

Montana State University Library, Bozeman.

P378
.M7465

WHITE ASPEN

A SPIRITUAL NATURE RETREAT

MONTANA STATE UNIVERSITY
LIBRARY

White Aspen
A Spiritual Nature Retreat
for
Southwestern Montana

by Nancy L. Monforton

MONTANA STATE UNIVERSITY
Bozeman, Montana

June 10, 1989

A thesis paper submitted in partial fulfillment
of the requirements for the degree

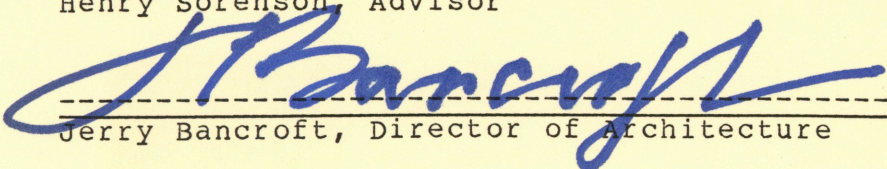
of

Bachelor of Architecture

APPROVED:

Ralph Johnson, Advisor

Henry Sorenson, Advisor



Jerry Bancroft, Director of Architecture

~~044~~
~~NA~~
~~2540~~
~~m746~~

P378
M7465

STATEMENT OF PERMISSION TO COPY

In presenting this thesis in partial fulfillment of the requirements for an advanced degree at Montana State University, I agree that the Library shall make it freely available for inspection. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by my major professors, or, in their absence, by the Director of Libraries. It is understood that any copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Signature Nancy M. Manfort
Date 6/10/89

Table of Contents

Introduction

Goals

I

Man

Nature

Man/Nature

II

Spiritual

History

Design

Site

Conclusion

III

Case Studies

Program

Site Analysis

Proposal

Endnotes

Bibliography

Appendix

INTRODUCTION



Clearly the problem of man and nature is not one of providing a decorative backdrop for the human play, it is the necessity of sustaining nature as a source of life, milieu, teacher, sanctum, challenge and most of all rediscovering nature's corollary of the unknown in the self, the source of meaning.¹

After living in Baltimore for 6 months, I have come to appreciate the mountains, fresh air and seclusion. Until then I didn't realize how fortunate I was to live and experience such a beautiful region. Montana was the essence of my life. This sense of relaxation and peace seemed to have never been experienced by any of my co-workers at RTKL. Immediately, I wanted to share the opportunities Montana had to offer. Thus, it was clear that I was to prepare a Montana retreat for everyone's enjoyment and education.

While contemplating the idea of a retreat for my thesis project; I realized that Southwestern Montana didn't contain the facilities I had envisioned. Dude ranches were seasonal. Church retreats exist for a specific organization. This escape was to be for anyone needing a sense of peace no matter the religion, race, sex or nationality. Yet, all of these facilities were poorly designed in relation to their site. These buildings were situated in wonderful sceneries and not one accommodated a clear relationship with the site. Most of the structures were used as the objects for playing spin the bottle or jacks. Wherever the toy settled was the position of the building. The implications of this event became disruption. The constructions were not signifying relaxation, peace or finding the inner self. It was blasphemy! I wanted a controlled built environment for human use which related to nature and its forces. As a result of inner joy and a sense of meaning would occur. Therefore, analyzing the relationship of man and nature became the main concern for White Aspen of Southwestern Montana.

GOALS

- To analyze the relationship of man to nature.
- Produce an architecture that reflects community, contemplation and spirit.
- To establish better communication skills in order to express my ideas for other people's understanding of the project.
- To design a unique, yet functional facility for everyone's enjoyment.
- To fashion Thesis into a non-stressful situation.
- To learn and understand the implications a building has on a site.

What is man's relationship with nature?

The following is an analysis of man and nature and how they function and respond to their inner selves and to external forces. Striving for dominance over the other is the cause of some of the problems but can be resolved by communication, knowledge and cooperation. Man and nature are a distinct entity, but can not exist separately.

MAN



The nature of the human being is to love and desire beauty
and to live in it.²

Frank Lloyd Wright

Man is distinguishable from other animals by the notable development of the brain, articulation of speech and abstract reasoning.³ Through abstract reasoning a human can interpret or produce a mental image of the environment to fit his own context. This perception of the external world can cause many different sensations within that specific mental picture. Although everyone's image of reality and fantasy is somewhat different there is a basic similarity in man's visual world.

Man is a visual animal. This dominant sense works in conjunction with touch, sound and smell. As a human we can take an object from the environment, examine it by our sensory modes and return it to the original place in its surroundings.⁴ We as reasonable beings know the implications of improperly placed objects. Visually and instinctively, a person can observe this disharmony. Thus, man desires order to be able to control what might occur in his life. In order to control these results people have become knowledgeable about the structure of the environment in terms of both pattern and composition.⁵

This sense of knowledge seems to be synonymous with security. Man needs both physical and psychological security in order to protect himself from the outside pressures of society. A society is established through common associations of individuals with an organized pattern. For example, values and aspirations are the common goal for most groups. Yet, a person's expectations of the goals may not be achieved. As a result disruption both mentally and physically will occur. Thus, each of us as an individual needs the security of the community for

hope so that our aspirations can be filled. On the other hand, security is freedom. The individual enjoys being confronted with choices. As a result, each person requires a time for contemplation to understand his inner self and surroundings. Time spent away from the pressures of the group is appropriate occasionally. A group of people can establish a mental confusion or sense of crowding to the point of distrust, insecurity and eventually a lack of communication. Communication is the essence of human nature. Man communicates through the use of symbols(visual) and verbalization(reasoning).

Through the built environment man communicates visually. Rationalizing the symbolic imagery depends on man's knowledge of himself and his surroundings. Each person's perception of the environment is unique. Yet, every image must contain harmony, order and security. In reality an individual's life is more complicated with the incorporation of the value system and economy resulting in turmoil. Therefore, humans need time for learning, a sense of belonging, contemplation, relaxation and play.

NATURE



Fire, water and wind work to quiet all traces of violence
until unison is again bathed in the atmosphere.⁶

Nature is a single process that interacts and responds to laws which were established for the regulation of universe. Each unit of the process, whether it is as small as an atom or as large as the Pacific Ocean, is created for a unique and specific role for a greater entity. Yet, any complications to the system can result in irreversible damage.

Nature is observable. On the whole the world is based on a set of repetitions and rhythm that one can perceive everywhere.⁷ Yet, there is a variation produced in the individual organism for specific functions toward the whole system. Each organism has matter that is unique from other creatures. This matter is adaptive to the entire system. This adaptation produces an ultimate characteristic.⁸ Regulation of the environment occurs through this evolution.

An organism does not exist independently. It contains distinct parts whose relation to others is determined by their function to the whole.⁹ Thus, every organism has a specific role in the ecosystem in which each cooperates with the other organisms in order to sustain the biosphere.¹⁰ Changes to any part of this system will affect the efficient operation of the whole process. Introduction of a foreign body or change of sequence could result in the breakdown of the system. One defect will affect the entire ecosystem, not just the specific organism. The whole relies on each part.

MAN / NATURE



Man is no less a feature of the landscape than the rocks,
trees, and bears.¹¹

The relationship between man and nature is contingent upon man's attitude toward his environment. Although there is an embedded bond between man and nature; man's image of his surroundings is based on his values. Basic values rest upon spiritual need, nourishment, play and money. Each play a significant role in which man perceives his environment. As a result man has used nature for his benefit and survival. Therefore, what is the place of nature in man's world and the place of man in nature?

Nature in Man's World.

Man uses nature for his comfort, pleasure and a sense of meaning. In the beginning man has adapted to the environment for survival. Now, man adapts the environment to fit his needs. Seeking the meaning of his existence, security and survival are examples of man's needs. This adaptation of his surroundings was accomplished by extracting nature's elements from the world such as materials, sun and wind. Buildings resulted and became a symbol of an orderly world. Although man can control his immediate surroundings through this built environment; he can not completely conquer natural forces. Therefore, nature should be used to its fullest potential without pushing the environment past its limitations.

The Place of Man in Nature.

Man takes a hand in creation whenever he puts a building upon the earth beneath the sun.¹² As a result, buildings become

a circumstance humans share with animal, birds, fish and the insects.¹³ Each feed or rely upon the other in order to fulfill nature's processes. Thus, man fills a specific role in the ecosystem. Without this unison, the process becomes incoherent. Yet, man can mistreat the system by imposing extreme limitations on nature. The world, similar to the human body, continually rejects any foreign intrusion. Thus, man is a part of nature and should establish harmony with the elements of the earth. Humans are in unity with the environment when they look upon the world, cooperate, listen and learn.¹⁴ Life is dependent on nature and its system.

Solitude, communication and sense of community are literally the foundation of man and nature. Nature establishes a sense of community through its processes. Everything works together in unity. Man needs to be participating for survival and well being. This desire to share is accomplished by communication between humans and their environment. Communication is the basic link for any good relationship and occurs by working with and understanding nature's process. Yet, man can still achieve a sense of solitude. In other words, nature produces individuality within the community.

Exploring the history of man's relationship to his environment through the built form, rituals, or surroundings can create a knowledge for future implications. In the past, man worshipped nature and lived in accordance with its laws. Yet, people proceeded to use nature for his own gains. Therefore, through the built environment designers can incorporate these aspects in order to fulfill man's desires and establish a harmonic relationship with nature's processes.

SPIRITUAL



It is on tops of mountains that man contemplates the face of nature with real delight. There it is that in conference with the fruitful parent of all things he receives from her those all powerful inspirations, which lift the mind above the sphere of error and prejudice.¹⁵

Rousseau

To be spiritual is to have a relationship with something based on the feelings of the soul. Since ancient times man desired knowledge and control over his environment and self. The use of rituals bridged the gap of the known to the unknown. Thus, worship of nature and seeking a purpose for life resulted in order to fulfill aspirations.

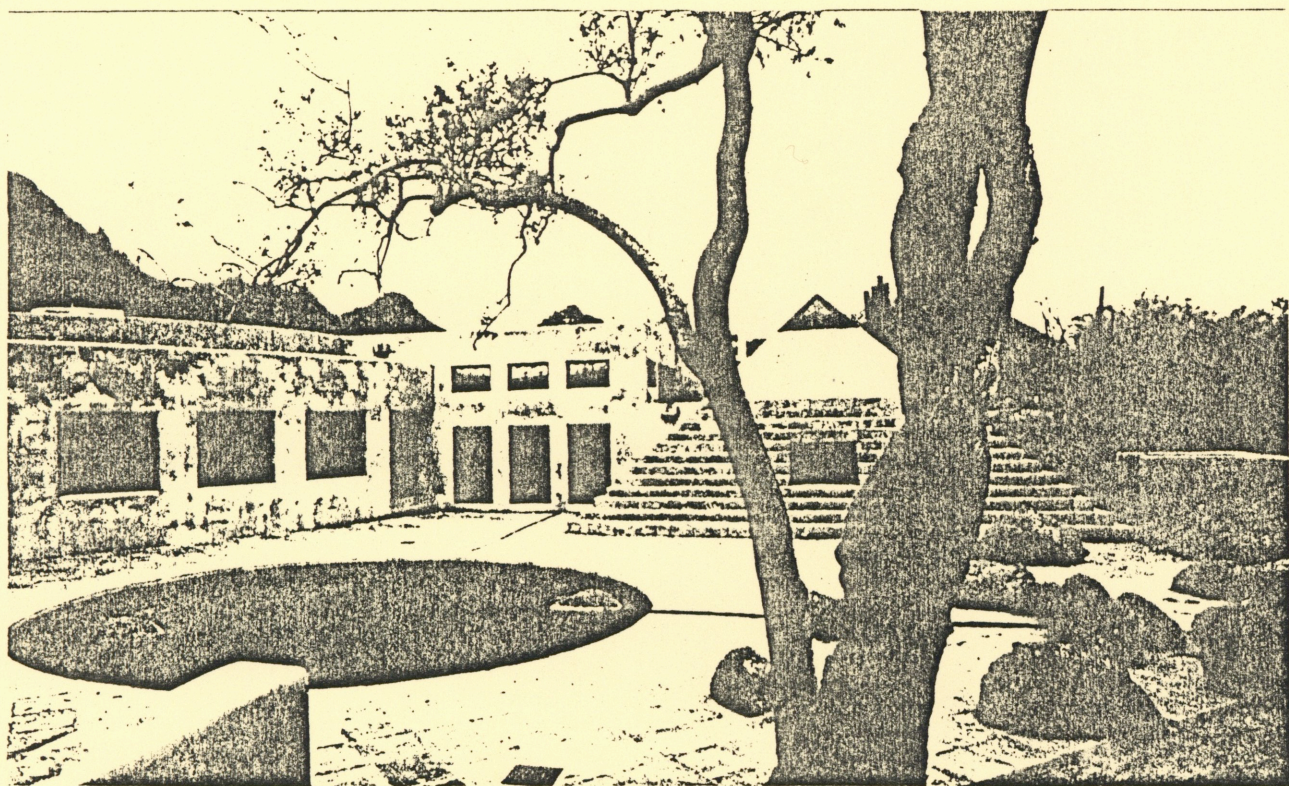
Man's mythology has contained many references to the forests and mountains. In China the spirits lived only in the forests. Nature was not disturbed in order to keep harmony with these gods.¹⁶ Also, Biblical characters wandered in the wilderness in order to understand their spiritual purpose. During the Hellenistic period temples were built in the mountains to house their gods. In ancient times the mountains themselves were worshipped. The Tower of Babel was constructed to reflect the image of a mountain in order to coexist with God. Spiritual influence has encouraged man to exercise his skills in construction. Thus, reassuring his own spiritual survival.

In modern times city dwellers want to escape the stress of success and the smell of hate, poverty and urine. As a result of these human predicaments, people need to recover values that were lost. Solitude, self reliance, challenge and friendship need to be rediscovered. Therefore, the role of the landscape has become a source of cleansing and spiritual recharging for humans. It is as if we escape from our present lives to the restoring haven of the earth. Thus, the human world is a world of expanded space and time.¹⁷ For instance the tea ceremony in Japan is a spiritual process in order to become one with nature. Through

meditation a sense of purity and silence is obtained for the inner self.

Although relating to nature is a highly personal experience; there is no doubt about the religious feeling of the mountains. The smells, sounds and visual harmony of the area causes relaxation, inner joy and contemplation towards the purpose of life. This elevated feeling gives a desire to listen and learn from the world.

HISTORY



The interpretive process relies heavily on the past upon information gathered at previous times.¹⁸

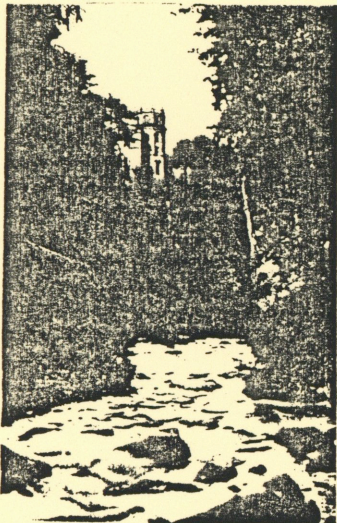
Previous treatments of buildings in nature are important to understand the purpose of later designs. In the early 18th century man was supreme. He began to take control of his world and develop the environment to benefit his purposes. Nature was only used to extract materials for human consumption, not to live in it. The city symbolized this advancement of technology causing the elite to dwell only in the city. Thus, the iron forge which symbolized man's dominance was the only association to be made in relation to nature and water.¹⁹



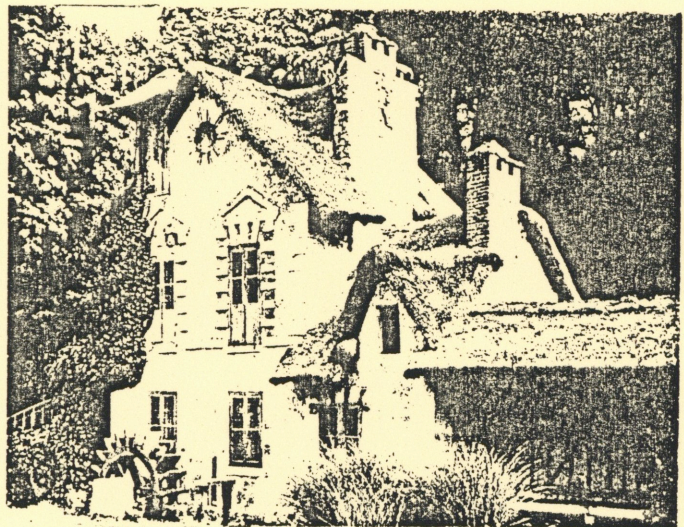
The Marriage of Isaac & Rebekah by Claude Lorraine
Toward the end of the 18th century the elite began to retreat away from the rat race and into the country. Yet, an intermediary zone of culture was established between building and nature. This zone was a man controlled garden and was used to soften the wildness of the environment. Man needed this gradual transition to keep his world orderly.

People of wealth in the 19th century in Europe elevated their houses on a hill or summit. The view and symbolism of

position was the prominent image of the time. It was believed the low-lying structures enclosed by vegetation was unhealthy and full of disease.²⁰ These quiet buildings were viewed from the prestigious homes. Yet, fifty years later these cottages became a retreat for the nobility. Cottages blend into the surroundings and nature became to romantic image of era. Although the structures were usually made of undressed stones with creepers and a thatched roof; the interior was a metropolitan and high society style.²¹

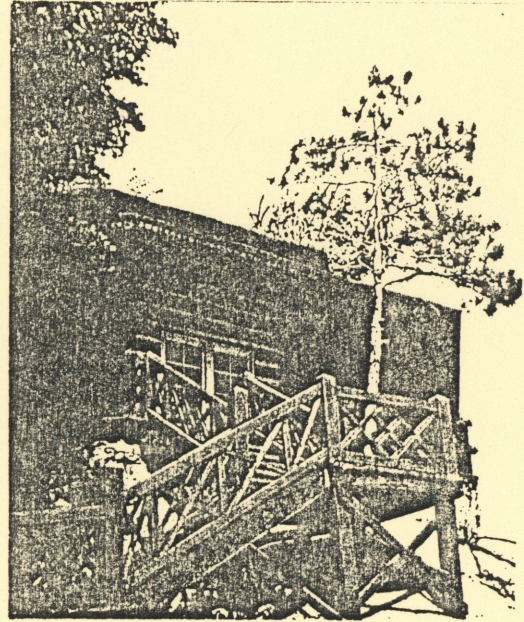
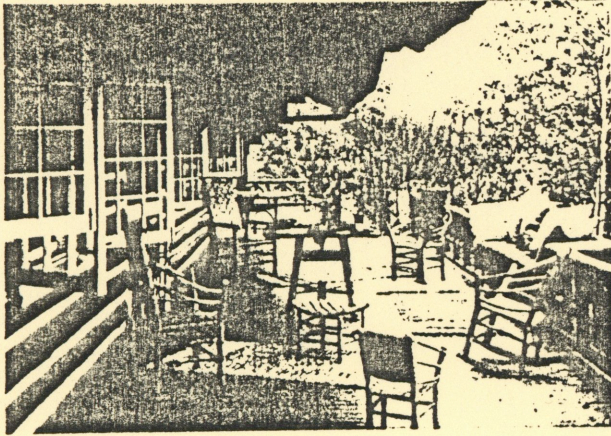


Douglas in Haddingtonshire



Richard Mique Hameau, Versailles

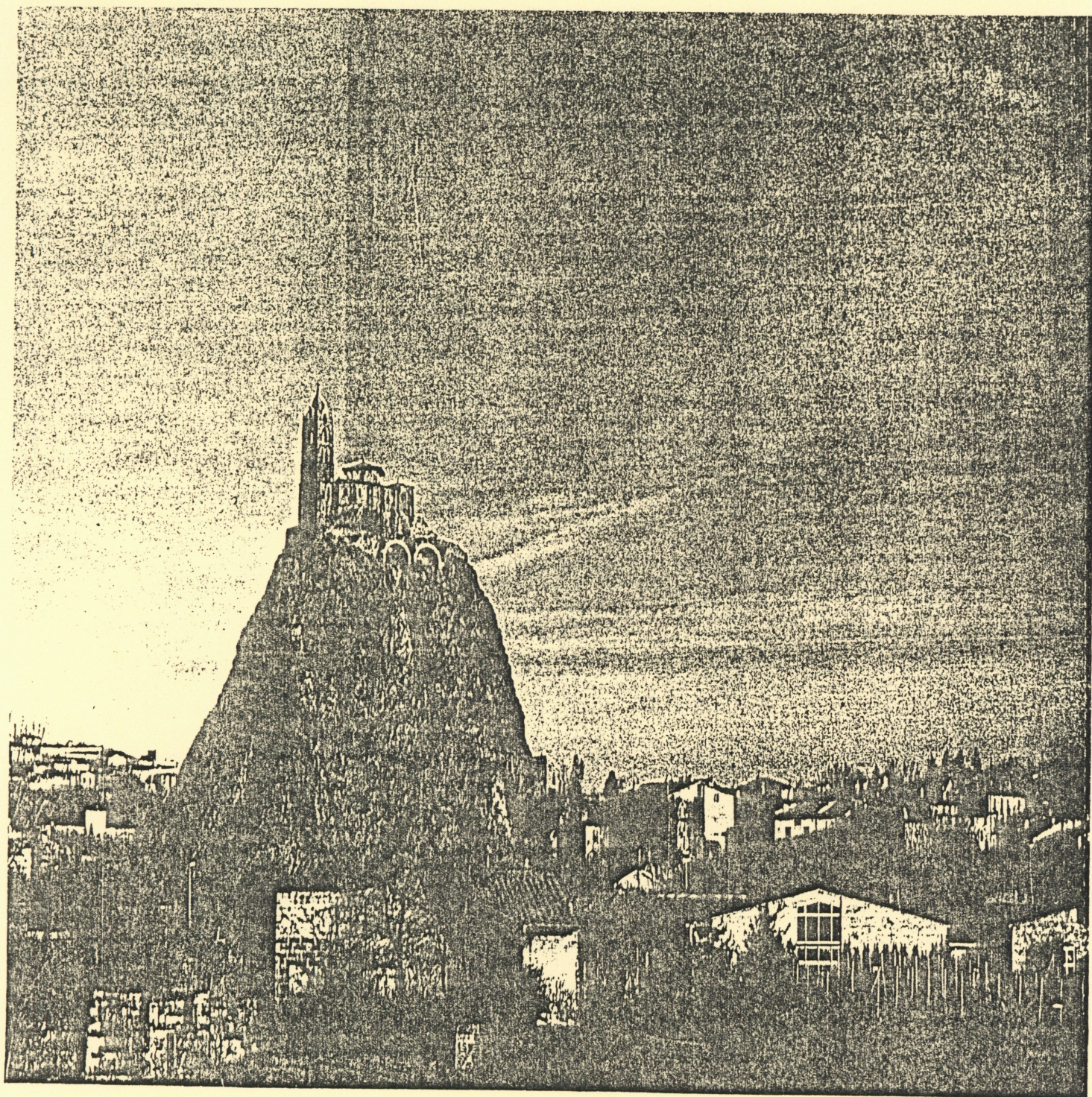
Meanwhile, in the Catskill Mountains of the United States camps were established to commune with nature. These camps were permanent and did not alter the landscape. The planning and position of the buildings had to be dominated by nature and its processes. Thus, verandas and rockers were placed in order to enjoy the tree tops and water. Trees grew through the veranda to minimize disturbance. Another scheme to minimize the impact of man's influences was to institute each unit separately by a covered way.



Catskill Mountain Camp

Past buildings interpret man's values of the era. The forms communicate financial and spiritual images. In most examples, man takes into account nature in order to express these views. The surroundings becomes an important element in the design process both in previous and present times. As a result, what has happened in the past can be evaluated and changes can occur in order to better man's environment.

DESIGN



Efficiency is true and good and most ultimately becomes the beautiful.²³

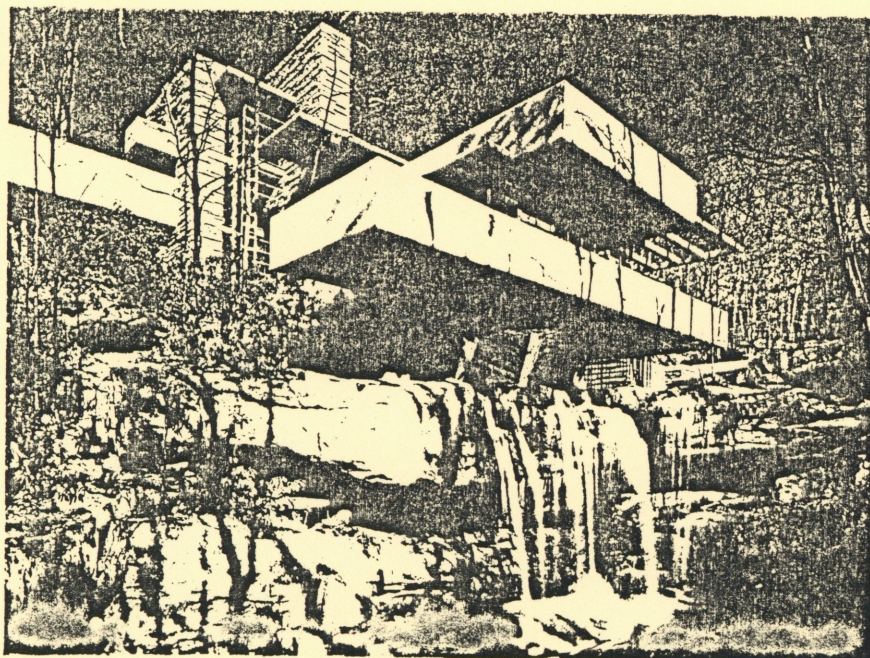
Emerson



Nothing is complete in itself but only complete as the part
is merged physically into the larger expression.²⁴

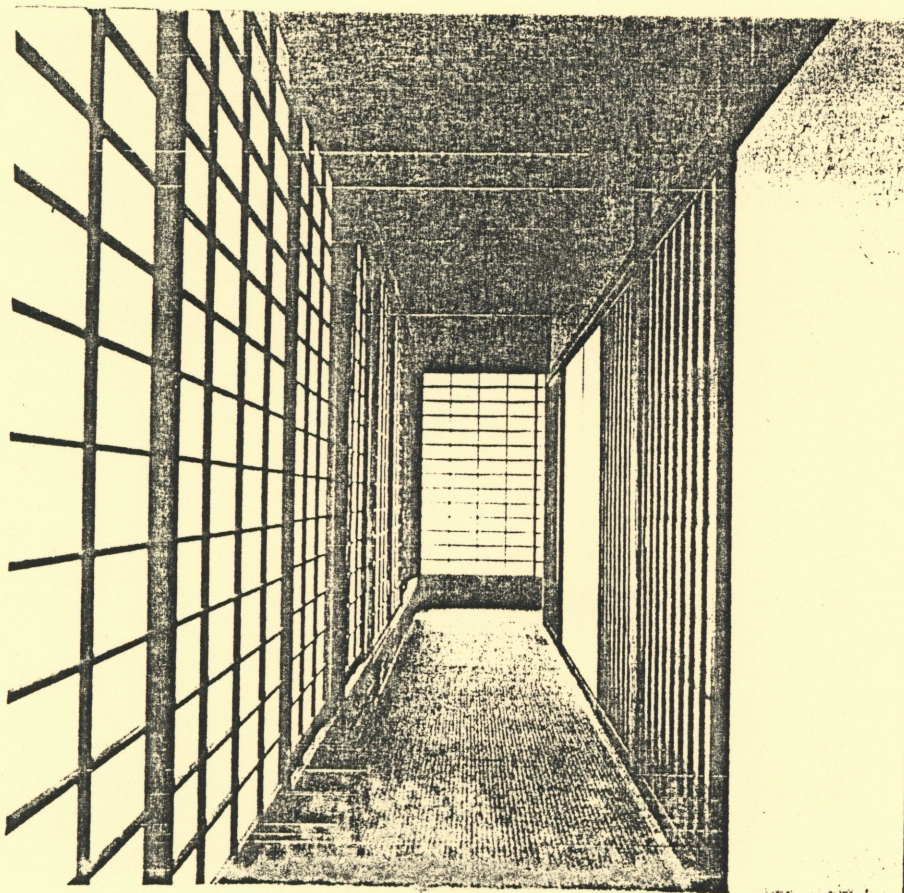
Visual order symbolism and harmony are the central purposes for design. An appropriate designed structure can enhance lives and nature. A good building can make the landscape more beautiful than it was before it was built. Solutions were selected from organic, geomorphic and Japanese architecture because they most effectively achieve a good relationship with man and nature.

Organic architecture develops from the interior and moves outward to establish harmony with exterior conditions. As a result the space outside becomes a natural part of space within. Interior space is planned for efficiency and flexibility as in corresponding with nature's procedures. As a result of this theory glass is used due to its transparency, reflection and sense of spaciousness. All of these entities enhance the view of the landscape and the sky.²⁵ When organic architecture is properly carried out no landscape is ever overpowered but developed by it.²⁶

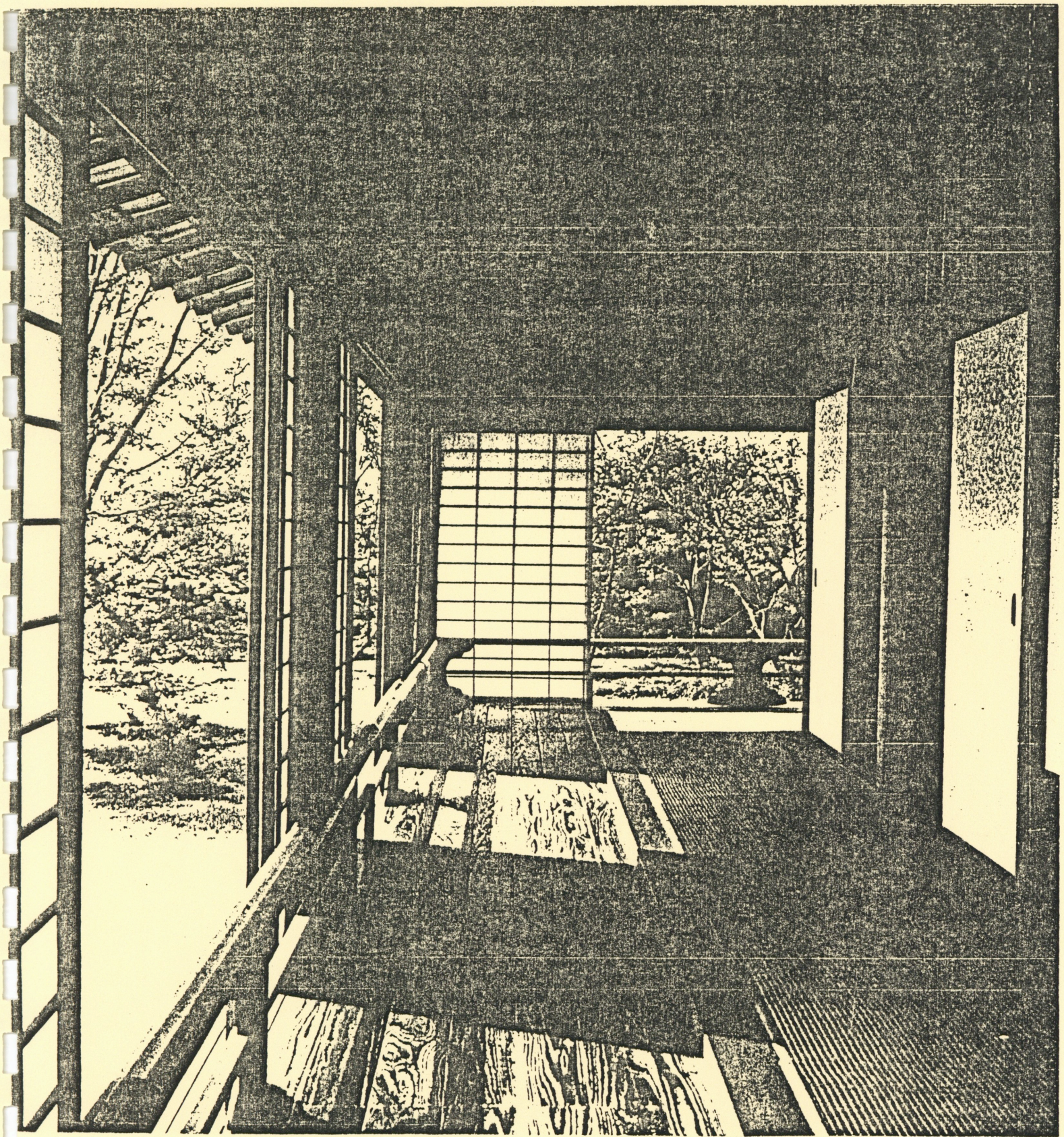


Falling Water by Frank Lloyd Wright

According to Japanese motifs, space is shaped by light, shadow and construction. The construction becomes a wood skeleton frame in order to obtain a flexible plan. The plan is designed by 6'x 3' increments which is the size of a tatami mat.²⁷ Structural elements are exposed to keep the building honest, pure and in unison with nature. Historically, Japanese seek to become one with the natural environment and the human soul. The exterior forms of the buildings are simple and inconspicuous along with the interior. Each room is kept unadorned. Objects of any type do not exist in the space; although the presence man acts as a piece of art.²⁸ Therefore, in essence man is a feature of nature; living in harmony with his surrounding and inner self.



Katsura

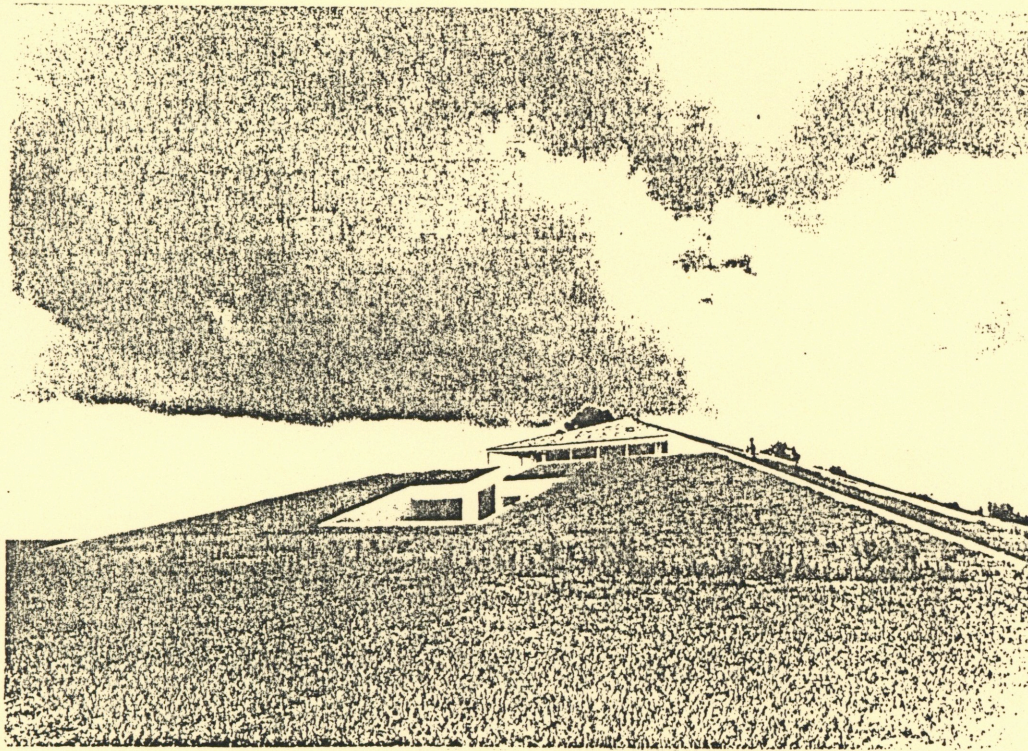


Katsura



Tea House

The building should capture the essence of the environment by using imagery from nature. This imagery is taken from the form of some natural feature or a basic geometry which underlies all nature.²⁹ Also, the structure should fit into the natural contours of the land to form a single entity. Yet, natural forms for the built environment should be interpreted into another medium without being imitated. Therefore, the building should represent a definite man made form in perfect harmony with its surroundings.



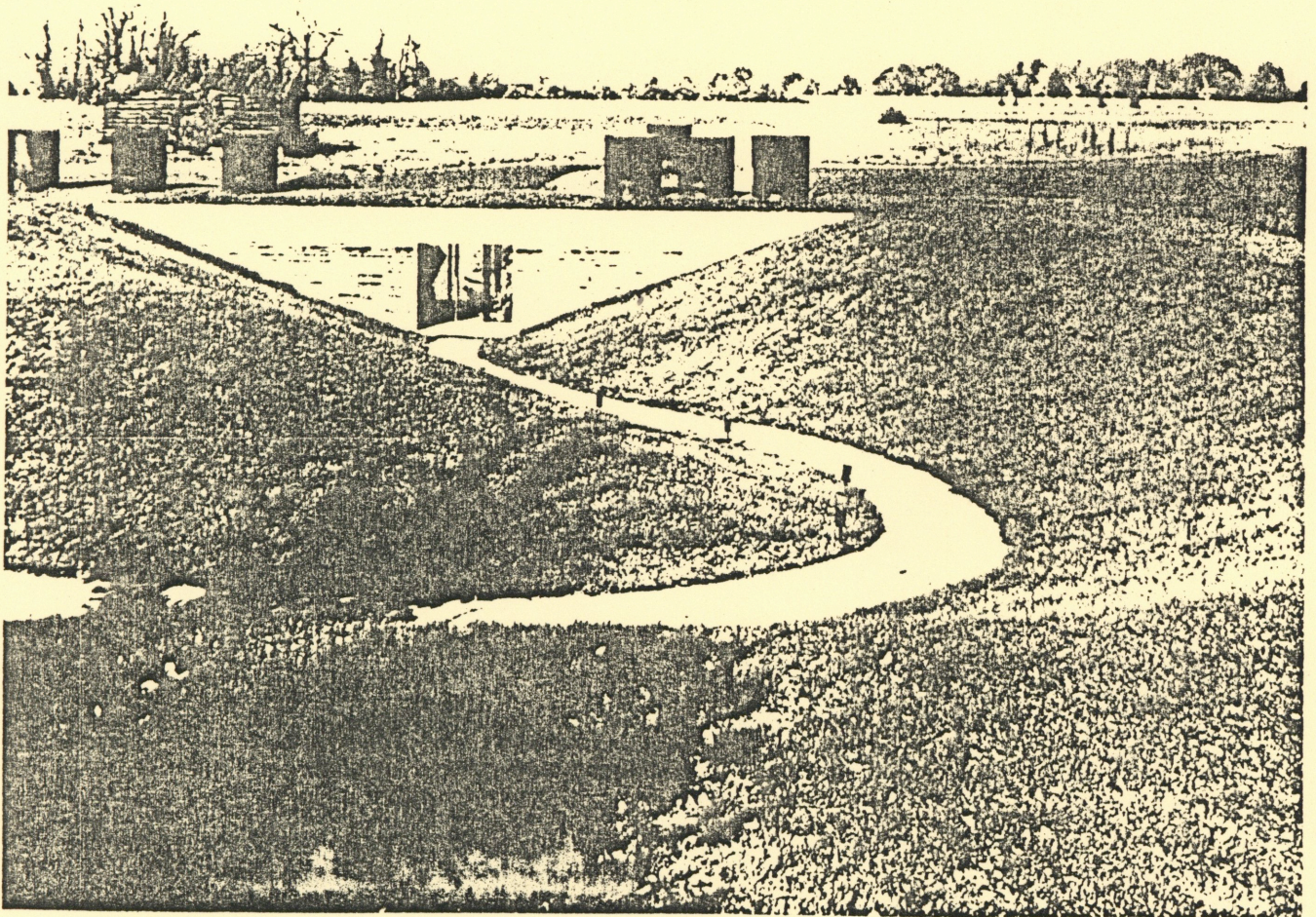
Hilltop House by William Morgan

Through the built environment solitude, communication and a sense of community must be emphasized. Thus, form becomes communication or a presentation of meaning. As a result the structure will signify the harmony and cooperation of man and nature. Man is united with nature and not a separate entity paying alimony for past actions.

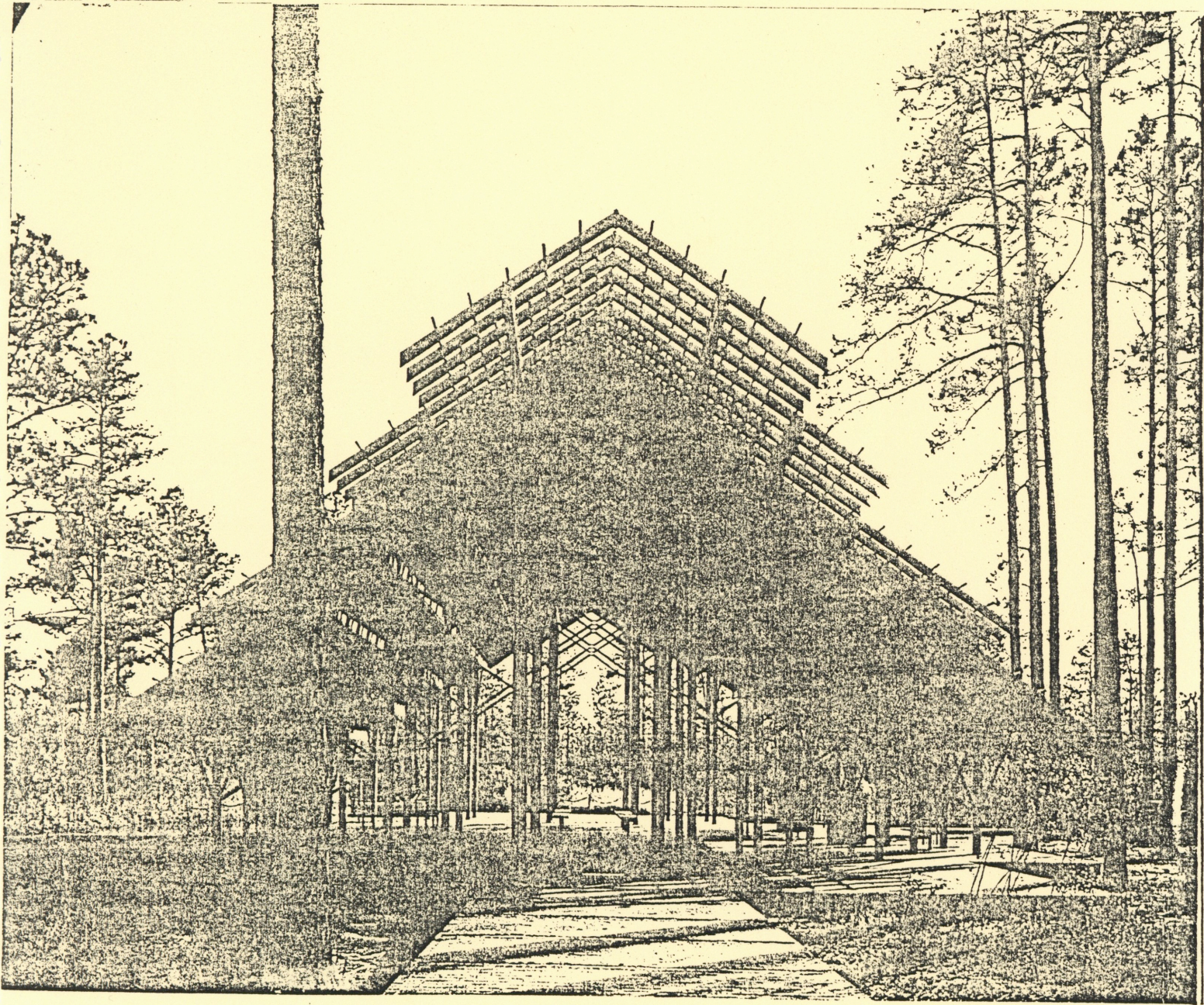
SITE



Plan in full awareness of natures forces, forms and features: the sweep of the sun, the air currents, the peaks and hollows of the earth, rock, and soil strata, vegetation, lakes and streams, drainage ways and this awareness should entail planning in harmony with the element nature. If we disregard them we will engender countless, unnecessary frictions and preclude these experiences of fitness and compatibility that can bring so much pleasure and satisfaction to our lives.³⁰



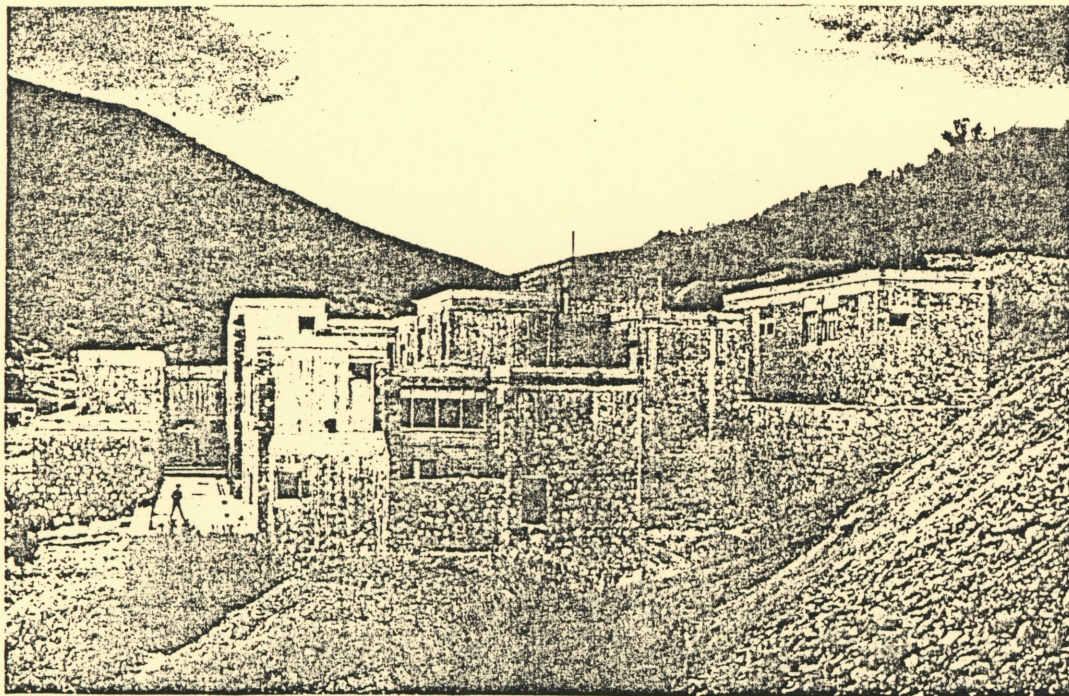
The instrument is only an extension of the limb.³¹



Harmony with nature results form neither to few or to many parts, ideas or materials.³²

The site is a combination of features that make a piece of land as distinctive as a human face.³³ Features should be utilized in order to produce harmony, protection and visual beauty. Thus, the total design should be an expression of the site, climate, form and materials.

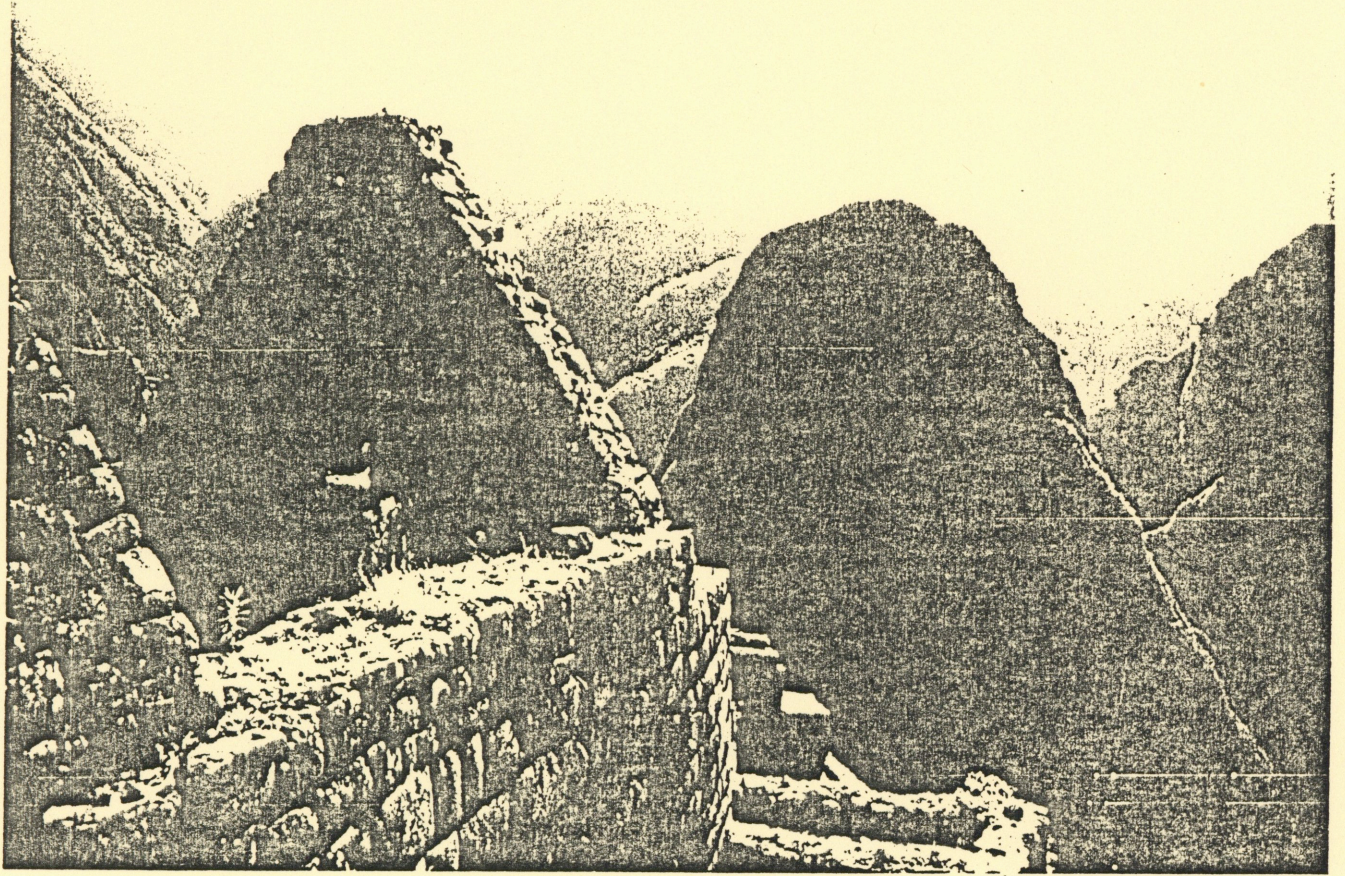
Due to the contrasting form and line man-made objects become the focal point. Misorienting this focal point on a site can cause disharmony and uncontrollable consequences. Problems occur when nature's system reacts in a negative way to man's environment. As a result, animal habitats could be endangered and weather and time will finally soften the interruption.



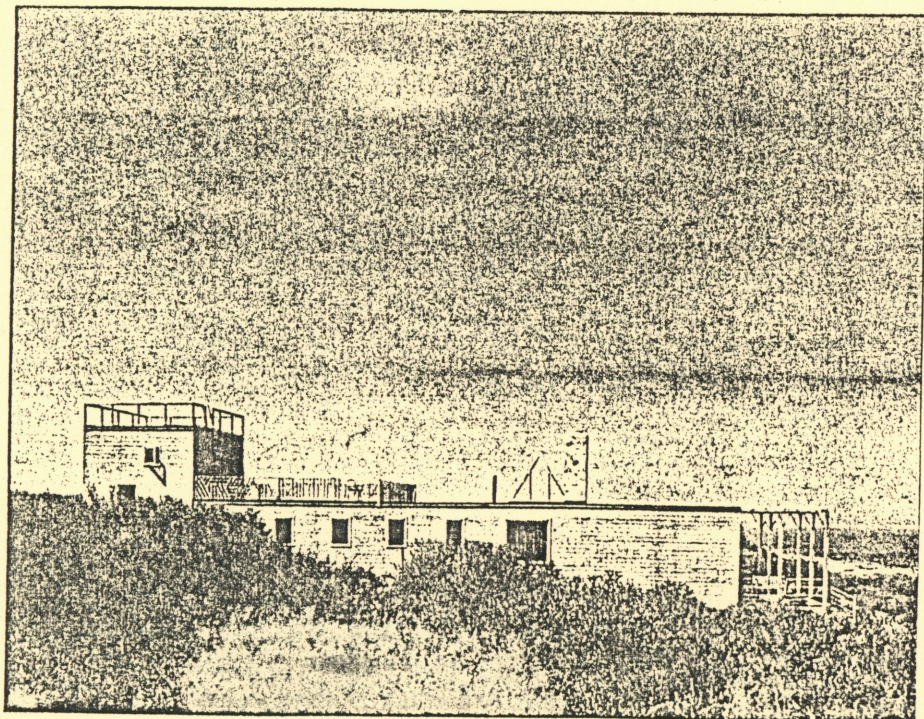
The material gives a sense of man's presence yet, is accepted by nature.



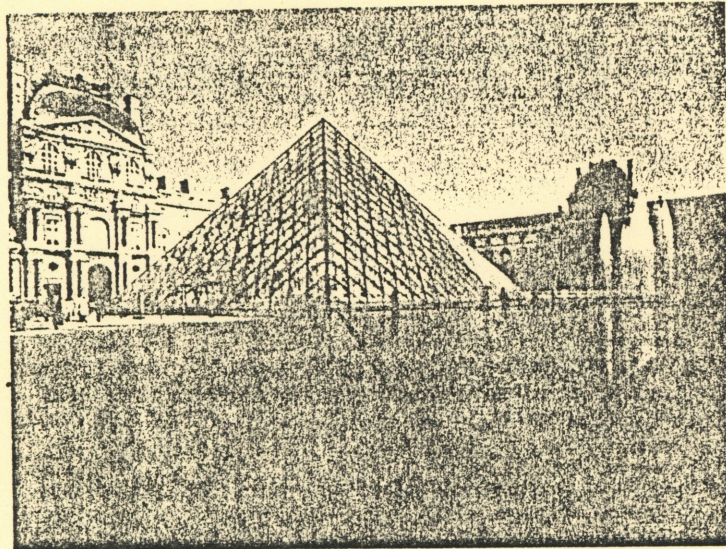
The building creates a focal point in an otherwise plain environment.



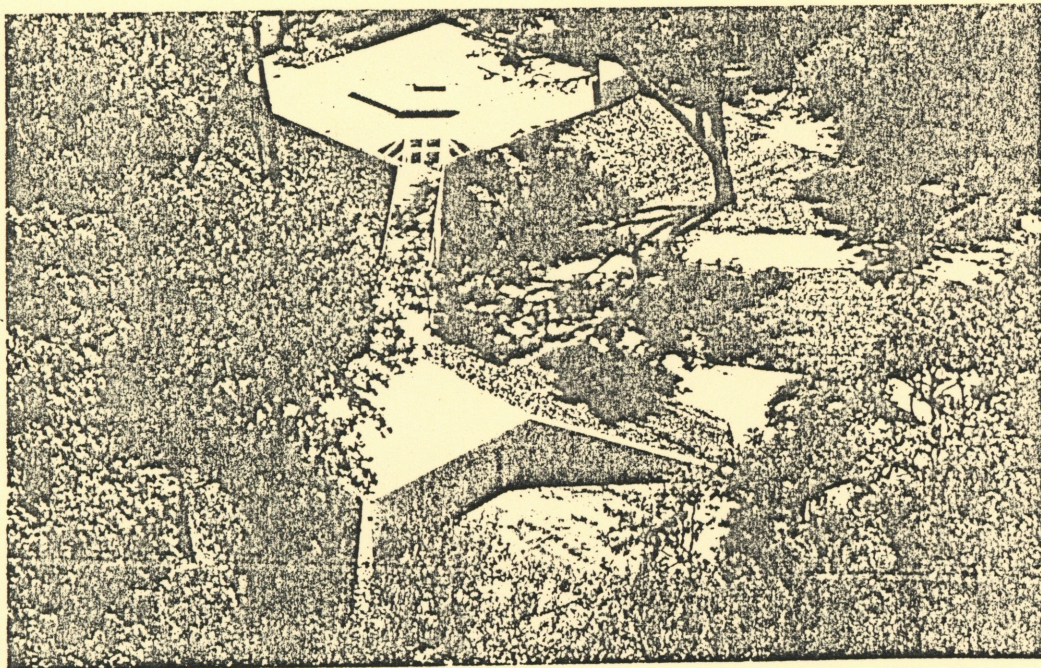
Man's environment unites with nature.



The building creates interest.



The modern building doesn't compete or overpower the existing environment. The Louvre by I.M. Pei



Minimal disturbance is achieved through designing with the site.

Forest House by William Morgan

CONCLUSION

III

Case studies, program and site analysis rely on the other to complete the whole design. The final result of a scheme depends on a careful analysis of each entity and incorporating them simultaneously to form a complete and unique solution.

Although a retreat is being designed; the relationship of the built environment to nature was the main concern for the case studies. Some examples include works by E. Fay Jones and Michael Graves. The program of White Aspen includes community, private and contemplative units all with a cooperating relationship with the outdoors. Therefore, the site plays a key role in the fulfillment of an adequate facility that promotes harmony.

STUDIES

Case #1

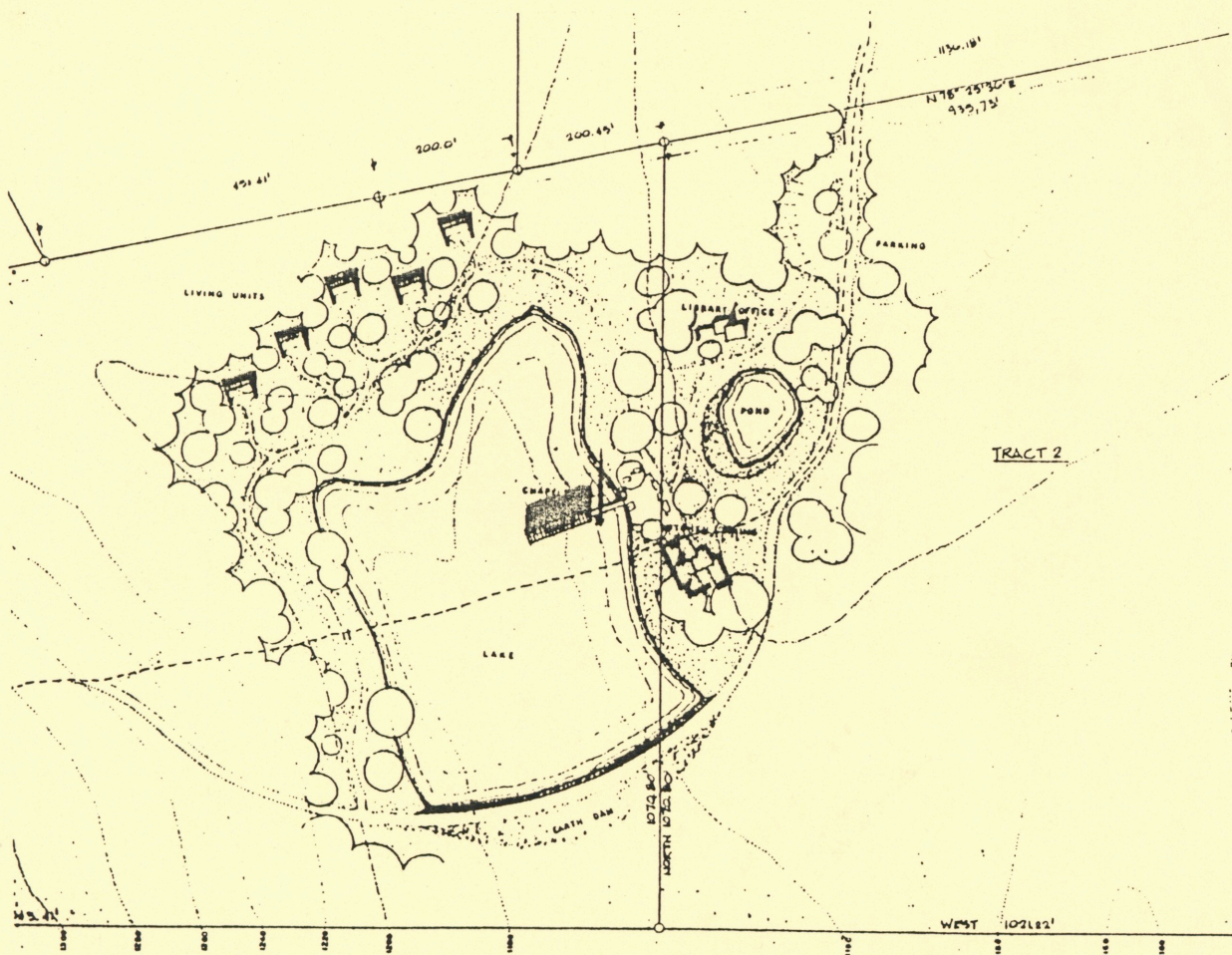
The Hermitage

E. Fay Jones and Associate Architects

The Hermitage is a secular Franciscan order which consists of a Library, kitchen, Dining, Chapel and Living Units. The facility is arranged to take advantage of the site and nature's contemplation characteristics.

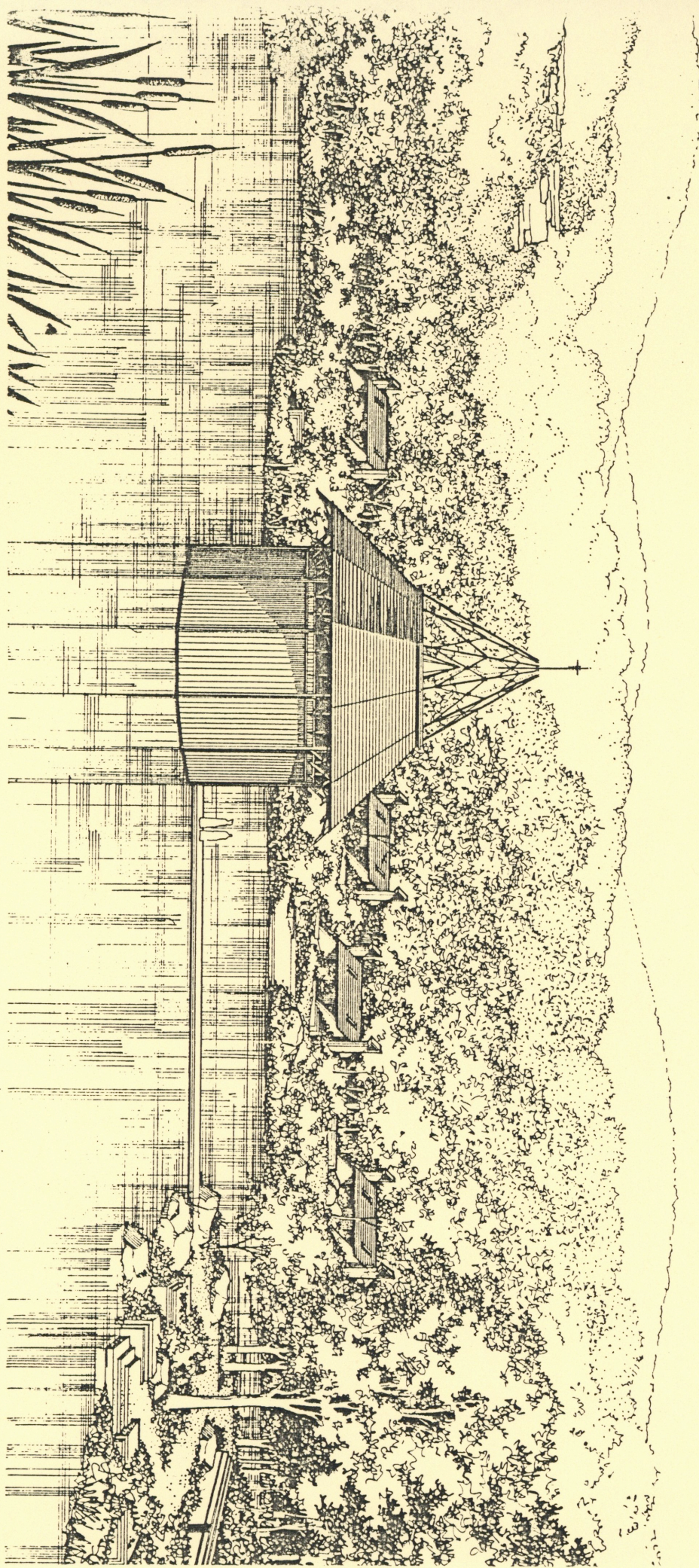
IMPLICATIONS:

1. Each building is in parts to reduce its scale on the site.
2. Use of earth berm and vegetation softens the intrusion of man.
3. Living Units are not rustic but elegant.
4. Circulation between buildings is natural and not forced.





HERMITAGE
THE LITTLE PORTION
IN ORDER
FAY JONES AND ASSOCIATES ARCHITECTS



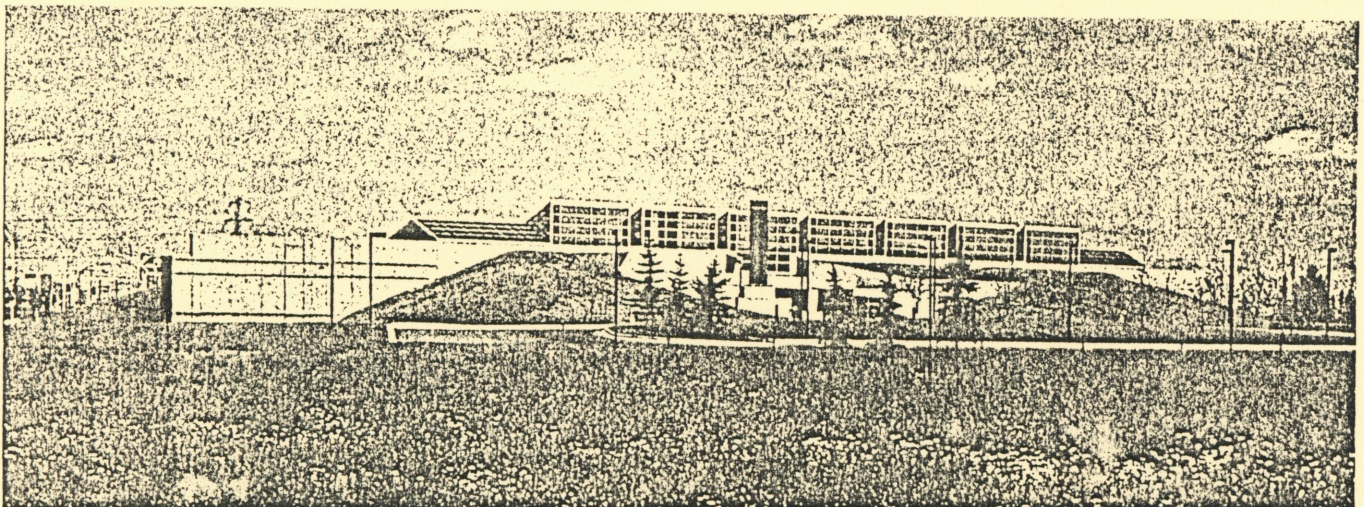
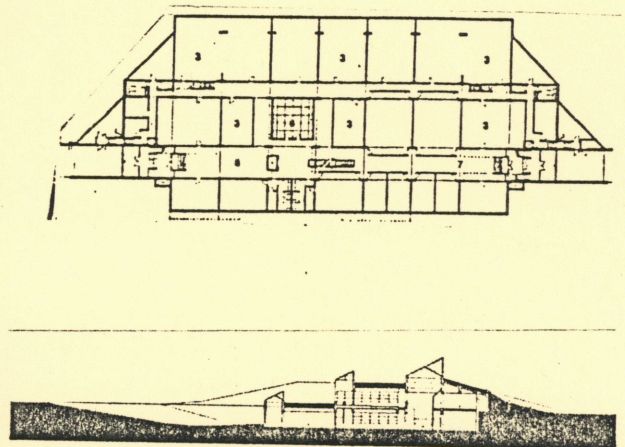
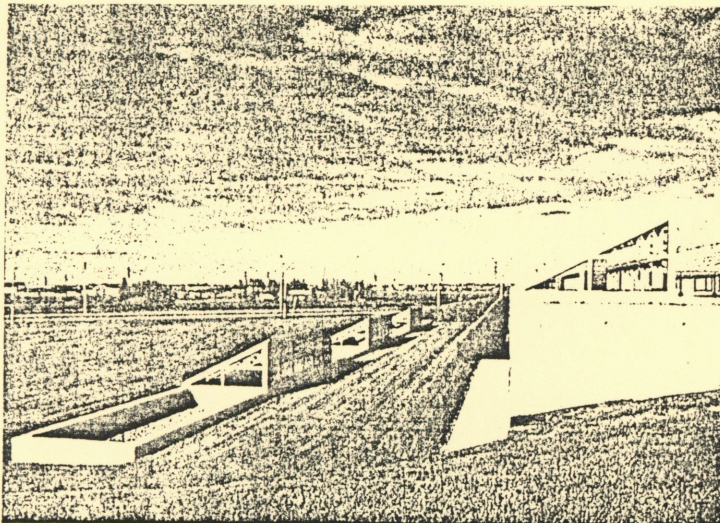
Case #2

The Edmonton Advanced Technology Center Barry Johns Architect Ltd.

The spaces are organized along a centrally located circulation path. Twelve inches of soil on the roof cover R20 insulation laid over a layer of waterproof material. comfortable temperatures are maintained through gas heating, people and lights. The building is very energy efficient.

IMPLICATIONS:

1. Burming creates sculptural possibilities.
2. The earth sheltering is energy efficient.
3. Skylights create daylighting.



Case #3

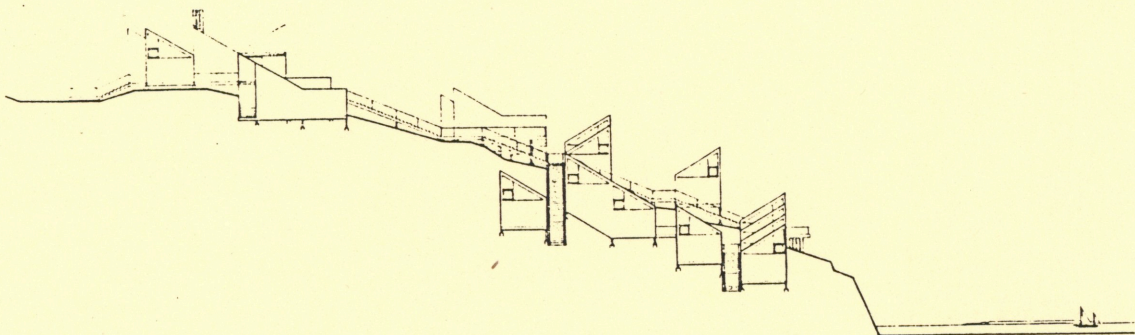
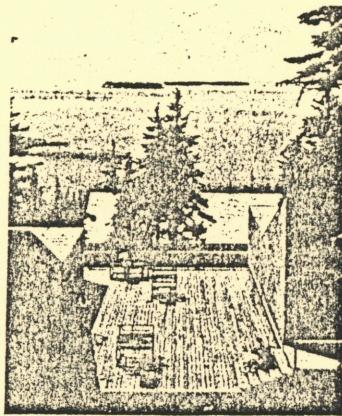
Haystack Mountain School of Crafts

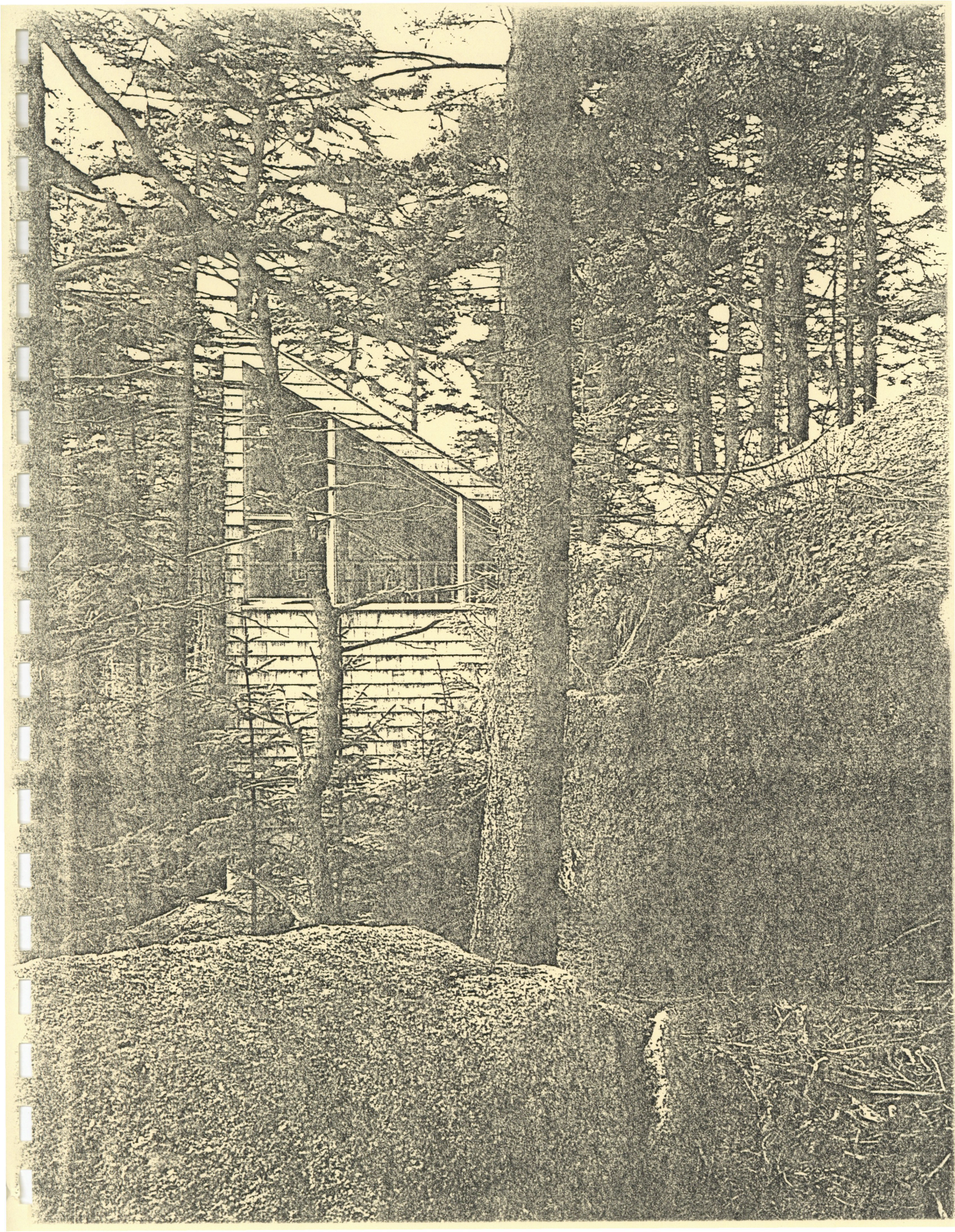
Edward Larrabee Barnes

Haystack was developed as a village on the side of a slope on Deer Isle, Maine. The facility is reached by a dirt road through spruce forest causing a sense of distance and isolation. The public spaces are located near the top of the hill for service accessibility and the sleeping units were placed further down for privacy. The shed roofs are at a 45 degree pitch and point either up or down the slope.

IMPLICATIONS:

1. Emphasizes the use of the slope to harmonize with nature.
2. Due to the slope each space has a view of the sea.
3. Functional arrangement of spaces create community and privacy.





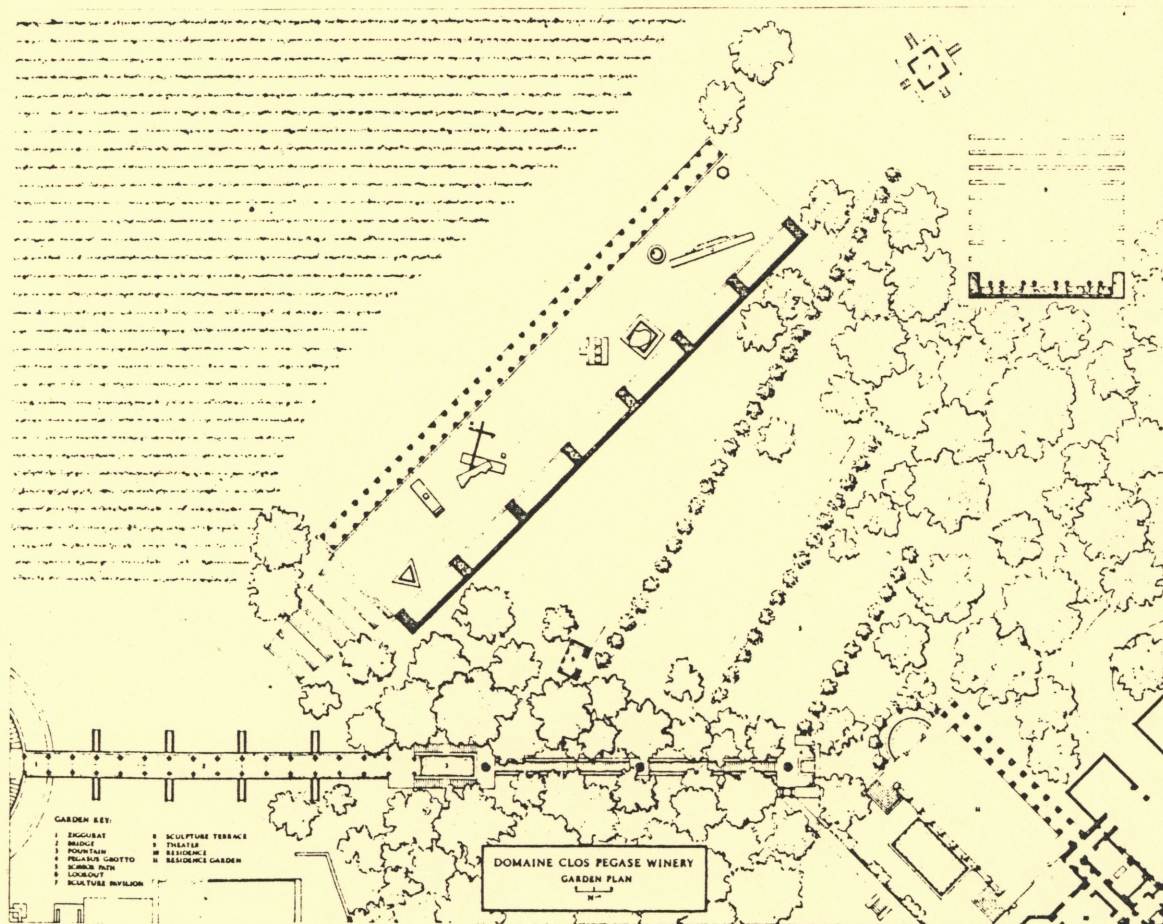
Case #4

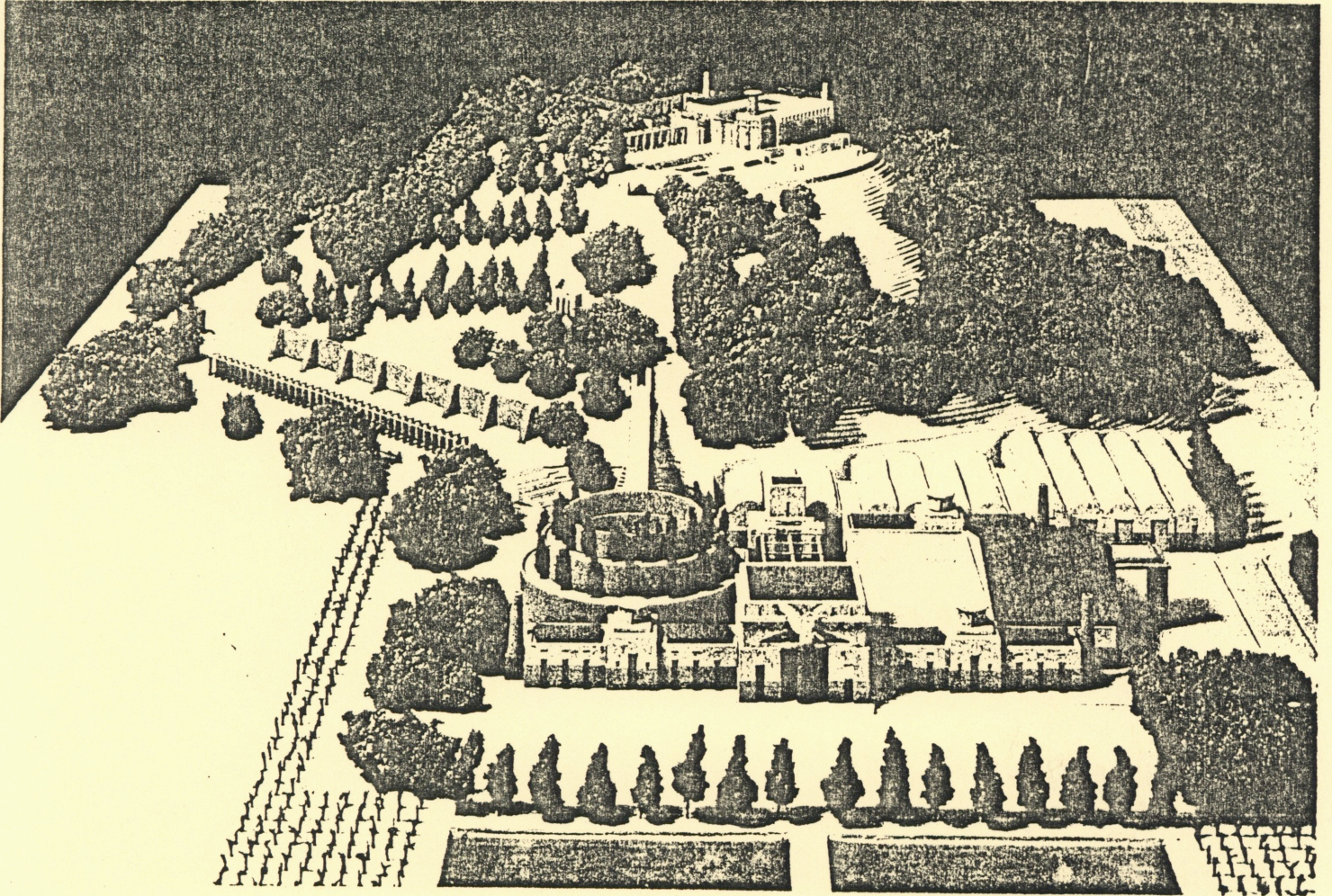
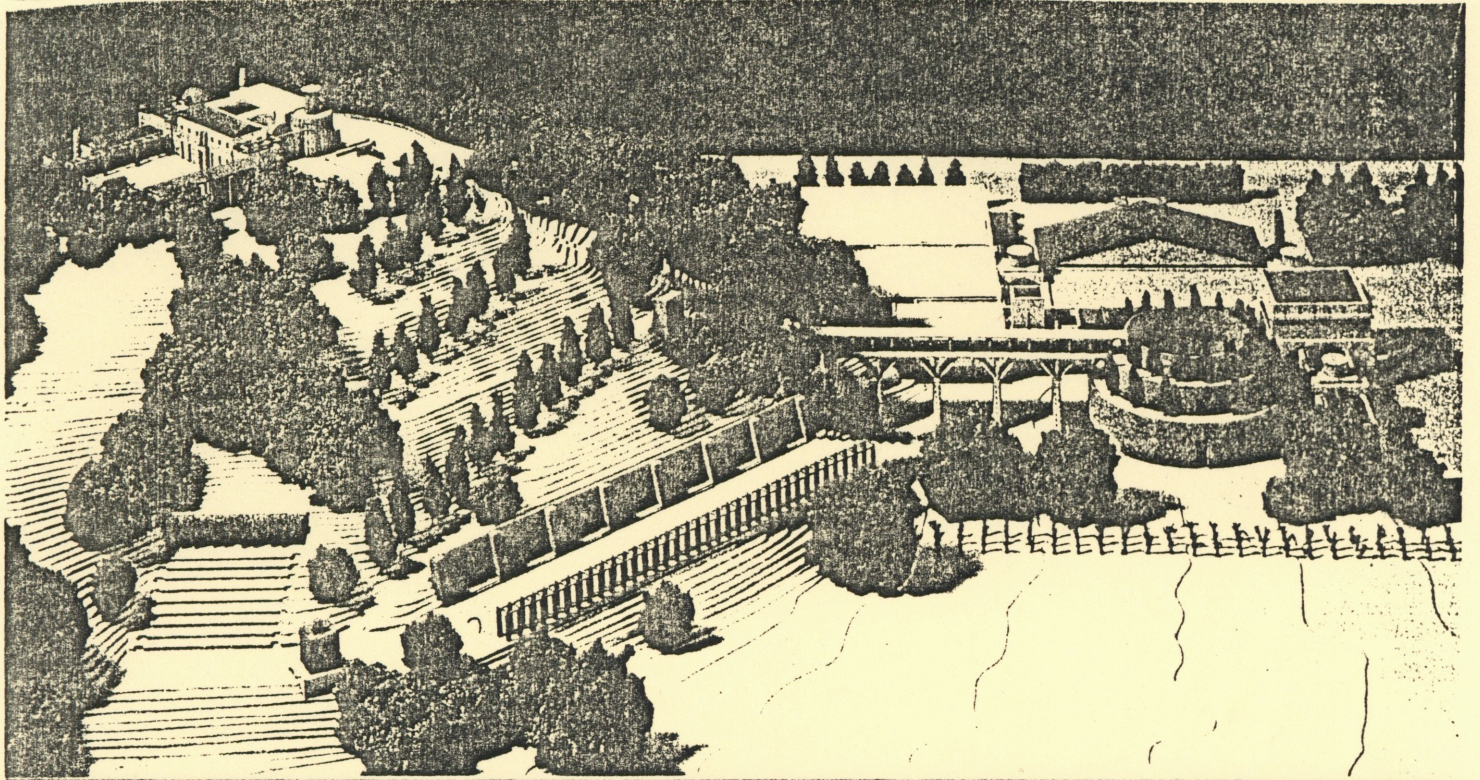
Clos Pegase Winery and Residence Michael Graves

The site of the winery was organized along an axis of water and ends in the natural landscape at the ponds. This organization creates privacy at one end and public functions at the other. The residence at the summit of the knoll has views of the winery and vineyards.

IMPLICATIONS:

1. Organization of the facility incorporates site features.
2. Procession to each space creates a view and symbolic connotations characterize the system of the facility.
3. The structure cooperates with nature.





Case #5

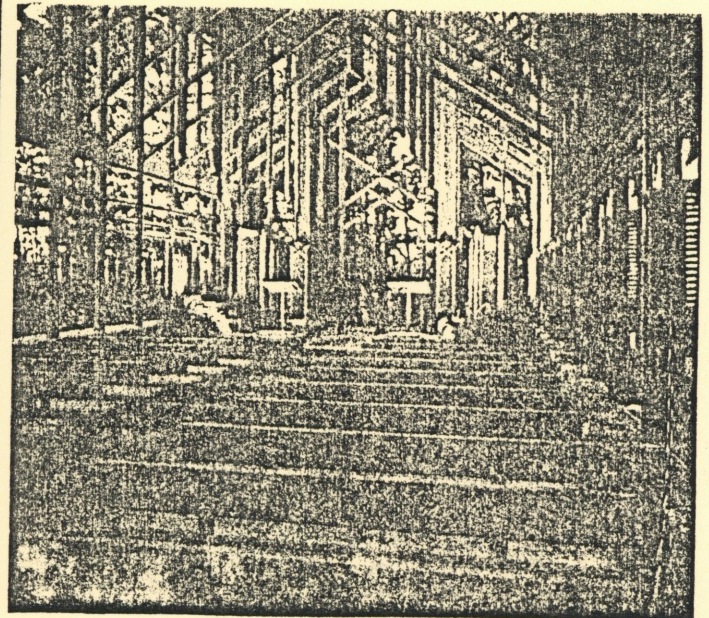
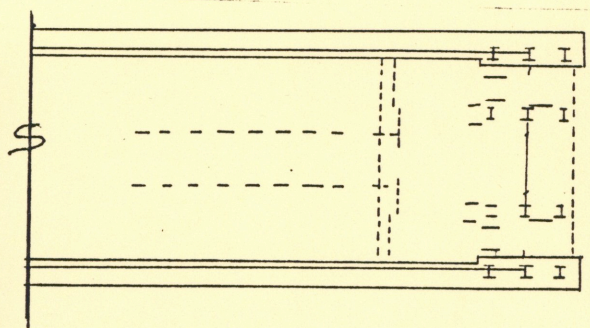
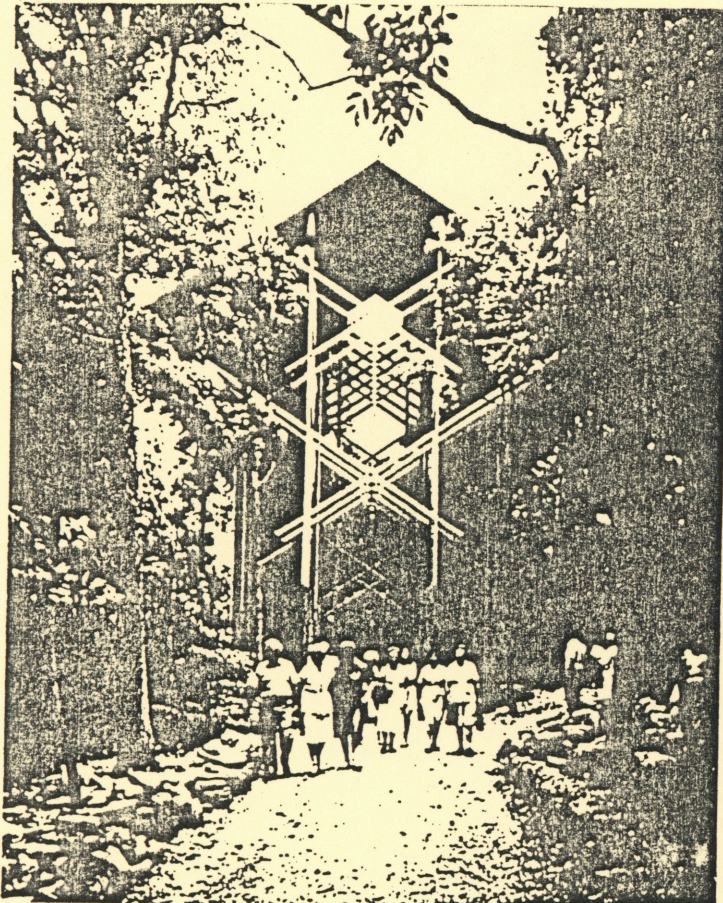
The Thorncown Chapel

E. Fay Jones and Associate Architects

The Chapel is a 24'x60' structure situated in the woods of Arkansas. The material is 2x4 pine and could be carried by two workers. As a result the construction did not interrupt the environment and creates views of the woodland.

IMPLICATIONS:

1. Adjacent vegetation was not interrupted due to the lack of heavy equipment.
2. Decoration was developed by the type of material.
3. The harmony of the building with nature creates a spiritual feeling.



PROGRAM

At White Aspen man will commune with nature and not be burdened because of his desires. In other words, people are accommodated with a controlled environment but can be given the opportunity to enjoy their surroundings. A retreat exists to be instructive, inspirational and refreshing. As a result, the facility is obligated to provide a sense of community, recreation and solitude in order to contemplate one's life.

The recreation that will be offered will be year round. Cross country skiing, skating, hiking, fishing, swimming and softball for family reunions are some of the examples. Guidance zones occur in the indoor/outdoor meeting areas and Chapel. Living units will exist in private areas. Nature, winterized single units and the observatory, which will be positioned on top of the Continental Divide, will be used for solitude and contemplation.

Deerlodge National Forest
Butte, Montana

JAN 16 1989

RECEIVED

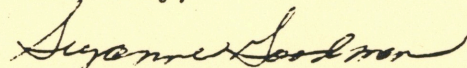
204 South K Street
Livingston, MT 59047
January 10, 1989

Superintendent
Deerlodge National Forest
P.O. Box 400
Butte, MT 59703

Dear Superintendent,

I am organizing a reunion for July 1989. We expect about 30 people and are looking for a suitable campsite. A source in BLM tells us that Rock Creek Lake is to be swapped into the Forest Service. Is this so? Has it been done? Is camping allowed on the lake? Are there any facilities? Most of our members are tent campers and would need a source of potable water and a latrine near the campsite. Are these available? Would we be able to reserve a site for our group? What would it cost our group? Your help in answering these questions would be greatly appreciated. If I need to direct these inquiries elsewhere, would you so instruct me? Thank you for your time and help.

Sincerely,


Suzanne Goodman

1989 Penguin Reunion Host

Square Footage Analysis

Space	s.f./person	#people	total
1. Entry/Reception	6 s.f.	150	900 s.f.
2. Lobby	12 s.f.	50	600 s.f.
3. Dining	22 s.f.	150	3400 s.f.
4. Conference	22 s.f.	50	1100 s.f.
5. Seminar	22 s.f.	30	600 s.f.
6. Chapel	10 s.f.	150	1500 s.f.
7. Ex. Recreation'	softball field		3600 s.f.
8. Ex. Meeting'	10 s.f.	30	300 s.f.
9. Observatory'	20 s.f.	10	200 s.f.
10. Office		3	150 s.f.
11. Kitchen	6 s.f.	150	1760 s.f.
12. Central Bath		80	800 s.f.
13. Toilets	.8 s.f.	150	250 s.f.
14. Living Units	180/room 20/bath	2/rm 10 rms	2000 s.f.
	250/room 15/bath	4/rm 20 rms	5300 s.f.
15. First Aid		3	150 s.f.
16. Residence		2-3	1600 s.f.
		<u>Total</u>	20110 s.f.
Circulation	25% of total		5000 s.f.
		<u>Subtotal</u>	25110 s.f.
17. Mech/Maintenance	5% of total		1250 s.f.
		<u>Grand Total</u>	<u>26360 s.f.</u>
18. Parking	350/car 400/bus	55 cars 2 buses	20000 s.f.
19. Service Entry			500 s.f.
20. Contemplative Units		1/space	125 s.f.

'Not included in total square footage.

*S.F. obtained from Human Dimensions & Lawson's Convention Fac.

1.

Zone: Community

Space: Entry/Reception

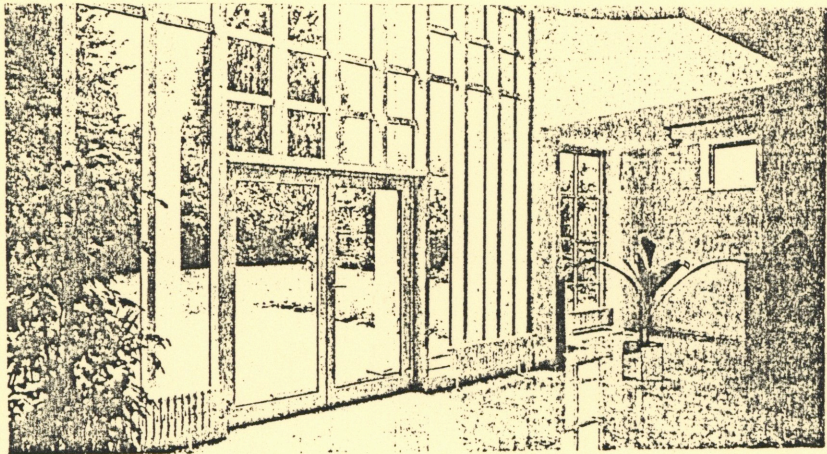
Function: Provide a transition from exterior to interior,
information, direction and organization.

Area: 900 s.f.

Hard Requirements: Needs: easy access to Dining and Convention
rooms, coat and equipment storage,
desk with standing area for lines.
Wants: plants, windows, displays.

Soft Requirements: central, spacious, organized, inviting,
unique and friendly.

Additional Requirements:



2.

Zone: Community

Space: Lobby

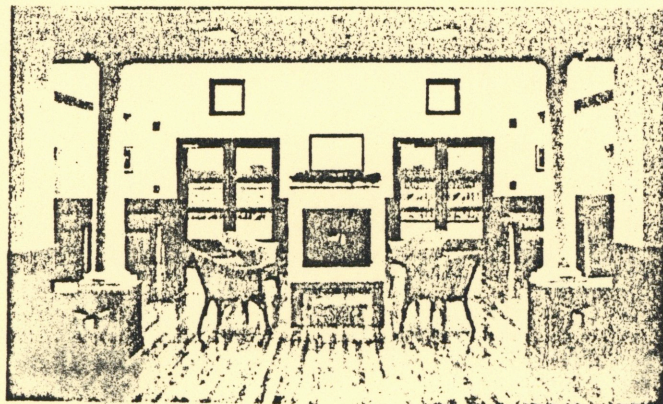
Function: Welcomes guests for relaxation.

Area: 600 s.f.

Hard Requirements: Needs: fireplace, couches, plush chairs,
rockers, coffee tables, lamps.
Wants: view, plants, acoustical.

Soft Requirements: comfortable, semi-private areas, encourage
social interaction, warm, sunny, earth tones,
natural.

Additional Requirements:



3.

Zone: Community

Space: Dining

Function: Provide an eating area for 150 guests.

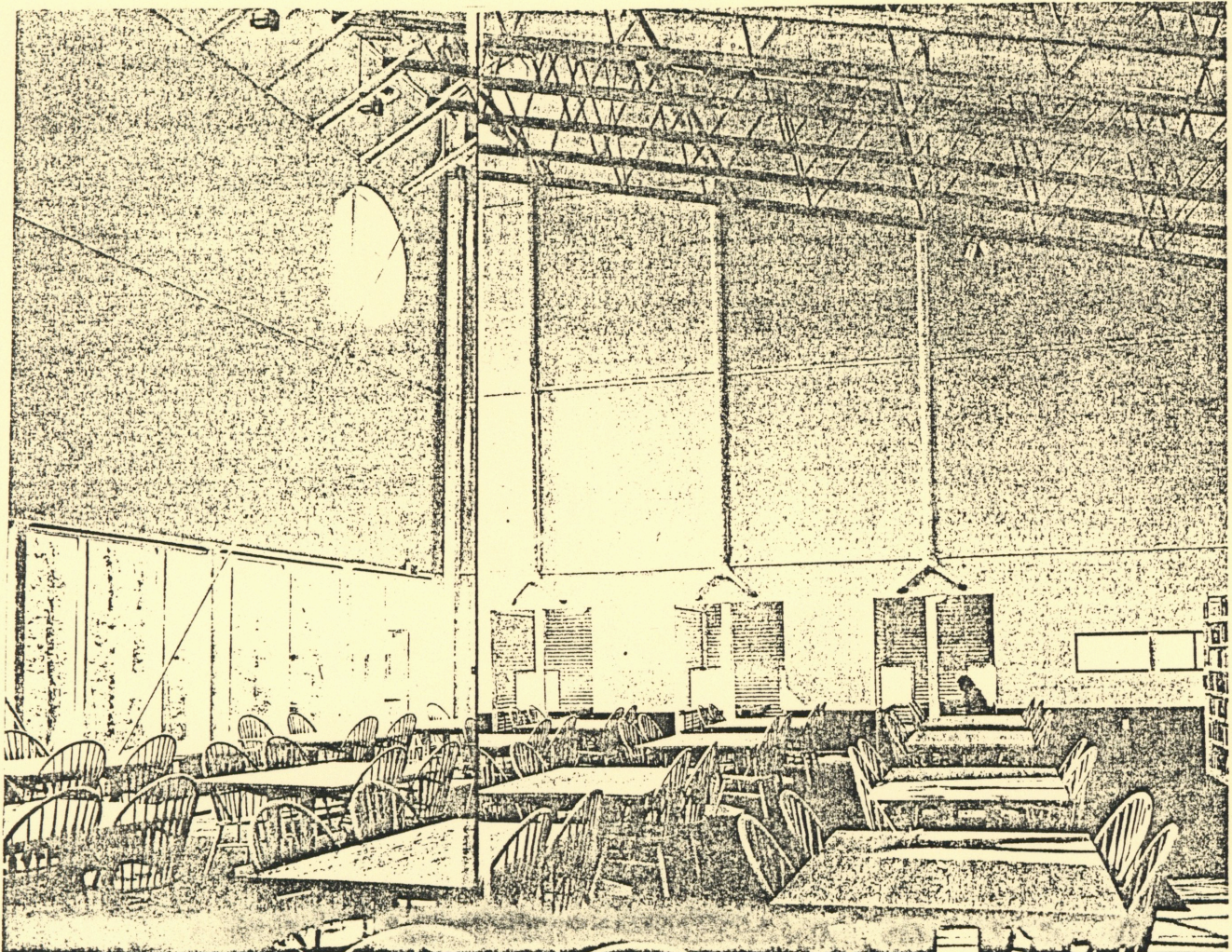
Area: 3400 s.f.

Hard Requirements: Needs: 150 chairs, 20 6-man tables, 6 4-man tables and storage, access to exterior.

Wants: view, optional uses, banners.

Soft Requirements: encourage social and community values, uncluttered, sunny, flexible, adaptive decor, reasonably lit, easily maintained.

Additional Requirements:



4.

Zone: Community

Space: Conference Room

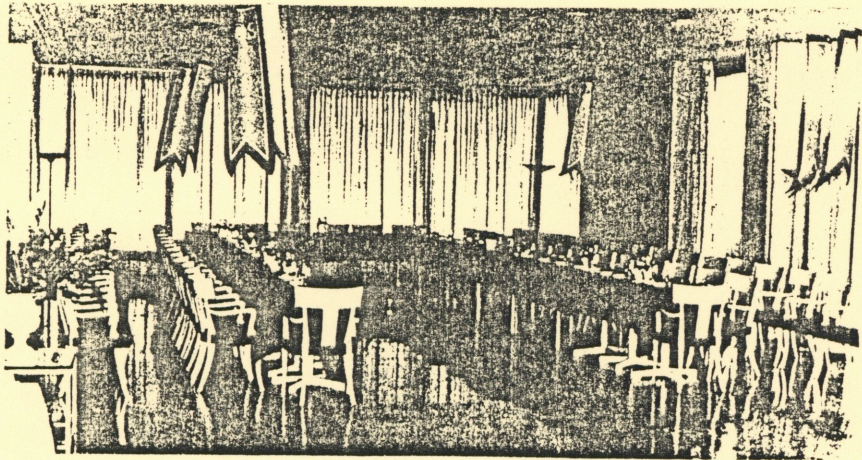
Function: Space used to exchange ideas and views.

Area: 1100 s.f.

Hard Requirements: Needs: 50 chairs, 6 6-man tables, 4 4-man tables, projector with screen, misc. storage.
Wants: adjustable lighting, view, podium.

Soft Requirements: professional, acoustical, conservative, flexible, speaker oriented.

Additional Requirements:



5.

Zone: Community

Space: Seminar Room

Function: Space used to share experiences in a particular field and to train others of new insights.

Area: 600 s.f.

Hard Requirements: Needs: 32 chairs, 8 4-man tables, projector with screen, miscellaneous storage.
Wants: adjustable lighting, view, podium.

Soft Requirements: personal, professional, acoustical, flexible, conservative.

Additional Requirements:

6.

Zone: Community

Space: Chapel

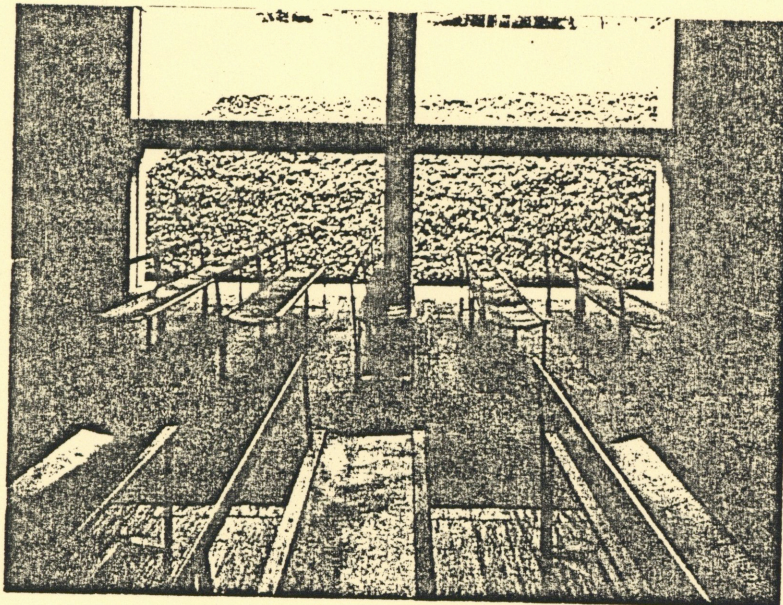
Function: Community worship.

Area: 1500 s.f.

Hard Requirements: Needs: benches, alter, miscellaneous storage, entry.
Wants: view, controllable lighting, windows.

Soft Requirements: sunny, spiritual, natural, freedom, simple, sense of community, innovative.

Additional Requirements:



7.

Zone: Community

Space: Outdoor Recreation

Function: Provides a clearing for team sports.

Area: 3600 s.f.

Hard Requirements: Needs: open, flat.
Wants: separated from private areas.

Soft Requirements: sheltered, competitive, safe.

Additional Requirements:

8.

Zone: Community

Space: Exterior Meeting Space

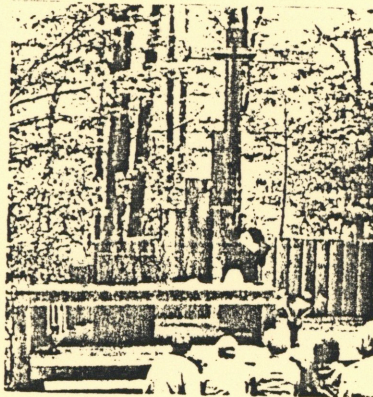
Function: Provide a semi-formal gathering space.

Area: 300 s.f.

Hard Requirements: Needs: sheltered, open, campfire.
Wants: unique feature of the landscape.

Soft Requirements: quiet, relaxed, attention oriented,
spiritual.

Additional Requirements:



9.

Zone: Semi-Private

Space: Observatory

Function: Overlook the city lights and act as a shelter on the
Continental Divide trail.

Area: 200 s.f.

Hard Requirements: Needs: sitting area, windows.
Wants: telescope, view, equipment storage.

Soft Requirements: natural, warm, inviting, unique, easy
maintenance.

Additional Requirements:

10.

Zone: Semi-Private

Space: Manager's Office

Function: Provides space for scheduling and book keeping.

Area: 150 s.f.

Hard Requirements: Needs: desk, 3 chairs, computer, telephone,
file cabinets.

Wants: view, near entry, plants, well lit.

Soft Requirements: sunny, organized, uncluttered, efficient.

Additional Requirements:

11.

Zone: Semi-Private

Space: Kitchen

Function: Preparation of food by group or hired employee.

Area: 1760 s.f.

Hard Requirements: Needs: dry storage, cold storage, misc.
storage, 200 sets of dishware, 200
sets of utensils, dishwasher, prep.
area, bake/fry/broil.

Wants: ventilated, sound barrier, well lit,
efficient storage.

Soft Requirements: easy maintenance, efficient, organized,
clean.

Additional Requirements:

12.

Zone: Semi-Private

Space: Central Bath

Function: Provide locker rooms for summer units.

Area: 800 s.f.

Hard Requirements: Needs: showers, baths, saunas, dressing
area, maintenance room.
Wants: hot air dryers, easy access to living
units, mirrors.

Soft Requirements: clean, easy maintenance, spacious, well lit.

Additional Requirements:

13.

Zone: Semi-Private

Space: Toilets

Function: Provided for the Dining Room.

Area: 250 s.f.

Hard Requirements: Needs: toilets(handicap), urinals, sinks,
hot air dispensers, soap.
Wants: extra counters, mirrors, garbage
cans.

Soft Requirements: clean, separated, easily maintained, well
lit.

Additional Requirements:

14.

Zone: Private

Space: Living Units

Function: Provides week long visits in a controlled environment.

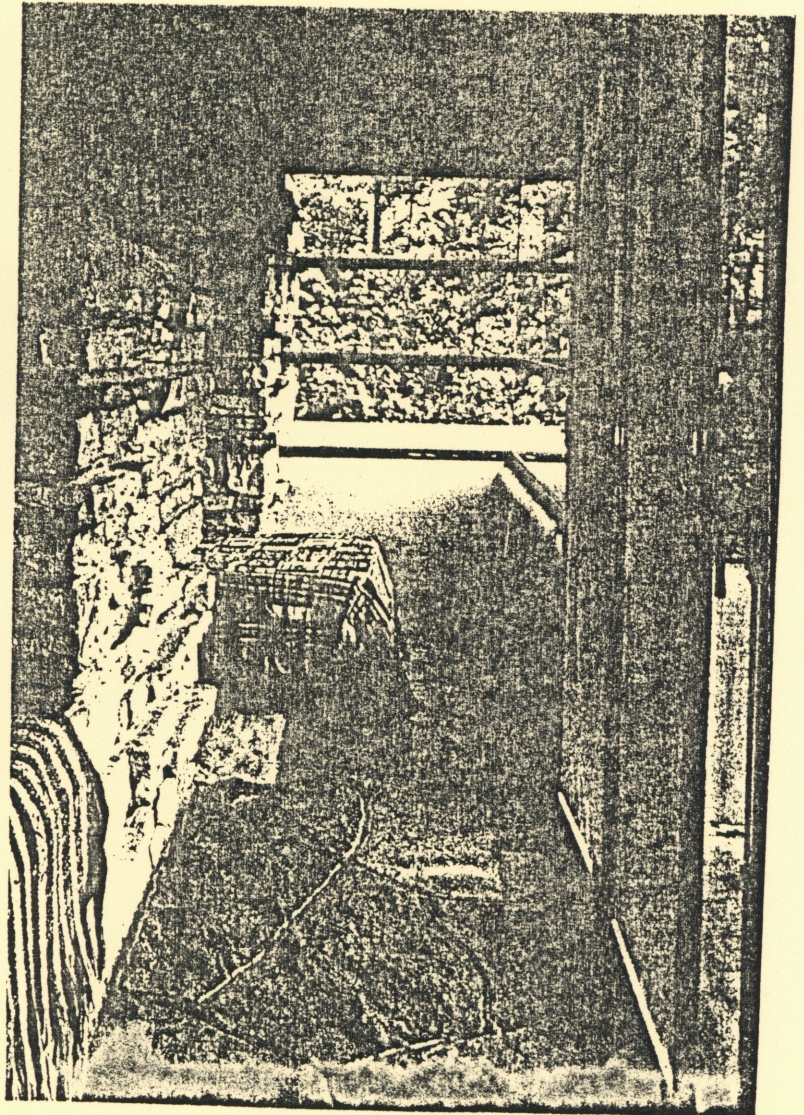
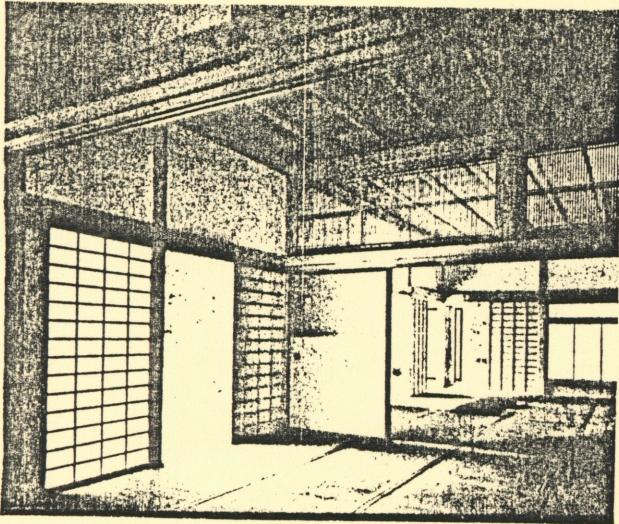
Area: 7300 s.f.

Hard Requirements: Needs: 10 beds, 10 chairs, 10 shower, 30
toilets, 30 sinks.

Wants: view, private, well lit, storage.

Soft Requirements: warm, comfortable, simple, quiet,
uncluttered, natural.

Additional Requirements:



15.

Zone: Private

Space: First Aid Room

Function: Service for possible small accidents.

Area: 150 s.f.

Hard Requirements: Needs: bed, 2 chairs, desk, sink,
shelves, storage, task lighting.
Wants: easy access.

Soft Requirements: clean, easily maintained.

Additional Requirements:

16.

Zone: Private

Space: Manager's Residence

Function: Complimentary living arrangements for security reasons.

Area: 1600 s.f.

Hard Requirements: Needs: 2 bedrooms, 1 bath, kitchen, living
room, laundry, storage.
Wants: garage, dining, extra storage.

Soft Requirements: view, sunny, comfortable, personal.

Additional Requirements:

17.

Zone: Support

Space: Mechanical/Maintenance

Function: Provide space for HVAC systems

Area: 1250

Hard Requirements: Needs: water heater, forced air gas furnace.
Wants: nondisruptive access

Soft Requirements: isolated from private areas

Additional Requirements:

18.

Zone: Support

Space: Parking

Function: To accommodate visitor's vehicular traffic.

Area: 20,000 s.f.

Hard Requirements: flat, open space.

Soft Requirements: unobtrusive, safe.

Additional Requirements:

19.

Zone: Support

Space: Service Entry

Function: Transport of goods and easy access of maintenance.

Area: 500 s.f.

Hard Requirements: Needs: storage, garbage, loading and
unloading.
Wants: unnoticeable.

Soft Requirements: separated, acoustics.

Additional Requirements:

20.

Zone: Private

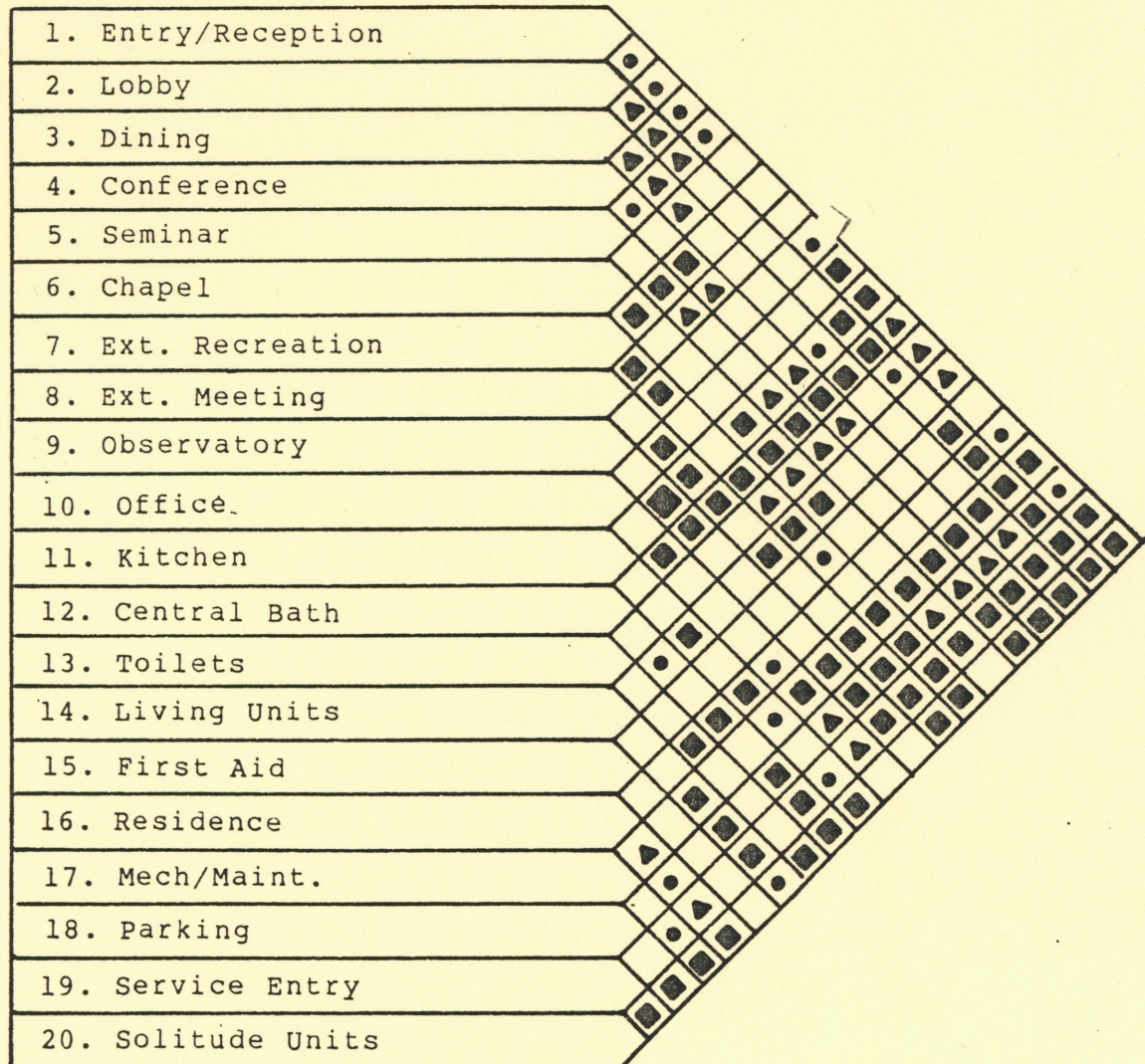
Space: Contemplative Units

Area: 125 s.f.

Hard Requirements: Needs: separate entrances, heated.
Wants: windows.

Soft Requirements: quiet, simple, natural.

Additional Requirements:

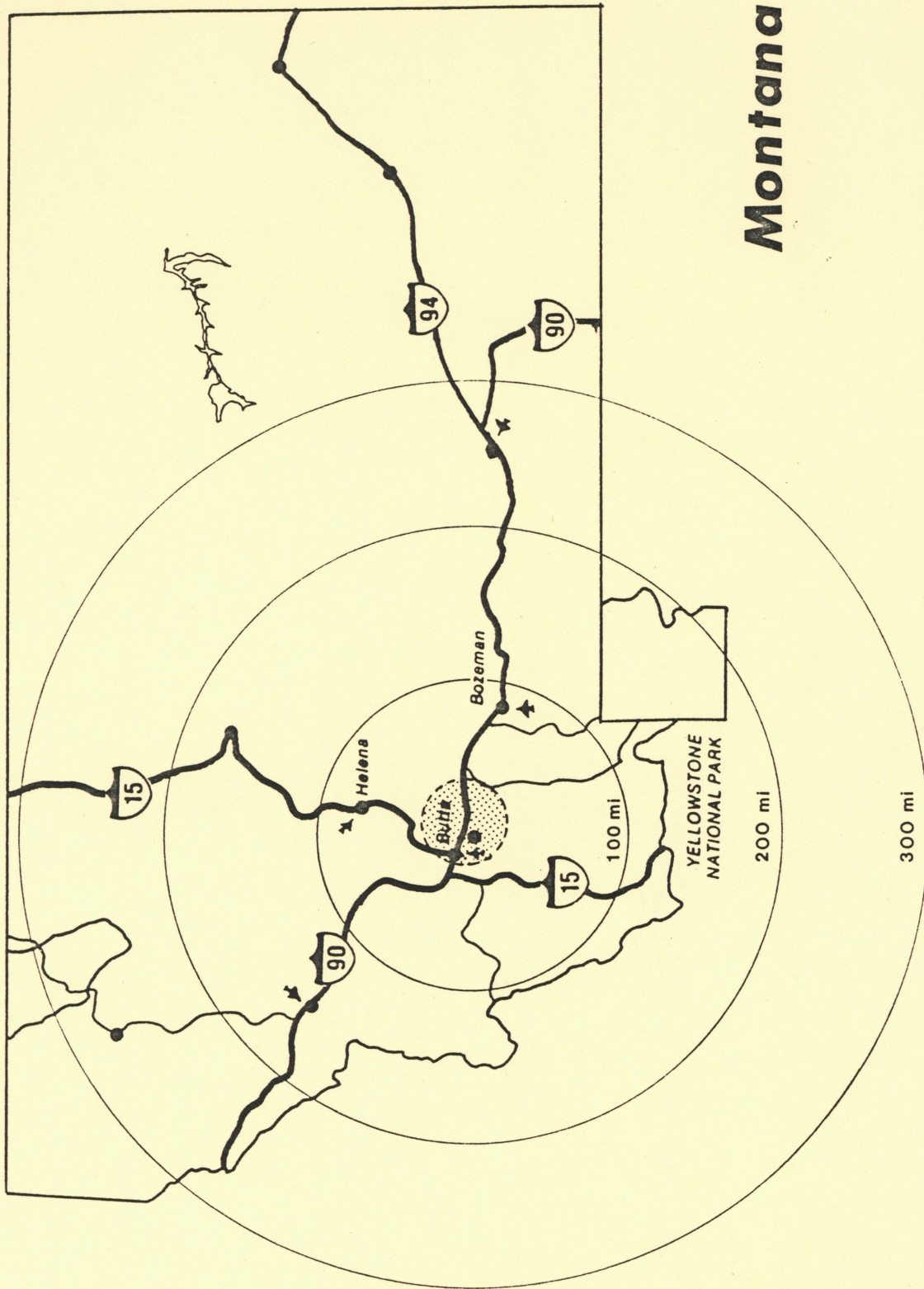


- Essential
- ▲ Desirable
- Non-desirable
- Non-essential

Spatial Matrix

SITE ANALYSIS

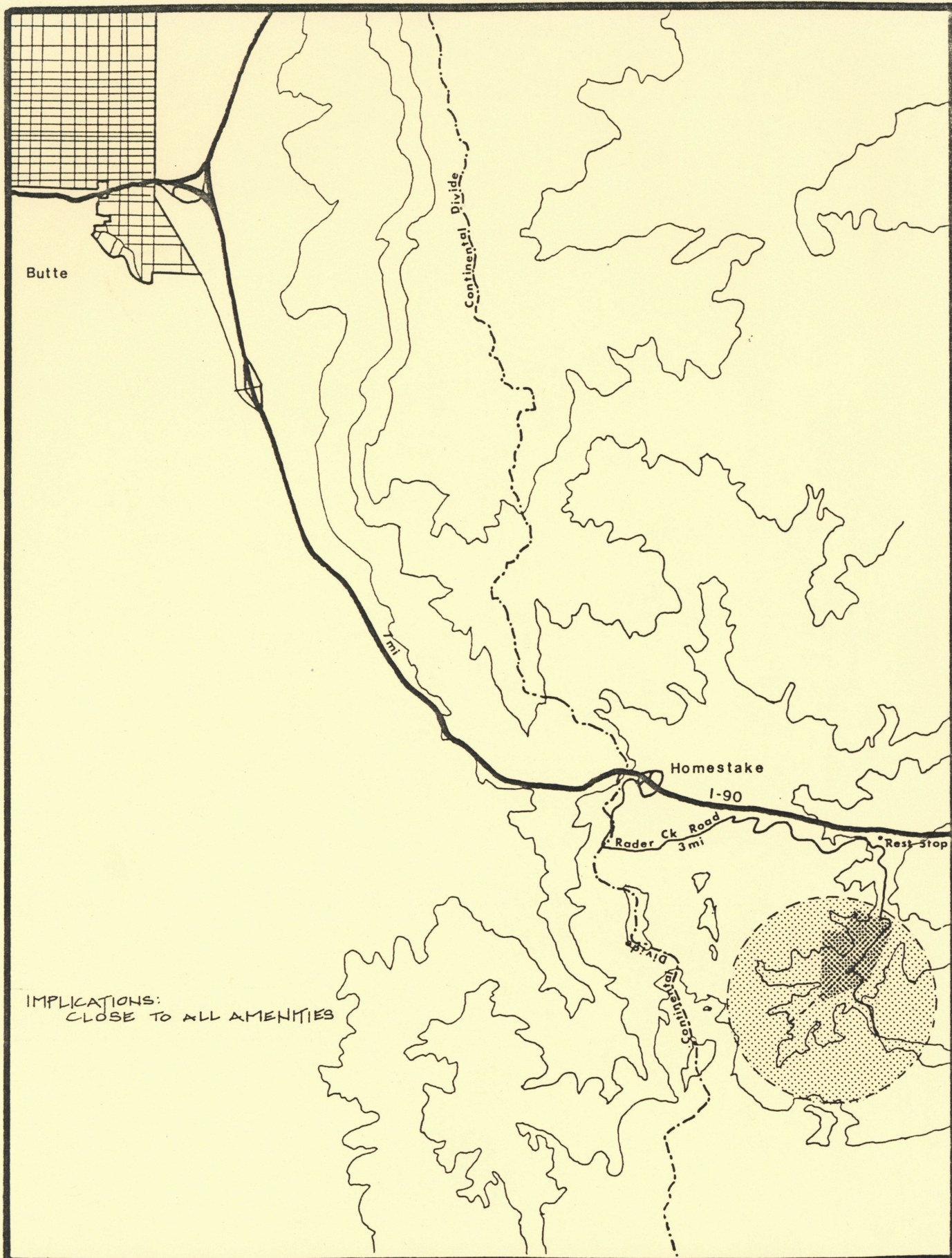
White Aspen is located 7 miles east of Butte and 3 miles by Forest Service road from the Homestake Pass interchange of Interstate 90. There is good access and close proximity to all amenities, yet privacy and solitude. The Continental Divide is less than a mile from the site. In the near future the Forest Service is planning to extend the Continental Divide Trail for hiking in this section. The property contains 150 acres of privately owned land which is surrounded by the Deer Lodge National Forest. Moose, deer and elk roam the area. At one time the property contained an original homestead. Yet, only the remnants of the log fence which surrounded the site still stand. At an elevation of 6200 feet the climate is fairly mild. In the winter the snow depth averages 1-2 feet. Summer days are warm with cool nights.



Montana

* Accessible to major airports

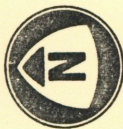
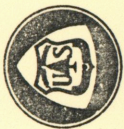
Location



IMPLICATIONS:
CLOSE TO ALL AMENITIES



Location



HOMESTAKE PASS CROSS-COUNTRY SKI AREA

JEFFERSON RANGER DISTRICT
Deerlodge National Forest

SCALE



KEY

..... Easiest
- - - - - More Difficult

WARNING

Ski touring trails are not regularly packed or groomed. Stumps, rocks and other obstructions are present. **SKI UNDER CONTROL.**

EASIEST, MORE DIFFICULT AND MOST DIFFICULT ratings are relative for this vicinity. An **EASIEST** trail may be too difficult for many.

Ski Patrol is not provided. Be prepared for emergencies and adverse weather.

Snowmobilers: Please stay off marked ski trails and ski tracks.

Dogs ruin ski tracks and should be left home.

To Delmo Lake

HOMESTAKE PASS

To Butte -
8 Miles

HOMESTAKE
INTERCHANGE

TRAIL
HEAD

Power Line

Power Line

To Whitehall - 17 Miles

HOMESTAKE PASS
BEGINNERS LOOP

EASIEST

1 mile (1.6 km)

EASIER

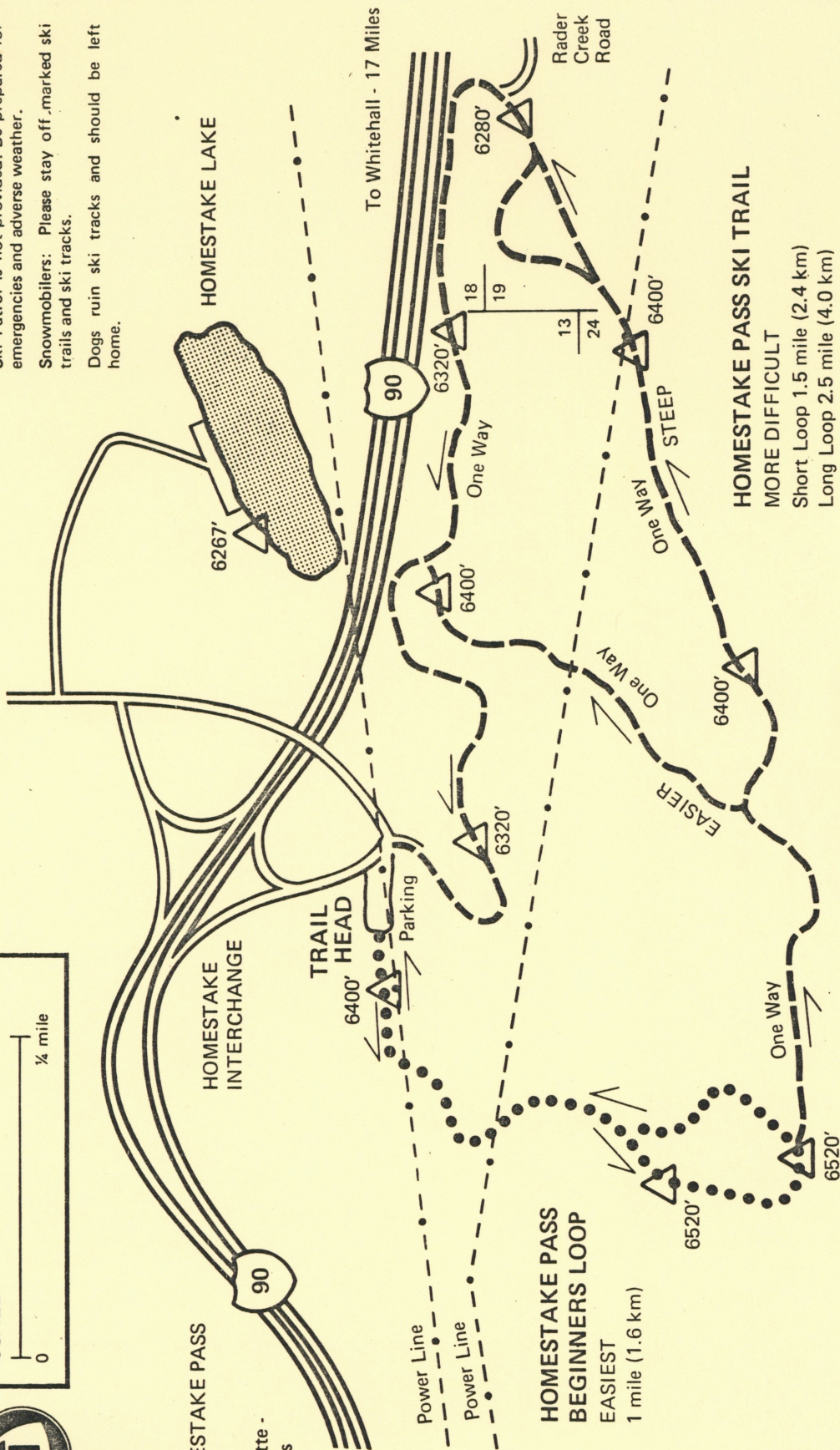
STEEP

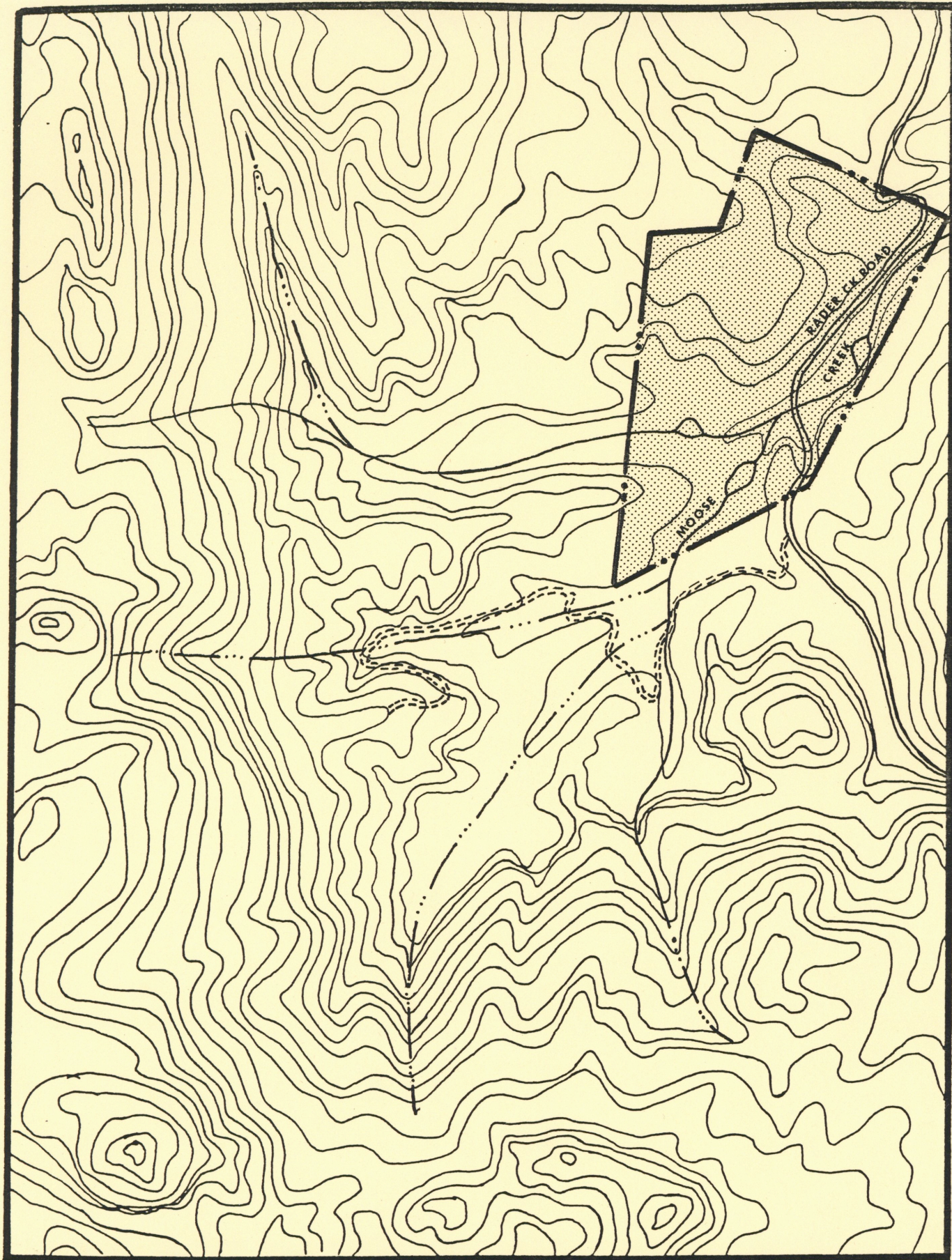
HOMESTAKE PASS SKI TRAIL

MORE DIFFICULT

Short Loop 1.5 mile (2.4 km)

Long Loop 2.5 mile (4.0 km)

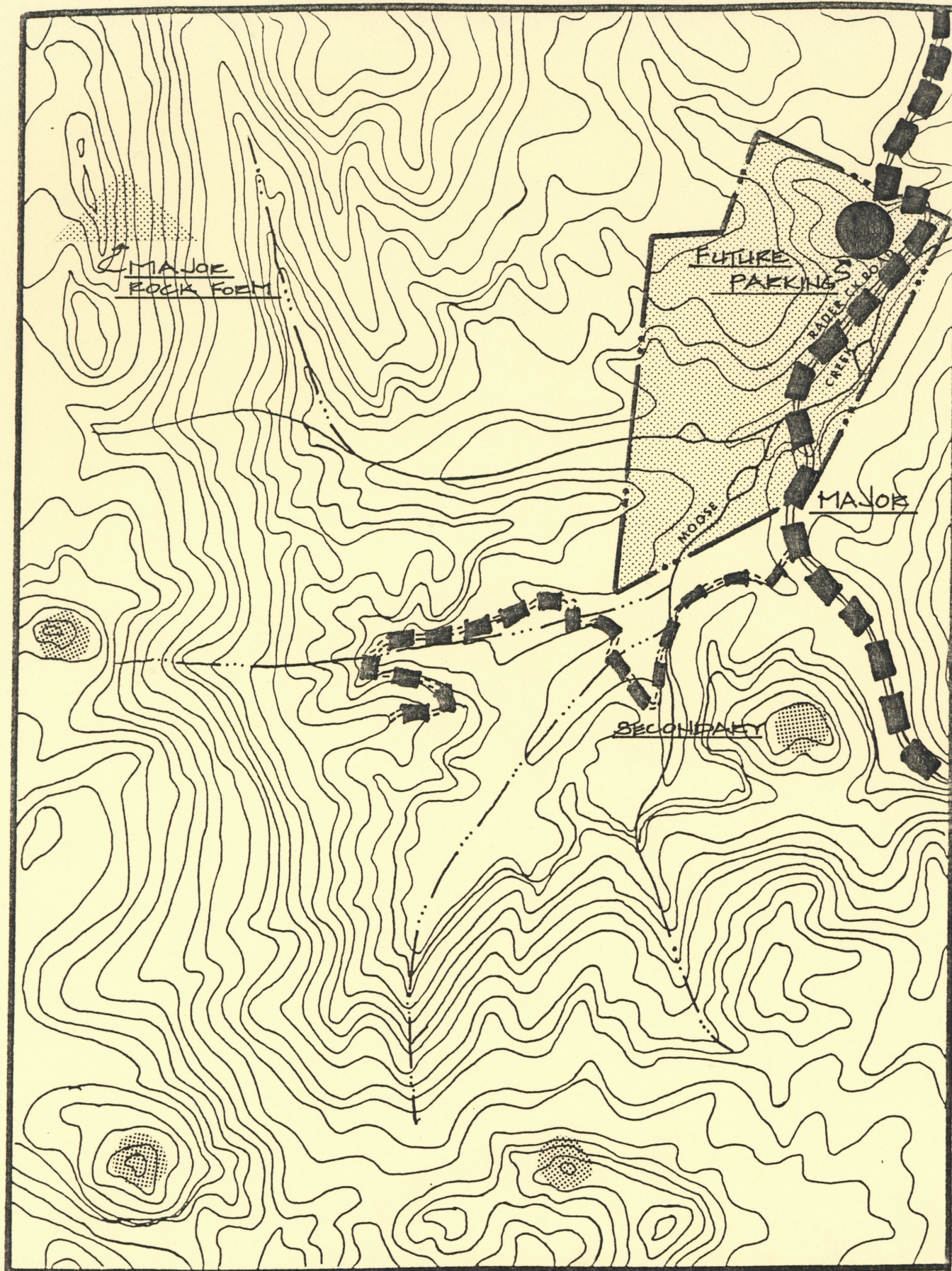




IMPLICATIONS:
RELATIONSHIP OF FOREST TO SITE BOUNDARIES



Context



Pt of Interest

IMPLICATIONS:

*VIEWS TO THE WEST & SOUTH

*KEEP PRIVATE AREAS AWAY FROM AUTOS

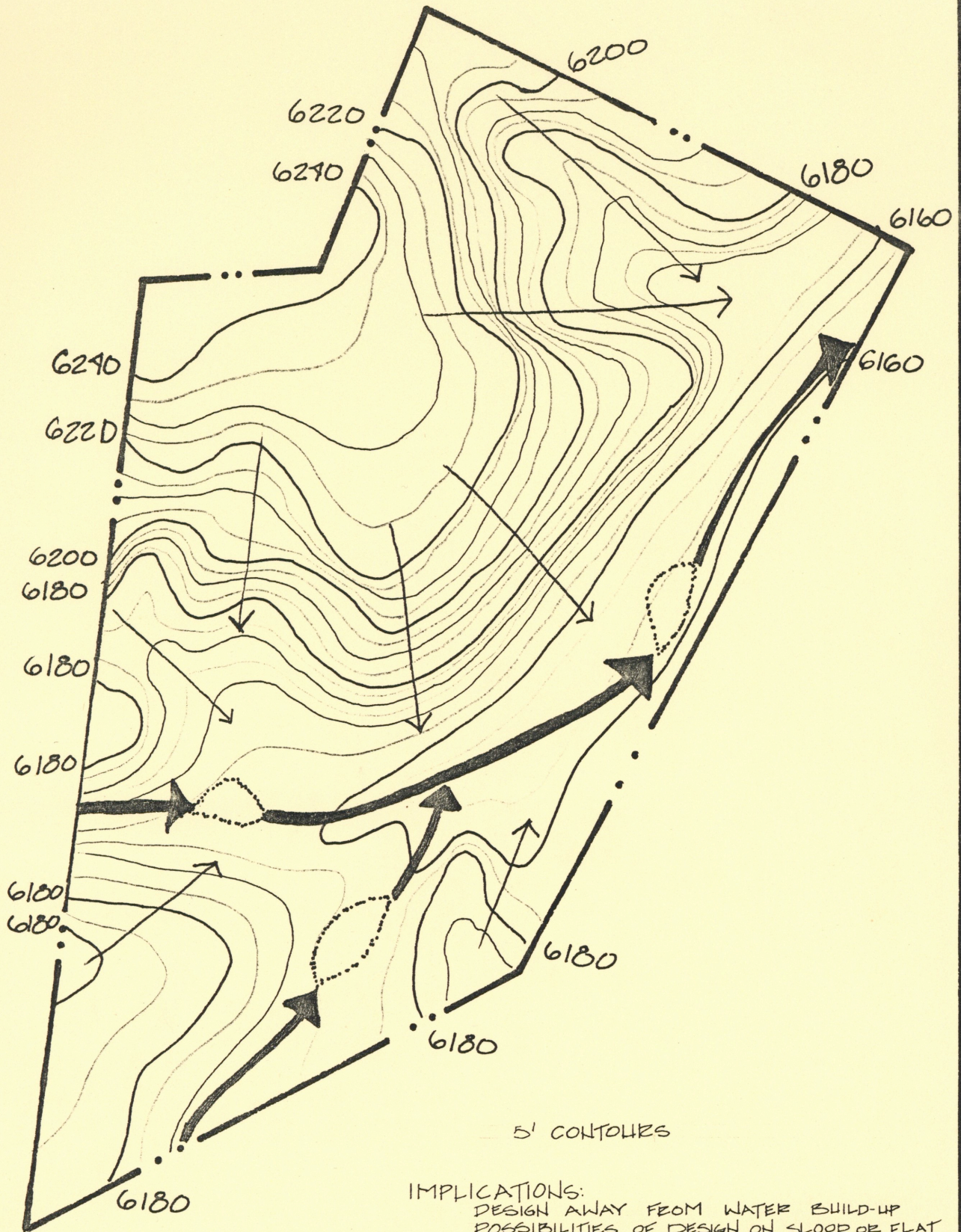
Features/Vehicular



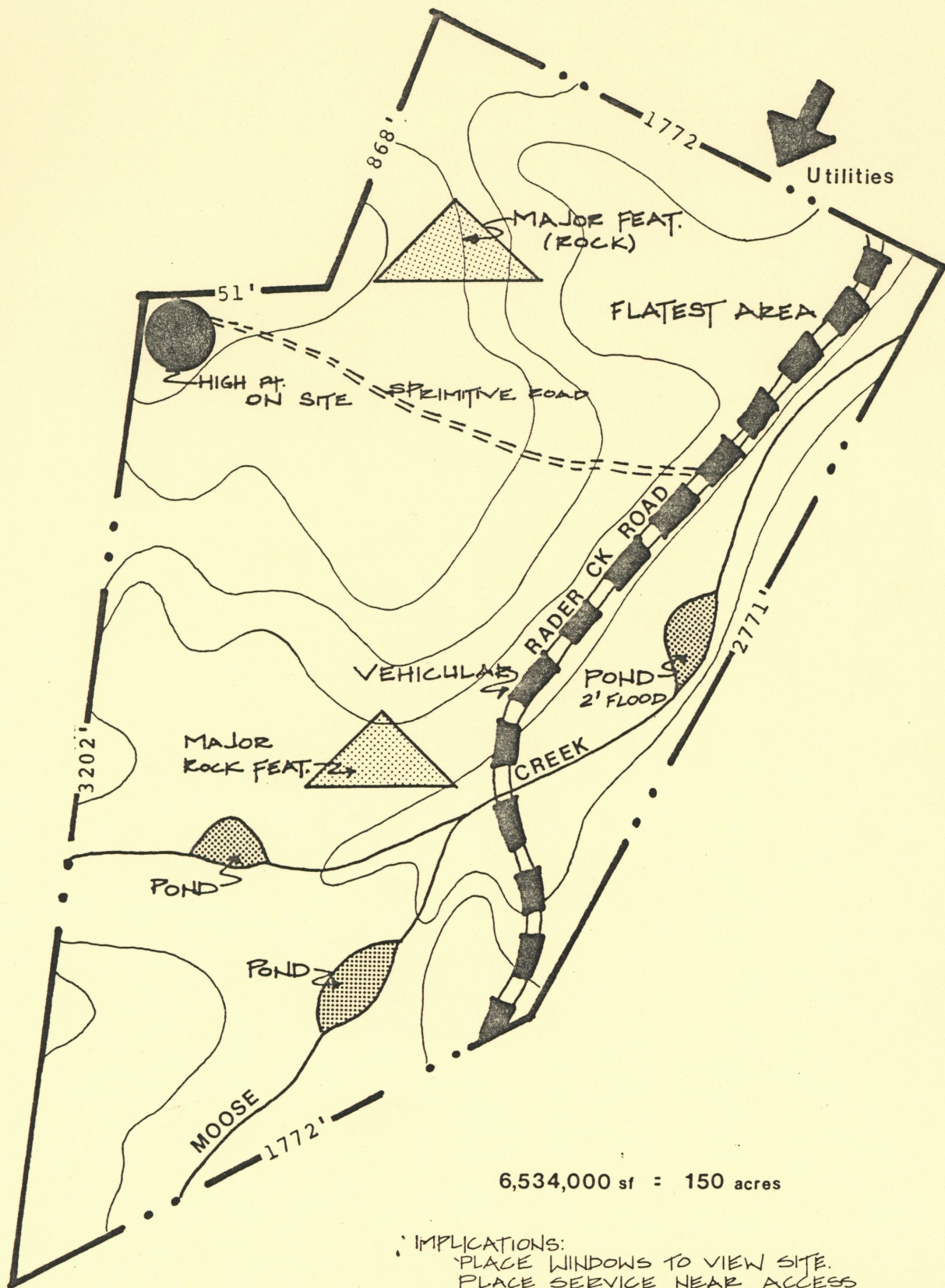
-  Meadow
-  Shrub Land
-  Forest

Vegetation / Drainage

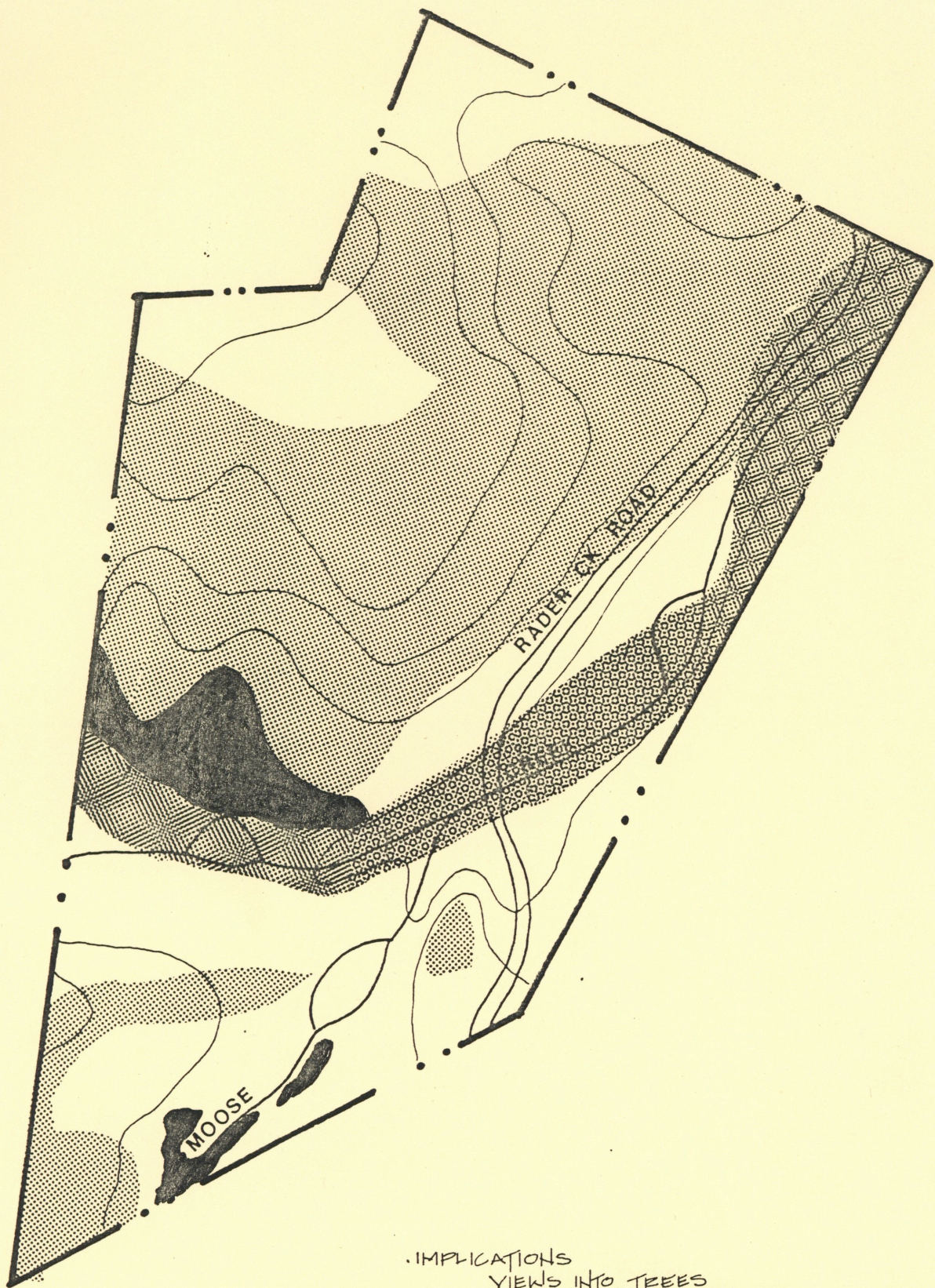
*ELEVATIONS
*MAJOR DRAINS



Contours / Drainage



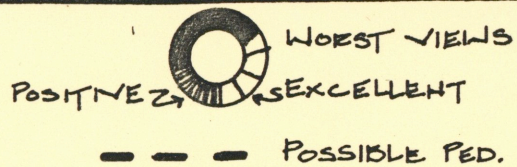
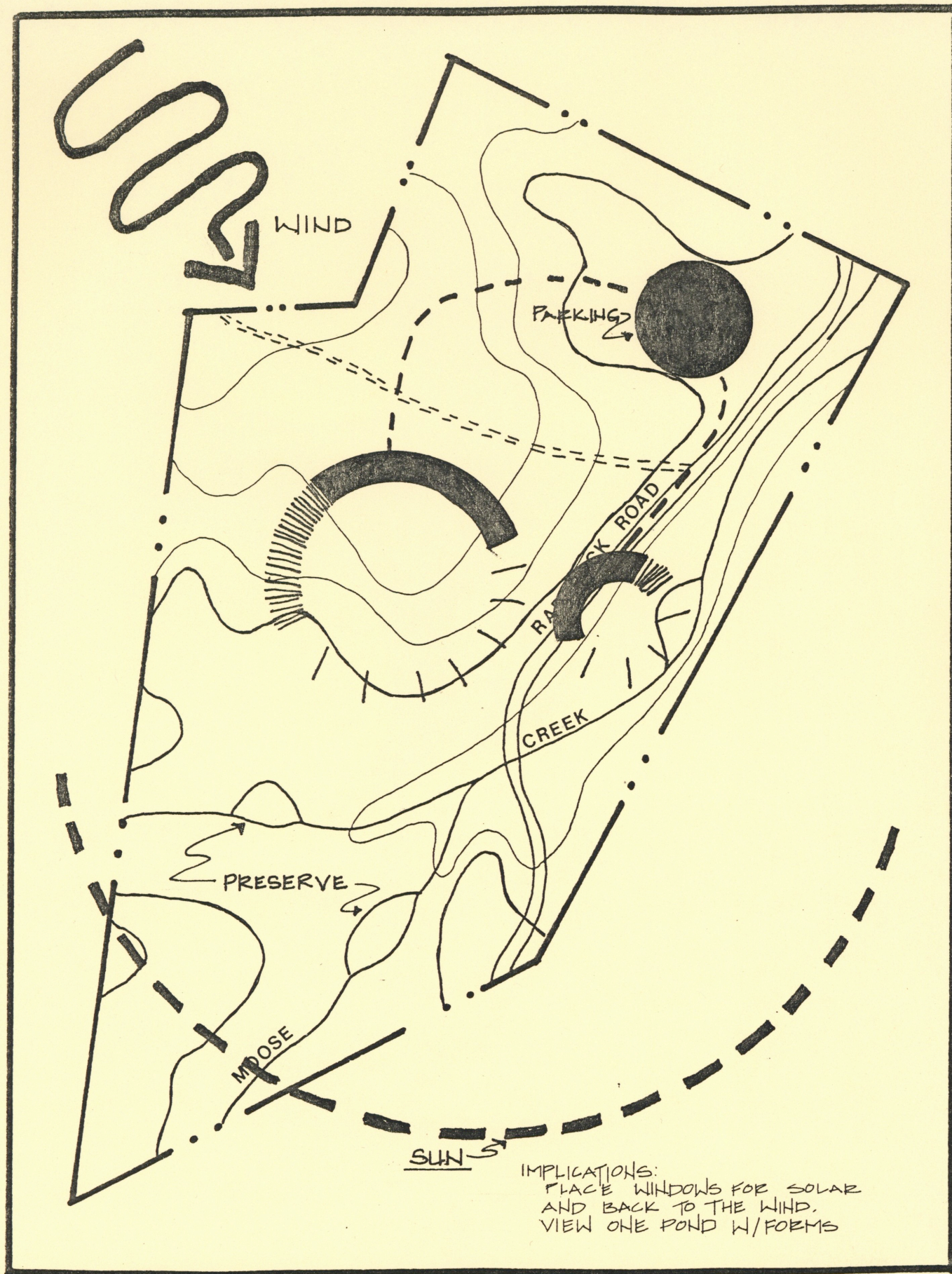
Major Features/Size



IMPLICATIONS
VIEWS INTO TREES
SHELTER FROM WIND
SHADING DEVICES

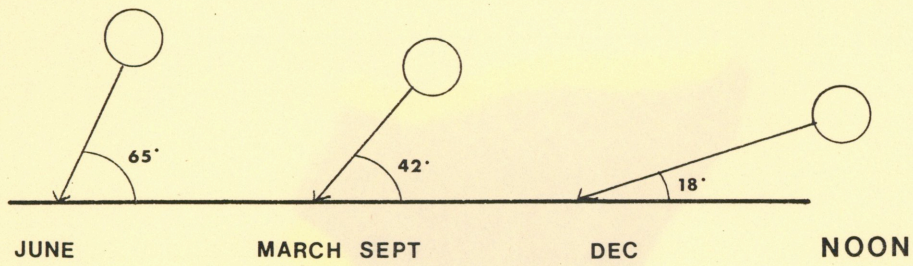
Vegetation

-  Meadow
-  Shrub Land
-  Aspen
-  Lodge Pole Pine

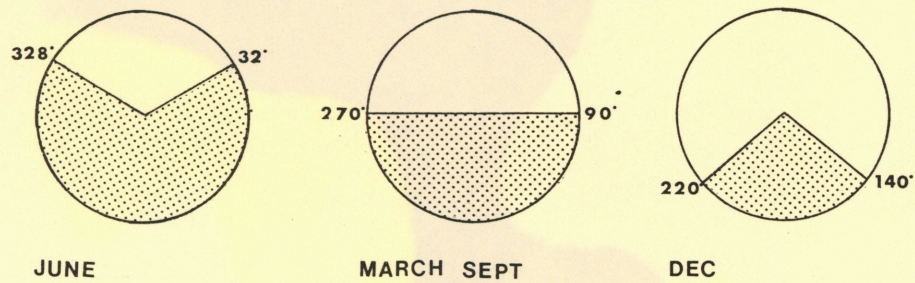


Sensory

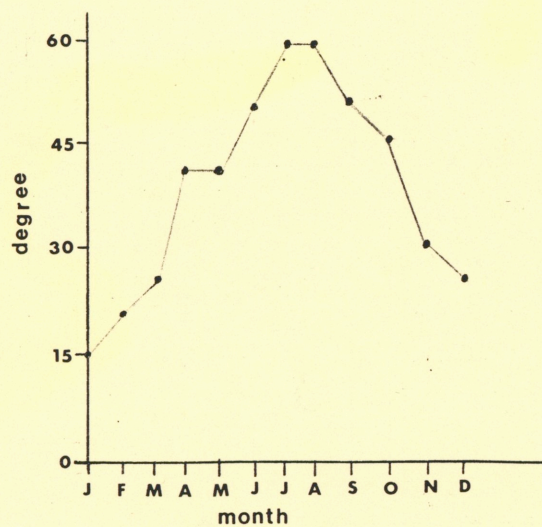
SUN ALTITUDE



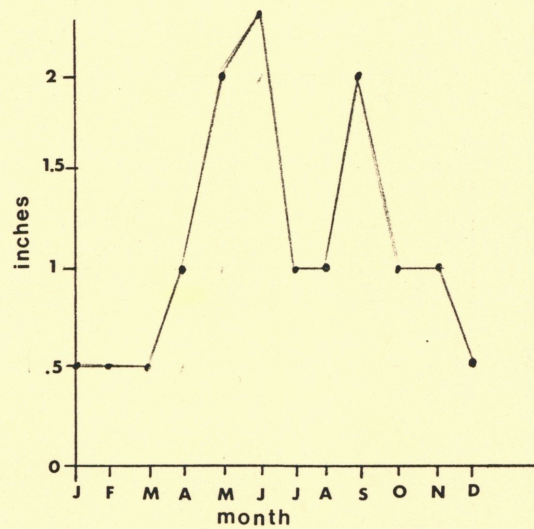
AZIMUTH



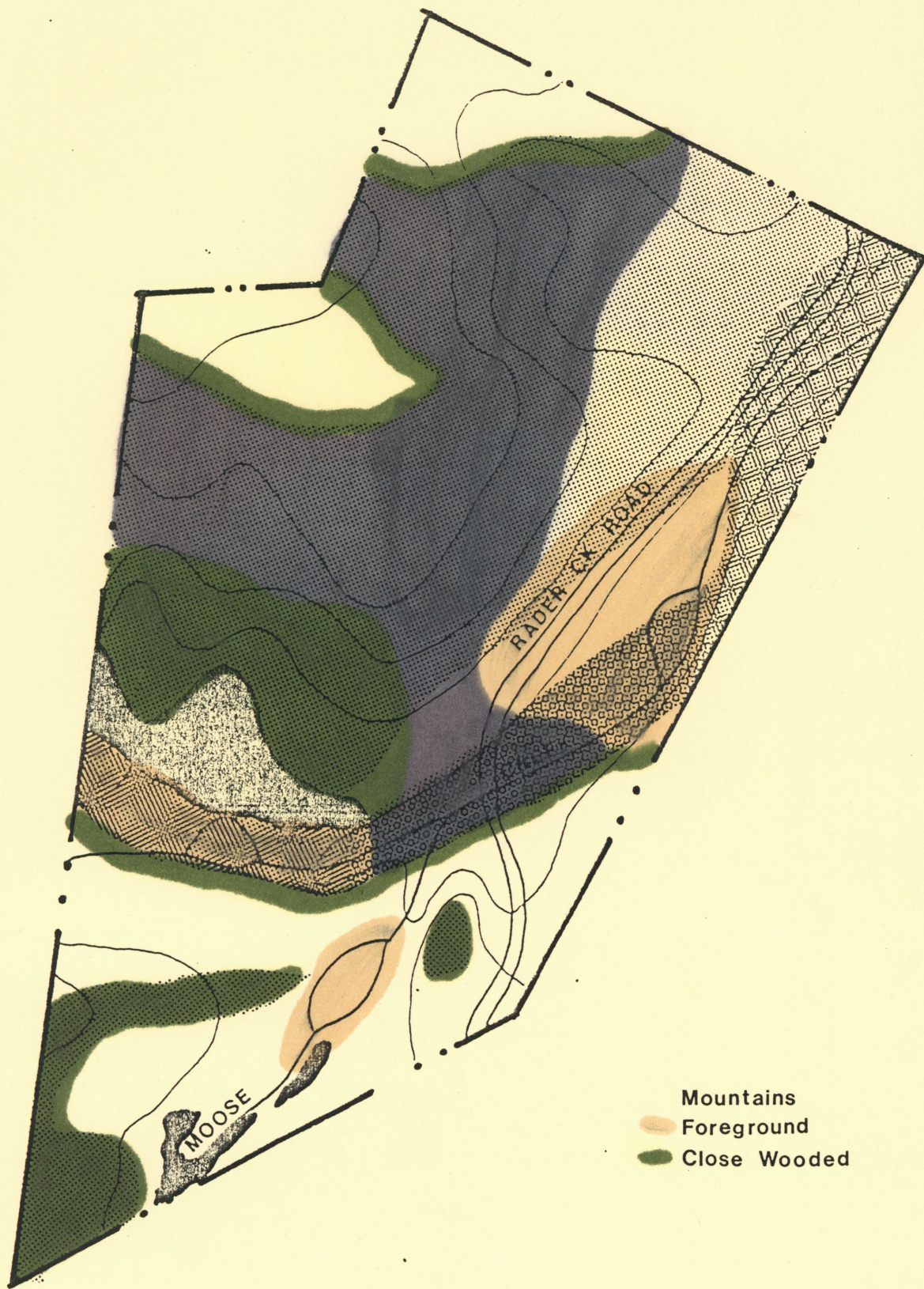
AVE. TEMP.



PRECIP.

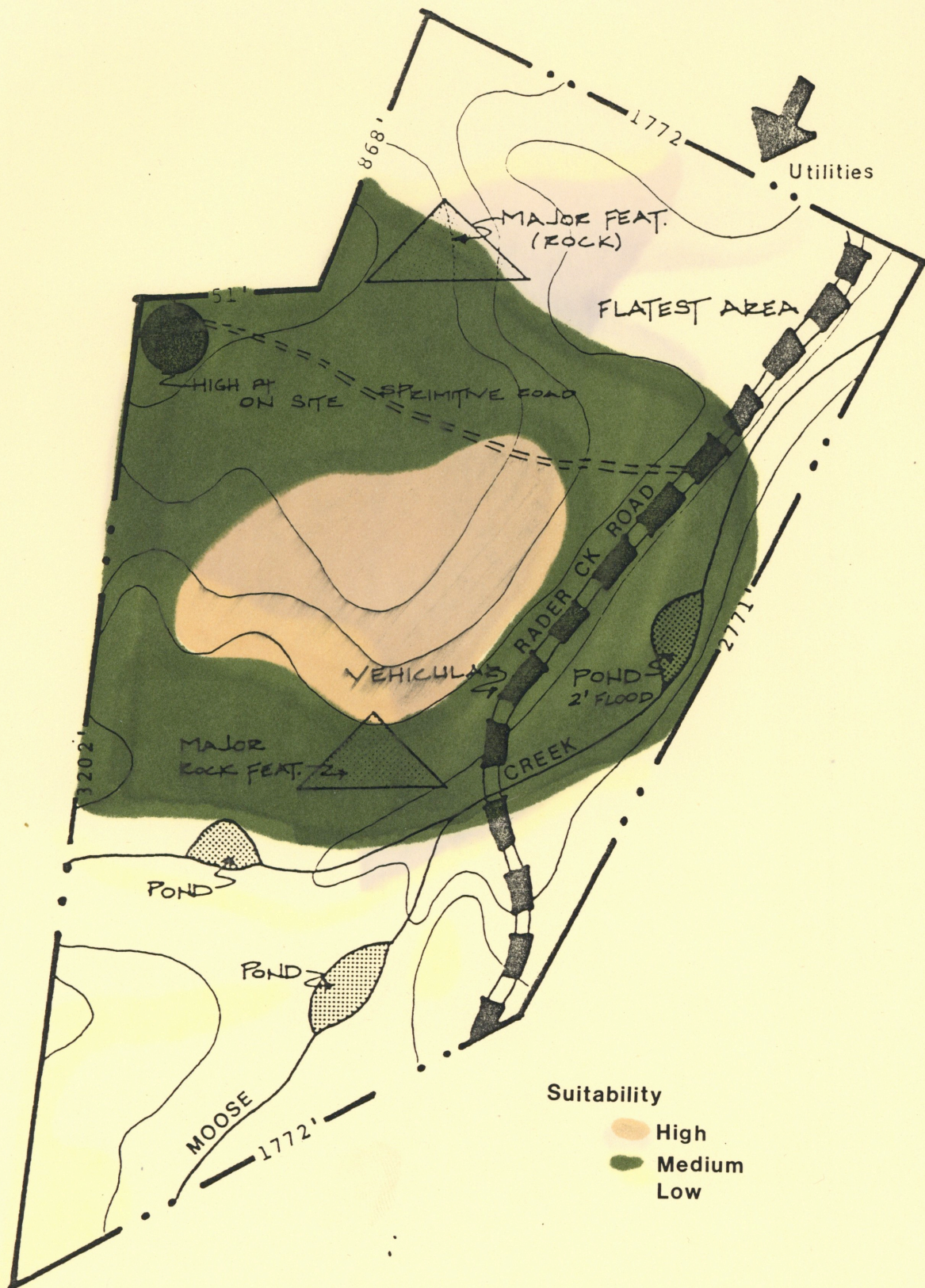


Climate



- Mountains
- Foreground
- Close Wooded

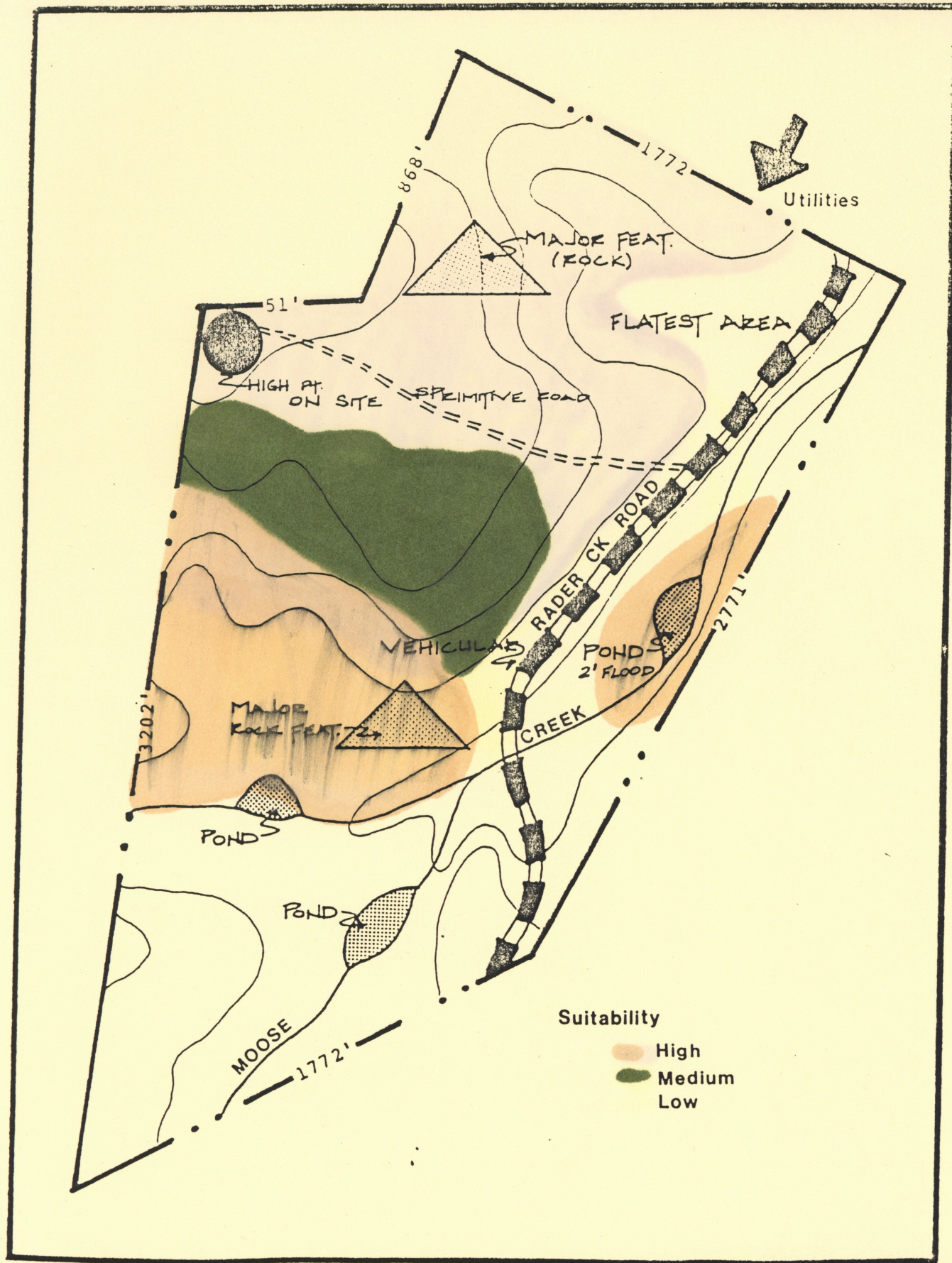
Views



Dine



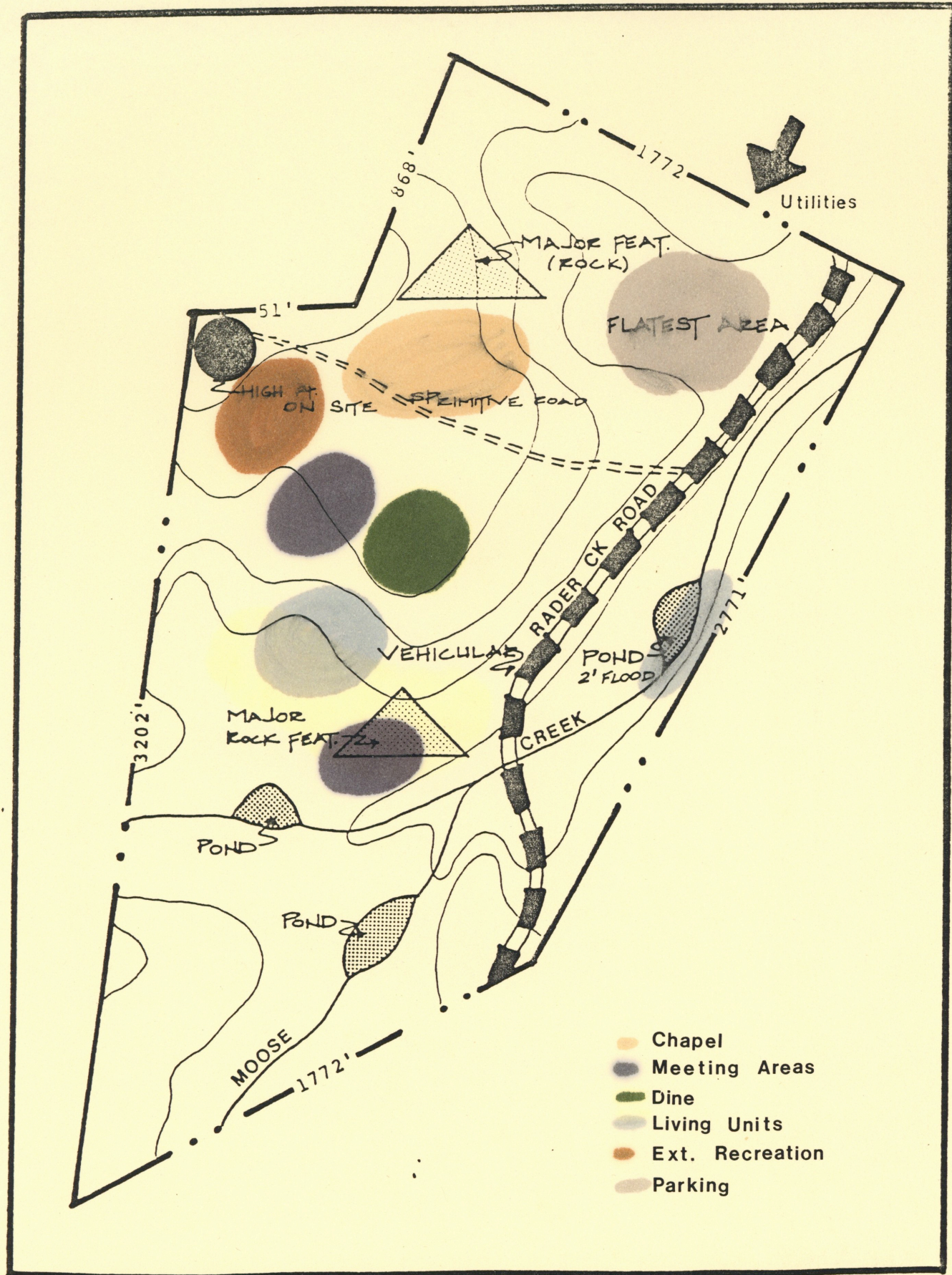
Chapel



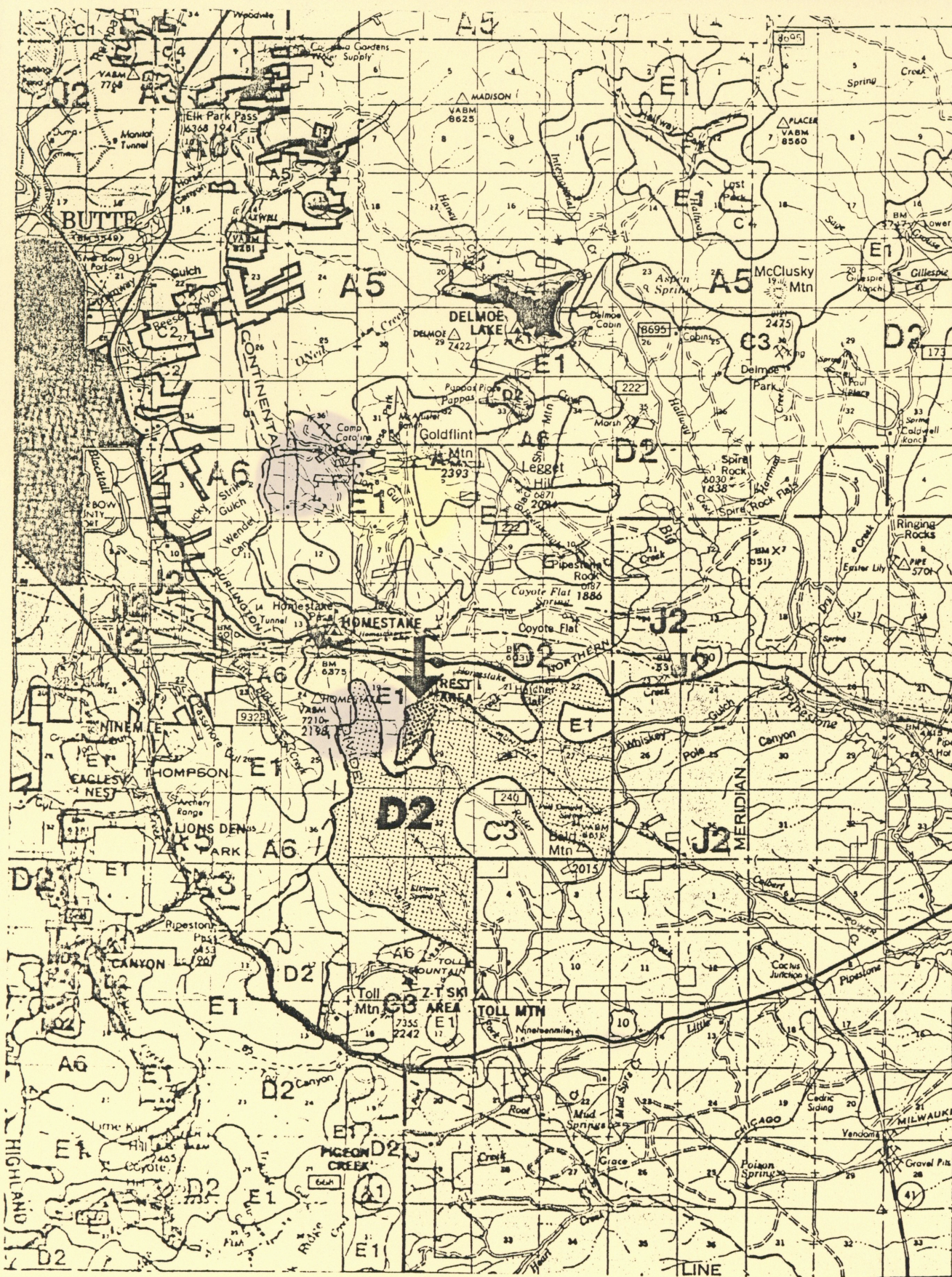
Living Units



Meeting



Land Use



Zone

MANAGEMENT AREA D2 /

District acres

Deer Lodge - 17,919

Jefferson -103,635

Philipsburg - 16,039

Butte - 43,586

TOTAL -159,329**MANAGEMENT AREA D2**

This area includes grasslands, meadows, open timber stands and other forage producing areas on slopes generally less than 40 percent. This area is very similar to Management Area D1. The major difference is that these lands are judged to be more important to big game.

GOALS

To provide a balanced amount of livestock forage and big game habitat. Designate forage production from range and wildlife improvement investments for both livestock and wildlife.

Element**Standards**

Forestwide management direction of Chapter II also applies.

Recreation

See Figure II-4 for appropriate VQO's. Control motorized vehicle use in accordance with the hunter opportunity objectives to prevent damage to the forage resource and to enhance the useability of the area by wildlife. Establish these controls through the Forest Travel Plan.

Restrict snowmobiles on winter ranges to roads where they will not conflict with big game use.

Wildlife & Fish

Implement joint wildlife-livestock improvement projects to enhance forage production and minimize social and forage conflicts among livestock and wildlife.

Range

Implement intensive management systems, where cost effective, to develop the range resource and to sustain and increase forage production for both livestock and big game. Livestock grazing levels will be determined by allotment management plans.

Conduct forage improvement projects such as prescribed burning for sagebrush and tree encroachment control on a scheduled basis. The schedule will be developed as part of the allotment management plan.

Reconstruct and maintain existing improvements. Construct new improvements identified in the approved management plans.

Element	Standards
Timber	Permit harvest of firewood, post and poles, and other products that are compatible with wildlife cover requirements of the area. Harvest operations should avoid disturbance of forage areas such as grassland. Classify the timberland as unsuitable.
Minerals	Mineral-related operations will be according to approved operating plans. Conditions and stipulations will maintain forage production to the extent practical. Oil and gas leases will contain stipulations (3109-12) to protect forage production. All access will be based on logical need based on existing stage of exploration and development. Access will be coordinated with transportation plans and will be allowed on a case-by-case basis. Final reclamation of all roads not needed for future management will be to near-natural conditions. Saleable mineral permits will be allowed if they fit all other management requirements.
Facilities	Allow transmission corridors. Permit road construction needed for surface management purposes and to access other management areas. The season may be restricted to protect wildlife during the winter.
Protection	"Control" to "confine" is the appropriate suppression response depending upon location, expected fire behavior, and other criteria which will be stated in a Fire Management Action Plan. Use prescribed fire with planned and unplanned ignitions for the enhancement and maintenance of the forage resource.
Management Practices	See Figure III-2 at the end of this chapter.
Monitoring Requirements	See Figure III-3 at the end of this chapter.

ROS Activity Characterization*

Primitive	Semi-Primitive Non-Motorized	Semi-Primitive Motorized	Roaded Natural	Rural	Urban
Land Based:					
Viewing Scenery Hiking and Walking Horseback Riding Tent Camping Hunting Nature Study Mountain Climbing	Viewing Scenery Automobile (off-road use) Motorcycle and Scooter Use Specialized Landcraft Use Aircraft Use Hiking and Walking Horseback Riding Camping Hunting Nature Study Mountain Climbing	Viewing Scenery Viewing Activities Viewing Works of Human-Kind Automobile (includes off-road use) Motorcycle and Scooter Use Specialized Landcraft Use Train and Bus Touring Aircraft Use Aerial Trams and Lifts Use Hiking and Walking Bicycling Horseback Riding Camping Picnicking Resort and Commercial Services Use Resort Lodging Recreation Cabin Use Hunting Nature Studies Mountain Climbing Gathering Forest Products Interpretive Services	Viewing Scenery Viewing Activities Viewing Works of Human-Kind Automobile (includes off-road use) Motorcycle and Scooter Use Specialized Landcraft Use Train and Bus Touring Aircraft Use Aerial Trams and Lifts Use Hiking and Walking Bicycling Horseback Riding Camping Picnicking Resort and Commercial Services Use Resort Lodging Recreation Cabin Use Hunting Nature Studies Mountain Climbing Gathering Forest Products Interpretive Services	Viewing Scenery Viewing Activities Viewing Works of Human-Kind Automobile (includes off-road use) Motorcycle and Scooter Use Train and Bus Touring Aircraft Use Aerial Trams and Lifts Use Hiking and Walking Bicycling Horseback Riding Camping Picnicking Resort and Commercial Services Use Resort Lodging Recreation Cabin Use Hunting Nature Studies Gathering Forest Products Interpretive Services Team Sports Participation Individual Sports Participation Games and Play Participation	Viewing Scenery Viewing Activities Viewing Works of Human-Kind Automobile (includes off-road use) Motorcycle and Scooter Use Train and Bus Touring Aircraft Use Aerial Trams and Lifts Use Hiking and Walking Bicycling Horseback Riding Camping Picnicking Resort and Commercial Services Use Resort Lodging Recreation Cabin Use Hunting Nature Studies Gathering Forest Products Interpretive Services Team Sports Participation Individual Sports Participation Games and Play Participation
Water Based:					
Canoeing Other Watercraft (non-motorized use) Swimming Fishing	Boating (powered) Canoeing Sailing Other Boating Swimming Diving (skin or scuba) Fishing	Tour Boat and Ferry Use Boat (Powered) Canoeing Sailing Other Watercraft Use Swimming and Waterplay Diving (skin and scuba) Waterskiing and Water-Sports Fishing	Tour Boat and Ferry Use Boat (Powered) Canoeing Sailing Other Watercraft Use Swimming and Waterplay Diving (skin and scuba) Waterskiing and Water-Sports Fishing	Tour Boat and Ferry Use Boat (Powered) Canoeing Sailing Other Watercraft Use Swimming and Waterplay Diving (skin and scuba) Waterskiing and Watersports Fishing	Tour Boat and Ferry Use Boat (Powered) Canoeing Sailing Other Watercraft Use Swimming and Waterplay Diving (skin and scuba) Waterskiing and Watersports Fishing
Snow and Ice Based:					
Snowplay X-Country Skiing/Snowshoeing	Ice and Snowcraft Use Skiing, Downhill Snowplay X-Country Skiing/Snowshoeing	Ice and Snowcraft Use Ice Skating Skiing and Tobogganing Downhill Skiing Snowplay X-Country Skiing/Snowshoeing	Ice and Snowcraft Use Ice Skating Skiing and Tobogganing Downhill Skiing Snowplay X-Country Skiing/Snowshoeing	Ice and Snowcraft Use Ice Skating Skiing and Tobogganing Downhill Skiing Snowplay X-Country Skiing/Snowshoeing	Ice and Snowcraft Use Ice Skating Skiing and Tobogganing Downhill Skiing Snowplay X-Country Skiing/Snowshoeing

Area is characterized by essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.

Area is characterized by a predominantly natural or natural-appearing environment of moderate-to-large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is not permitted.

Area is characterized by a predominantly natural or natural-appearing environment of moderate-to-large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is permitted.

Area is characterized by predominantly natural-appearing environments with moderate evidences of the sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is provided for in construction standards and design of facilities.

Area is characterized by substantially modified natural environment. Resource modification and utilization practices are to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often provided for special activities. Moderate densities are provided far away from developed sites. Facilities for intensified motorized use and parking are available.

Area is characterized by a substantially urbanized environment, although the background may have natural-appearing elements. Renewable resource modification and utilization practices are to enhance specific recreation activities. Vegetative cover is often exotic and manicured. Sights and sounds of humans, on-site, are predominant. Large numbers of users can be expected, both on-site and in nearby areas. Facilities for highly intensified motor use and parking are available with forms of mass transit often available to carry people throughout the site.

Recreation Opportunity Spectrum

Remoteness Criteria*

Primitive	Semi-Primitive Non-Motorized	Semi-Primitive Motorized	Roaded Natural	Rural	Urban
An area designated at least 3 miles from all roads, railroads or trails with motorized use	An area designated at least ½-mile but not further than 3 miles from all roads, railroads or trails with motorized use; can include the existence of primitive roads and trails if usually closed to motorized use.	An area designated within ½-mile of primitive roads or trails used by motor vehicles; but not closer than ½-mile from better than primitive roads.	An area designated within ½-mile from better than primitive roads, and railroads.	No distance criteria.	No distance criteria.

Evidence of Humans Criteria

Primitive	Semi-Primitive Non-Motorized	Semi-Primitive Motorized	Roaded Natural	Rural	Urban
Setting is essentially an unmodified natural environment. Evidence of humans would be unnoticed by an observer wandering through the area.	Natural* setting may have subtle modifications that would be noticed but not draw the attention of an observer wandering through the area.	Natural* setting may have moderately dominant alterations but would not draw the attention of motorized observers on trails and primitive roads within the area.	Natural* setting may have modifications which range from being easily noticed to strongly dominant to observers within the area. However from sensitive** travel routes and use areas these alterations would remain unnoticed or visually subordinate.	Natural* setting is culturally modified to the point that it is dominant to the sensitive** travel route observer. May include pastoral, agricultural, intensively managed wildland resource landscapes, or utility corridors. Pedestrian or other slow moving observers are constantly within view of culturally changed landscape.	Setting is strongly structure dominated. Natural or natural-appearing elements may play an important role but be visually subordinate. Pedestrian and other slow moving observers are constantly within view of artificial enclosure of spaces.
Evidence of trails is acceptable, but should not exceed standard to carry expected use.	Little or no evidence of primitive roads and the motorized use of trails and primitive roads.	Strong evidence of primitive roads and the motorized use of trails and primitive roads.	There is strong evidence of designed roads and/or highways.	There is strong evidence of designed roads and/or highways.	There is strong evidence of designed roads and/or highways and streets
Structures are extremely rare.	Structures are rare and isolated.	Structures are rare and isolated.	Structures are generally scattered, remaining visually subordinate or unnoticed to the sensitive** travel route observer. Structures may include power lines, micro-wave installations and so on.	Structures are readily apparent and may range from scattered to small dominant clusters including power lines, microwave installations, local ski areas, minor resorts and recreation sites.	Structures and structure complexes are dominant, and may include major resorts and marinas, national and regional ski areas, towns, industrial sites, condominiums or second home developments

PROPOSAL

ENDNOTES

Endnotes

¹Ian McHarg, Design with Nature, Doubleday: Garden City, New York. 1971. Pg 19.

²Bruce Pfeiffer, In the Realm of Ideas, Southern Illinois University Press: Carbondale. 1988.

³Webster's Dictionary. "Man".

⁴Stephen & Rachel Kaplan, Humanscape, Duxbury Press: Mass. 1978. Pg 25.

⁵Ibid, Pg 24.

⁶Ibid, Pg 100.

⁷Realm, Pg 28.

⁸Design with Nature, Pg 7.

⁹Ibid, Pg 10.

¹⁰Ibid, Pg 56.

¹¹Ibid, Pg 121.

¹²Sibyl Moholy-Nagy, Native Genius in Anonymous Architecture, Horizon Press Inc.: New York. 1957. Pg 52.

¹³Ibid, Pg 54.

¹⁴Iovanna Lloyd Wright, Man in Possession of his Earth, Doubleday & Co. Inc.: Garden City, New York. 1962.

¹⁵Design with Nature, Pg 27.

¹⁶Edgar Kauffmann, Fallingwater, Abbeville Press Publishers: New York. 1986. Pg 18.

¹⁷Ibid, Pg 23.

¹⁸Design with Nature, Pg 20.

¹⁹Fallingwater, Pg 20.

²⁰Ibid, Pg 15.

²¹Ibid, Pg 16.

²²Ibid, Pg 19.

²³Native Genius, Pg 51.

²⁴Ibid, Pg 108.

²⁵Man in Possession, Pg 60.

²⁶Ibid, Pg 43.

²⁷Realm, Pg 32.

²⁸Werner Blaser, Japanese Temples and Tea Houses, Basie: Switzerland. 1956. Pg 12.

²⁹Ibid, Pg 23.

³⁰U.S. Department of Ag., National Forest Landscape Management, Feb 1973.

³¹Edmund Burger, Geomorphic Architecture, Van Nostrand Rienhold Co.: United States. 1986. Pg 10.

³²Design with Nature, Pg 27.

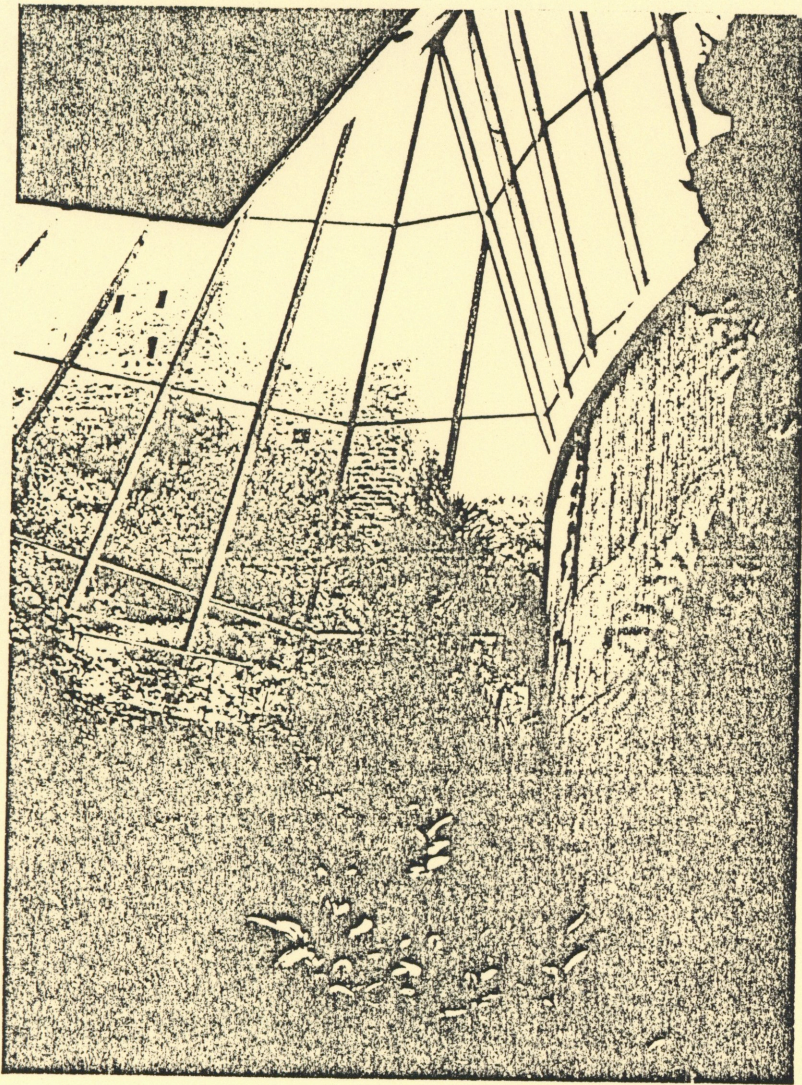
³³Native Genius, Pg 51.

BIBLIOGRAPHY

Bibliography

- Blaser, Werner. Japanese Temples and Tea Houses. Basie, Switzerland. 1956.
- Burger, Edmund. Geomorphic Architecture. Van Nostrand Rienhold Co., U.S.. 1986.
- Cereghini, Mario. Building in the Mountains. Edizioni Cex Milione, Milone. 1957.
- Davern, Jeane M. Places for People. McGraw Hill Book Co. 1975.
- Kaplan, Stephen and Rachel. Humanscape. Duxbury Press, Mass. 1978.
- . Katsura. Shinkenchiku-sha. 1983.
- Kaufmann, Edgar Jr.. Fallingwater. Abbeville Press Publishers, N.Y.. 1986.
- Lawson, Fred. Conference, Convention, & Exhibition Facilities. The Architecture Press: London. 1981.
- Lindstrom, Randall, S. Creativity and Contradiction. The A.I.A. Press, Washington D.C.. 1988.
- McHarg, Ian, L.. Design with Nature. Doubleday, Garden City, N.Y.. 1971.
- Moholy-Nagy, Sibyl. Native Genius in Anonymous Architecture. Horizon Press Inc., N.Y.. 1957.
- U.S. Department of Ag. Deer Lodge National Forest Plan. Butte Montana. Sept. 1987.
- U.S. Department of Ag. National Forest Landscape Management. February, 1973.
- U.S. Department of Ag. ROS User Guide.
- U.S. Department of Commerce. Climatic Atlas of the U.S.. June 1968.
- White, Edward. Site Analysis. United States. 1983.
- Wright, Iovanna, Lloyd. Man in Possession of his Earth. Doubleday & Co., Inc.: Garden City, New York. 1962.

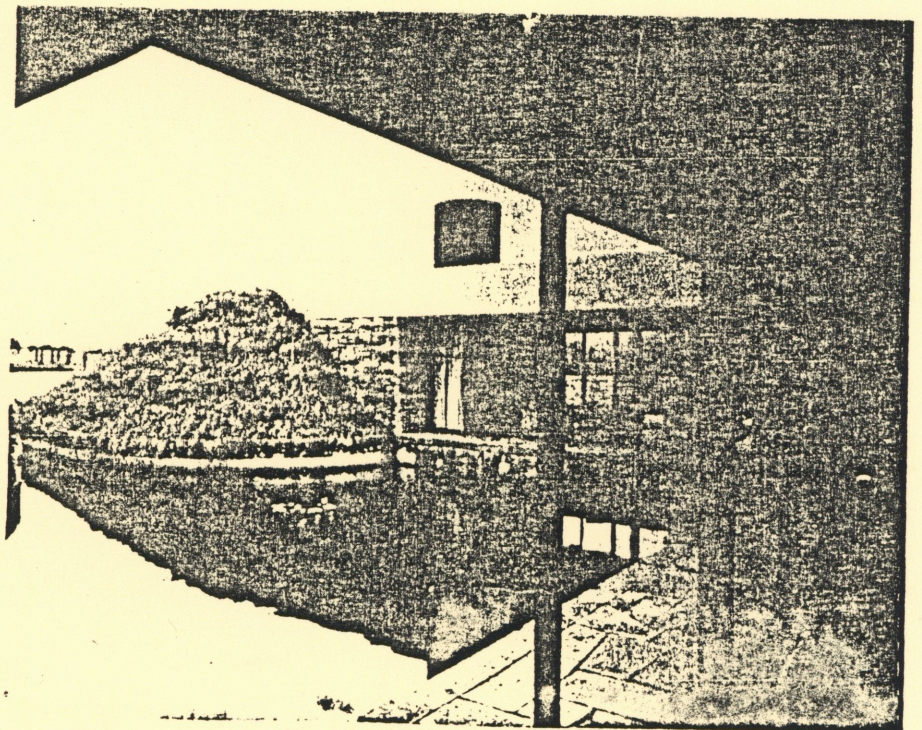
APPENDIX



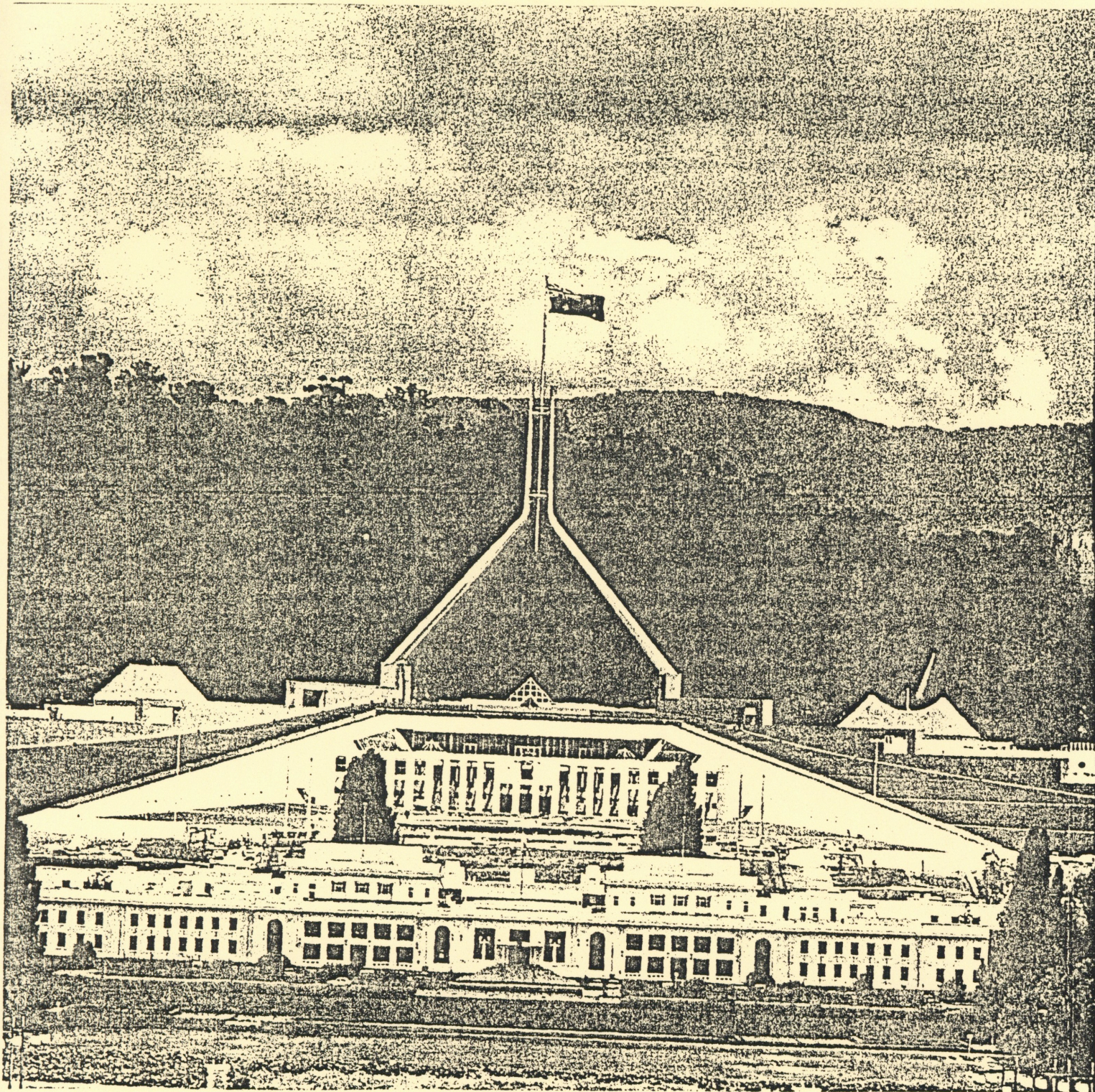
Views are accentuated
through fenestration.

Kurhaus by Klaus Humpert

Water can be experienced
at first hand rather than
at a distance.

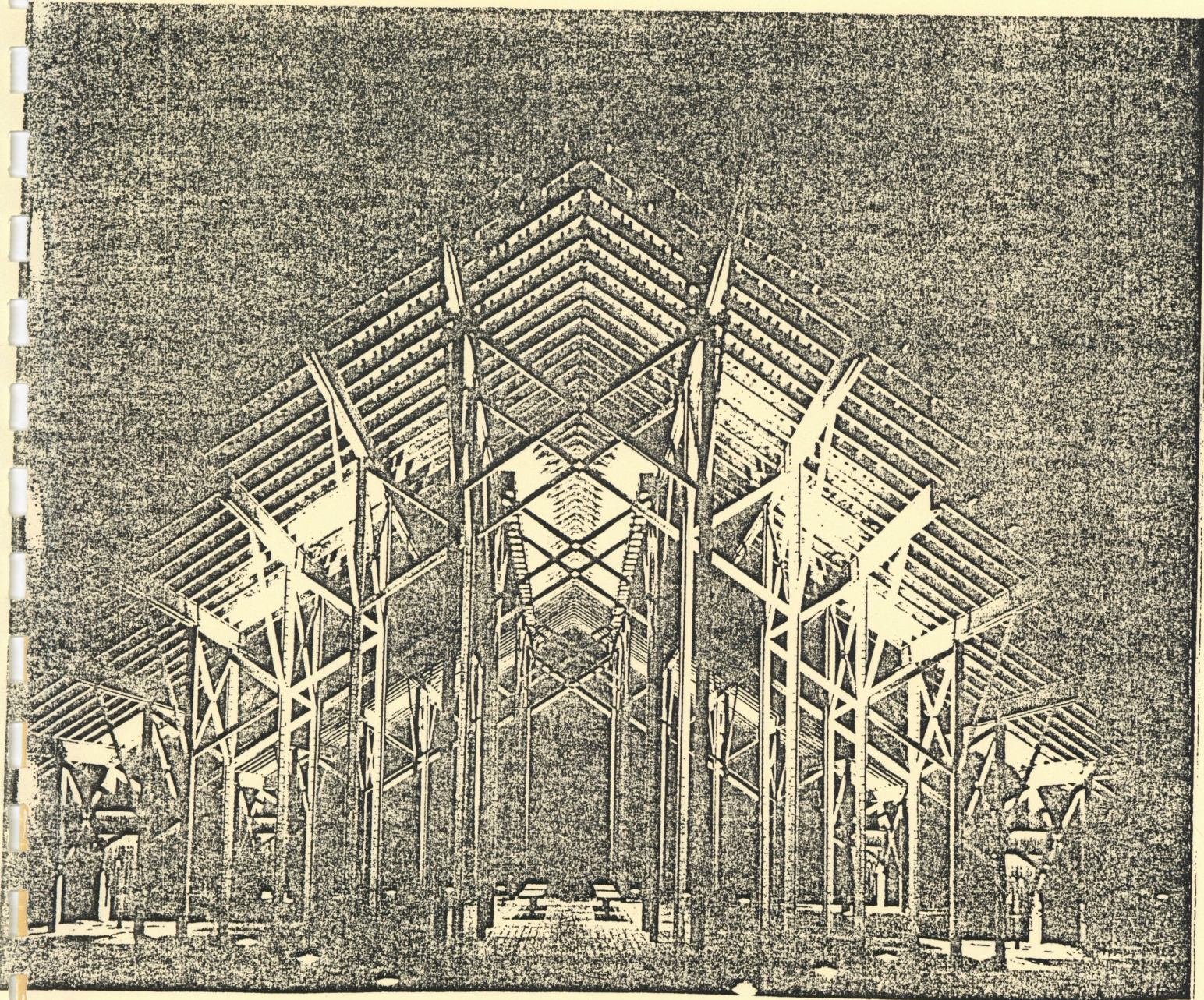


Geier House by Philip Johnson



The eye doesn't rest on the focal point but envelopes the entire unit.

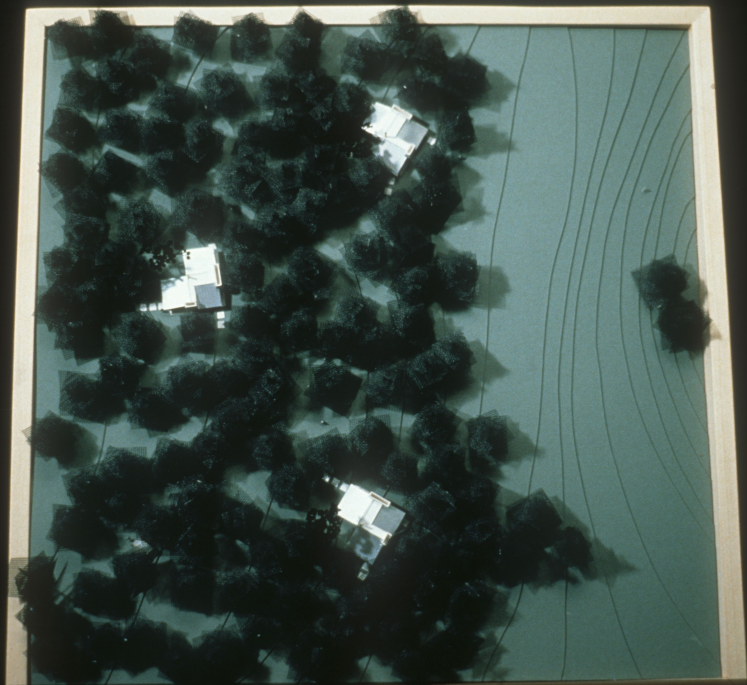
The Australian Parliament House

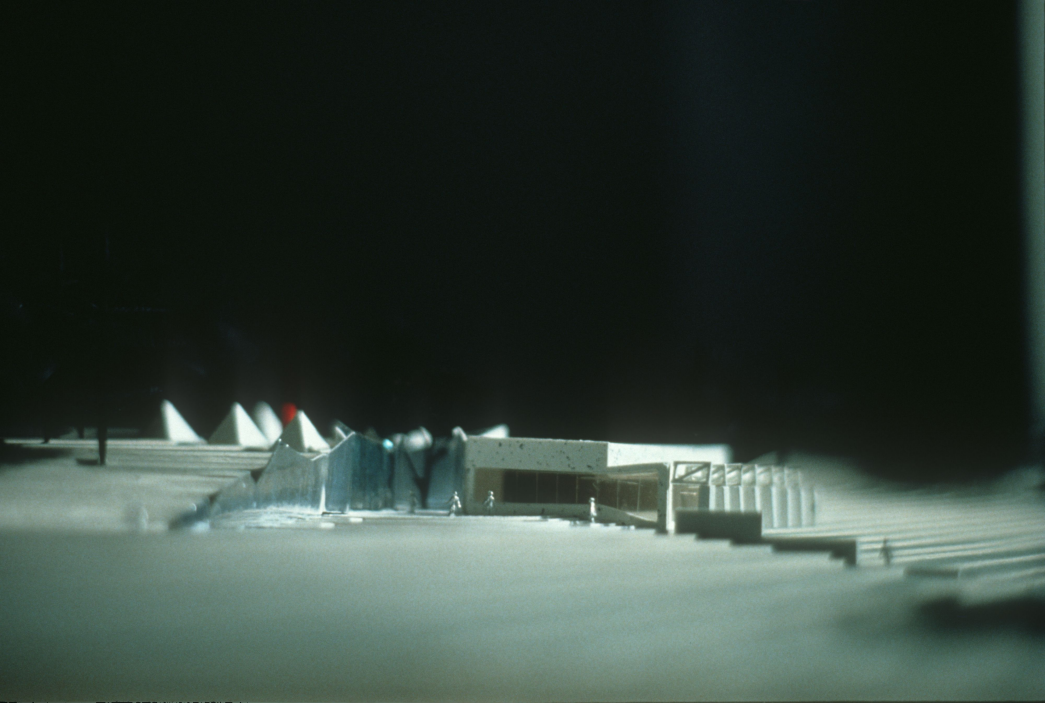


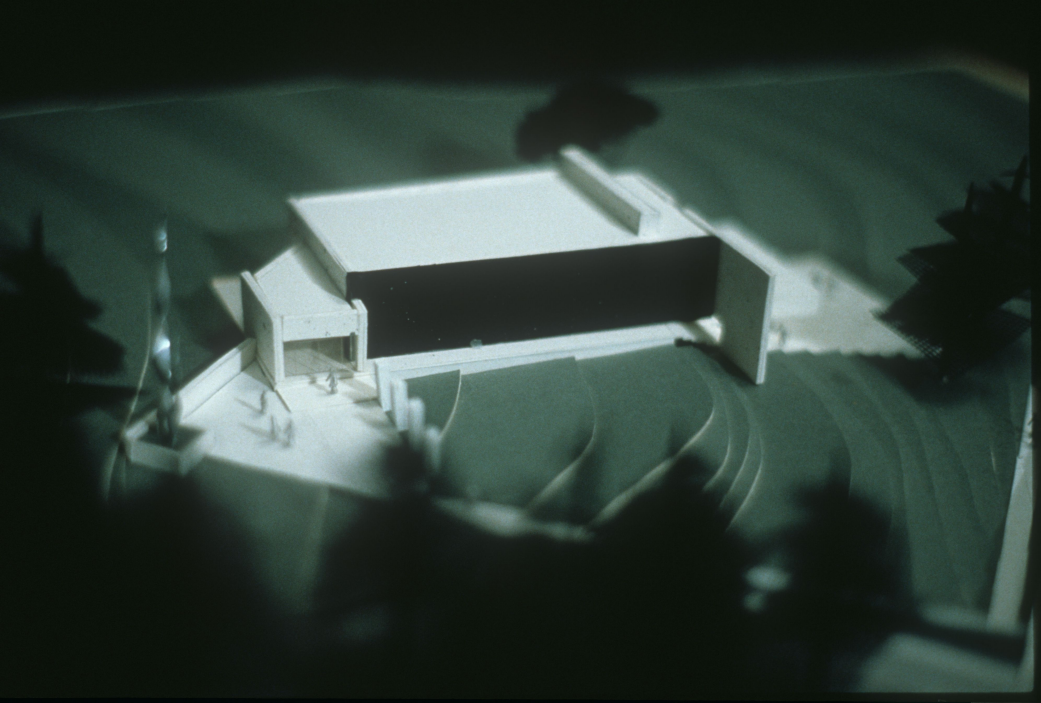
Artificial and natural lighting create interest and enlightenment in a simple structure.

Park Structure by E. Fay Jones

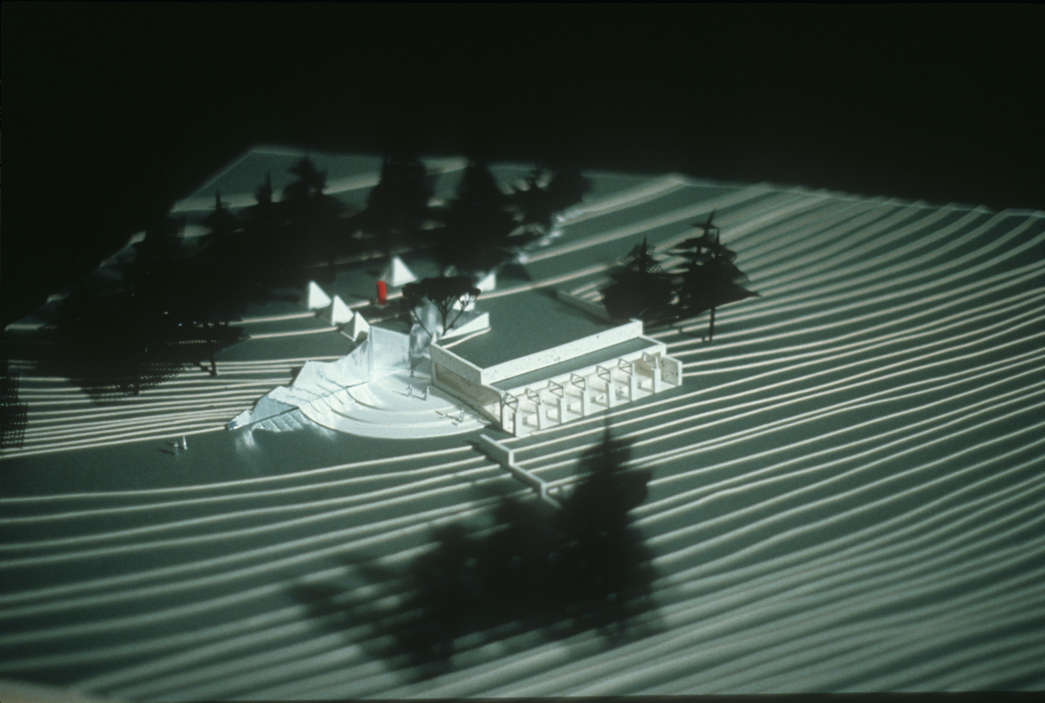


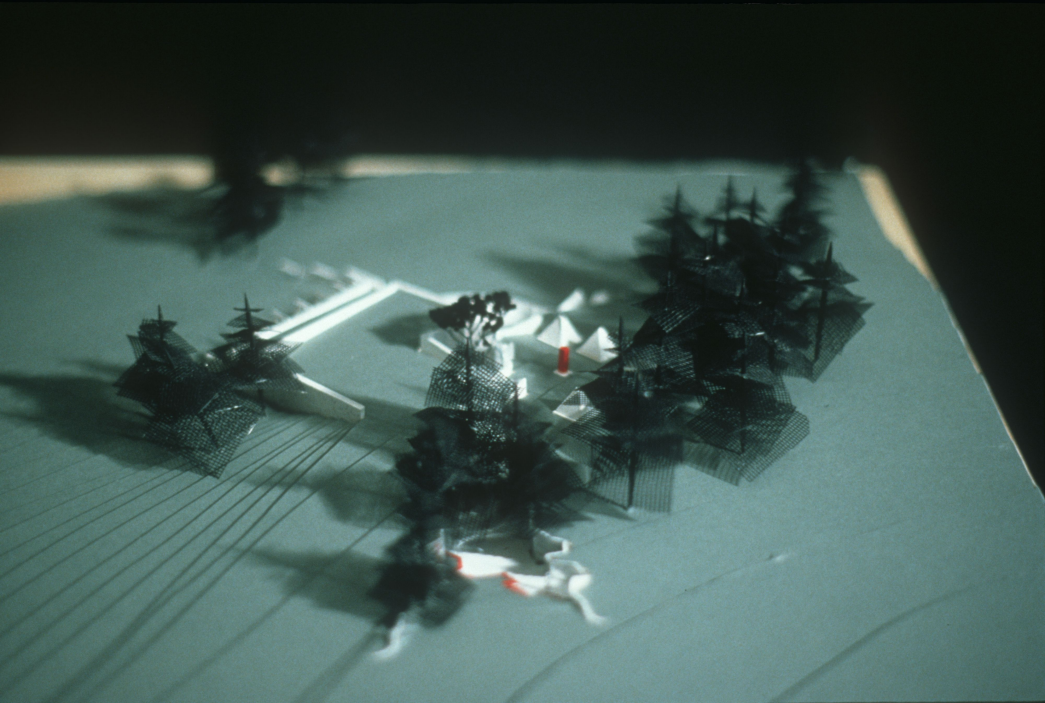


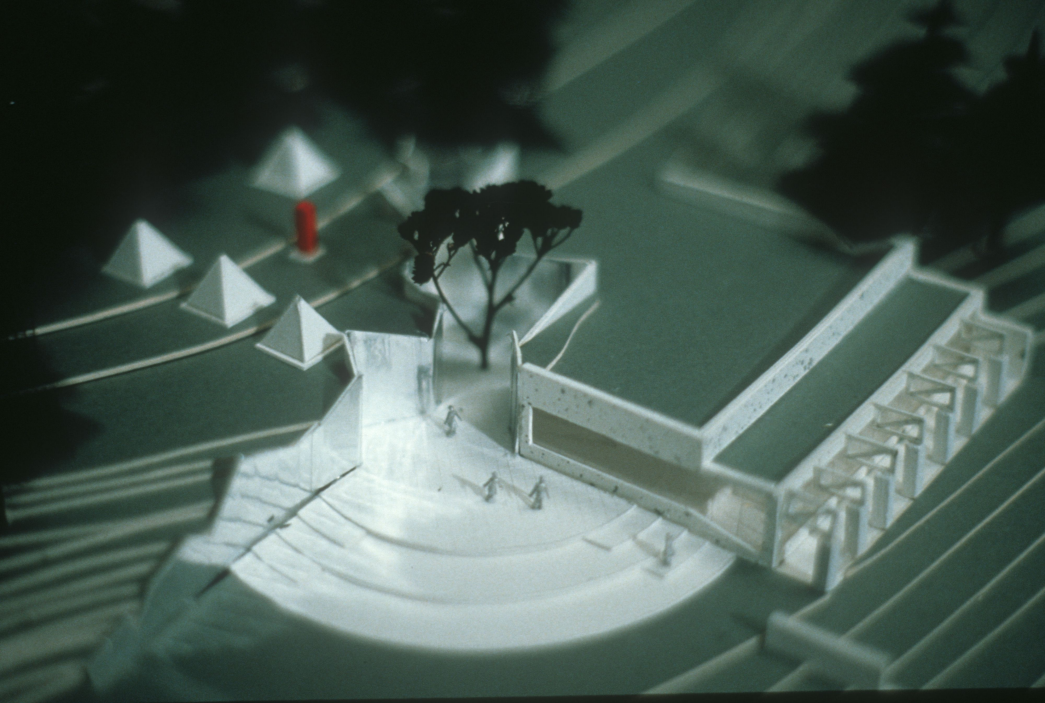


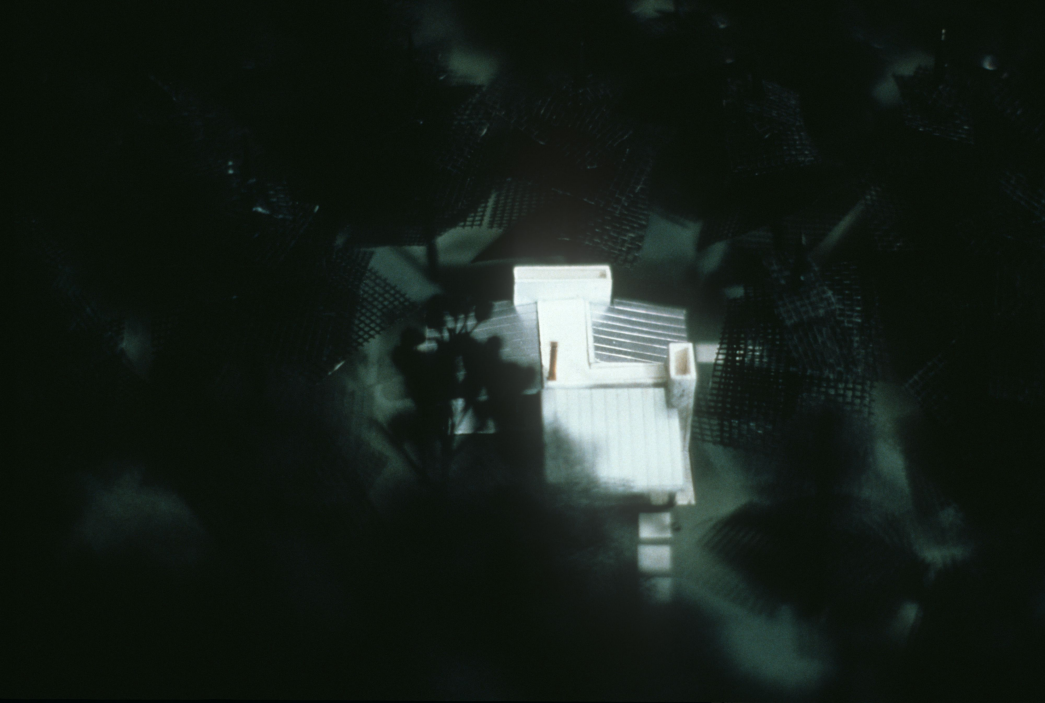


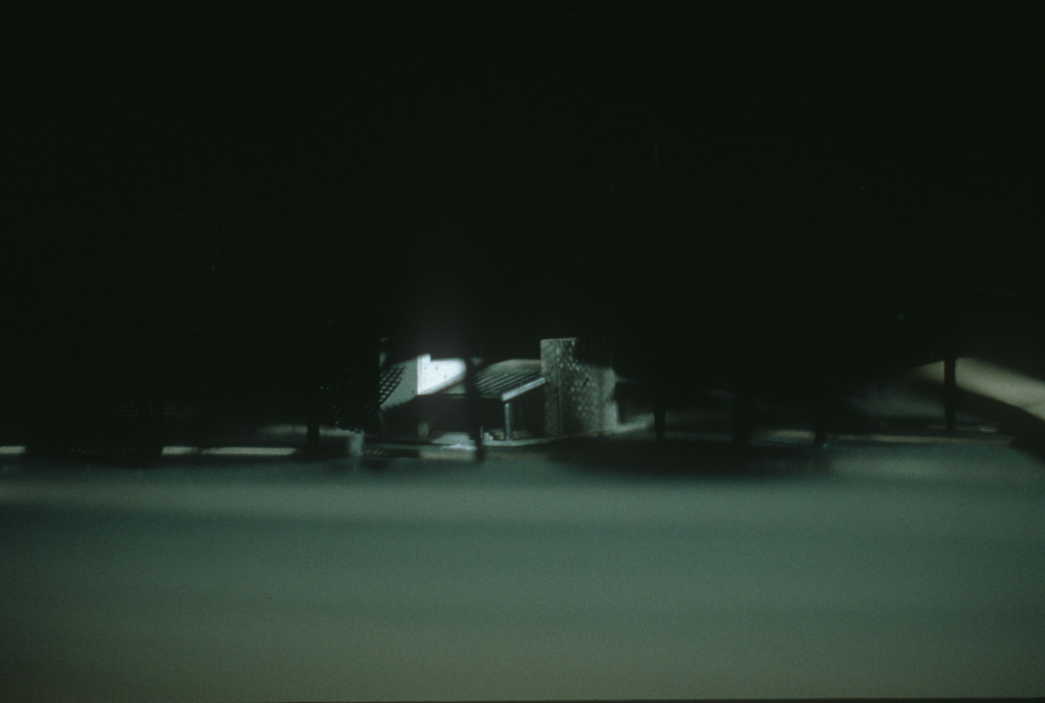












MONTANA STATE UNIVERSITY LIBRARIES



3 1762 10076239 0

DATE DUE

New Book

JUN 03 1993

DEC 13 1993

DEC 12 1993

FEB 23 1994

MAR 15 1994

MAR 21 1994

AUG 11 1995

MAY 10 1995

MAY 10 1995

MAY 02 1996

DEC 29 2000

DEC 20 2000

Demco, Inc. 38-293

DATE DUE

NEW BOOK

DEC 13 1993

DEC 13 1993

FEB 9 1994

MAR 18 1994

MAR 21 1994

AUG 11 1994

MAY 10 1994

MAY 10 1994

DEC 2 1994

DEC 2 1994

Dec 2 1994