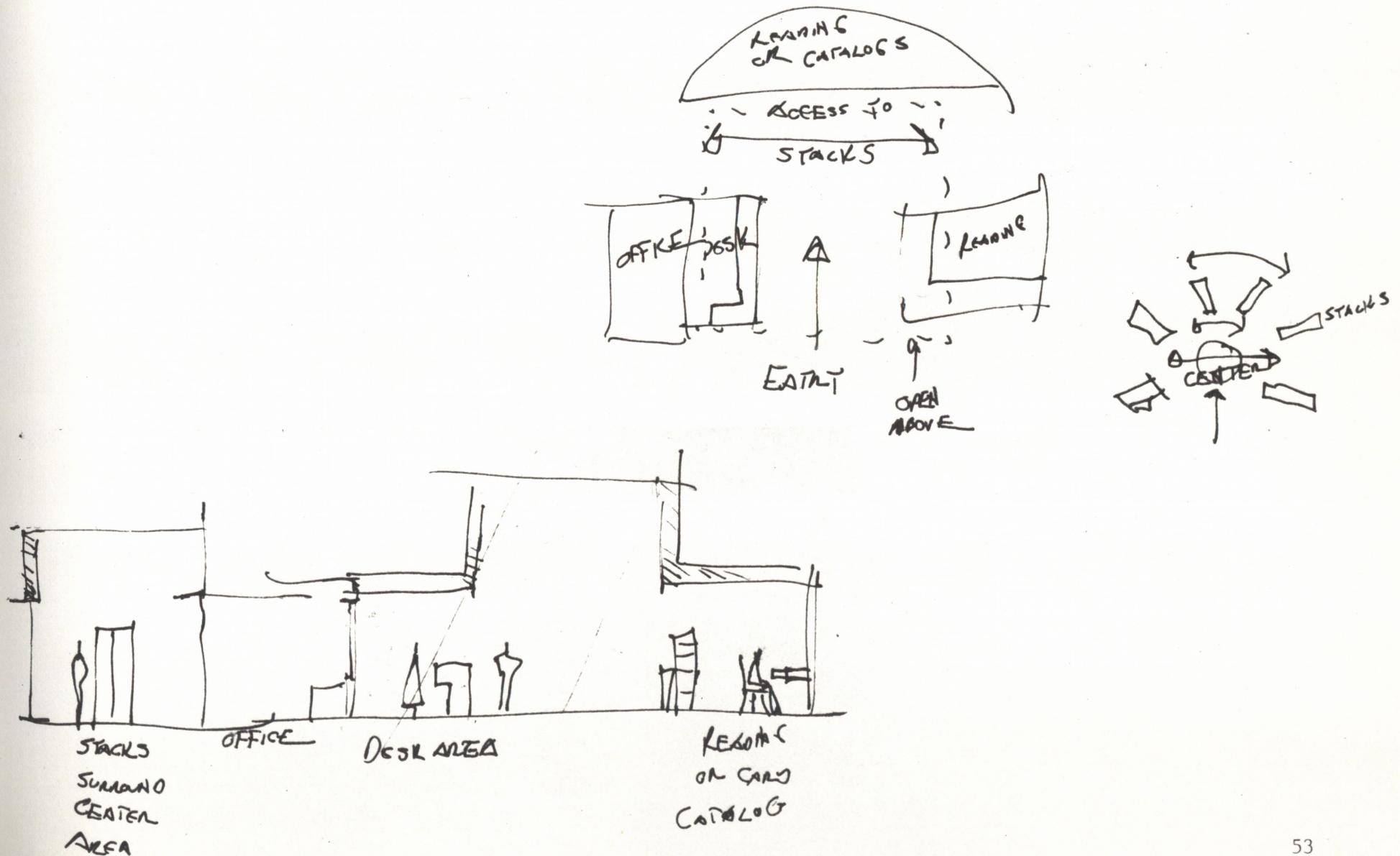
DETAIL OF THE INSIDE 'FRONT' OF THE WASHINGTON AIKI DOJO, A HAND BUILT STRUCTURE, BY BERNIE LAU, IS A RARE THING IN THE U.S.



The instructor's offices came from the earlier area study as a center gathering area for interaction surrounded by the individual areas. I wanted to provide an open plan as not to shut each instructor into a room. I wished to have more of a sight relationship between the instructors as to have an increase in encounters and relationships. This came from the idea of the growth one gains from a variety of styles encountered.

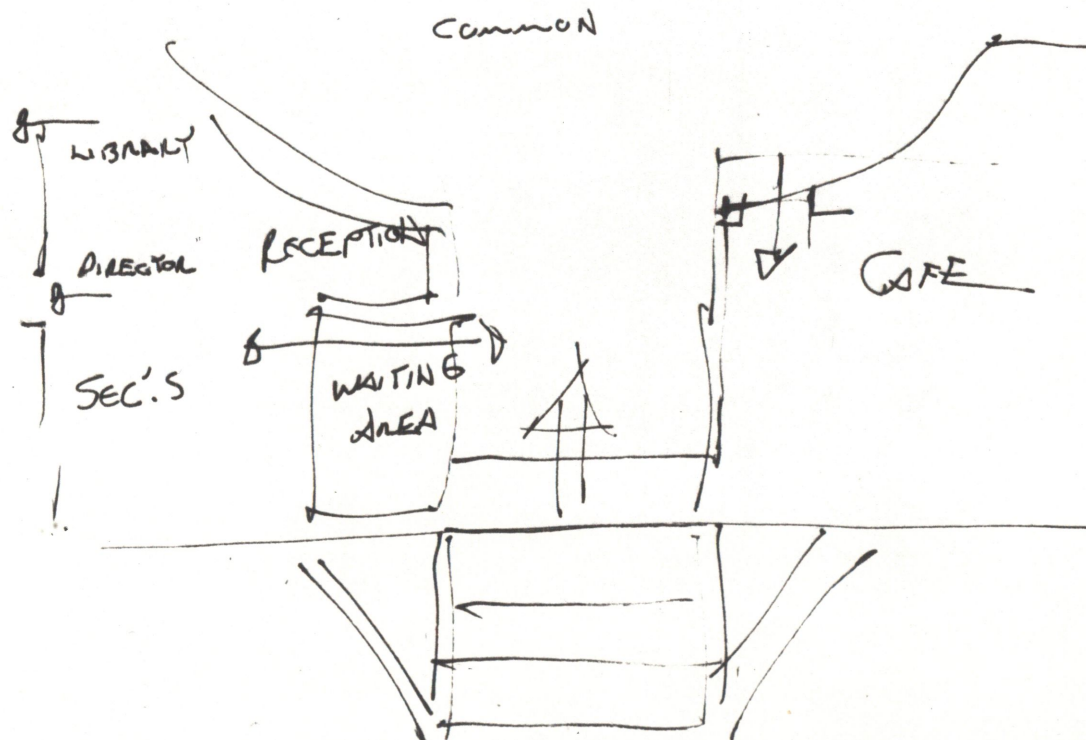


The library also needed some sort of general focus point for entry and control. I used another version of the idea behind the instructor's offices. This still provided a dynamic space at the center, while around it would be the organization of the stacks.



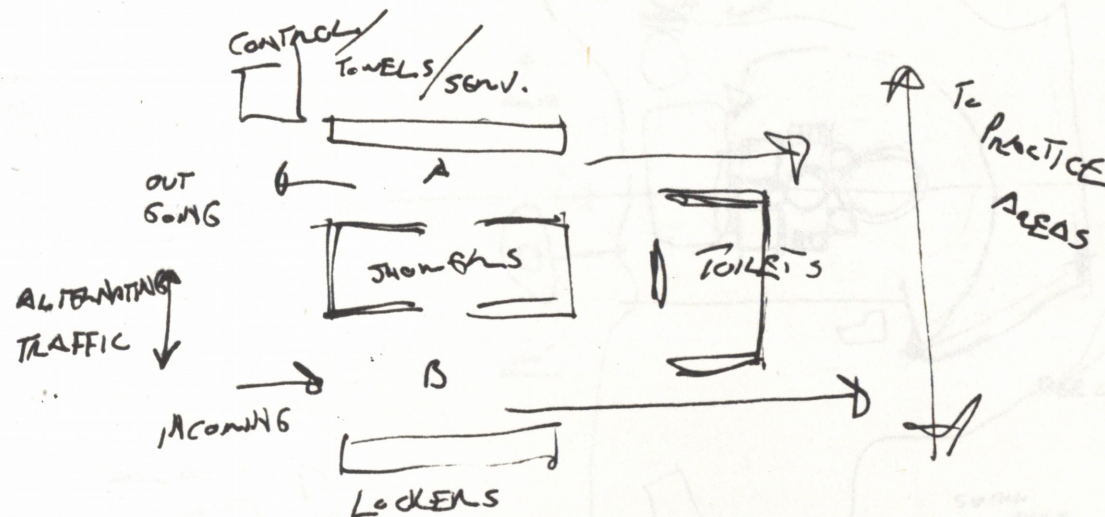
The office would be located just off the entrance to provide a control point.

On the opposite side, the cafe would also be within direct access to the entrance. I felt these two spaces should have a stronger association with the common area in form, and so based their arrangement as an extension of the common area.



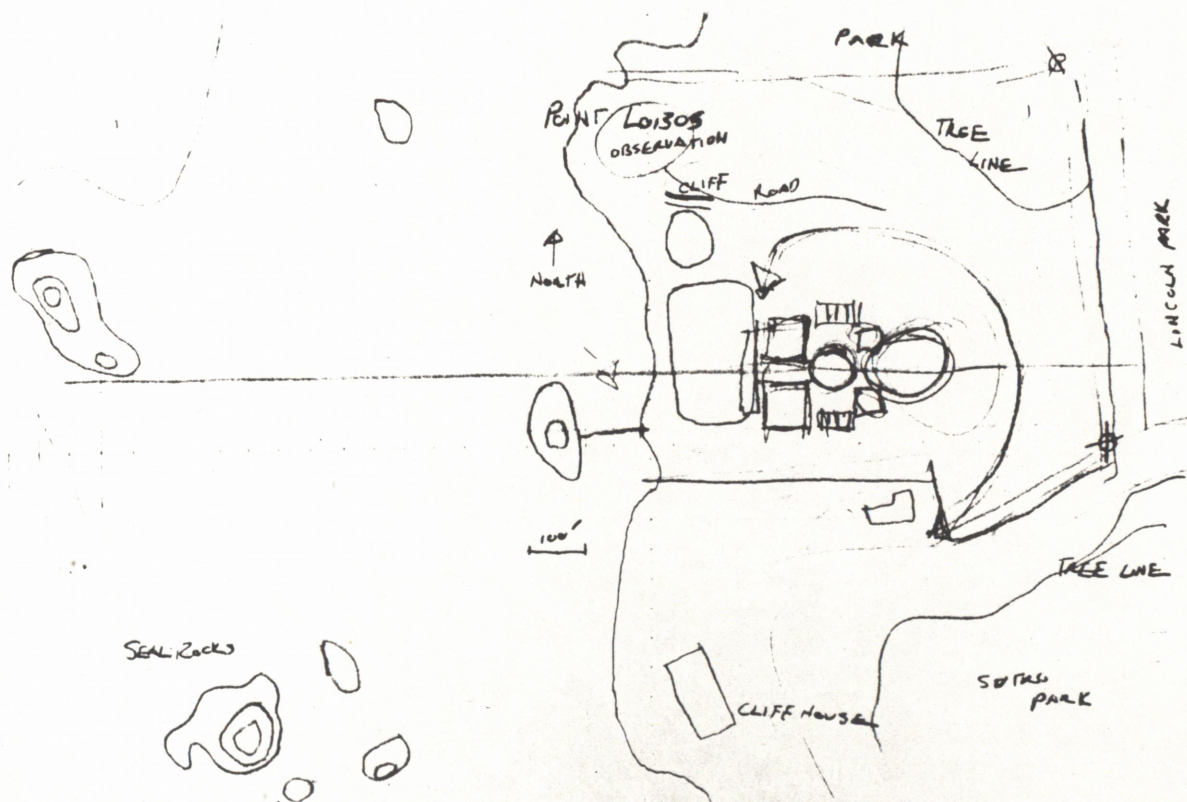
In the idea of non-action, I wanted the dressing facilities to have a direct path through the facility to the practice areas, and reverse, as to have as little traffic conflict between students coming and going. The sides would alternate throughout the day as to coming and going traffic.

The service areas would be located next to the dressing areas since these would need the most attention as to cleaning and towel service.



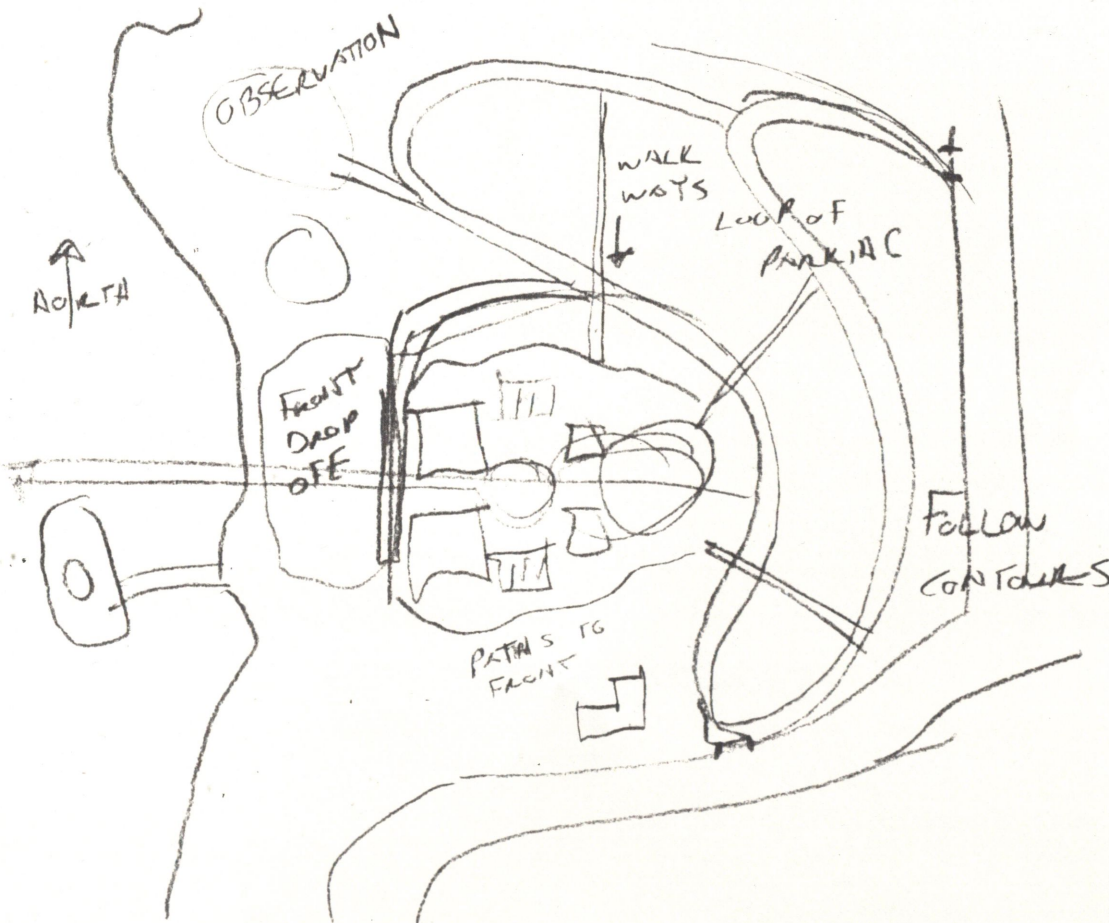
As far as the orientation of the building, I put it on the east-west axis facing the ocean. Instead of providing a built extension of the building into Nature or Nature extending into the building directly, I chose to use the outlying rocks as a natural extension framing a view out to the open sea.

As to bringing Nature in, as an extension, I used the openness of the building for a variety of views and to seem more a part of the site.



In designing a scheme for the parking, which would take up most of the rest of the site, I decided to relate it as a part of the site. The parking ribbons across the back of the site following the contours and providing the backdrop needed on the site.

The pathways and stairs to and from the parking would relate more to the building as to make them both relate more to each other to become a complete scheme with the site.



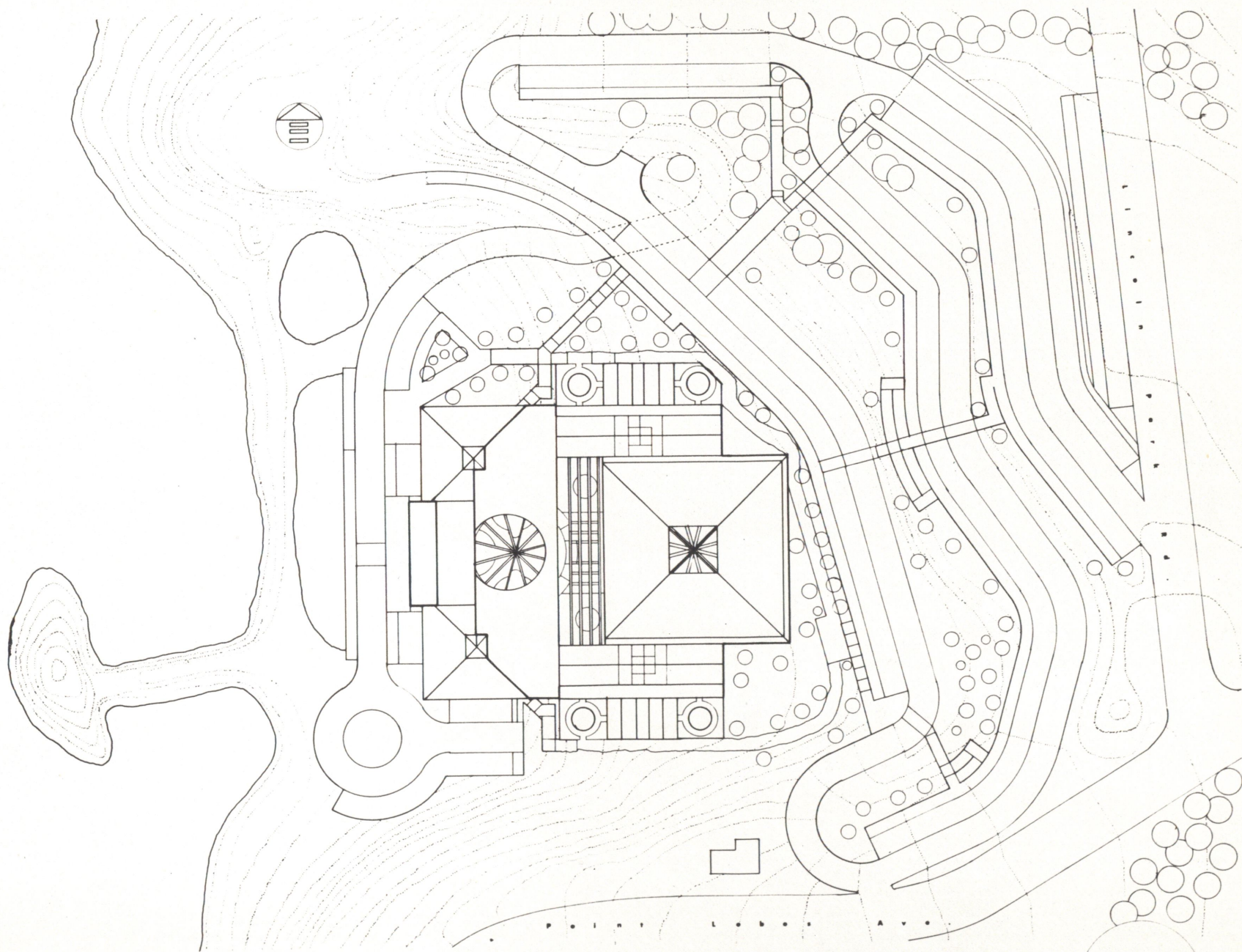
I wanted the approach to the building to filter down from the parking and slowly concentrate to the entrance on the other side in surrounding pathways.

I wanted to provide a progression of leaving their car and following a path as the first transition point to the new realm of thought within the building.

This provides a sense of gradual approach to the end point or climax of the building, the exhibition space. To do this I used a series of possible approaches ending at the entrance.

The Design

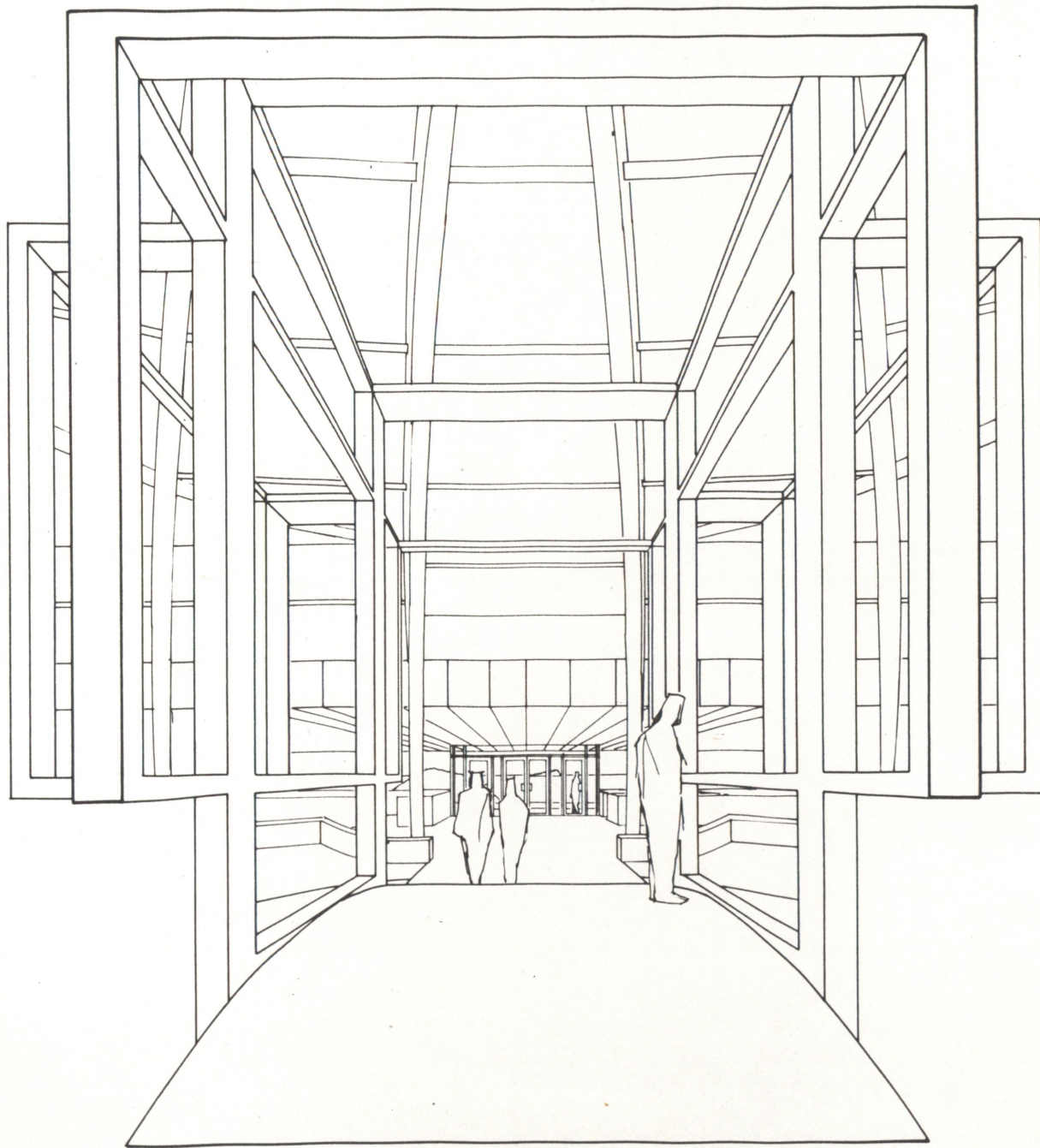
The Design

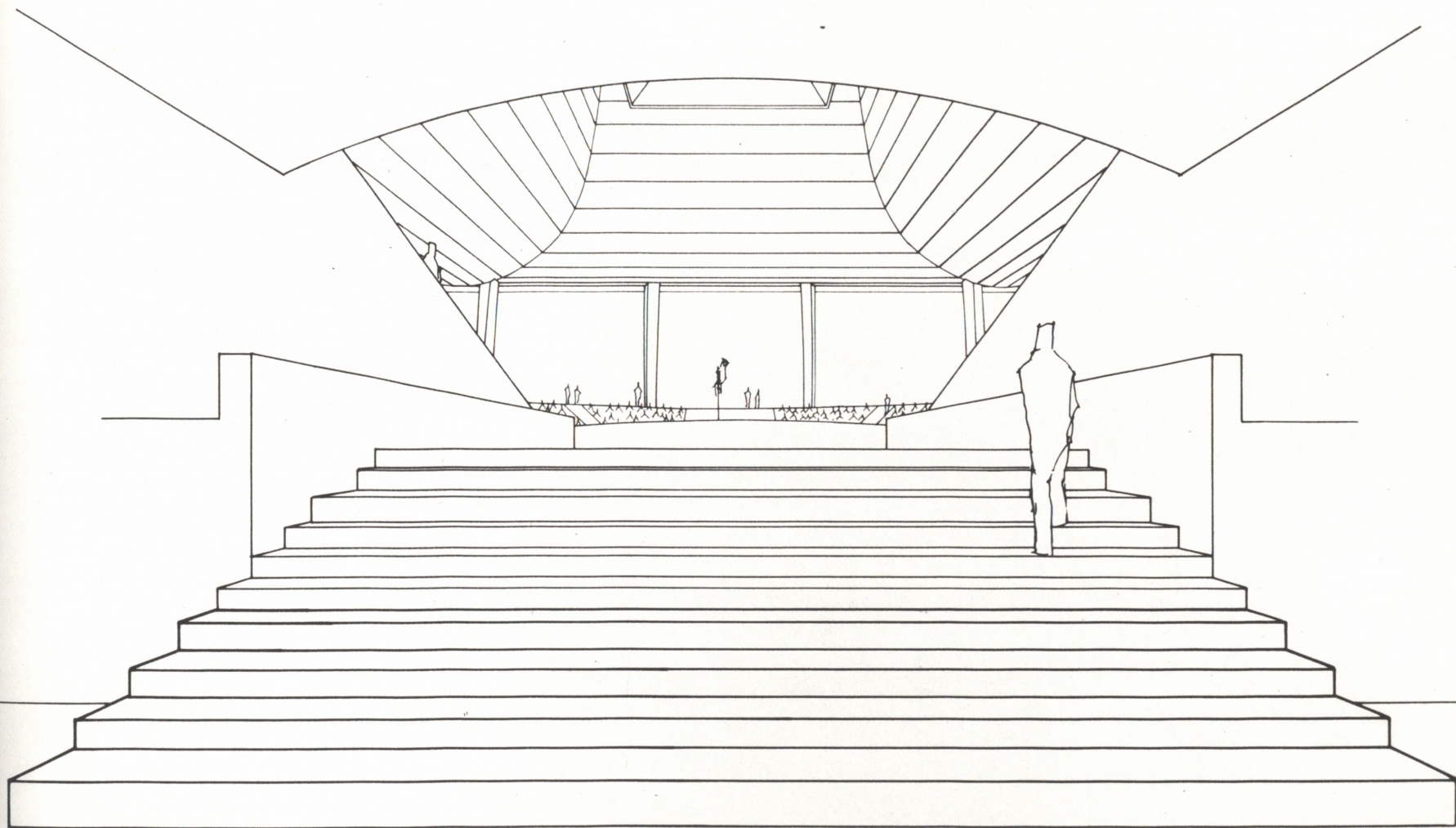


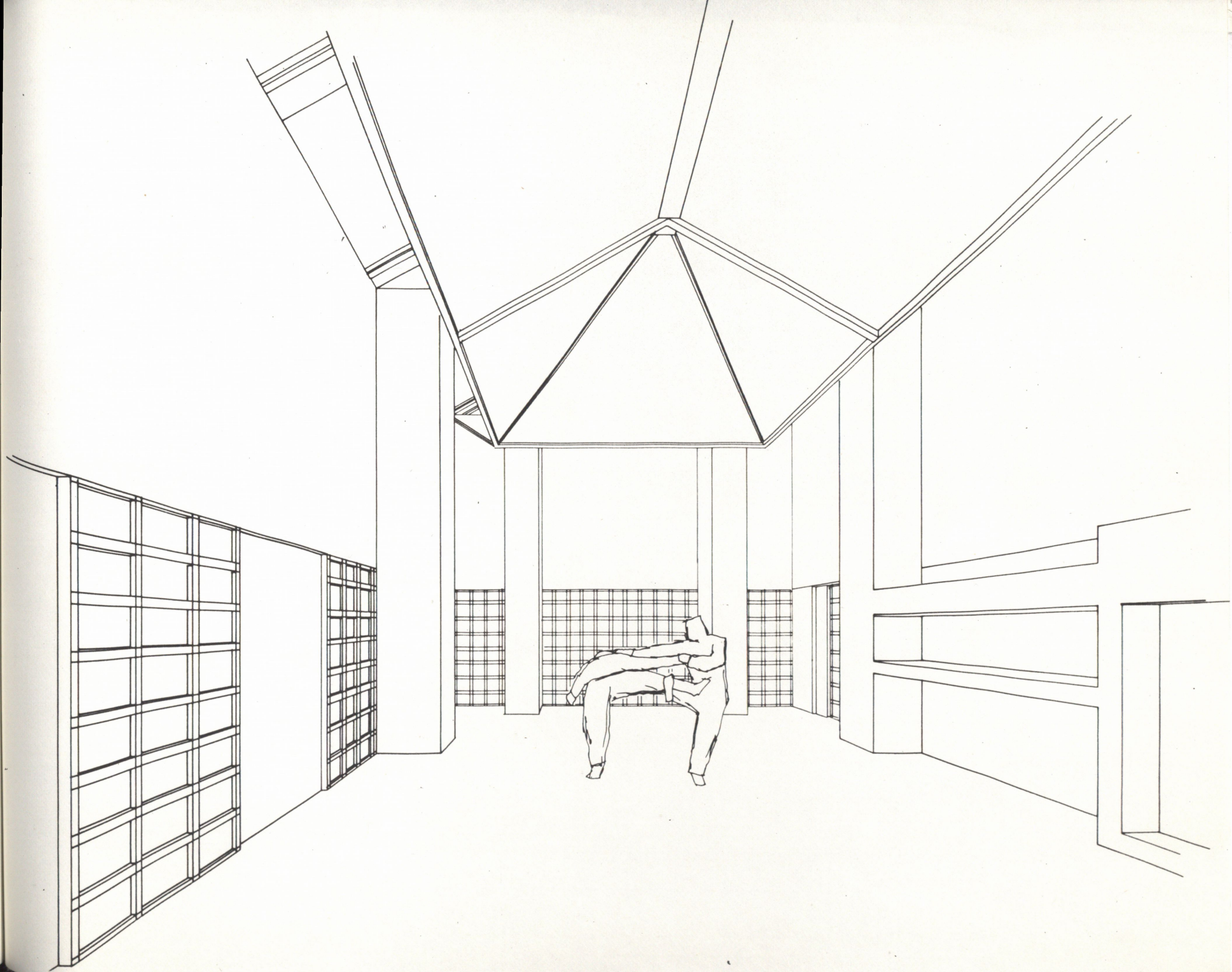
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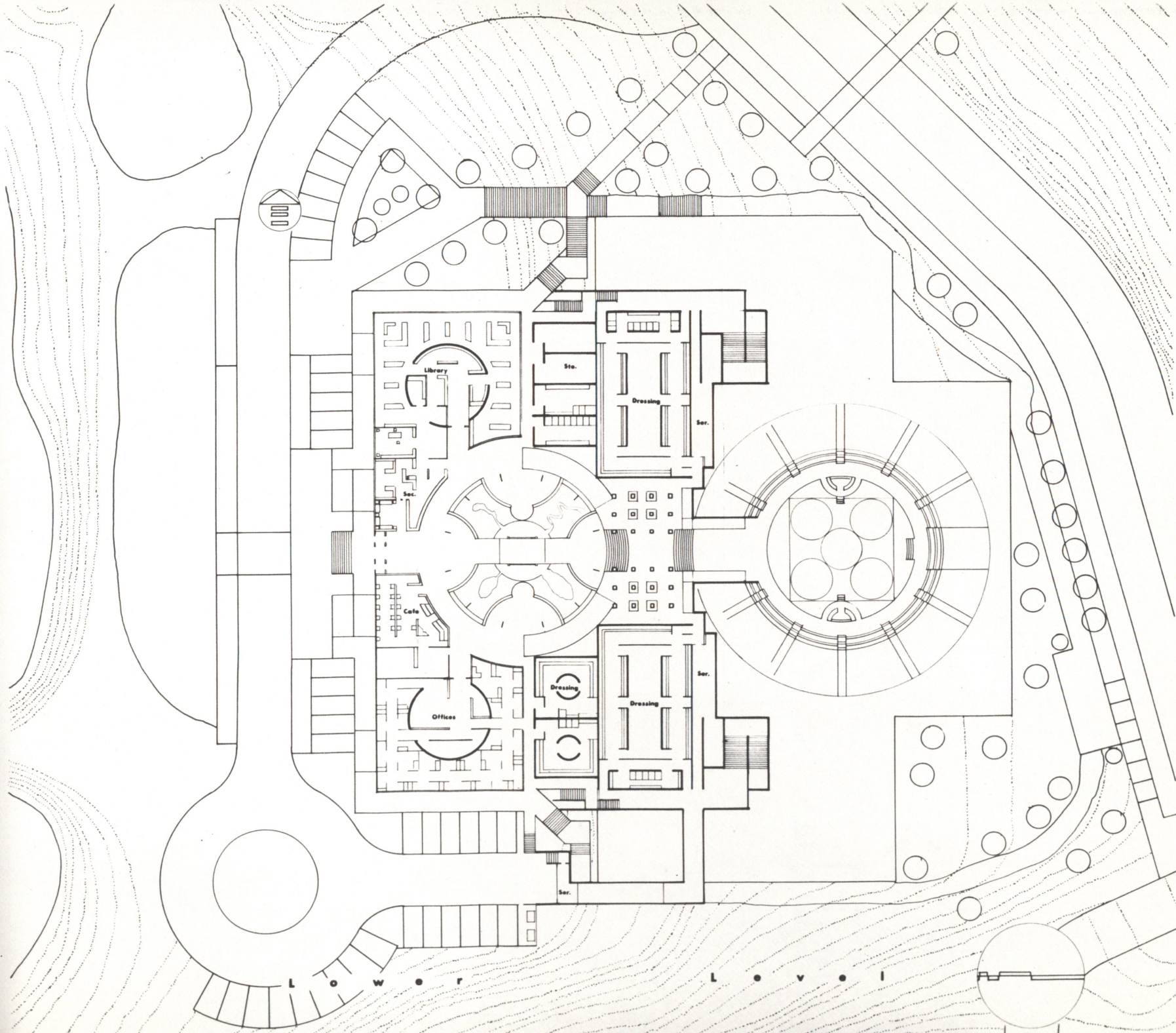
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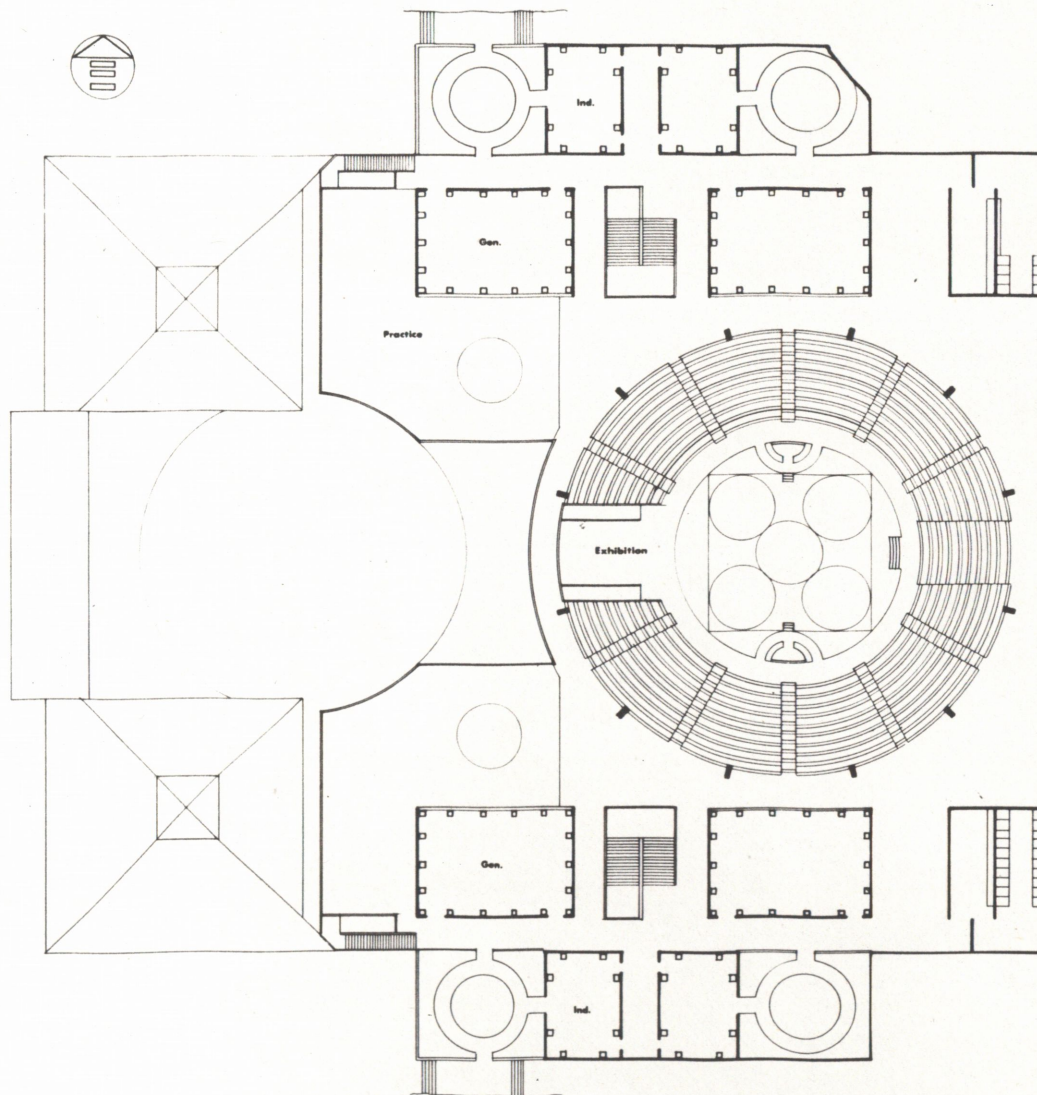






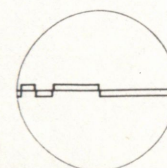


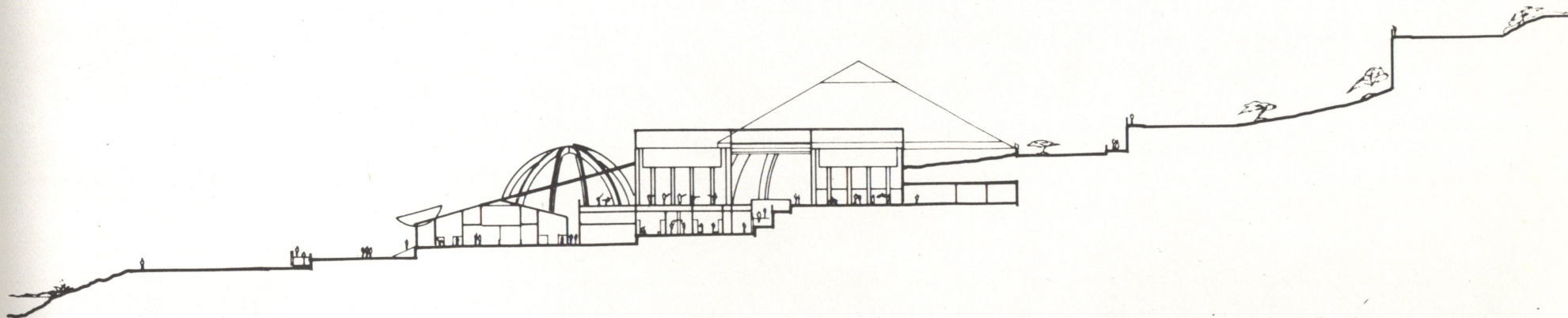
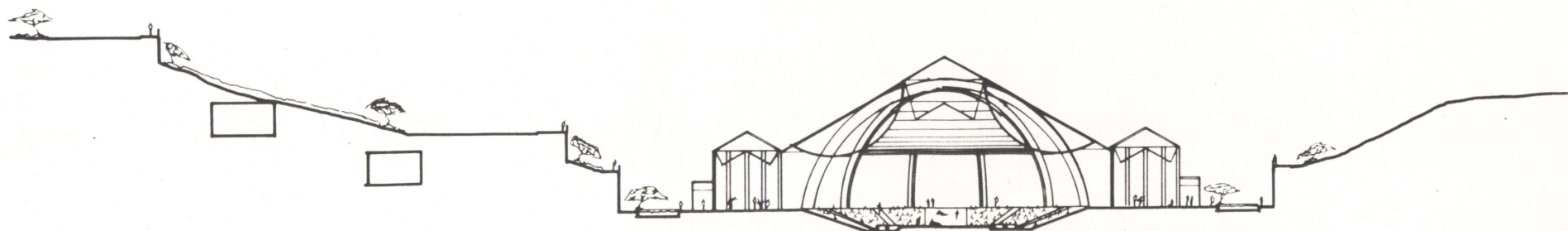
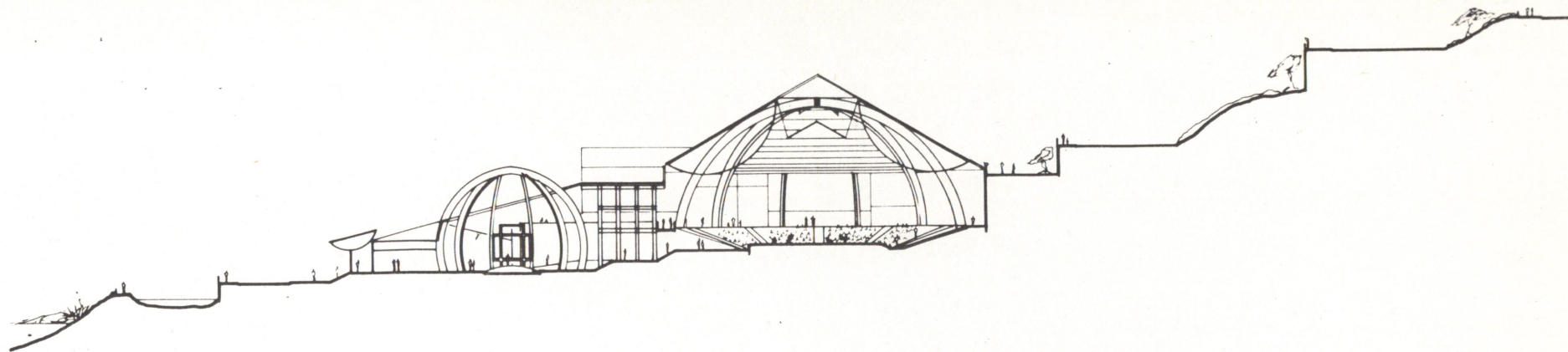
L o w e r L e v e l



U p p e r

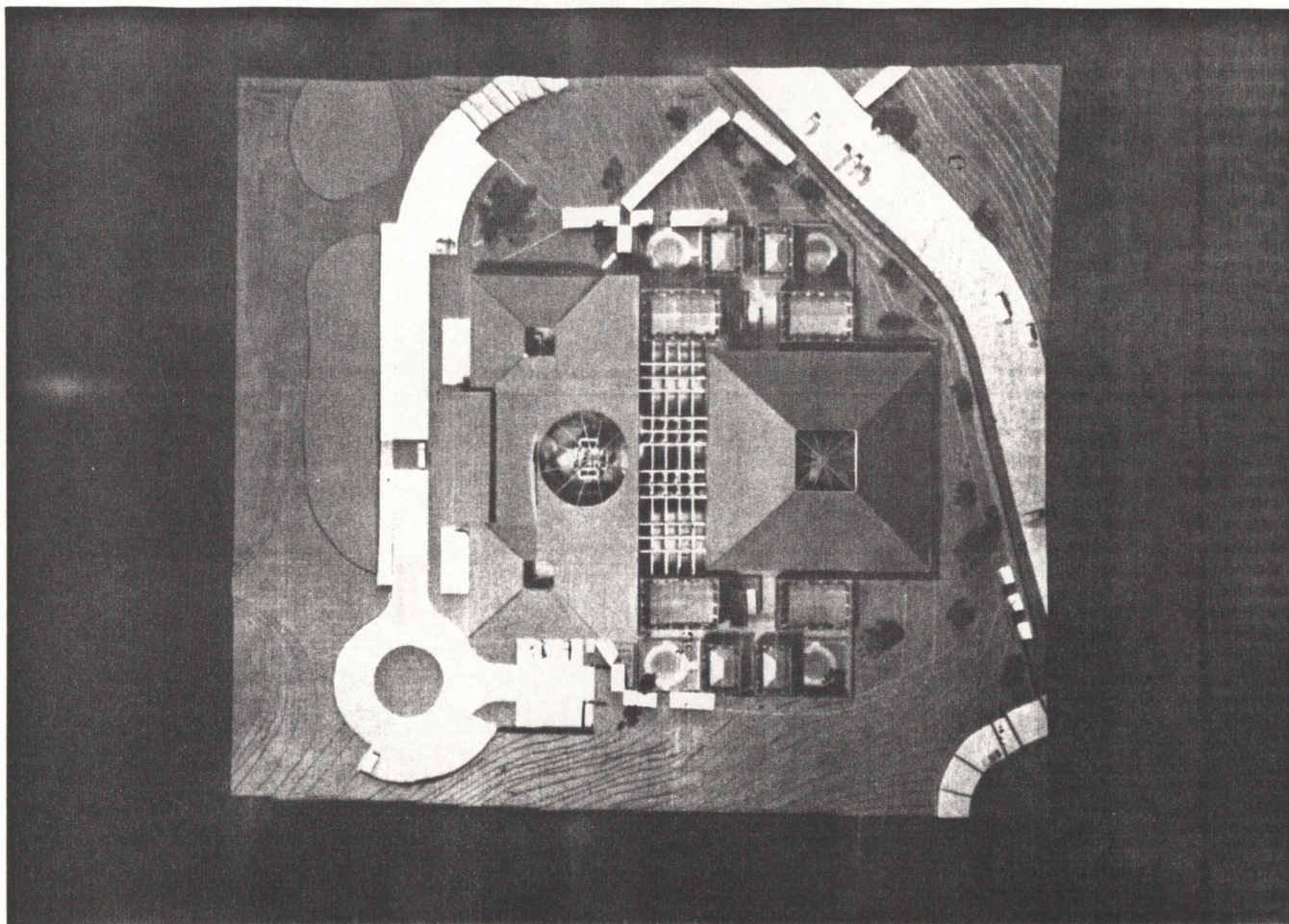
L e v e l

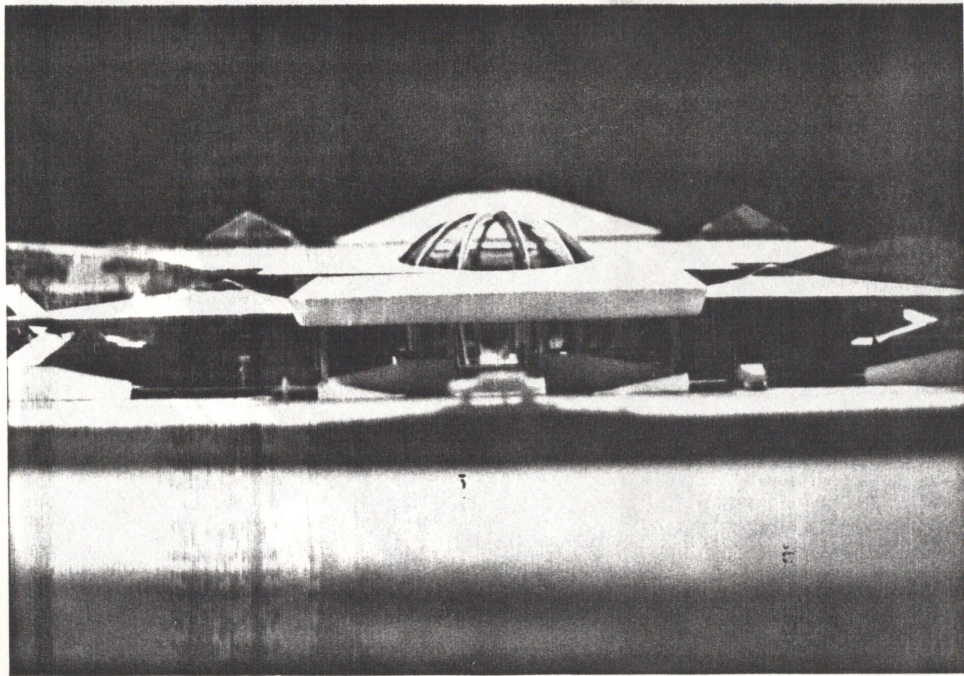




S e c t i o n s

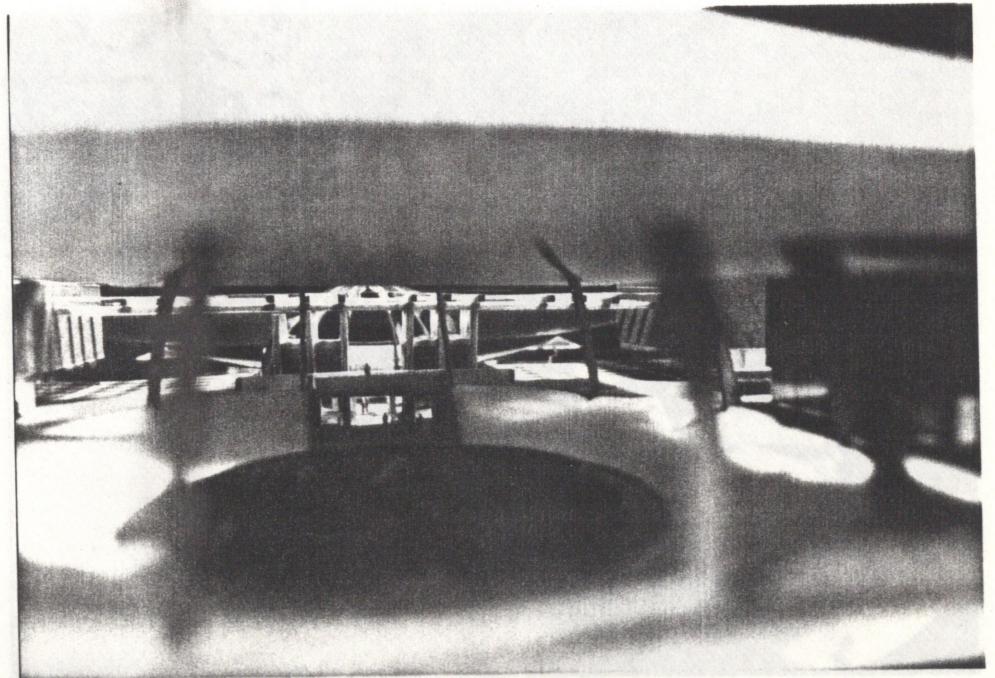


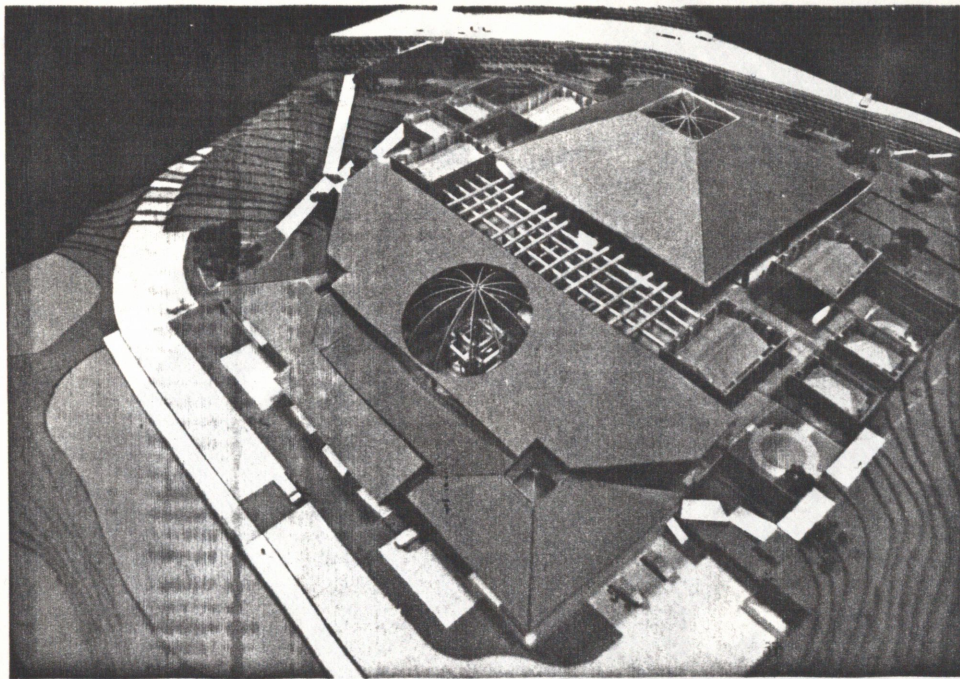




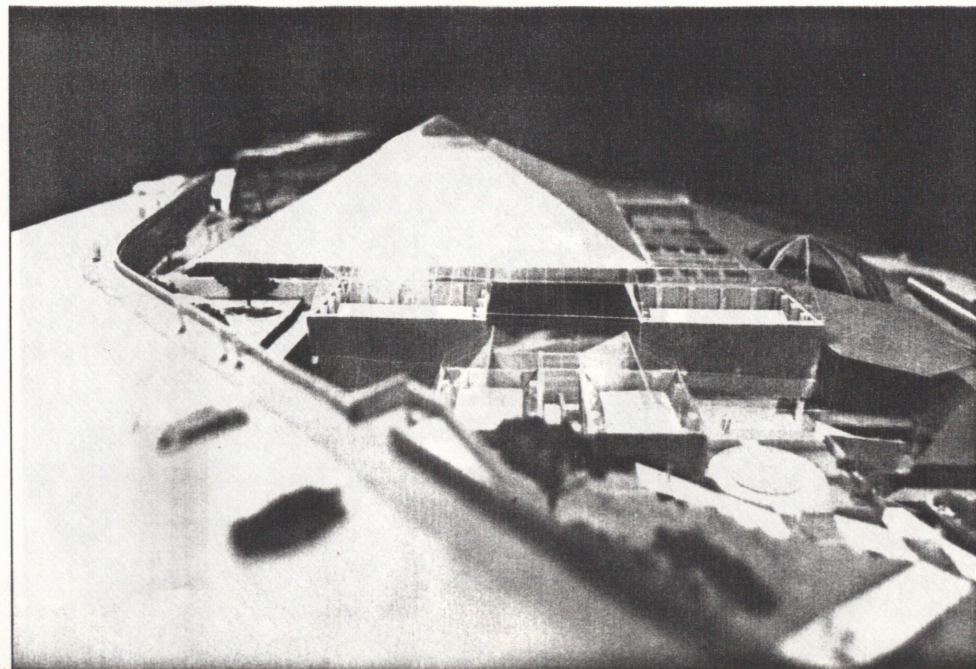
Front Entrance - looking along the center axis towards the east.

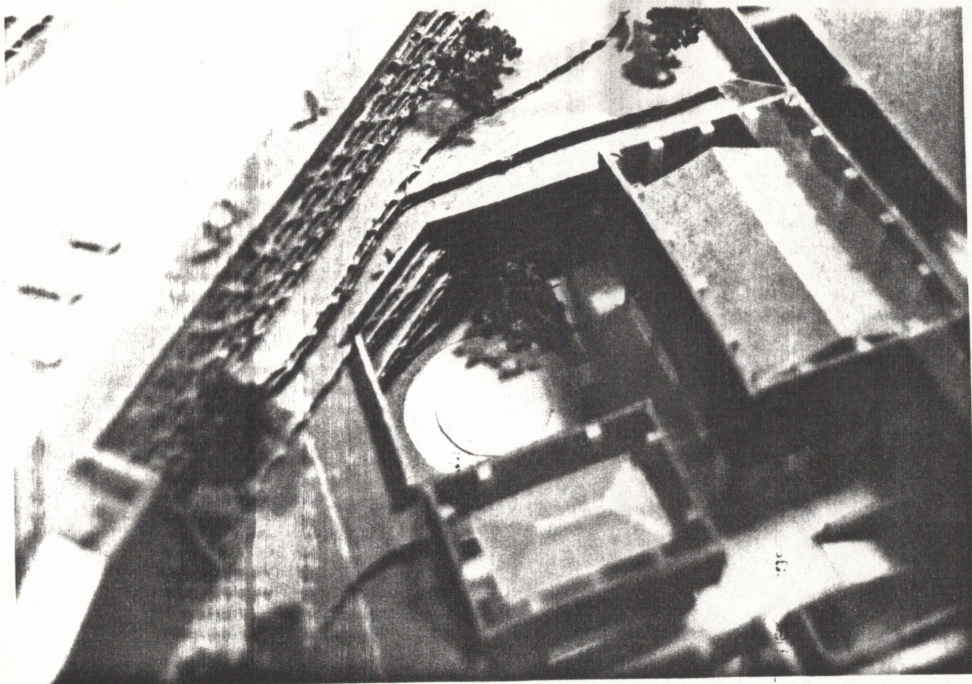
Looking over the exhibition and practice areas toward the west.





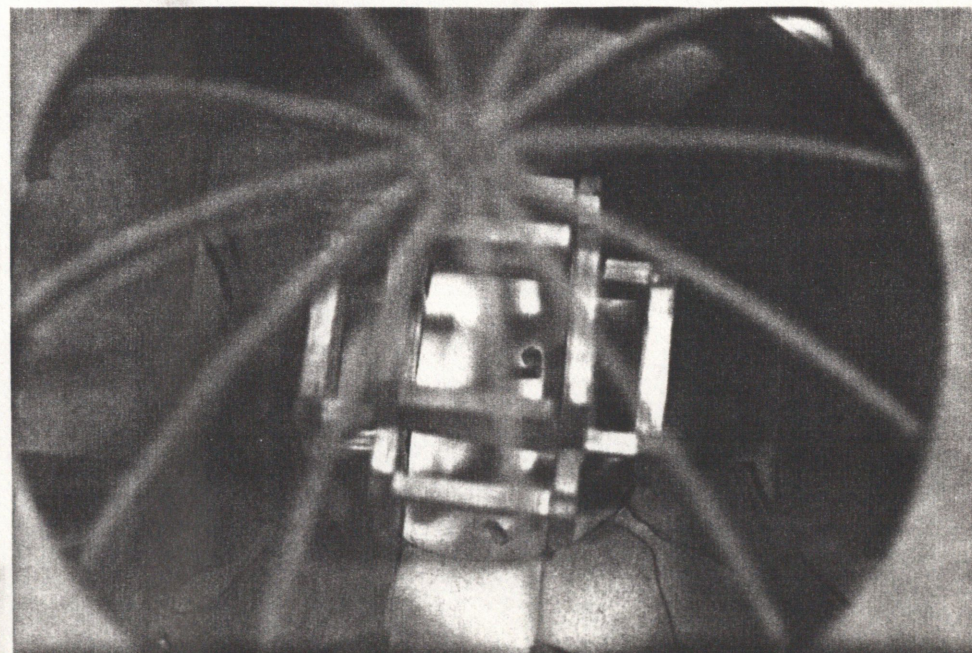
Small garden area surrounded by the practice
on the N-E side of the building.

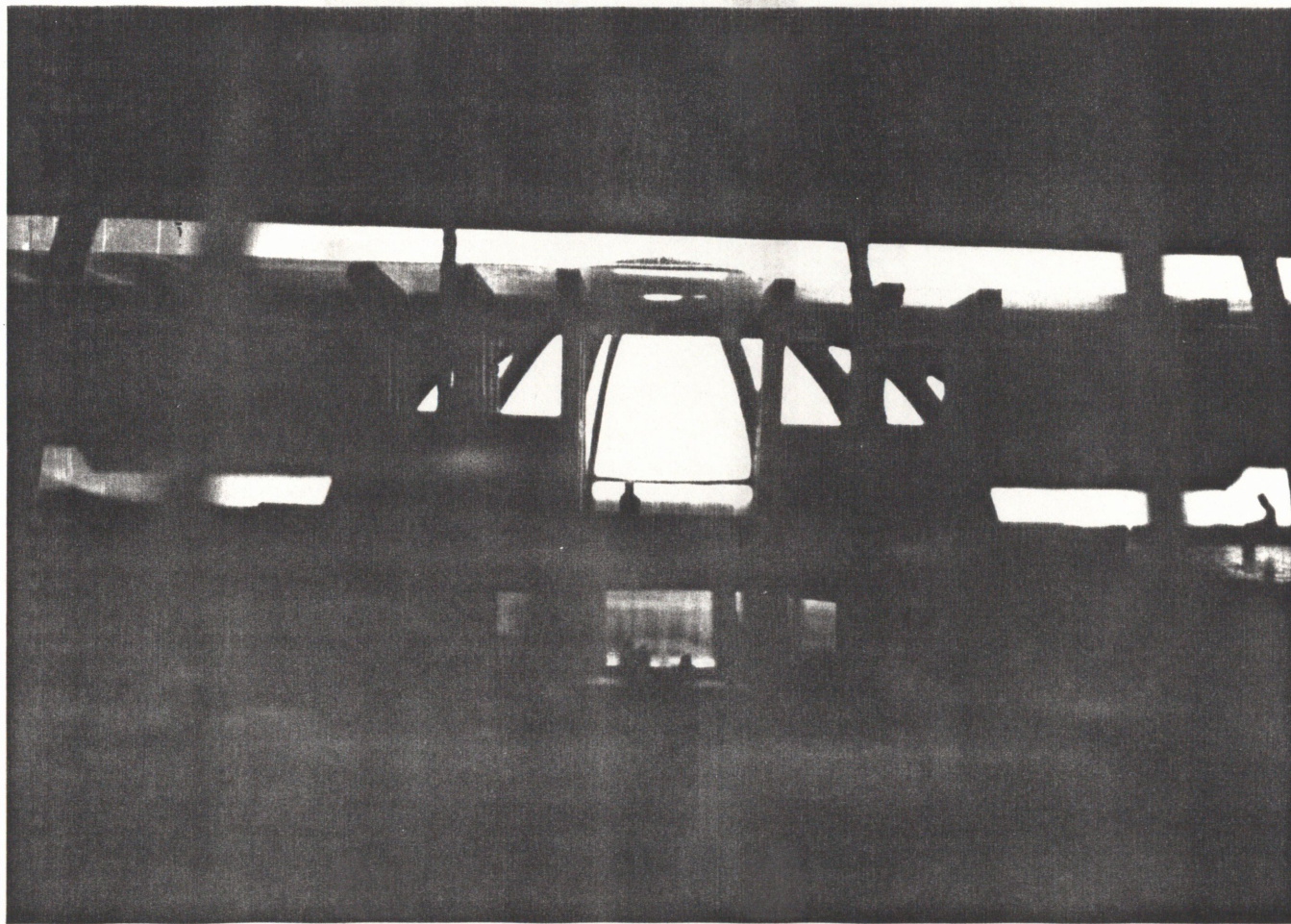




A small garden area surrounded by the practice areas on the N-E side of the building.

Looking down upon the common area.





Appendices

Programatics

Goals

Function

To provide the individual with information and training in the martial arts.

To provide the needed amount of programs for the surrounding area.

To provide interest and growth in education, experience and identification with the martial arts, and within the individual.

To provide an atmosphere for instruction.

To provide for the interaction of various martial arts and students.

To limit the disruption of classes, but allow observation.

To make it a public place.

To promote a good relationship between student and instructor.

To provide a simple flow from area to area.

Form

To provide views around the site.

Provide underground utilities to keep the nature of the site.

Provide a design that relates with the site's and surrounding area's natural environment.

To open the mind and increase awareness.

Provide awareness of location; inside as well as outside.

To express the general attitudes of the martial arts.

Economy

To generate enough income for feasibility, then later to provide investments.

To provide a low life-cycle cost for future maximum income.

To provide room for expansion before a new facility is needed in another area.

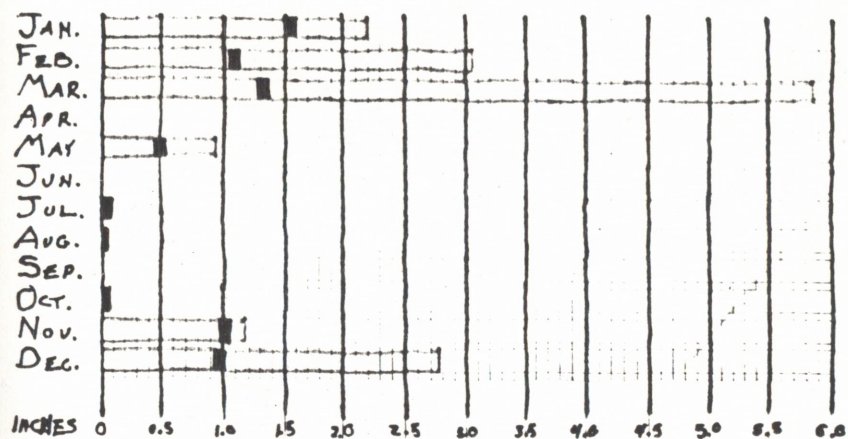
To be feasible on a fixed income.

Time

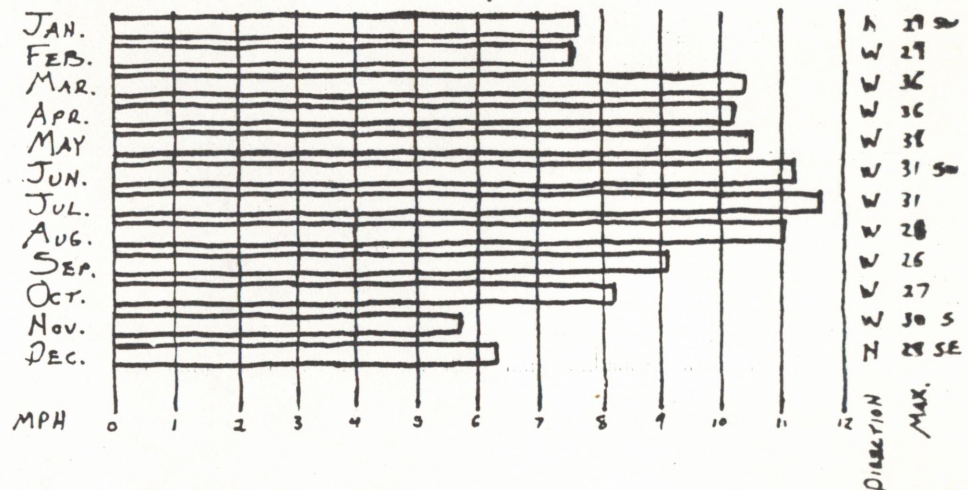
To be dynamic as a social and functional organization.

To provide adaptable practice areas for various styles and change.

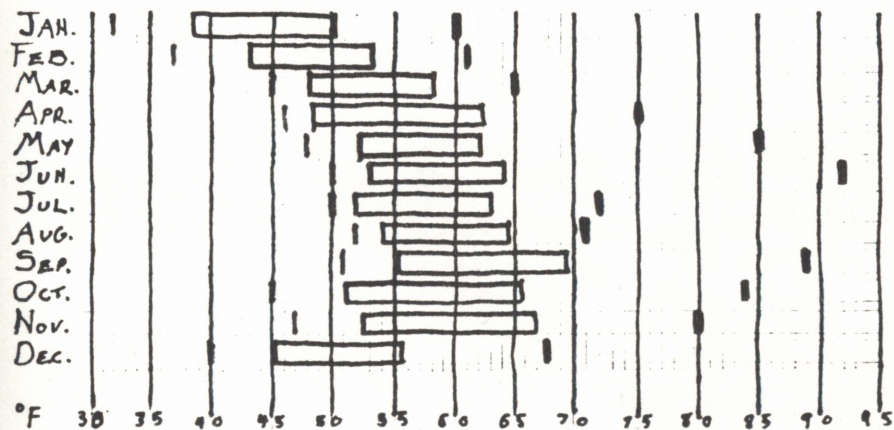
Facts



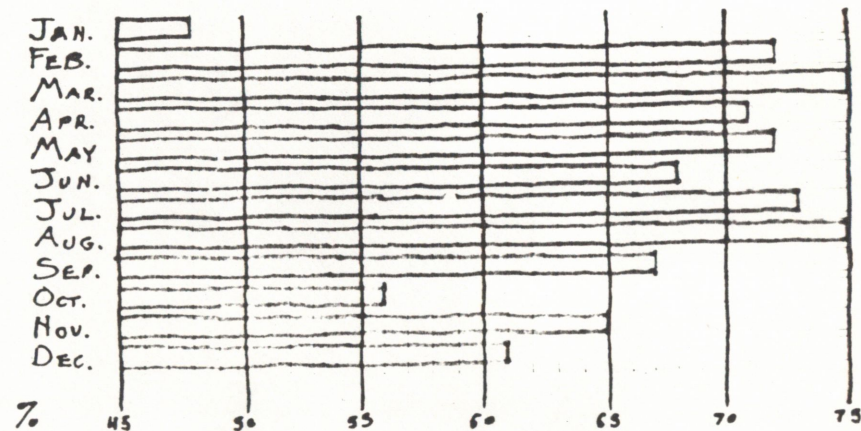
AVERAGE MONTHLY PRECIPITATION



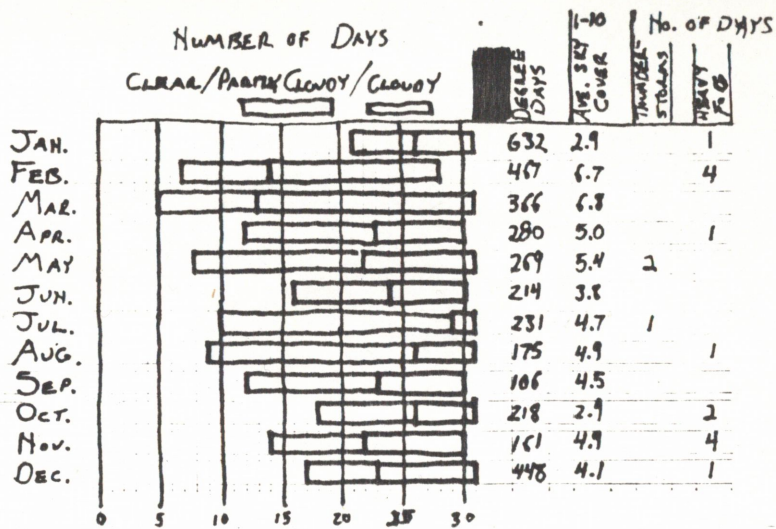
AVERAGE HOURLY WIND SPEED PER MONTH - MAX. 51 mph



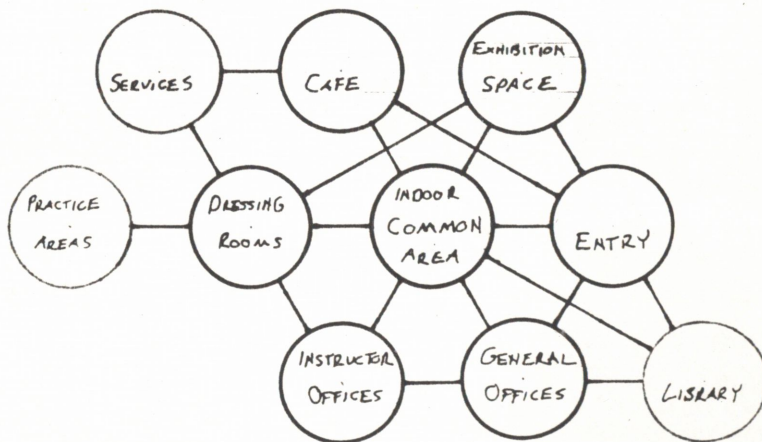
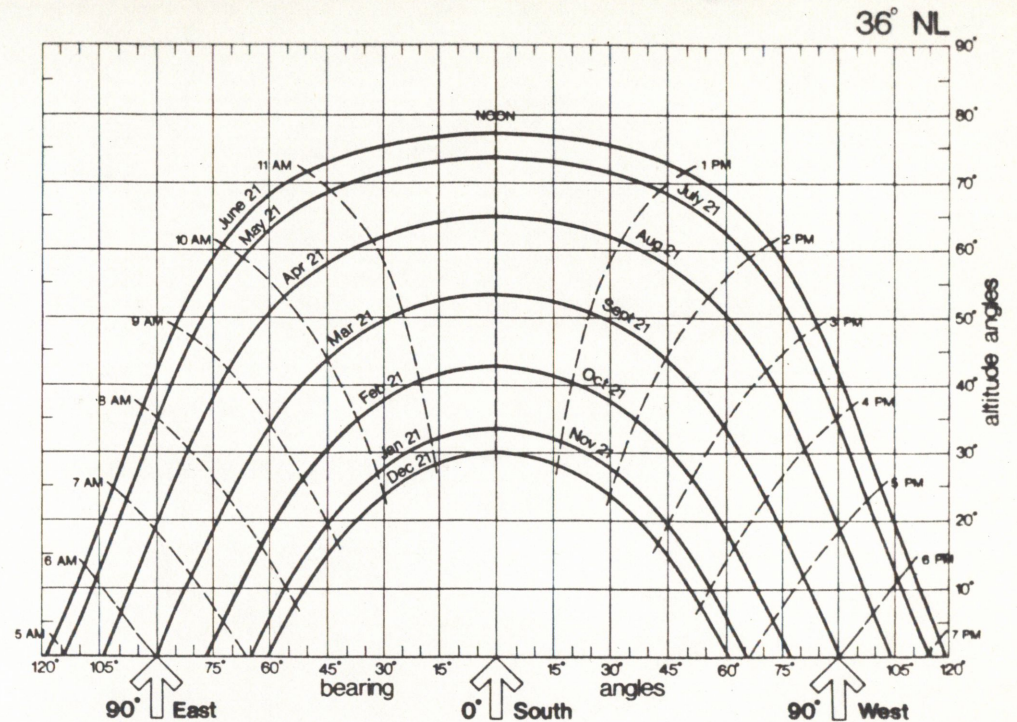
AVERAGE MONTHLY TEMPERATURES



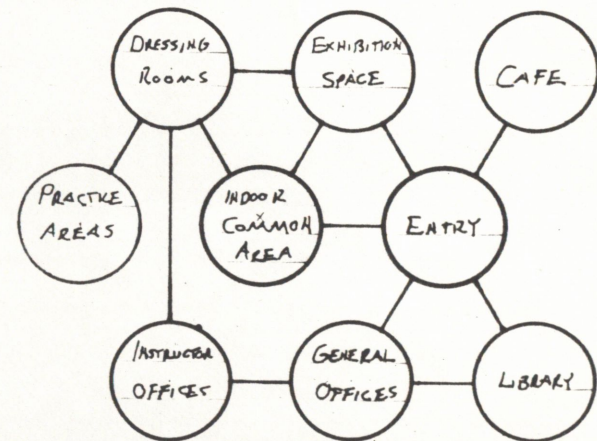
AVERAGE MONTHLY RELATIVE HUMIDITY



AVERAGE MONTHLY MISC. WEATHER

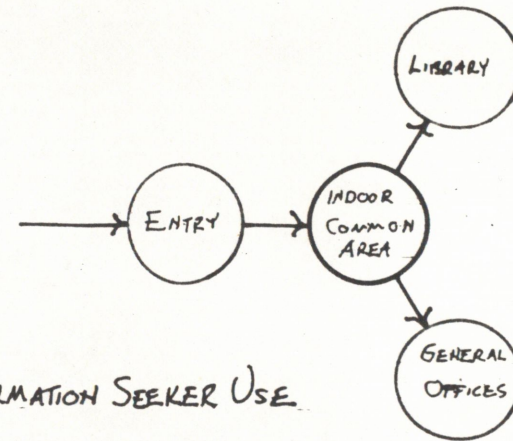
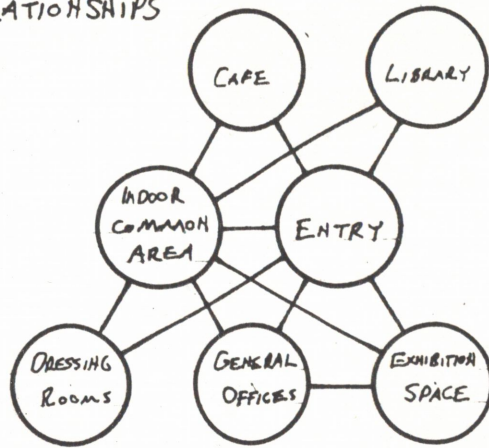


CLOSE PROXIMITY RELATIONSHIPS

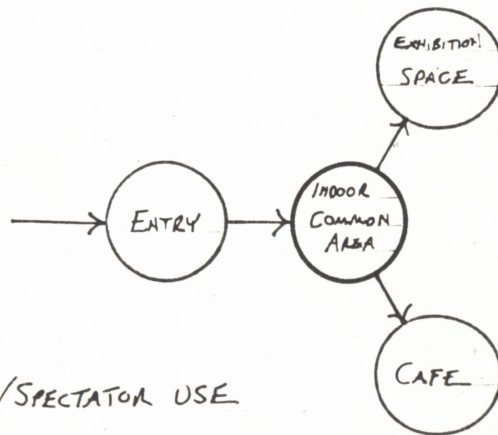


DIRECT ACCESS RELATIONSHIPS

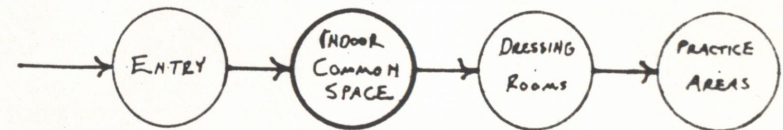
VISUAL RELATIONSHIPS



INFORMATION SEEKER USE

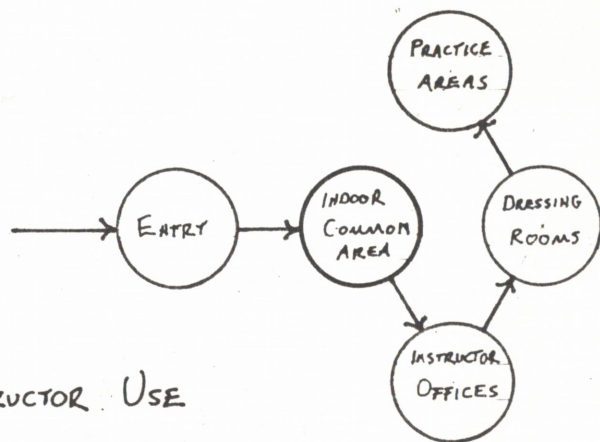


VISITOR/SPECTATOR USE

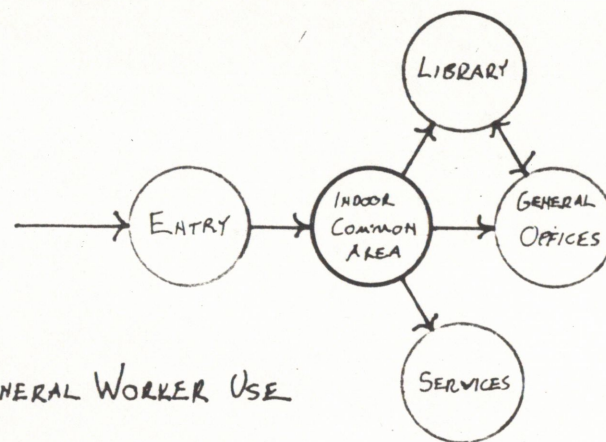


STUDENT USE

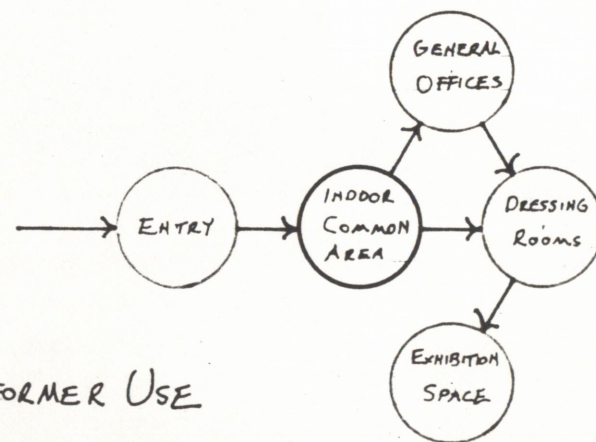
INSTRUCTOR USE



GENERAL WORKER USE



PERFORMER USE



Requirements Based on Occupancy

Occupancy	Group (table 5-a)	Separation (table 5-b)	A-2.1	A-3	A-4	B-2	H-2	Live Loads (table 23-a)
Exhibition	A-4		0	0	0	1	4	50
Offices	B-2		1	0	1	0	1	50
Gyms	A-3		0	0	0	0	4	100
Gathering	A-2.1		0	0	0	1	4	100
Cafe	B-2		1	0	1	0	1	100
Library	A-3		0	0	0	0	4	125
Storage	H-2		4	4	4	1	0	125/250
Dressing	A-2.1		0	0	0	1	4	100
Services	H-2		4	4	4	1	0	125

Allowable Floor Areas for One Story Bldgs.

Group	Types of Construction								
	I	II	III	IV	V				
	FR	FR	1HR	N	1HR	N	HT	1HR	N
A-2.1	UNLM	29,900	13,500	0	13,500	0	13,500	10,500	0
A-3,4	"	"	"	9,100	"	9,100	"	"	6,000
B-2	"	59,900	27,000	18,000	27,000	18,000	27,000	21,000	12,000
H-2	15,000	12,400	5,600	3,700	5,600	3,700	5,600	4,400	2,500

Max. Height of Bldgs.

A-2.1	UNLM	4	2	0	2	0	2	2	0
A-3,4	"	12	2	1	1	1	2	2	1

FR- Fire resistive HT- Heavy timber

Location on Property: Buildings shall front directly upon or have access to a public street not less than 20 feet in width. The access to the public street shall be a minimum 20 foot wide right of way, unobstructed and maintained only as access to the public street.

The main entrance to the building shall be located on the public street or on the access way.

Minimum Egress and Access Requirements:

Use	sq.ft./ occ.	no. of occ.	min. exits
Exhib.	7	3,000	2
Gym	15	26	1
Lib.	50	40	1
Cafe	200	50	2
Common	7	1,000	2
Dress.	50	700	2

Exits: If only 2 exits are used they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between exits. Where three or more exits are used, they shall be arranged a reasonable distance apart so that if one becomes blocked, the others will be available.

Exit Corridors:

Width - 44"

Dead end not to exceed 20'

Fire resistance of 1hr

Exit Doors: Width and height not less than 3'-0" x

6'-8". Door swing 90 degrees in direction of exiting.

Stairways:

Width - 44"

Rise not less than 7.5"

Run not less than 10"

Landings - 44" x 88" min.

Exit enclosure of 1hr.

Life-cycle Costs

Manpower:

Cost/Year

Instructors	252,720
Secretaries	77,760
Director	21,600
Librarian	15,552
Laundry	21,600
Maintenance	34,560
Ticket Sales	2,160
Janitor	3,456
Crew	5,184
Waitresses	31,104
Cook	15,552

Expenses

General Supplies	6,000
Utilities	12,000
Upkeep	4,000
Cafe Supplies	18,000

325,81

Trial Estimate²⁴

Exhib.	20,750 sq.ft.	@ \$100 =	\$ 2,075,000
Lib.	3,375	61 =	205,875
Off.	7,125	35 =	249,385
Gyms	10,850	61 =	661,850
Serv.	1,875	45 =	84,375
Prk.	300 cars	@ 913 =	273,900
Comn.	10,000	10 =	100,000
Misc.	10,000	5 =	50,000
Total			= \$ 3.7 million
rounded off			to <u>4 million</u>

Life-cycle Costs

Manpower	Cost/Year
Instructors	252,720
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Laundry	21,600
Maintenance	34,560
Ticket Sales	2,160
Janitor	3,456
Crew	5,184
Waitresses	31,104
Cook	15,552

Expenses

General Supplies	6,000
Utilities	12,000
Upkeep	4,000
Cafe Supplies	<u>18,000</u>
	<u>525,000</u>

Projected Income

Exhibition	\$ 324,000
Cafe	207,360
Teaching	<u>2,533,680</u>

Exhibition	15,386 sq.ft.	
Gym	10,500	3,065,040
Library	3,850	- costs
Offices	3,500	<u>525,000</u>
Cafe	1,750	2,540,040
Parking	300 cars	- taxes
Service	15,000	<u>20%</u>
Common	2,850	<u>2 million</u>
Misc.	15,600	
Bldg. sq.ft.	73,360	

Cost 4 million

At 4 million cost and 2 million income/year, at a 20% interest it would take 3 years to pay off a loan at the total cost of 5.6 million.

Footnotes

1-5,9 and 11.

David Chow and Richard Spangler, Kung Fu :
History, Philosophy and Technique(Burbank:
Unique), 1977, pg.'s XI, 2-4 and 17.

6-8.

Inside Kung Fu Magazine, Masters & Styles
(Burbank: Unique), fall '83, pg.'s 7 and 11.

10,16 and 17.

James I. Wong, a Source Book in the Chinese
Martial Arts, Vol. 1(Stockton: Koinonia),
1978, pg.'s 23, 72 and 73.

12-14 and 19.

Lao Tzu, Tao Te Ching, Translated by
D. C. Lau(New York: Peguin), 1963, pg's
75, 96, 104 and 140.

15.

George Parulski, Jr., A Path to Oriental
Wisdom(Burbank: Ohara), 1975, pg. 152.

20 and 23.

William Alex, Japanese Architecture(New
York: George Braziller), 1963, pg.'s 11 and
13.

21 and 22.

Edwin L. Howard, Chinese Garden Architecture
(New York: MacMillan), 1931, pg.'s 7 and 10.

24.

Building Systems Cost Guide(Kinston:
Construction and Consultants), 1980, pg's
318, 322, 331, 332 and 335-338.

> List of Illustration

Fig. 2.

Inside Kung Fu Magazine, Masters & Styles
(Burbank: Unique), fall '83.

Fig. 4.

David Chow and Richard Spangler, Kung Fu :
History, Philosophy and Technique(Burbank:
Unique), 1977.

Fig.'s 16-25 and 28-35.

Francis D. K. Ching, Architecture: Form,
Space and Order(New York: Van Nostrand
Reinhold), 1979.

Fig.'s 26, 27 and 36.

Mario Bussagi, Oriental Architecture(New
York: Harry A. Abrams), 1973.

Bruce A. Haines, Karate's History and Traditions
(Tokyo: Charles E. Tuttle), 1968.

Edwin L. Howard, Chinese Garden Architecture
(New York: MacMillan), 1931.

Inside Kung Fu Magazine, Volumes K43745 and
K49031 '83, Hollywood: Unique.

Herman Kauz, The Martial Spirit(New York:
Overlook), 1977.

Da Lin, The Tao and Chinese Culture(New York:
Schocken), 1979.

George Parulski, Jr., A Path to Oriental
Wisdom(Burbank: Ohara), 1976.

Duk Sung Son and Robert J. Clark, Korean
Karate: The Art of Tae Kwon Do(London:
Prentice-Hall), 1968.

Gin Djin Su, Chinese Architecture: Past and
Contemporary(Hong Kong: Sin Poh), 1964.

Bibliography

William Alex, Japanese Architecture(New York: George Braziller), 1963.

Mario Bussagli, Oriental Architecture(New York: Harry N. Adams), 1973.

Norman F. Carter, Jr., Form and Space of Japanese Architecture(Tokyo: Shododusha), 1955.

Amos Ih Tiao Chang, The Tao of Architecture (New Jersey: Princeton), 1956.

David Chow and Richard Spangler, Kung Fu: History, Philosophy and Technique(Burbank: Unique), 1982.

Donn F. Draeger and Robert W. Smith, Comprehensive Asian Fighting Arts(Tokyo: Kodansha), 1980.

James Fergusson, History of Indian and Eastern Architecture(Delhi: Manonarial), 1976.

Bruce A. Haines, Karate's History and Traditions (Tokyo: Charles E. Tuttle), 1968.

Edwin L. Howard, Chinese Garden Architecture (New York: MacMillan), 1931.

Inside Kung Fu Magazine, Volumes K48745 and K49031 '83, Hollywood: Unique.

Herman Kauz, The Martial Spirit(New York: Overlook), 1977.

Da Liu, The Tao and Chinese Culture(New York: Schocken), 1979.

George Parulski, Jr., A Path to Oriental Wisdom(Burbank: Ohara), 1976.

Duk Sung Son and Robert J. Clark, Korean Karate: The Art of Tae Kwon Do(London: Prentice-Hall), 1968.

Gin Djin Su, Chinese Architecture: Past and Contemporary(Hong Kong: Sih Poh), 1964.

Lao Tzu, Tao Te Ching, Translated by
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James I. Wong, A Source Book in the
Chinese Martial Arts, Vol. 1(Stockton:
Koinonia), 1978.

Nelson I. Wu, Chinese and Indian Architecture
(New York: George Braziller), 1963.



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Ramsey, Blake
Philosophy and form.

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