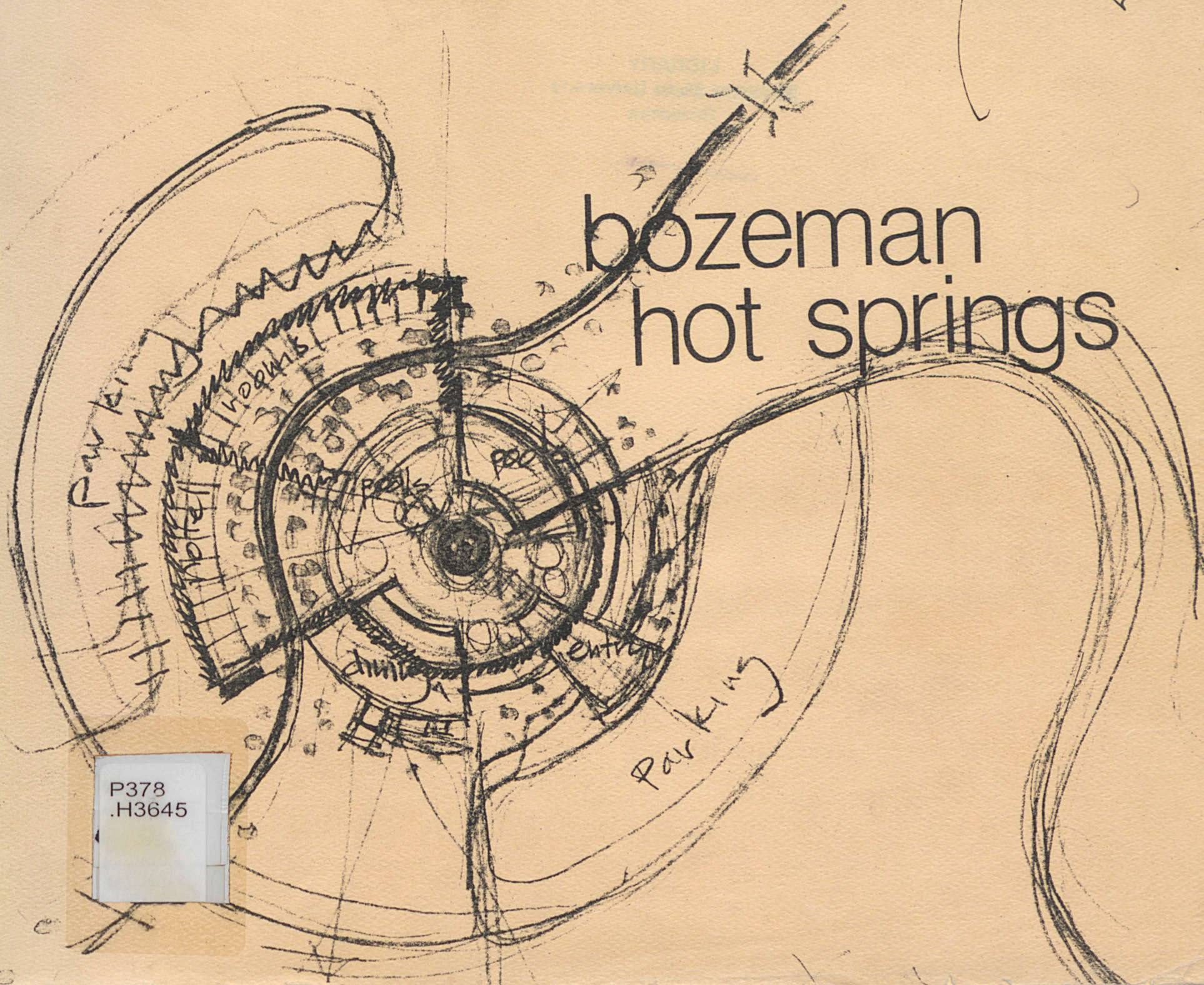
bozeman hot springs



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Signature: Randall W. Hein

Date: December 18, 1983

BOZEMAN HOT SPRINGS

by

RANDALL W. HEIN

Submitted to the School of Architecture as partial fulfillment of the requirements for the degree of Bachelor or Architecture.

Approved by:

_____

Prof. David Mathews, Thesis Advisor



_____

Prof. Robert Utzinger, Director

MONTANA STATE UNIVERSITY

Bozeman, Montana

December, 1983

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DEDICATION

I would like to dedicate this project to my family, for without their support both emotionally and financially I would have never made it this far in a particularly tough time in my life.

ACKNOWLEDGEMENT

There are a number of people who warmly contributed to the compilation of this project. They include: my original advisor, Mr. James Mitchel, committee person, Mr. Tom Wood, jurer, Prof. Elmira Smyrl, my current advisor, Mr. David Mathews, and fellow students Bill Hansen and Glen Murray.

I would like to give a special thanks to David Mathews for the strong direction from the reprogramming to the presentation stages of this design and for taking me in after my having completed the first quarter of thesis.

I would also like to thank Tom Wood for his ideas and criticisms that were extremely helpful and played a large part in the design of this project through both quarters of this thesis.

TABLE OF CONTENTS

Acknowledgments IV
Goal VI
Introduction: Hot Springs VII
History of Bathing 1
History of Bozeman Hot Springs 6
Case Studies 10
    Fairmont Hot Springs 10
    Chico Hot Springs 12
    Bozeman Hot Springs 14
Site Analysis 16
Site Conclusions 39
Users 41
Program 45
Conceptual Design 79
Conceptual Design Summary 98
Footnotes 102
Bibliography 103

GOAL

I want to create an appropriate environment that will house the activities that celebrate the surfacing of a hot spring source.

This new environment will replace an old, run down existing one. There is a great need to upgrade the current situation at the Bozeman Hot Springs and because of that need I choose to deal with just that. The current indoor pools are in bad shape with a run down building and an undersized pool area to facilitate a resourceful and thriving area like Bozeman, Montana. So, by adding activities and replacing the current situation I hope to also revitalize the Bozeman Hot Springs back to the status of "hot spot" as it was when it competed against the city of Bozeman back in the 1920's, 30's and 40's.

The design of the new environment should also place an emphasis on the hot water because without it, there would be little or no activity there. The warm mineral water is the

natural drawing force on which the new environment depends on, and therefore should receive the recognition it deserves.

This new environment should also be designed with maximum comfort and relaxation in mind for it is a destination of leisure, where one shouldn't try to enjoy himself. Convenience will allow for greater comfort with added activities such as eating, drinking and sleeping to the list of swimming, diving and bathing activities that naturally occur.

The activities will be open to all people, not just the rich. This means that Joe Average is welcome to participate in all of the happenings in the open and friendly atmosphere.

Economics should also play a part in this design. This is a real project and ideas from my final proposal could affect any new development on the current site.

HOT SPRINGS

The very words "hot springs" can conjure up images of the ideal natural soaking pools of comforting and relaxing liquid warmth that sends wisps of steam into magical surroundings.

For people who like such images and the reality of them, Montana is a state of great opportunity. The rolling hills and plains of eastern Montana have none of these hot springs at all but the southwestern part of the state is very fortunate to have many of these natural occurances.

The water temperatures of the hot springs in this area vary from 52°F, that is great for raising fish, to 300°F, that is the temperature of super heated steam that generates electricity. [1]

In some cases the mineral content is so low that there is no color, odor or taste. Other cases are the direct opposite where the mineral content is so high that it corrodes away heavy metal pipes in less that six months, or is so concentrated that giant mounds of minerals are deposited each year as the out flowing

water cools. Some waters offend the nose with rotten egg odor or sulfur while others taste like soda pop. Most of these hot springs luckily have invisibe concentrations of minerals that could only be detected through laboratory analysis. They all differ in some degree which leads to arguments between resorts over whose water is better.

All hot springs have a pattern of emergence. Only a few geothermal outflows take the form of geysers, which have alternating periods of discharge and rest, while other outflows resemble cold water springs. Most of these hot springs have some bubbles of turbulance some of the time. Depending on the geology of the area, the water may spurt off the cracks in a rocky cliff, or cascade down a river bank, or trickle over the lip of its own mineral deposits, or well up in a gravel wash, or bubble up through the sandy bottom of a river, or boil out of a mud pot.

Only a few hot springs have just the right temperature, mineral content and the rate of flow to support large pools for a resort. Usually the mineral water is too hot to touch when

it flows from the ground, but the cooling process begins immediately when it makes contact with the air. Human ingenuity allowed us to build cooling ponds or dam it to allow cooling to approximately 100 degrees. In the resorts, cold water is added to the hot pools to control the temperature.

The more common materials used in constructing the hot mineral pools are redwood, cedar, mahogany, concrete block, natural stone, concrete, plaster, fiberglass and acryllic. [2] They vary in size from a single therapy tub to an olympic sized pool and larger.

Swimming pool health standards in all states require that the water must be regularly tested and that samples must have a very low level of bacteria count. These standards also require automatic chlorination of the water to certain minimum levels.[3] The standards were usually written for city swimming pools that recycle their water while hot spring pools usually aren't recycled.

Some of the fortunate hot spring owners have a mineral content that permits the addition of chlorine without turning the water black. Other more fortunate hot spring owners live in states that permit pool operation without chlorination as long as a minimum rate of constant flow-through is maintained. The, there are the unfortunate hot springs owners that can't do either and must have to fill their pools with city water and draw only the heat from the mineral water.

Resort buildings can be very minimal or complex. Some bath houses consist of only a fence with no roof while others are housed in a wing of a giant building envelope that pipes water in from miles away. There is a multitude of shapes and sizes of buildings representing a wide variety of ideas of how to accomodate the customers drawn by the magic of the hot mineral water.

When it comes to clothing of lack of it each state has its own laws on the subject. Most commercial establishments require bathing suits. Only a small minority of these resorts tolerate the late-night unofficial skinny dipping. Several establishments

have an official clothing optional policy applied only in the pool areas. Just a few of which flatly prohibit swimsuits in the pool altogether.

Due to the energy shortages of recent times a great amount of attention has been given to the geothermal energy in the hot springs. The department of energy is doing its bureaucratic best to promote the utilization of the high temperature geothermal energy. Each of the states have contracts to make area studies and site specific plans designed to accelerate the use of such resources by institutions, industry, and agriculture and local governmental agencies.

The constantly escalating cost of fuel has also stimulated widespread interest in the production of methanol, the alcohol component in gasohol. Methanol production can be accomplished without geothermal energy, but the distilling process requires such a large amount of heat that the geothermal energy has in those hot springs, so they are an ideal source of heat for the low cost reason.[4]

HISTORY OF BATHING

Bathing, like many other practices originated in the Orient. The eastern religions prescribed washing and bathing to promote health and cleanliness. It is a natural need for man to make and keep his body clean. Some of the practices on cleansing the body have become habit while others have taken on the character of religious ceremonies.

In ancient times many of the great cultures practiced washing and bathing, and some even set aside buildings specifically for that purpose. In the Egyption temples of Memphis, visitors used special bathing rooms that were noted for the tremendous amounts they used. The Greeks also had their own bath-houses on the islands of Crete. Ulysses tells repeatedly how he bathed at the houses of the people he stayed with while on his journeys. [5]

In Sparta, a charge was paid at the entrance at the public bathing establishment. They also had cold water pools, steam baths, and dressing rooms. This type of bathing facility spread

throughout Greece and even reached to Rome where they had public and private baths. Under the rule of Constantine there were eight hundred and fifty baths that were public and fifteen thermal bath establishments. The thermal baths were named after the great emporers of the Roman empire like Caracalla, Tituis, Hadrian, and Diocletian. Diocletian's thermal bath facility accomodated up to six thousand people at a time and had three thousand individual baths and three large swimming pools.[6]

The more simple Greeks and Roman bath houses usually had two rooms, one for hot steamy baths and the other for a cold plunge. It alternated hot and cold air and hot and cold water. Plus the bathers could get a massage and be anointed with oils.

After the fall of the Roman empire the use of the bathing facilities declined. It was revived by the Arabs in Spain but disappeared after they were driven out.

After the Crusades in the thirteenth and sixteenth centuries the baths became quite popular again with every feudal baron

having his own bath house. It was customary to bath before eating.

In the sixteenth century, life was extravagent and people stayed in baths all hours of the day, dancing and drinking. The baths became infested with debauchery and disease, and eventually caused the baths to be shut down in the seventeenth century. [7]

The Russian baths were popular in the nineteenth century. The main principal of the Russian bath was that everyone simply bathed together. The Russian monks developed this type of bathing facility for the poor way back in the tenth century. These became the first bath houses to be maintained by a city under the rule of the Tsavx Alexe in the seventeenth century. These baths were owned and maintained by private individuals who leased them from the state.

The Roman baths made a comeback after an Irishman improved their design in 1856. He improved the ventilation of these baths. These Irish-Roman baths became very popular in England, the Germany and soon spread to the rest of Europe.[8]

This Irish version of the Roman bath also had a new procedure. First the bather would spend twenty-five to forty minutes in a room with a fairly low temperature called the tepidarium where he would begin to perspire. Then he would enter a hot air room (the sulatorium) where he would remain there for ten to twenty minutes where the perspiration flows freely. An attendant there would wipe of the perspiration and the limbs were massaged and then the whole body was then drenched in cold water. Then he rinsed off in a shower and went to the dressing room. He then rested on a couch before putting on his clothes.

The most important feature of the Roman bath was the hot dry air that stimulated perspiration. It was much easier to breath dry air than damp air, and the perspiration flows easier. The bath also loosens dead top skin and stimulates the working of the skin as a whole, strengthens it and builds up a strong resistance to cold.

Then there is the Russian bath that featured damp air. Again a large quantity of water is used. Heat is provided by

the throwing of large amounts of water on the stones.

The Finnish bath combines the dry Roman and the dampness of the Russian steam bath. In a well heated sauna the air is dry and is easy to perspire in it. Then water is thrown on the heating stones that causes steam to dampen the air and stings the skin. The tingling sensation is increased by beating the skin with birch leaves. Then the air is brought back to dry again. This type of bath is the only type that uses the dry and damp air alternately.[10]

A very unique type bath is the Japanese bath. The emphasis is on the hot water. The bather first washes in hot water and then goes to a bathing pool for three or four minutes or longer. Then the body is washed in hot water again and the bather is returned to the pool with temperatures to 115°F and not falling below 105°F. The bather goes away with few clothes on, even in winter. The Japanese bath like this daily in public or at home.[11]

HISTORY OF BOZEMAN HOT SPRINGS

The Bozeman Hot Springs were first used by the Blackfeet Indians way back in the 1860's. They were latter used by cattlemen on annual roundups.

In 1875 the springs were turned over to private ownership after a man named Al Lund purchased them. The springs at that time were still in their natural state and were used for therapy and also had regular patients in that earlier time.

The "springs" had a new owner named Mary E. Mathews in 1879. Many things began to happen when she took over for within a few months a large bath house with dressing rooms, swimming tank, and bathroom were built.

In 1890 the "springs" were sold to E.M. Ferris for 25 thousand dollars.[12] The sale also included 769 acres of nearby land. He then called the "springs" Ferris Hot Springs. He was responsible for the construction of the original hotel that was build there in 1891. It was a two story log framed building in the

Queen Ann tradition. The hotel was connected to the city of Bozeman with an electric car that made the 8 mile ride much faster and with greater comfort.

Mr. Ferris also had a water analysis taken when he took over in 1890 it read as follows:

Constituents	Grams/ Litre	Grams/ Imperial Gallon
Silica	.0826	5.782
Sodium Silicate	.1098	7.686
Calcium Carbonate	.0390	2.730
Magnesium Carbonate	.0036	0.252
Sodium Carbonate	.0758	5.250
Pottasium Chloride	.0139	0.938
Sodium Chloride	.0707	4.949
Sodium Sulphate	.1974	13.818
	.0010	0.070
TOTALS	0.592	41.475

as taken by R.B. Riggs & F.W. Clark, Chief Chemists[13]

After eighteen years in the business Mr. Ferris sold out to a Mr. O.E. Meyers Realty Co. The company was forced to take drastic measures and raffled the land off for there were no interested buyers with the terms of 150 dollars down and ten dollars a month. The land was divided up into 600 tracks that ranged from city sized lots to ½ acre tracts and 40 acre plots. The grand prize was a ten acre lot with the springs. Mr. Green, a restaurant worker from Bozeman won the springs but soon went broke trying to make it run. So, he sold the properties to the Fort Benton Bank.

The 600 tracts of land were named Rainbow Land. It became the first subdivision in Gallatin County.[14]

In 1922, Sam Collette purchased in the springs from the Fort Benton Bank. The Colletts made many additions on the property. They built 14 cabins, a baseball diamond, trapshoot, a rifle range, and a dancehall. In 1923 the dancehall burned down. San Collett's son rebuilt the dancehall and used it for a roller rink. According to Gerry Collett the wooden grand stands from the

Bozeman fairgrounds were moved to the springs for rodeos. Mr. Colletts also said:

"We opened on the same night that they had the Jack Demsy - Tommy Gibbons fight in Shelby; there were more people at the springs than at the fight in Shelby!"[15]

The day prohibition ended, the Collett's went to Great Falls for 300 cases of beer. They sold it for 25 cents a bottle. They soon ran out of garbage space and the customers started throwing the bottles against the walls. By noon they were out of beer. So they went to Great Falls again for 300 more cases and by the end of the day about one half of a 12 foot by 24 foot room was filled with broken bottles.

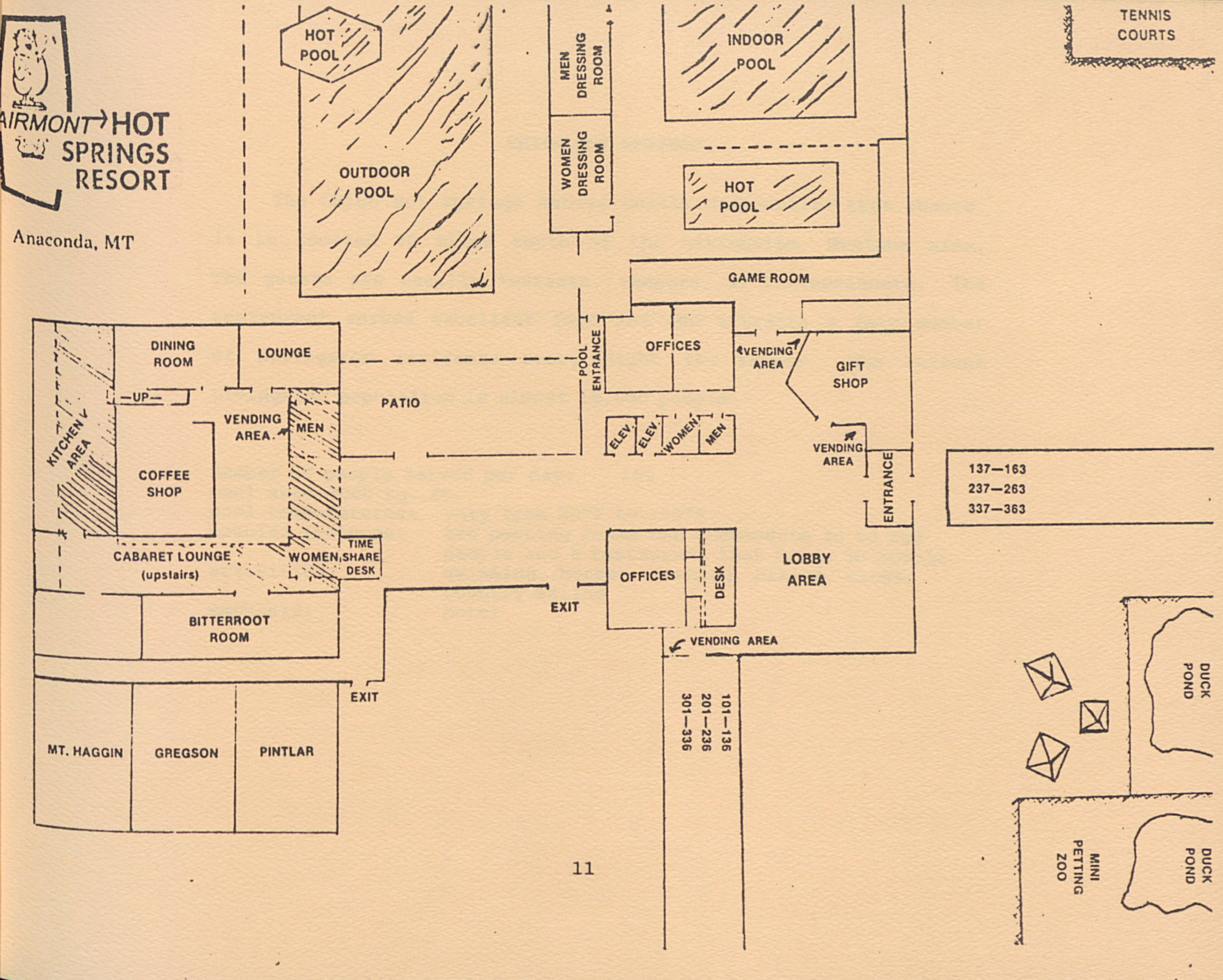
People came from all over then. It was a large summer resort with picnics, swimming, rodeos, dances, hay rides and the fourth of July celebrations. The springs was the amusement center of the valley then.

The springs were sold many more times before its current owner, Charles Page, who bought it in 1954. He dismantled the first hotel during time because of the sorry state it was in.

FAIRMONT HOT SPRINGS

The Fairmont Hot Springs resort area directly serves the Butte and Anaconda residents. Its only three miles east of Anaconda and eight miles west of Butte. The Butte area has over 37,500 residents in the old mining city and that population is dwindling about 1% per year. In its prime the hot springs served a Butte population of 50,000 in the late 1950's. Anaconda has a current population of 10,000 residents.

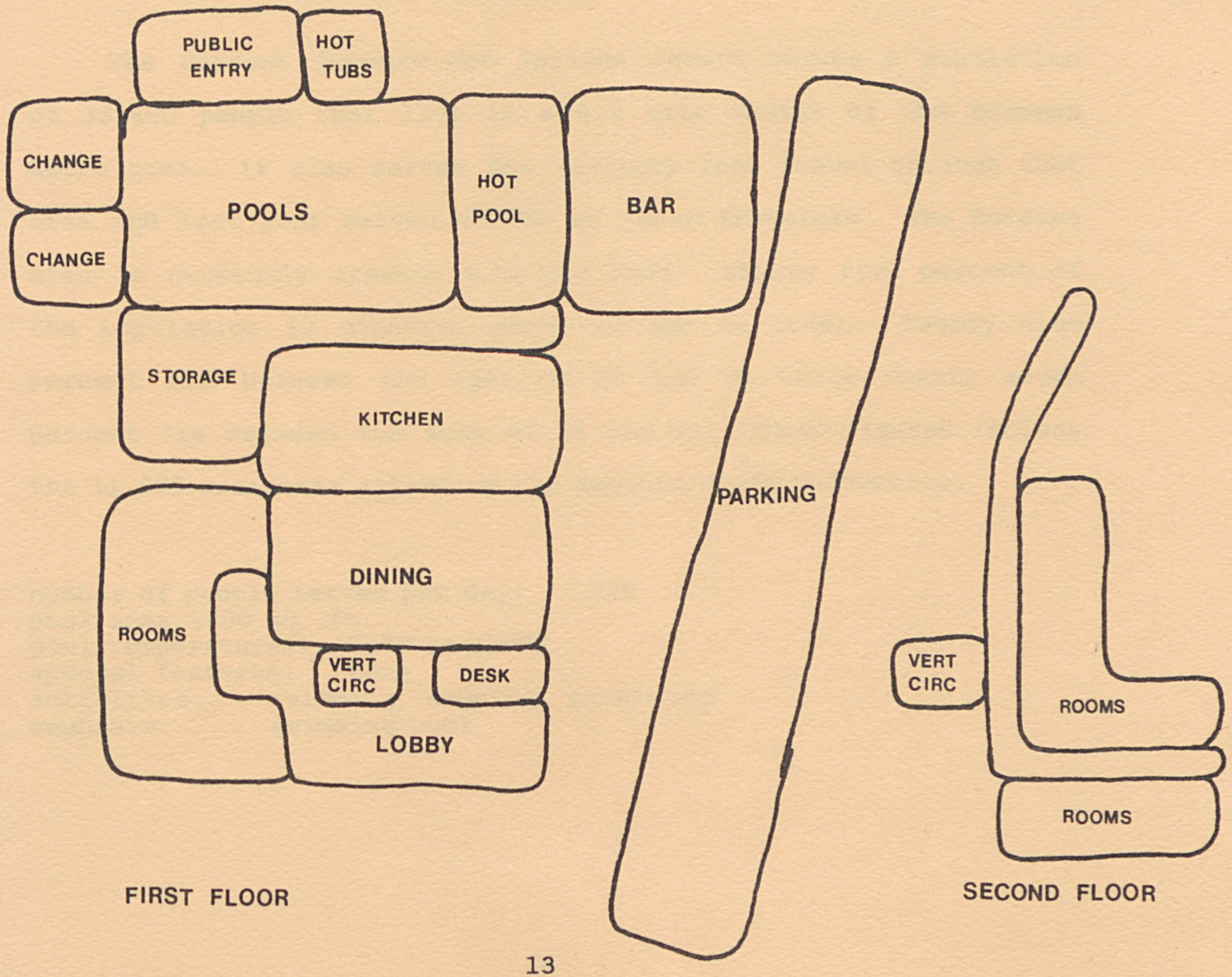
number people served per day: 500
pool area: 10,000 sq. ft. 20 sq. ft/person
pool temperatures: vary from 98°F to 112°F
special features: Fairmont has six large meeting rooms and four special function rooms, a coffee shop, restaurant and bar with 190 guest rooms.
activities: swimming, golf, fishing, tennis, hiking, horses, snow mobiling, convention center
emphasis: hotel


AIRMONT HOT SPRINGS RESORT
Anaconda, MT
HOT POOL
OUTDOOR POOL
MEN DRESSING ROOM
WOMEN DRESSING ROOM
INDOOR POOL
HOT POOL
TENNIS COURTS
GAME ROOM
DINING ROOM
LOUNGE
UP
KITCHEN AREA
COFFEE SHOP
VENDING AREA
MEN
PATIO
POOL ENTRANCE
OFFICES
VENDING AREA
GIFT SHOP
ELEV.
ELEV.
WOMEN
MEN
VENDING AREA
ENTRANCE
137—163
237—263
337—363
CABARET LOUNGE (upstairs)
WOMEN
TIME SHARE DESK
BITTERROOT ROOM
EXIT
OFFICES
DESK
LOBBY AREA
VENDING AREA
EXIT
101—136
201—236
301—336
MT. HAGGIN
GREGSON
PINTLAR
DUCK POND
MINI PETTING ZOO
DUCK POND

CHICO HOT SPRINGS

The Chico Hot Springs serves mostly destination type guests. It is located 30 miles south of the Livingston, Montana area. The guests are usually tourists, campers, or conventioners. The restaurant serves excellent food and and attracts a fair number of Livingston residents every night for supper. The current Livingston population is almost 15,000 people.

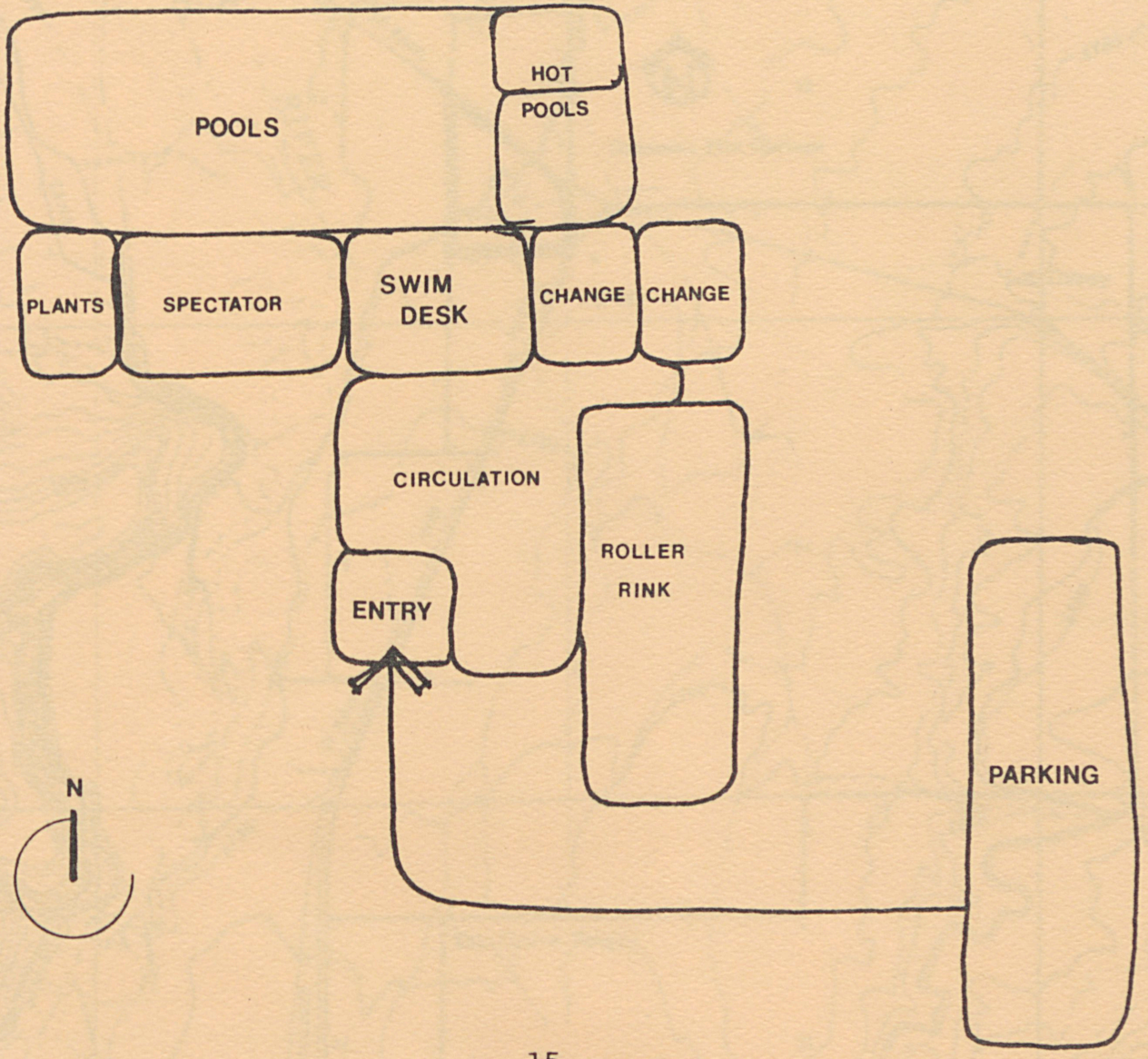
number of people served per day:	150
pool area:	4000 sq. ft.
pool temperatures:	vary from 80°F to 100°F
special features:	two meeting rooms can accomodate 30 to 200 people and a restaurant that holds 80 people
activities:	swimming, horses, fishing, hiking, cross country skiing
emphasis:	hotel

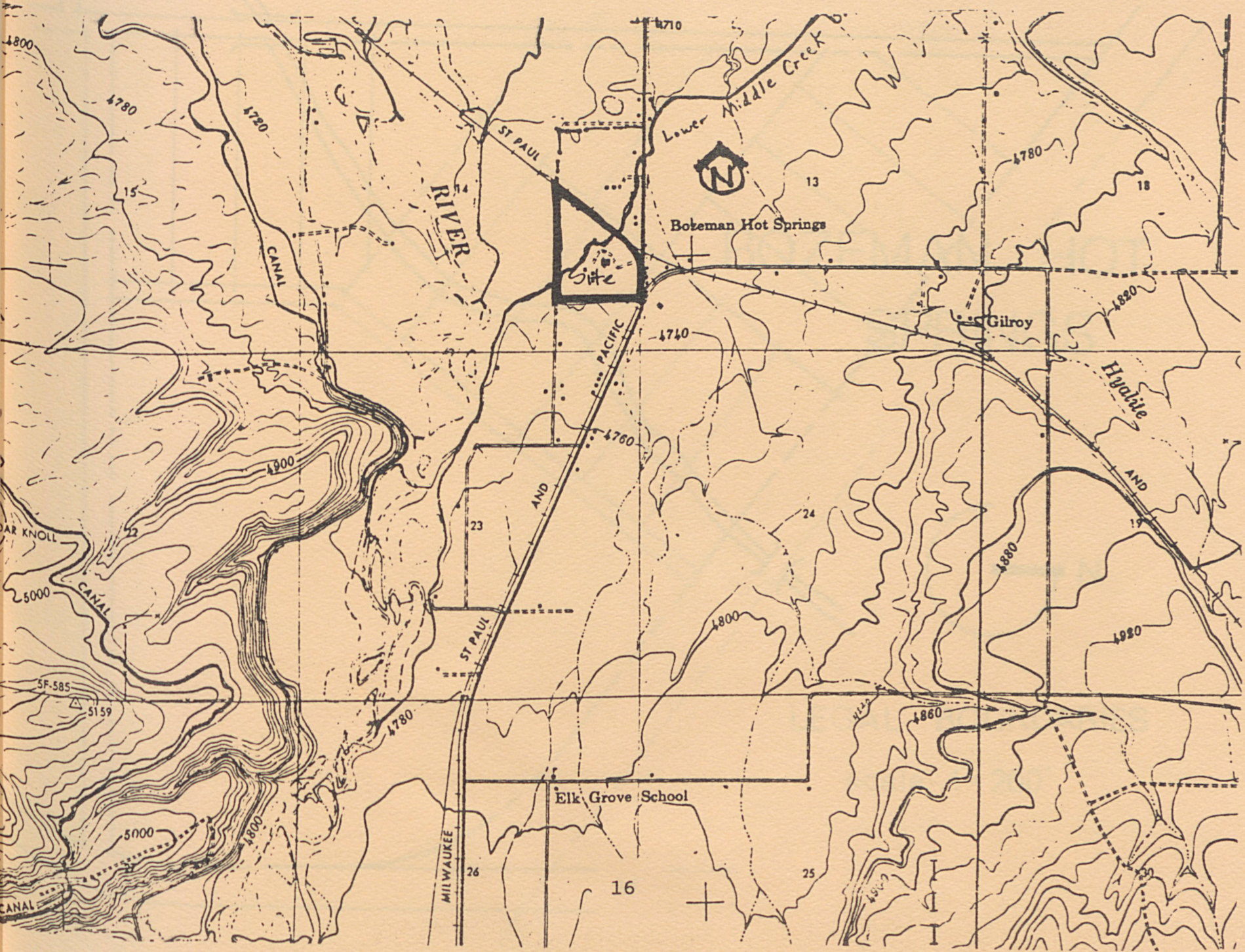

PUBLIC ENTRY
HOT TUBS
CHANGE
CHANGE
POOLS
HOT POOL
BAR
STORAGE
KITCHEN
PARKING
DINING
ROOMS
VERT CIRC
DESK
LOBBY
FIRST FLOOR
VERT CIRC
ROOMS
ROOMS
SECOND FLOOR

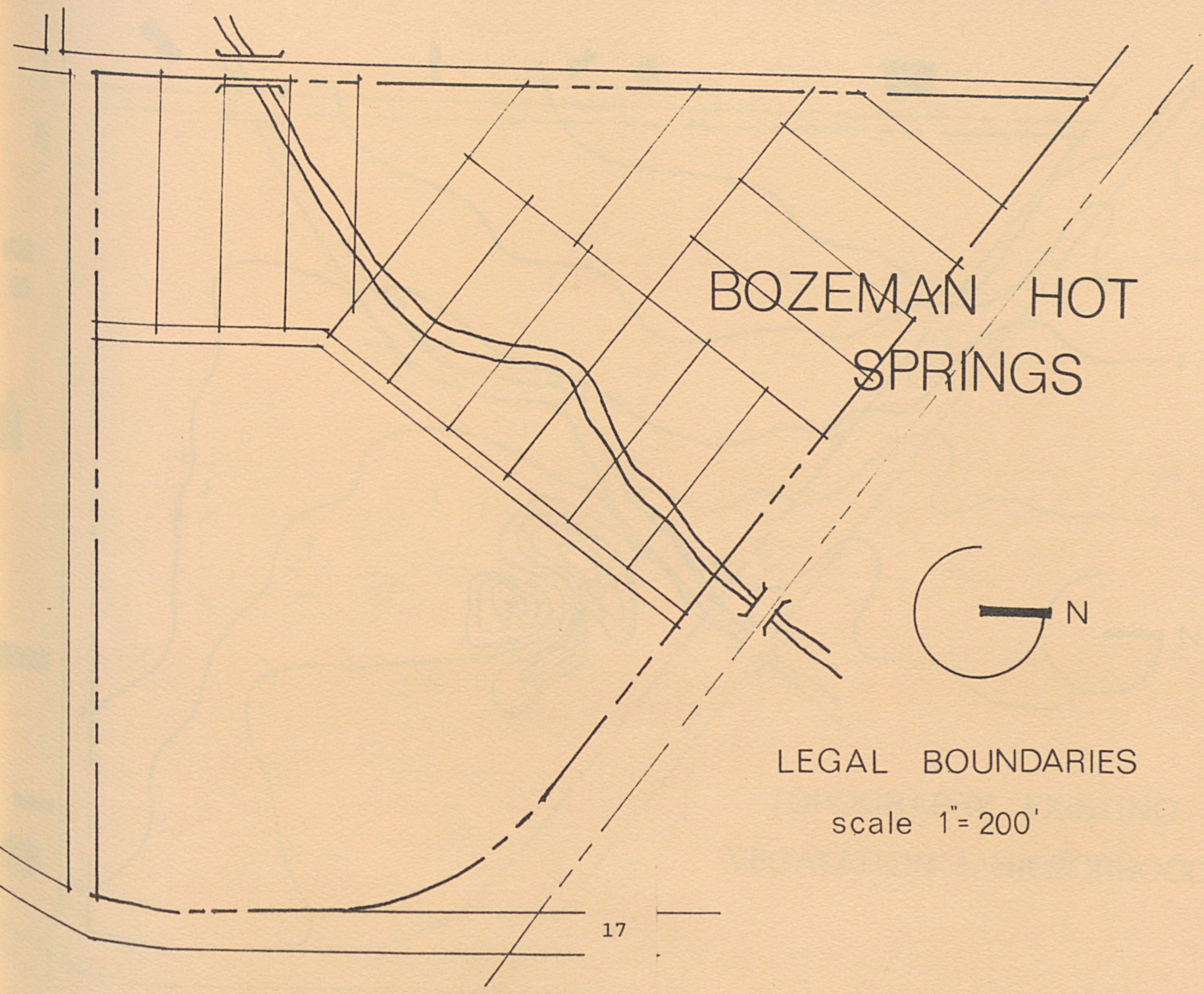
BOZEMAN HOT SPRINGS

The current Bozeman Hot Springs resort serves a population of 35,400 people that live in a 4.5 mile radius of the Bozeman metro area. It also serves the visitors that travel through that area and last year served 43,000 of these travelers. The Bozeman area is currently growing 4.5% per year. Thirty five percent of the population is nineteen years of age or under. Twenty nine percent are between the ages of 20 and 34 while twenty seven percent are between the ages of 35 and 65. These figures include the 11,000 residents attending the Montana State University.

number of people served per day: 200
pool area: 4000 sq. ft.
pool temperatures: 70°F to 110°F
special features: none
activities: swimming, camping, picnicing
emphasis: swimming pool

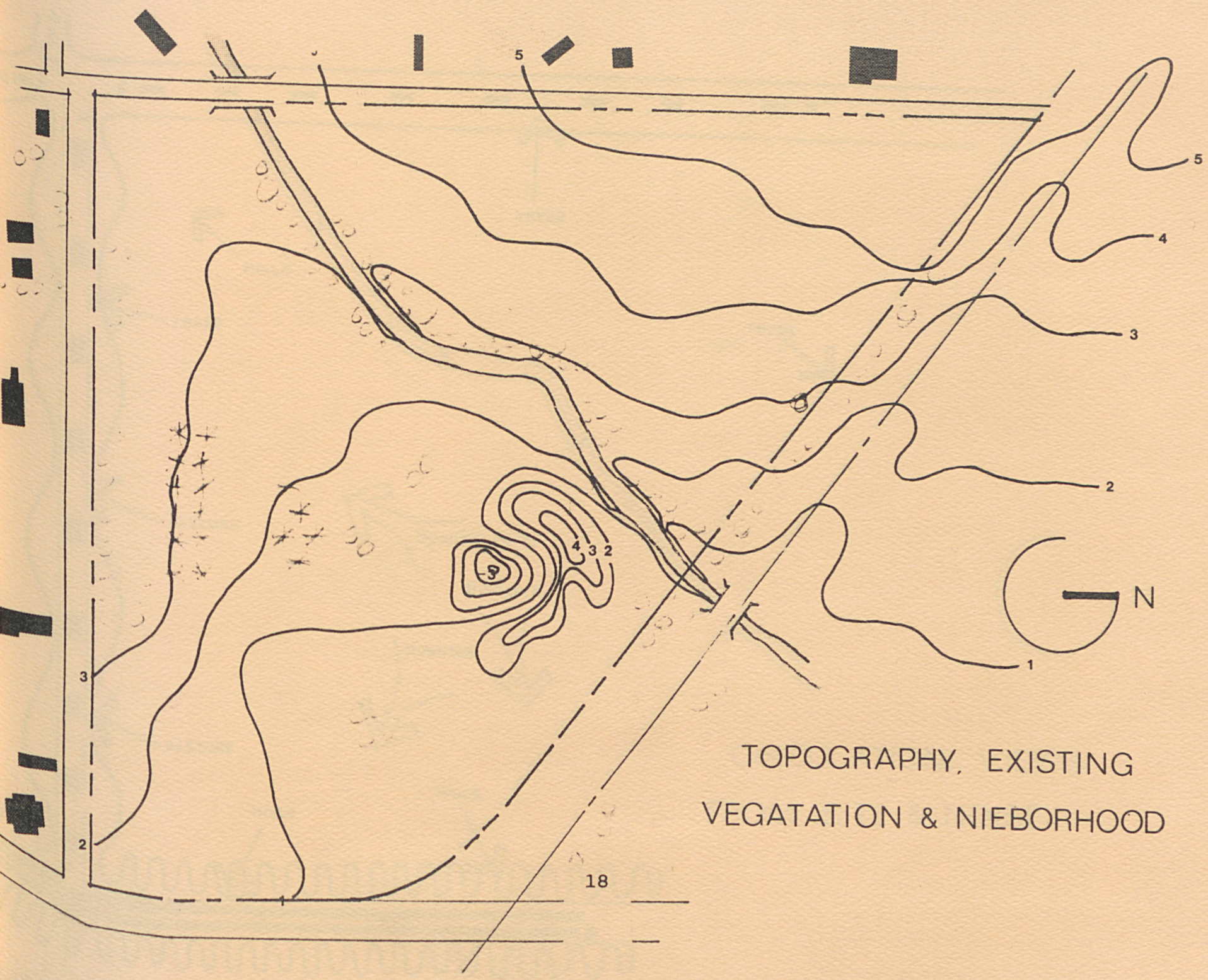

POOLS
HOT
POOLS
PLANTS
SPECTATOR
SWIM
DESK
CHANGE
CHANGE
CIRCULATION
ROLLER
RINK
ENTRY
PARKING
N


Lower Middle Creek
ST PAUL
RIVER
CANAL
Bozeman Hot Springs
Site
Gilroy
PACIFIC
AND
Hyatte
ST PAUL
MILWAUKEE
Elk Grove School
4710
4800
4780
4720
4740
4760
4820
4880
4920
4860
5000
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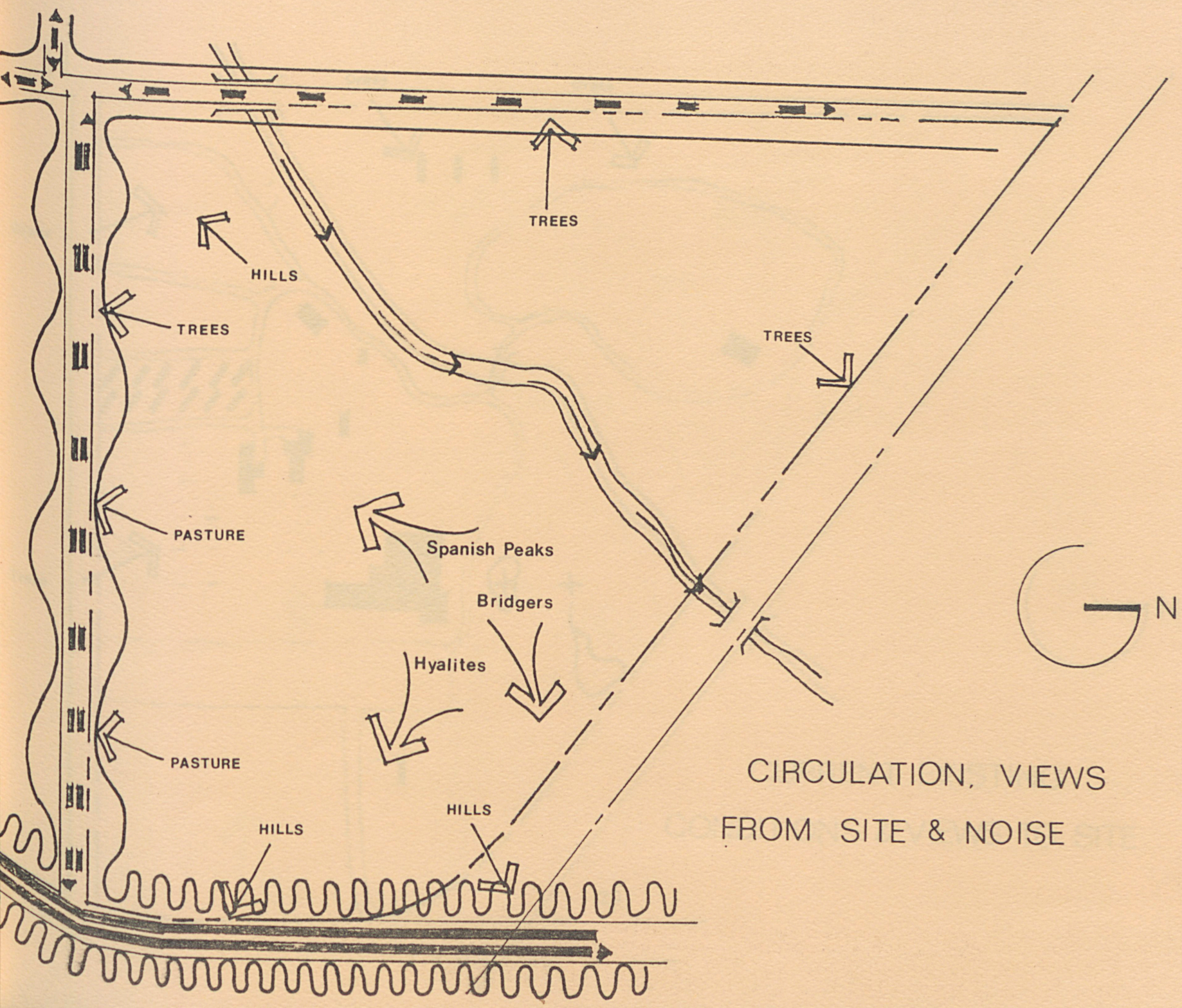
LEGAL BOUNDARIES

scale 1"= 200'

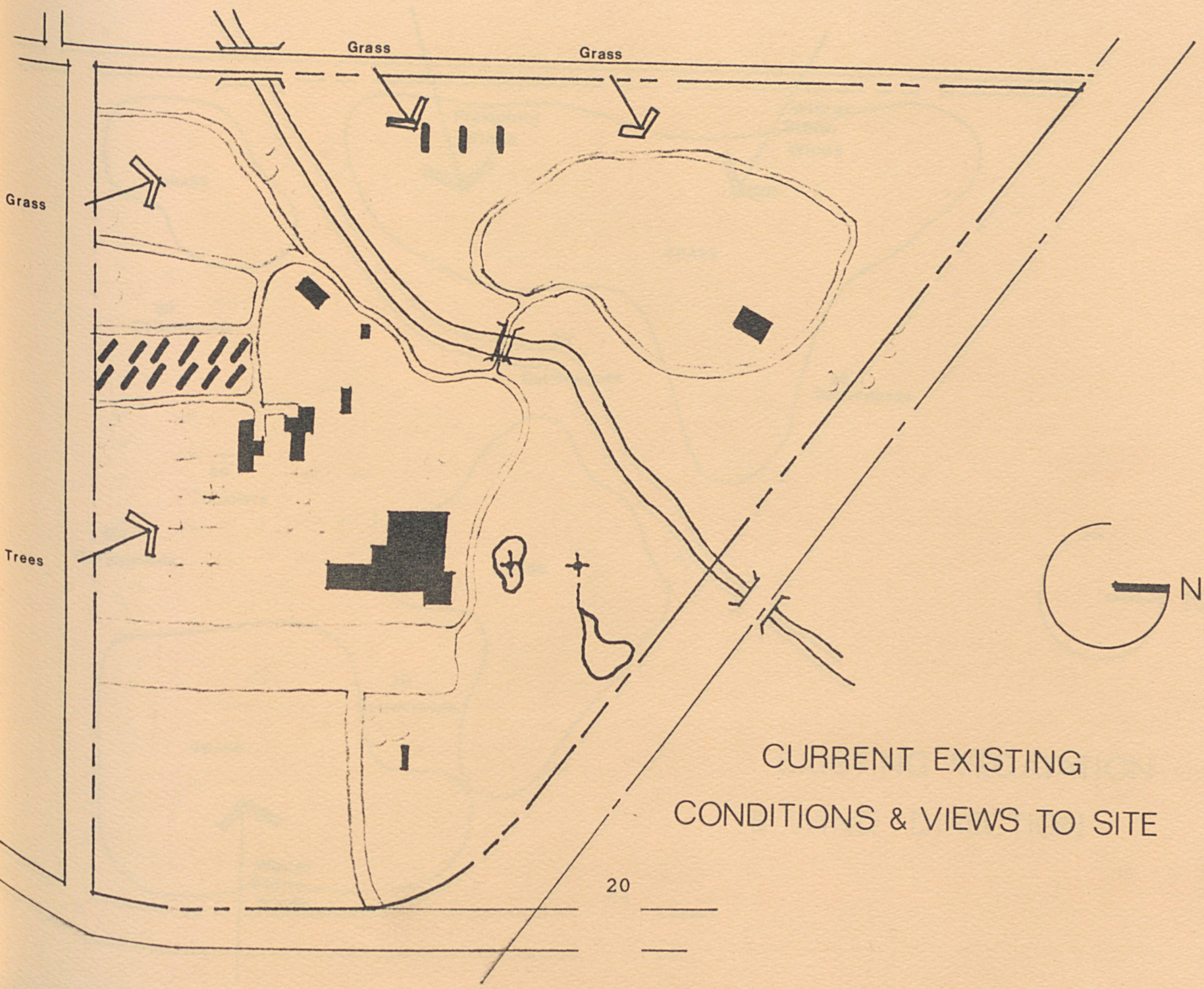


TOPOGRAPHY, EXISTING

VEGATATION & NIEBORHOOD

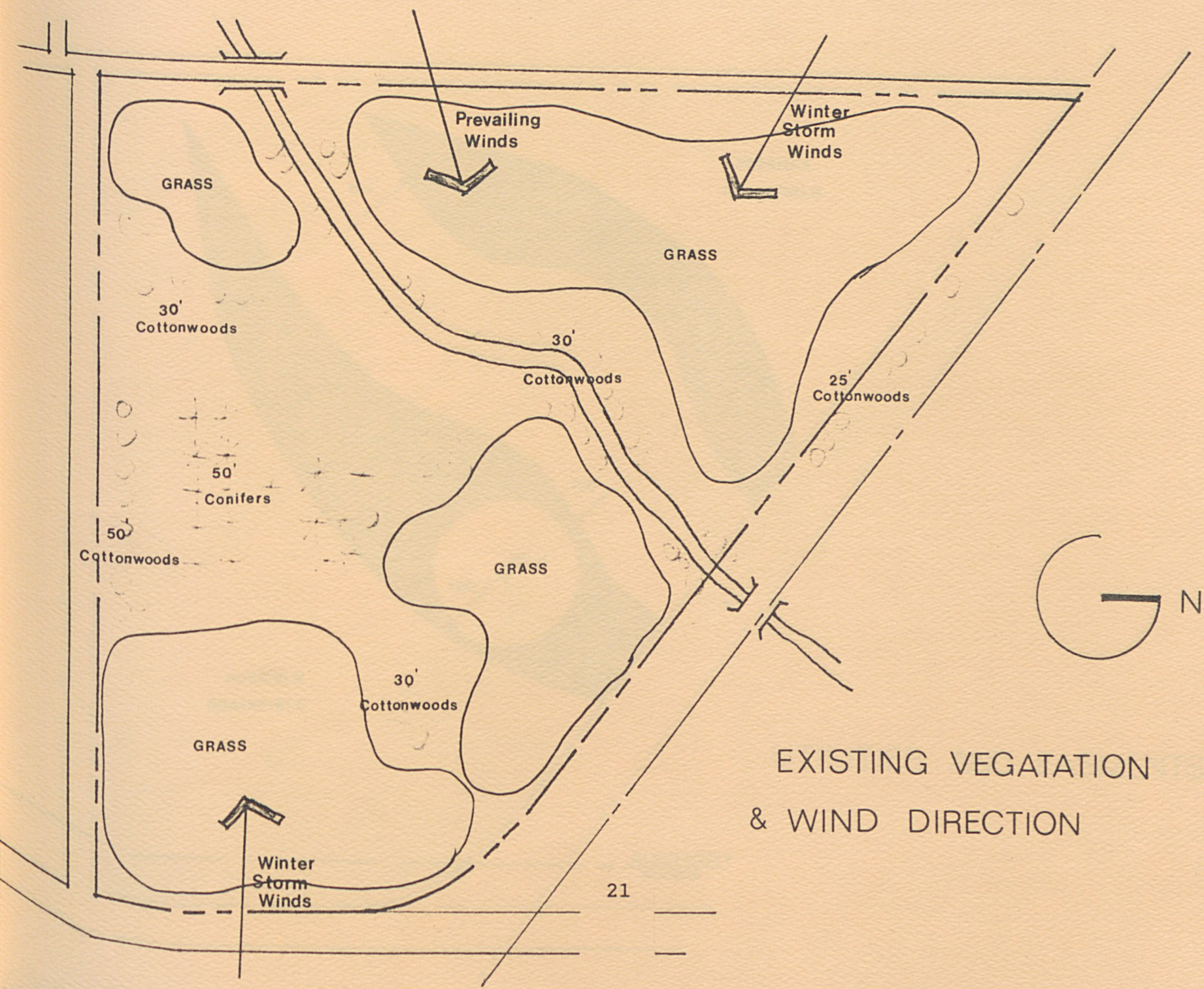


CIRCULATION, VIEWS
FROM SITE & NOISE

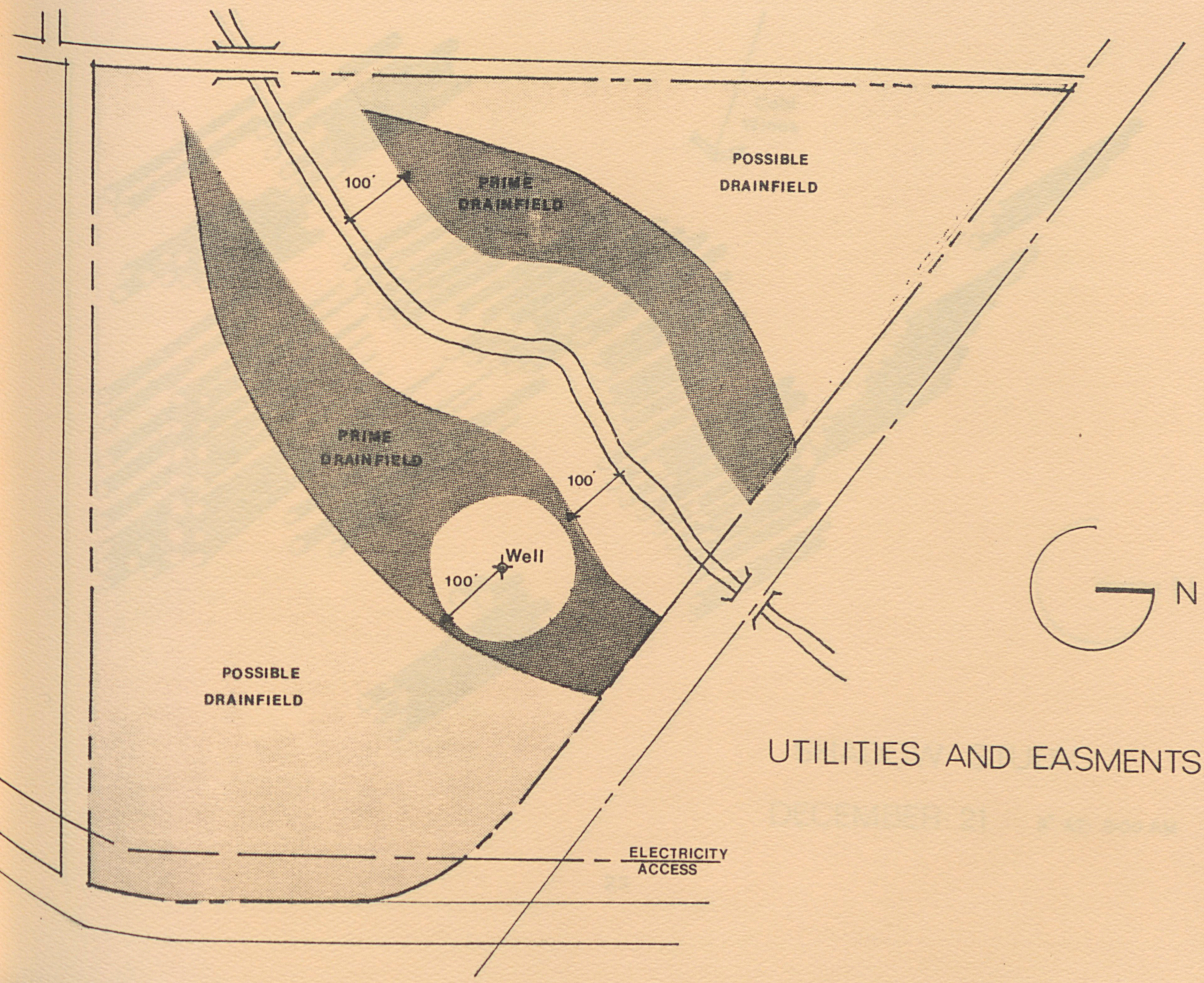


CURRENT EXISTING

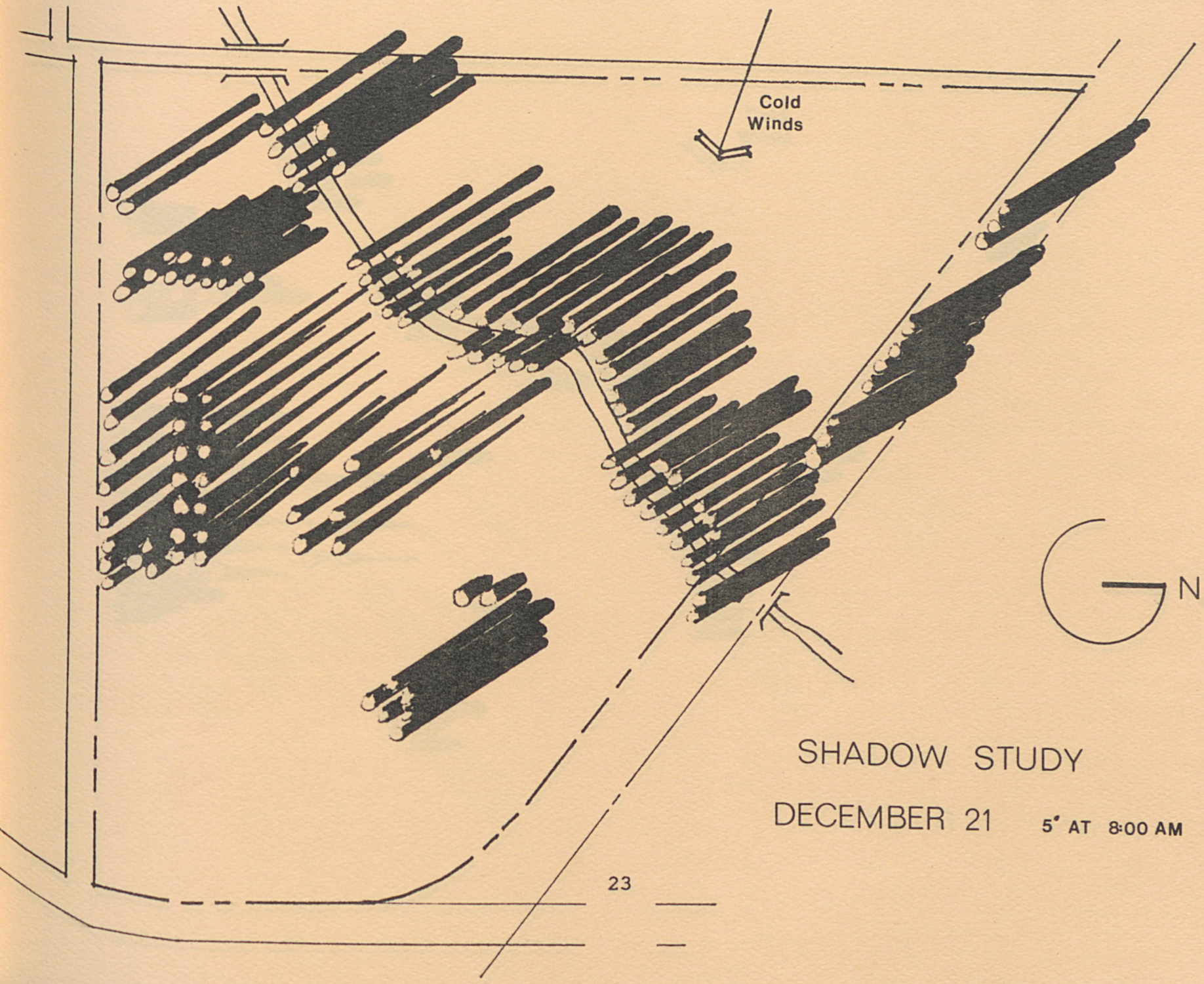
CONDITIONS & VIEWS TO SITE



EXISTING VEGATATION & WIND DIRECTION

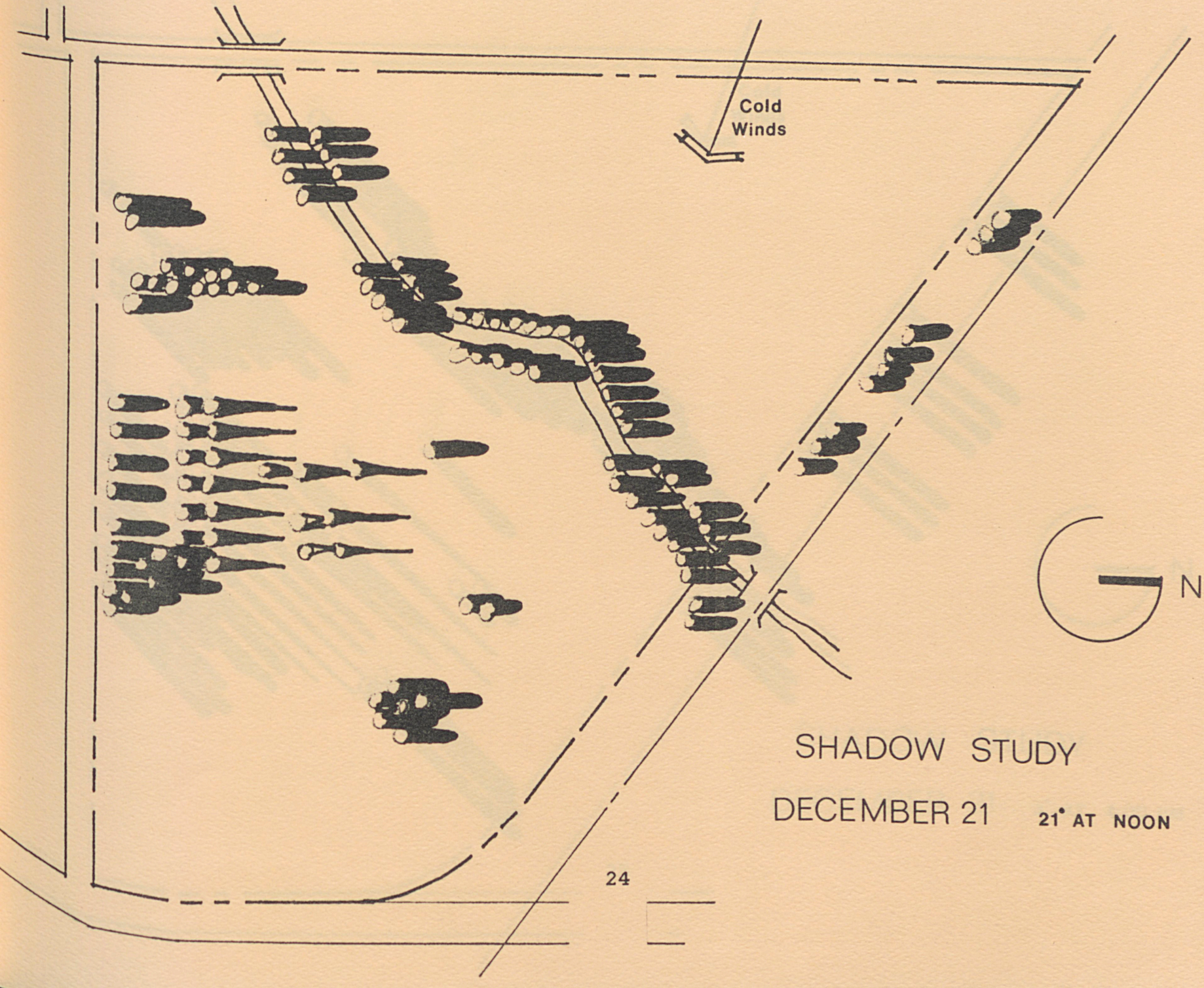


UTILITIES AND EASMENTS



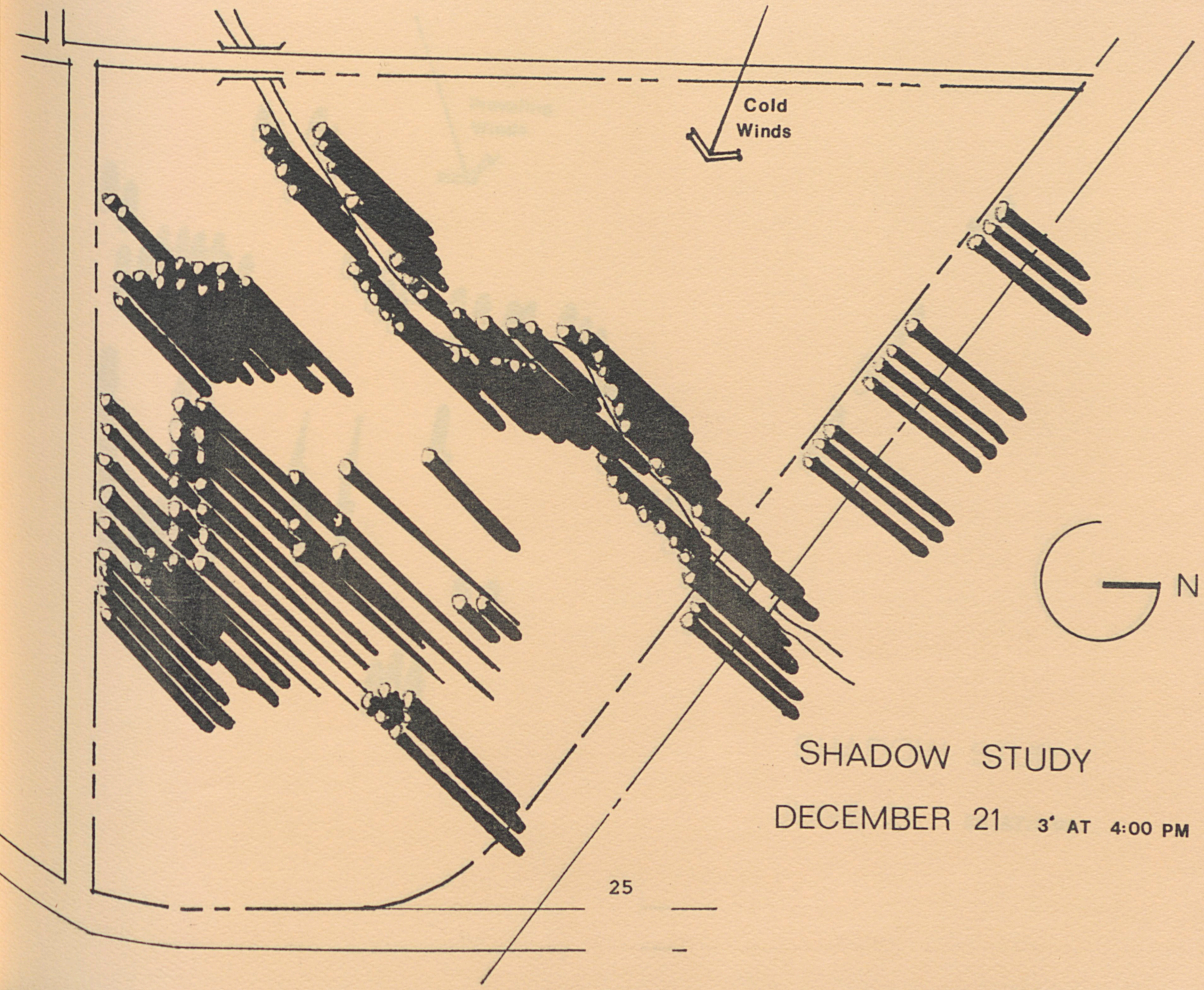
SHADOW STUDY

DECEMBER 21 5° AT 8:00 AM



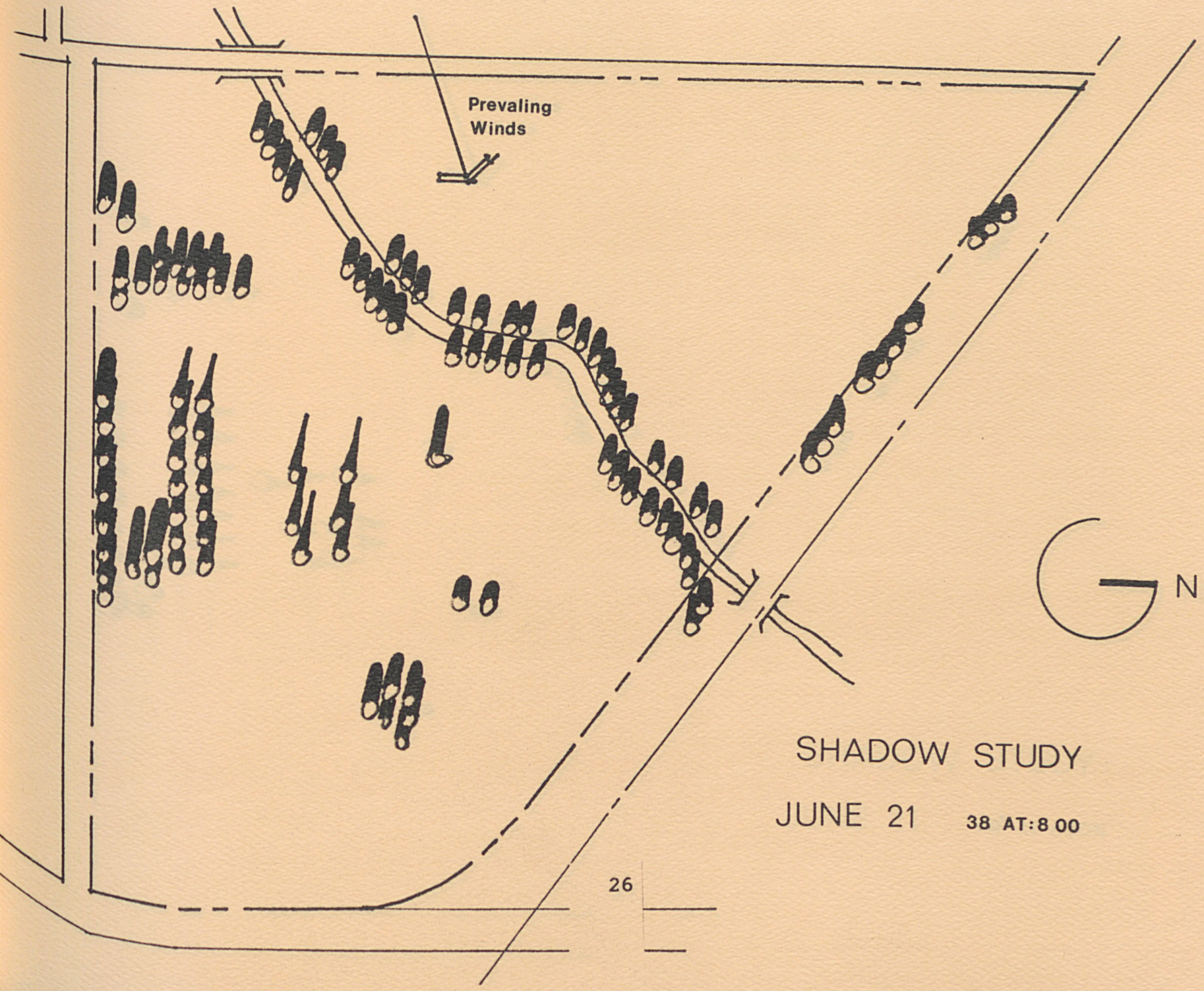
SHADOW STUDY

DECEMBER 21 21° AT NOON



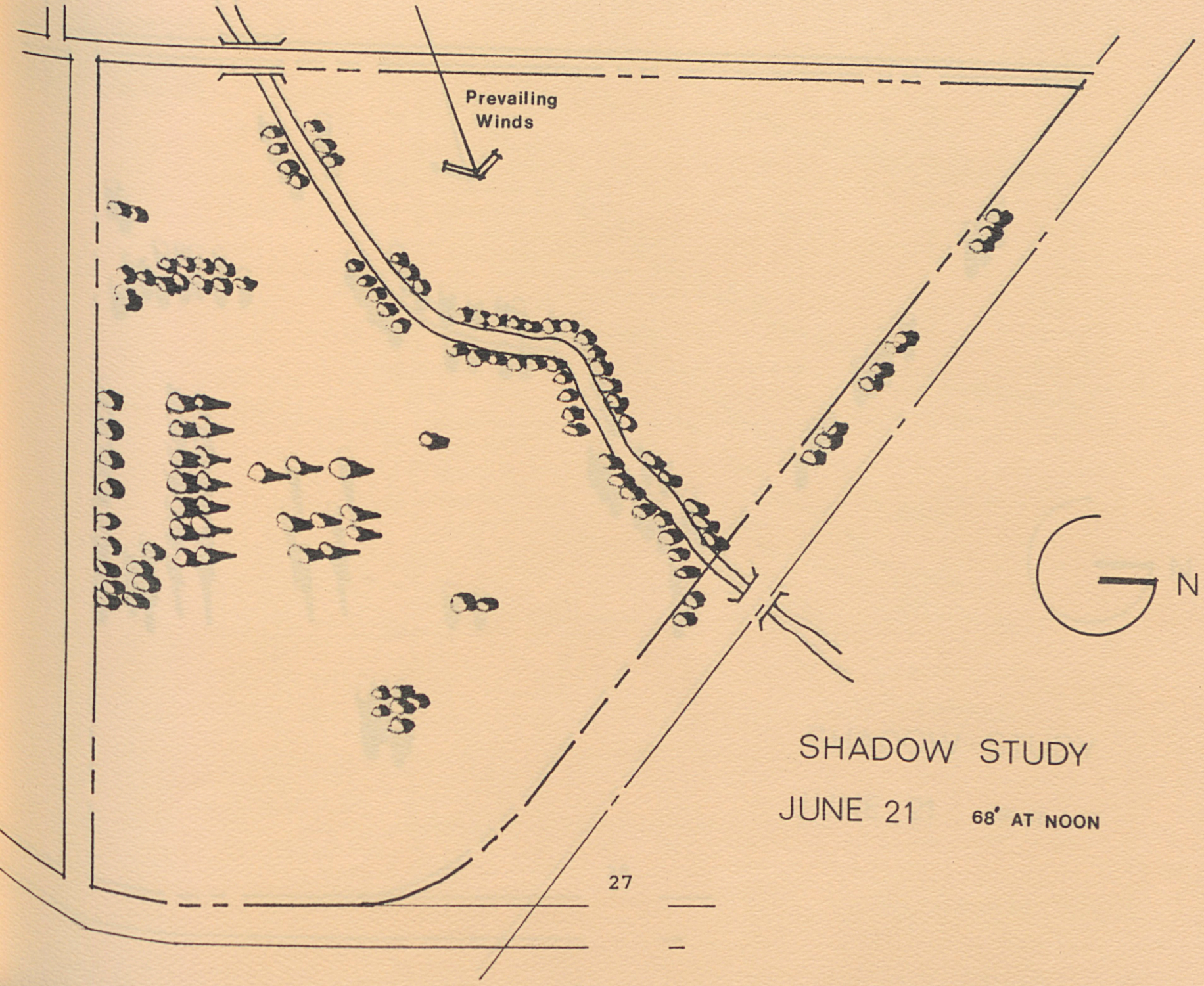
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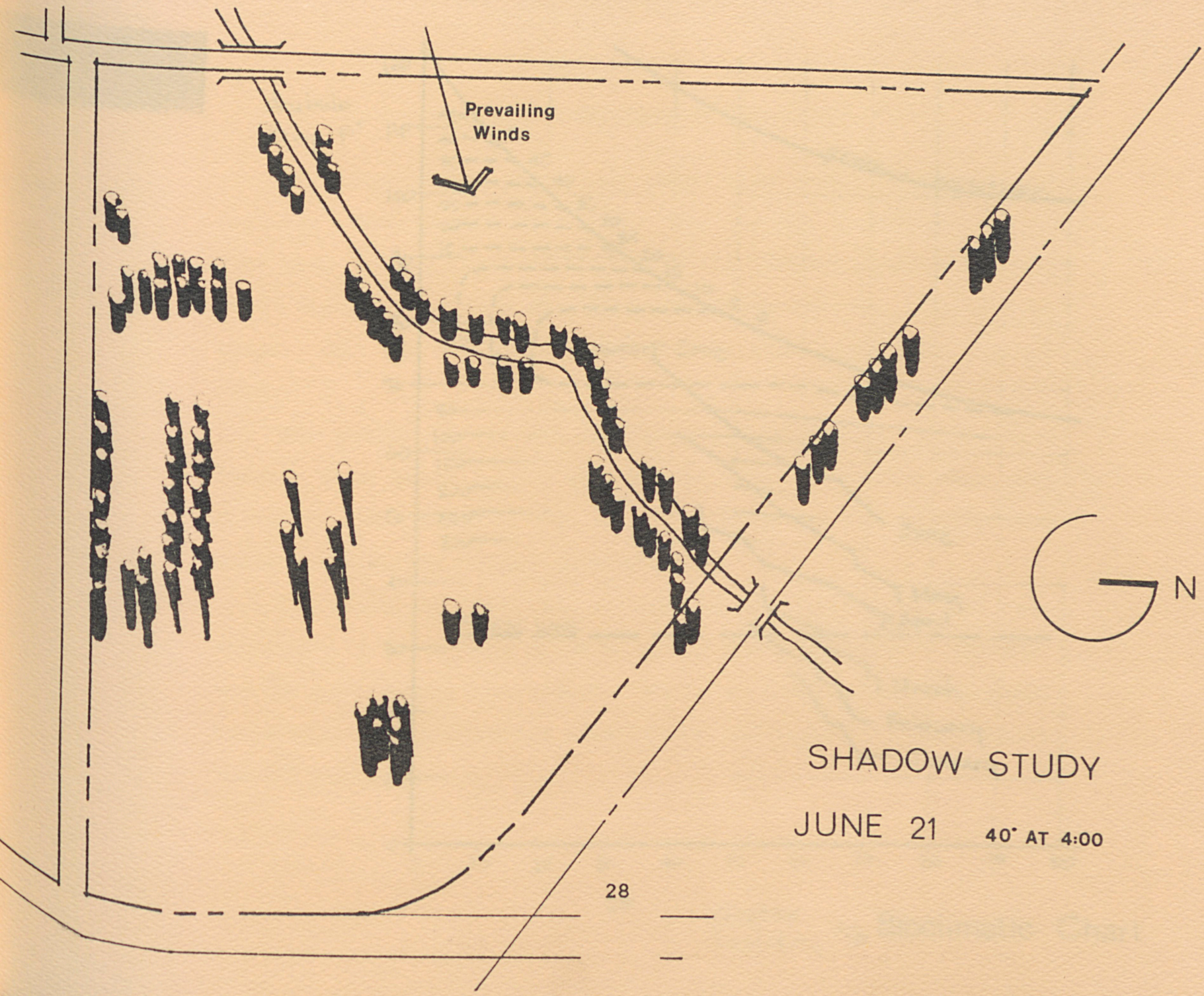
DECEMBER 21 3' AT 4:00 PM



SHADOW STUDY

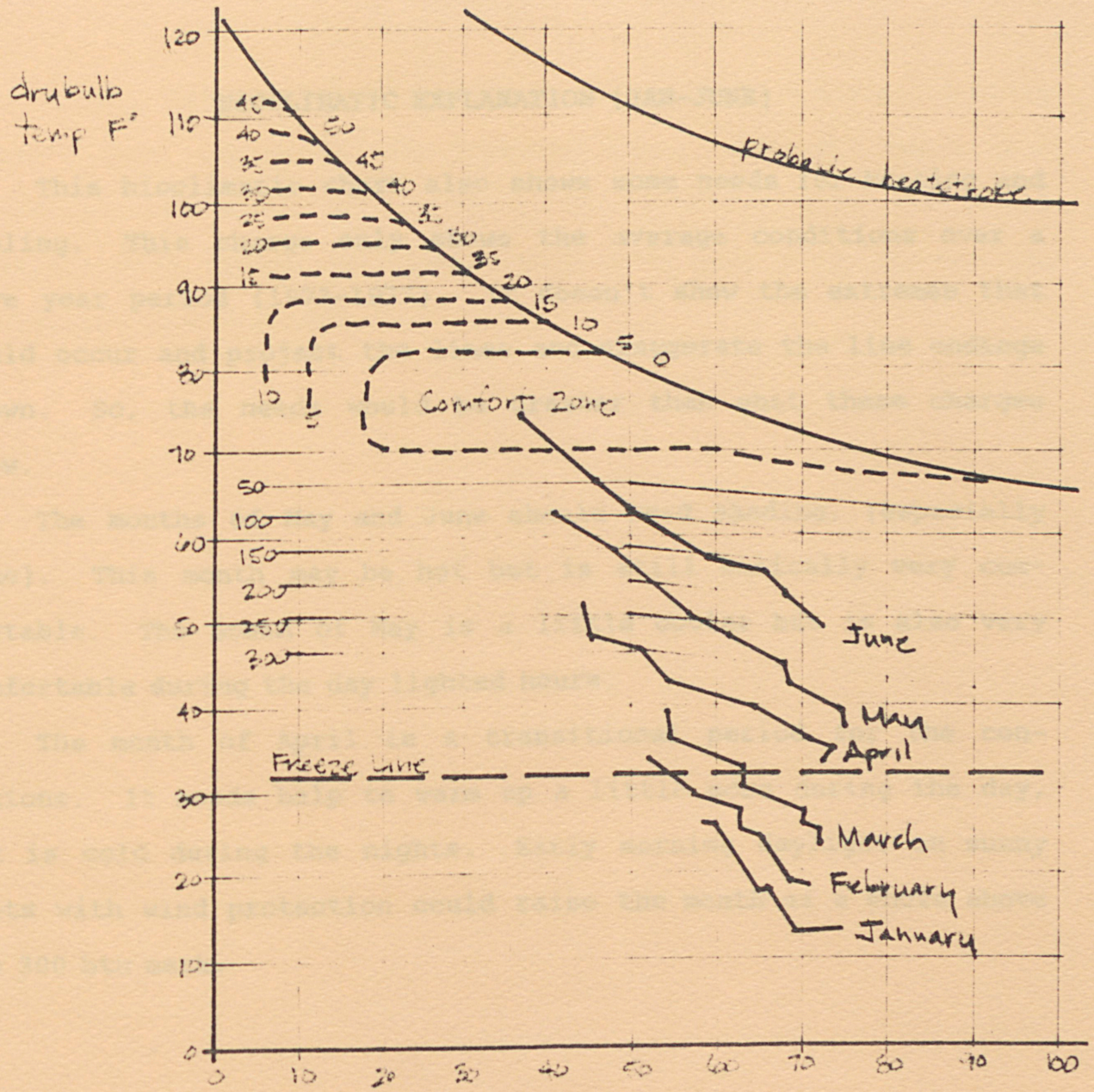
JUNE 21 38 AT:8 00


Prevailing
Winds
N
SHADOW STUDY
JUNE 21
68° AT NOON



SHADOW STUDY

JUNE 21 40° AT 4:00



Bioclimatic Chart

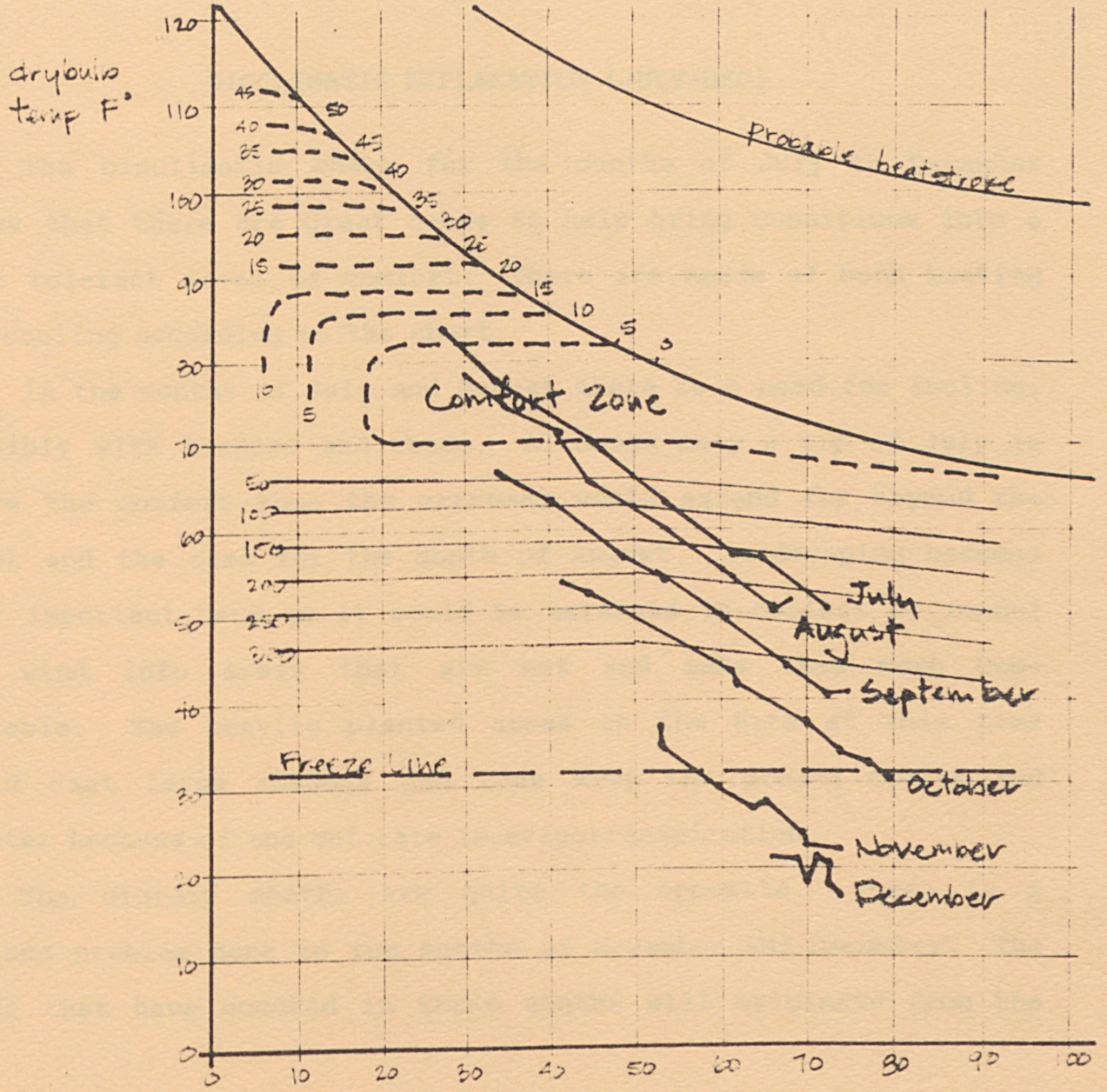
BIOCLIMATIC EXPLANATION (JAN-JUNE)

This bioclimatic chart also shows some needs for heating and cooling. This charge only shows the average conditions over a five year period (1973-1977). It doesn't show the extremes that would occur and project the lines and exaggerate the line endings shown. So, the needs would be greater than what these charges show.

The months of May and June should need shading, (especially June). This month may be hot but is still basically very comfortable. The month of May is a little cooler but is also very comfortable during the day lighted hours.

The month of April is a transitional period for the conditions. It needs help to warm up a little more during the day, but is cold during the nights. Early morning daylight on sunny spots with wind protection could raise the month as a whole above the 300 btu mark.

March, February, and January are very cold months. January doesn't even get above the freezing line. February isn't much different but March pulls above the freezing line and could possibly move upward in comfort with some help from the sun and protection from the wind.



Bioclimatic Chart

BIOCLIMATIC EXPLANATION (JULY-DEC)

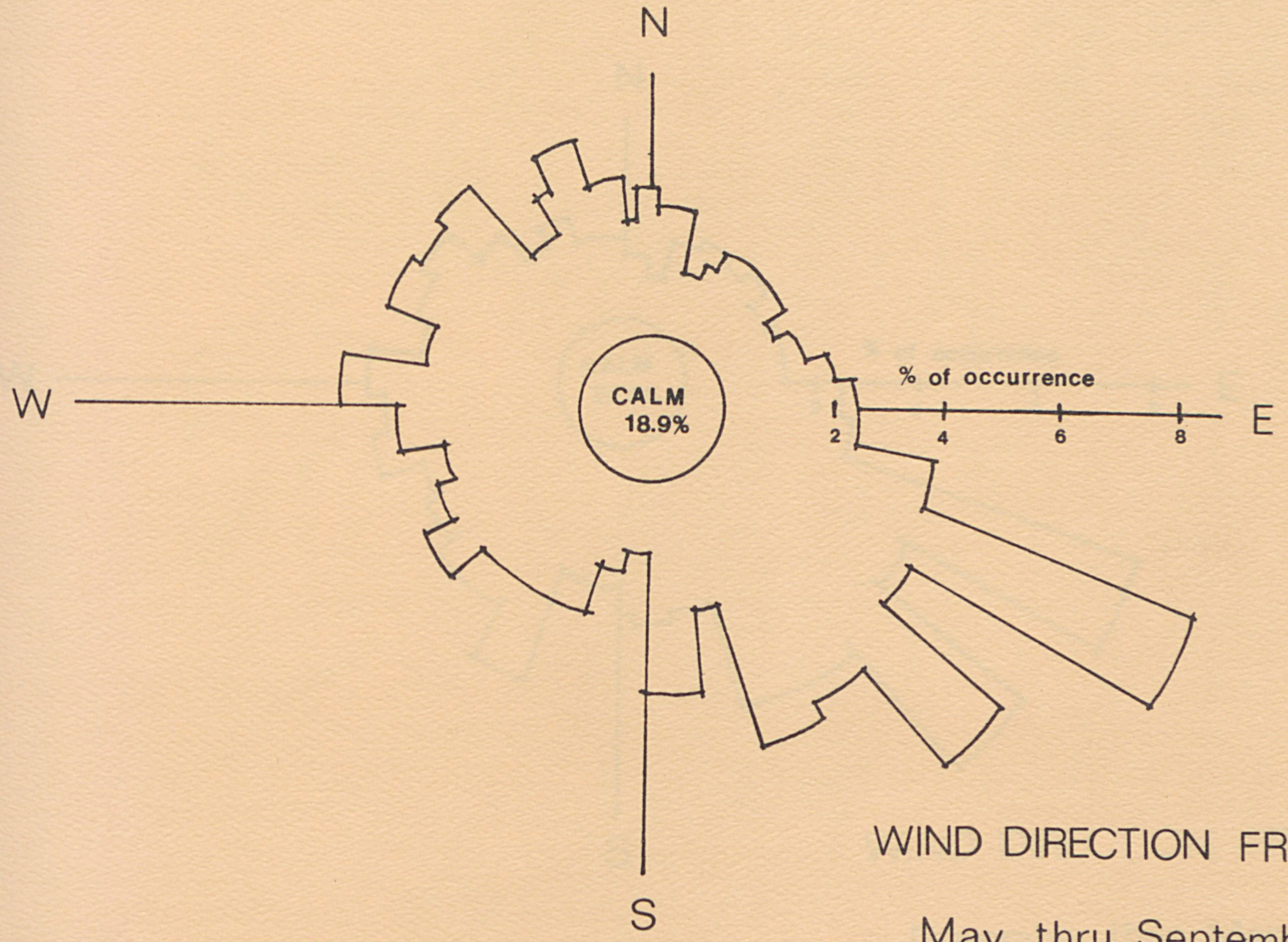
The bioclimatic chart for the months of July to December shows that there are great needs to help bring conditions into a more tolerant level of comfort. There are needs of both heating and cooling according to the chart.

In the months of July and August there is a need for cooling, possibly with breezes and shade. Although only a tip of July is above the comfort zone the extremes would extend far beyond the level and the same for the month of August. Landscaping becomes very important here as it could be arranged to collect or funnel the wind into areas that are hot and make them more comfortable. The heavily planted areas on the site at this time would cast large shadows and thus keep the ground cooler and moister because of the cut rate in evapotranspiration.

The wintery months are quite the opposite. There is a serious problem here in the months of November and December. The winds that have occured in these months will originate from the

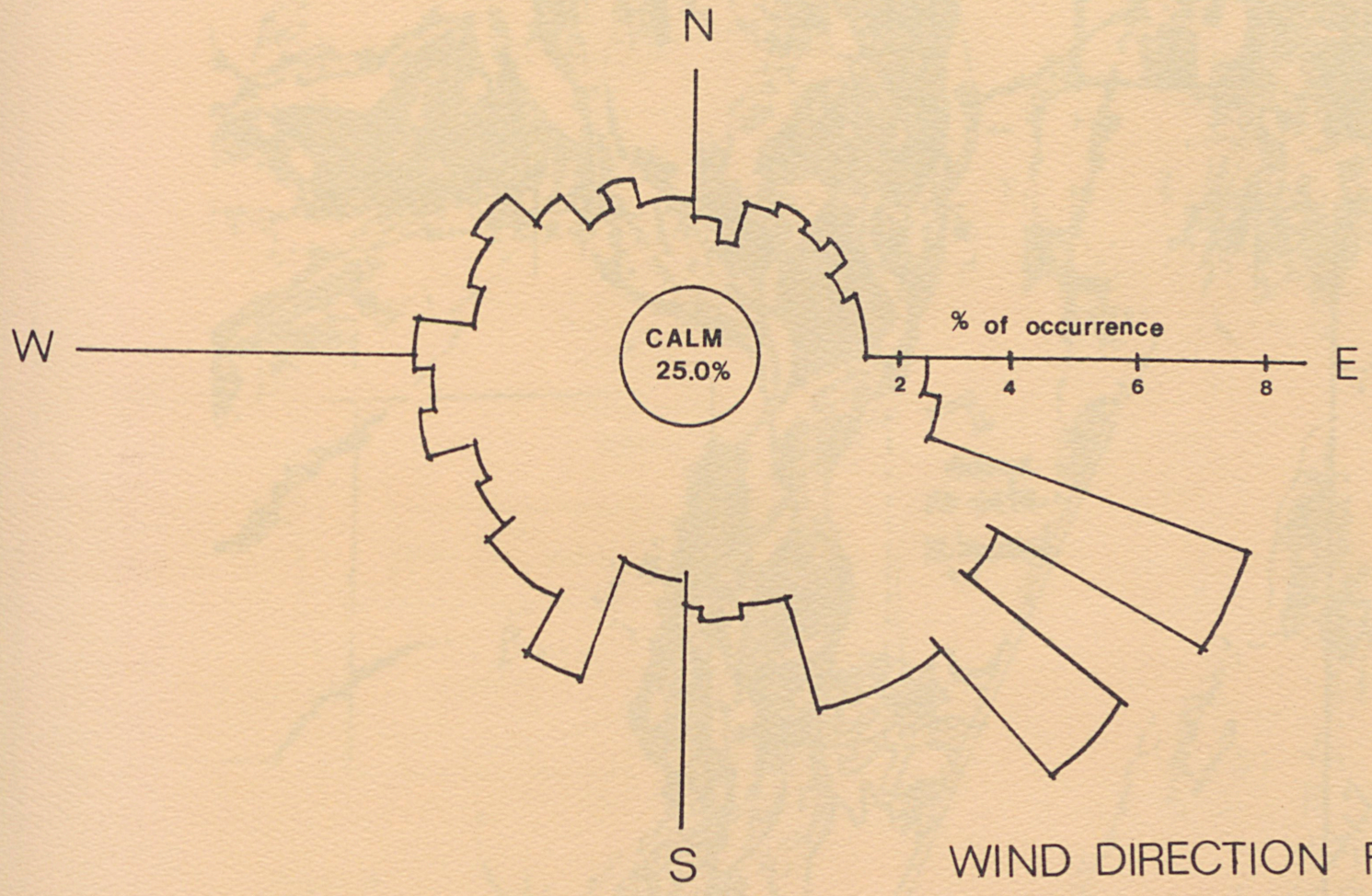
southwest and should be blocked out in these months where it is undesirable like in the open sunny spots that could possibly heat up at this time if it weren't for the cold winds.

September and October are cold but not as severe. Parts of these months are very comfortable with very little heat from the sun. Again with more wind protection, certain regions on the site could be raised into a more comfortable level in the cooler parts of these months.



WIND DIRECTION FREQUECY

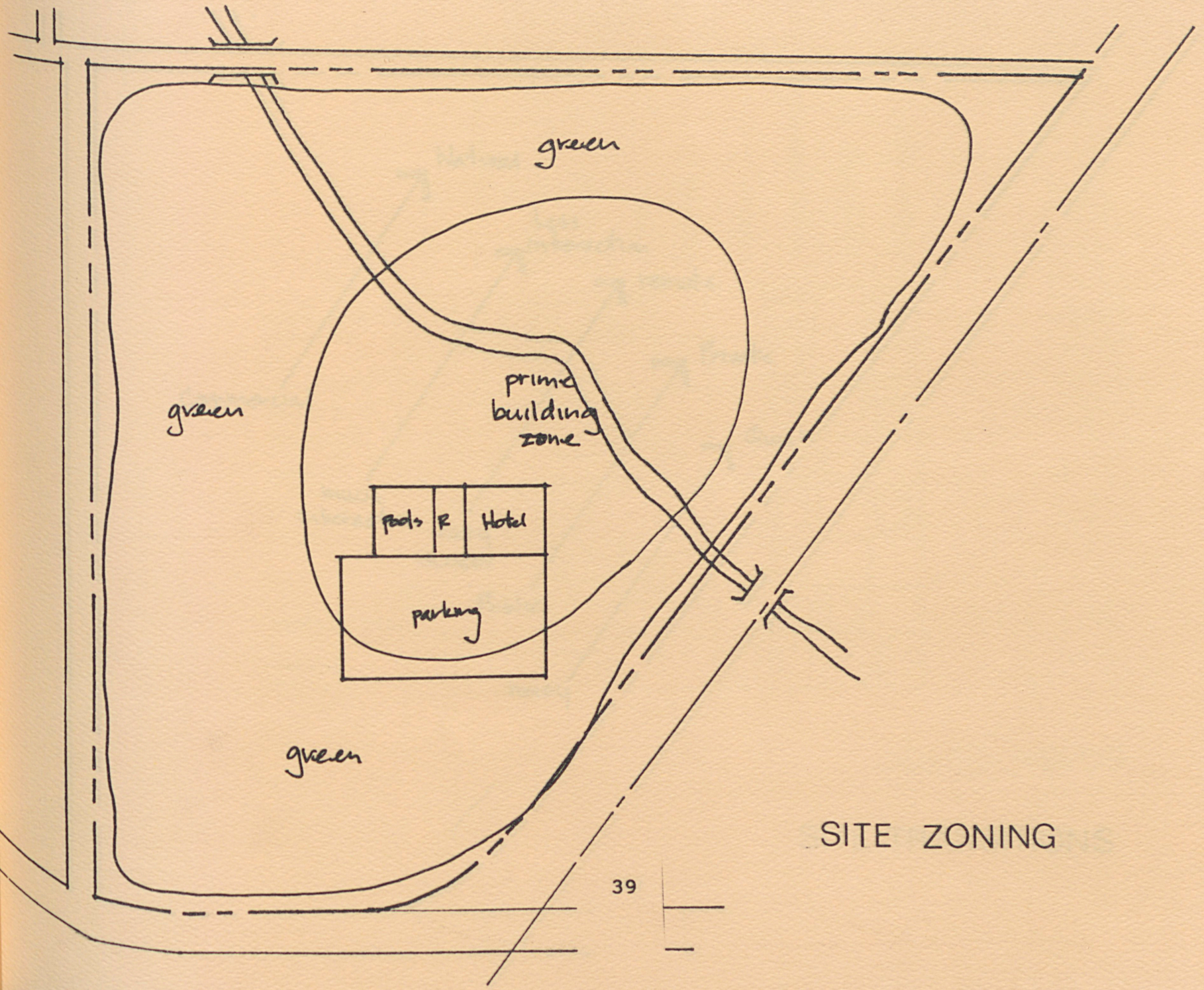
May thru September



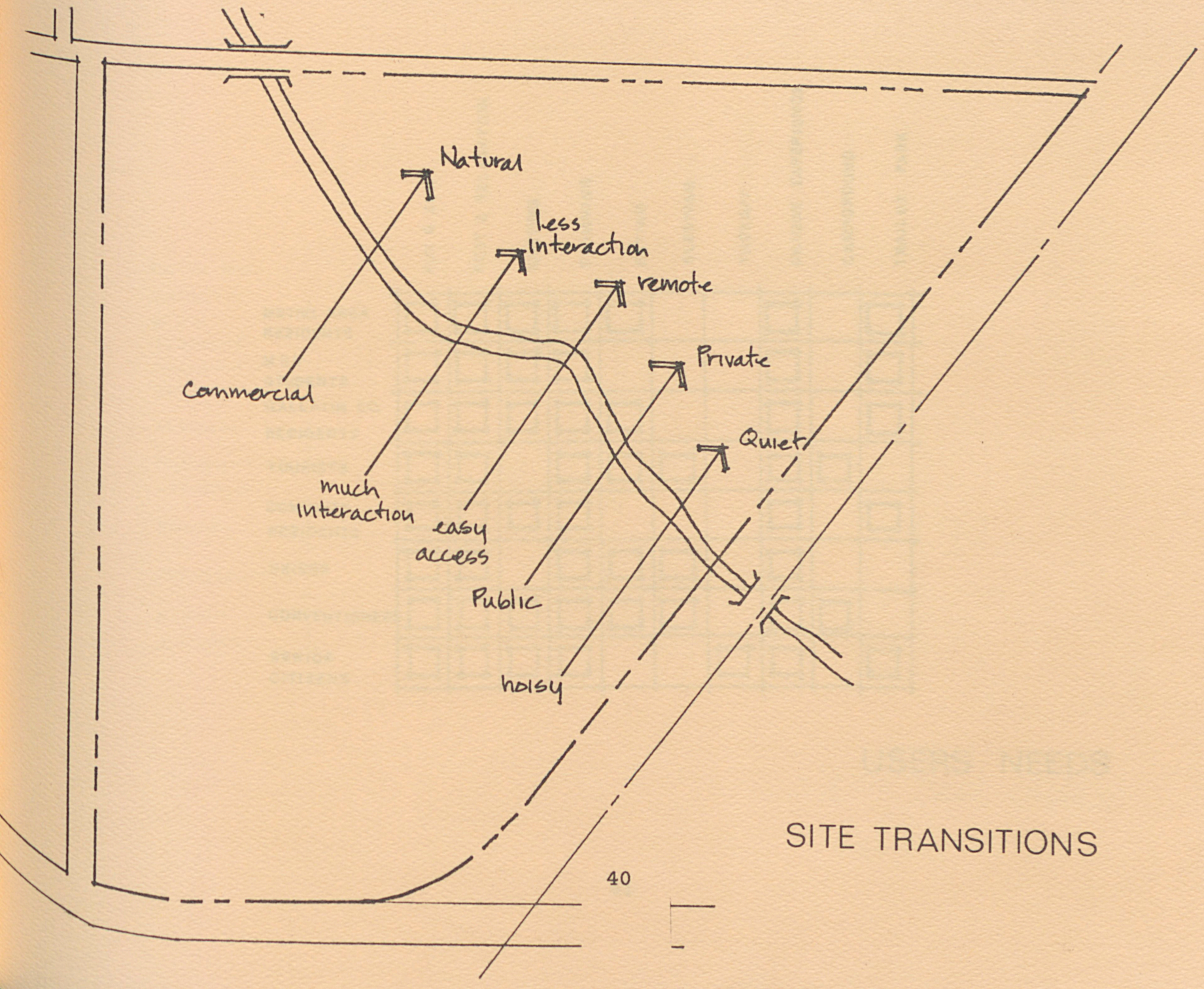
WIND DIRECTION FREQUENCY

November thru March

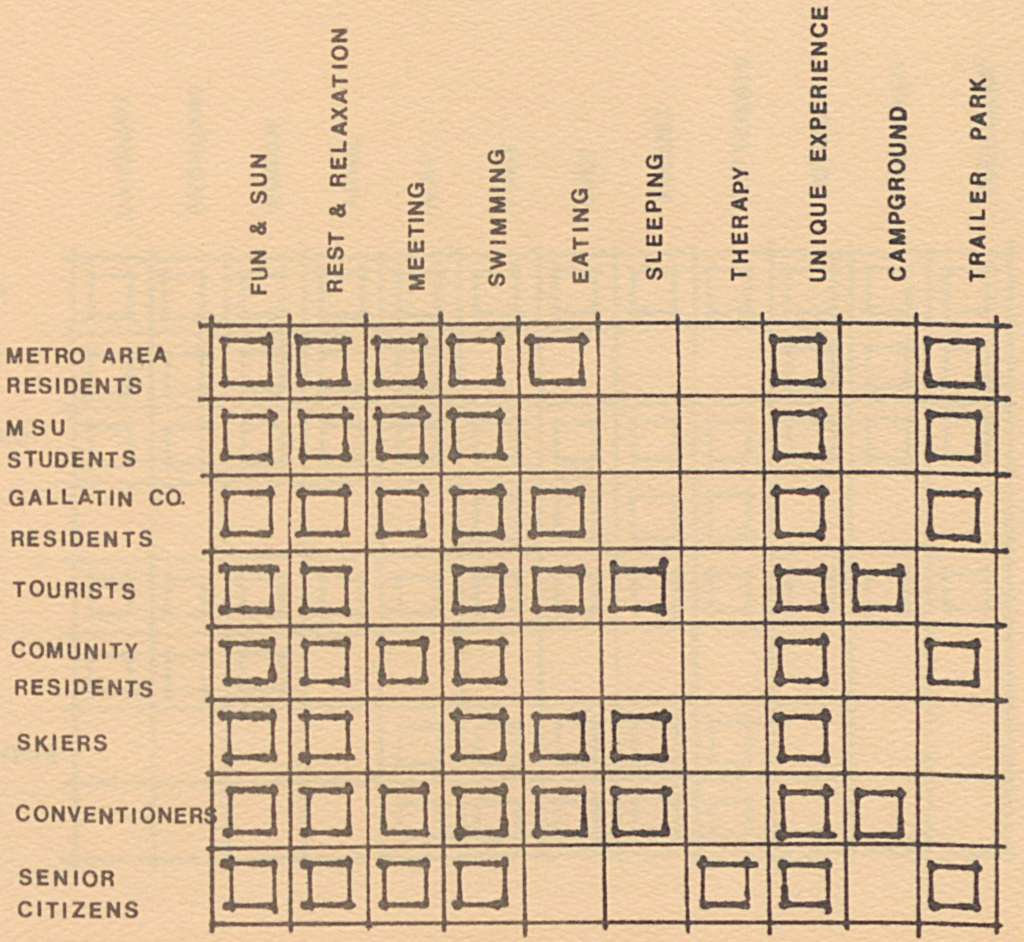

same
as site
12' grade


green
green
prime building zone
Pools
R
Hotel
parking
green

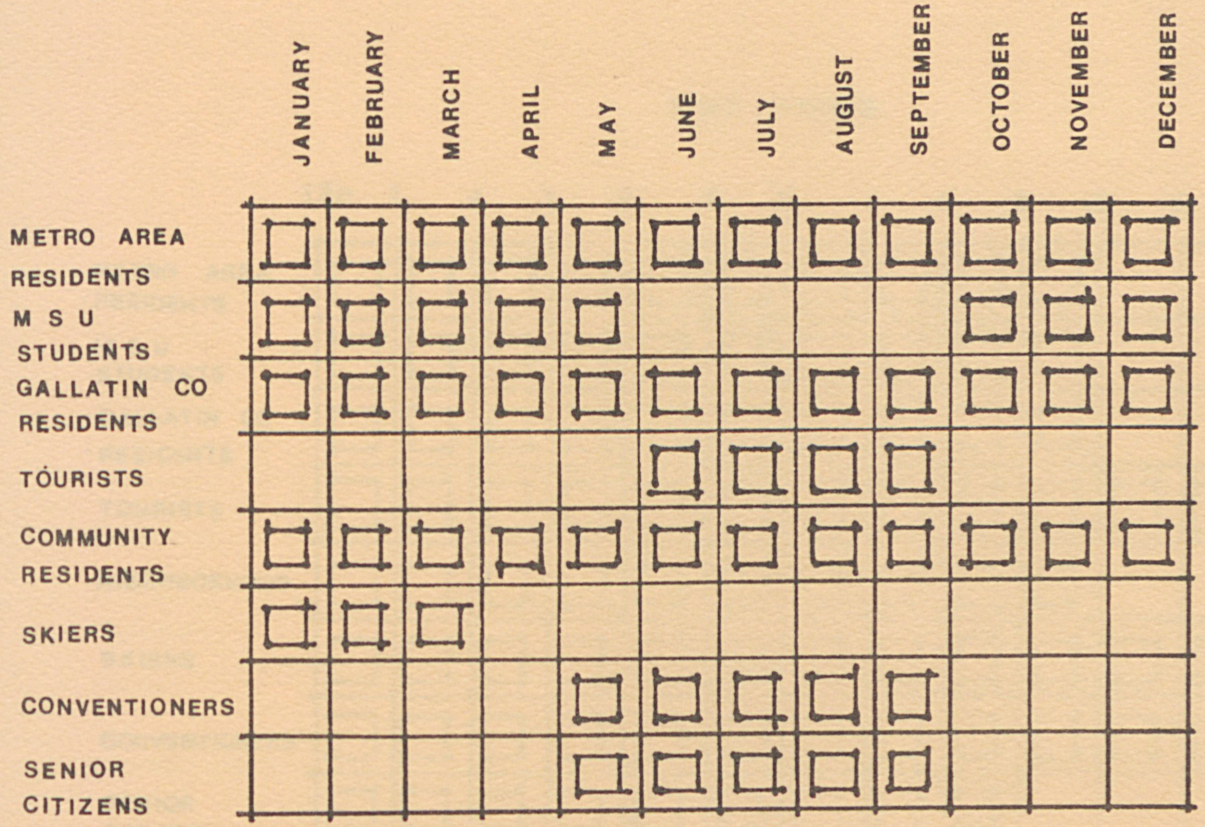
SITE ZONING



SITE TRANSITIONS

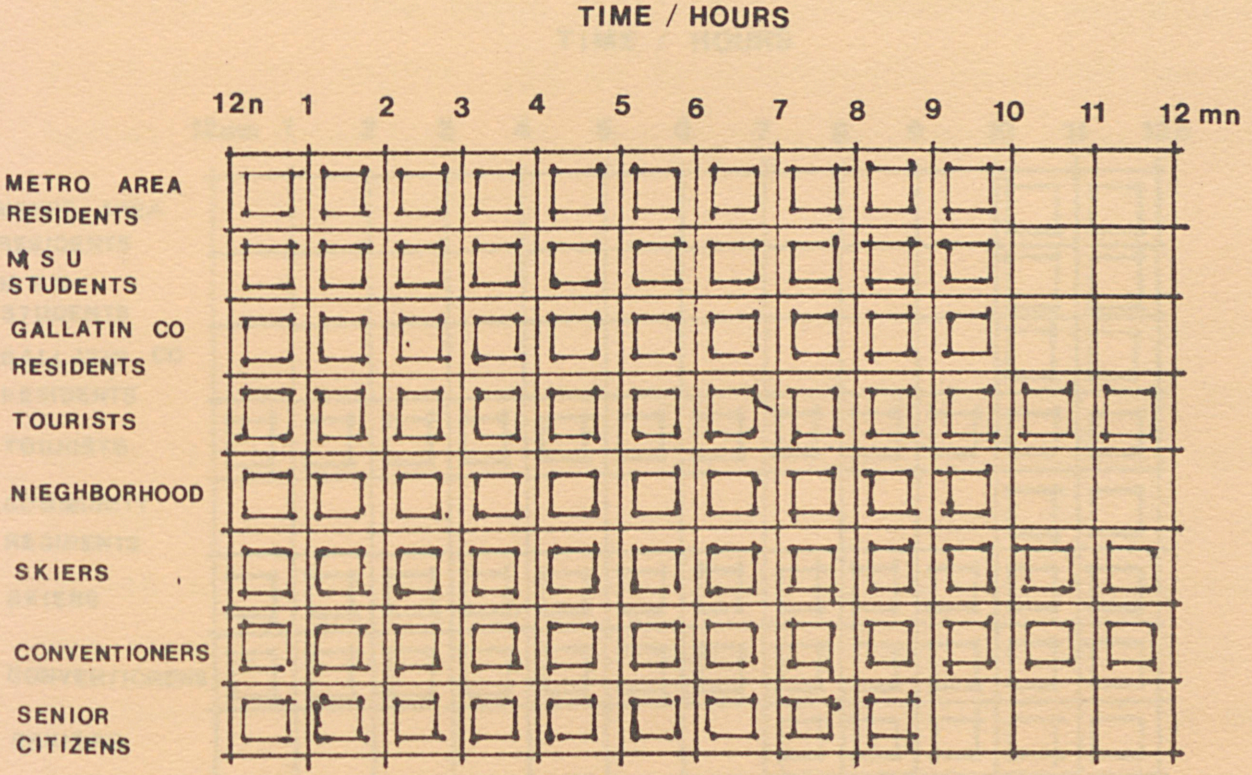

FUN & SUN
REST & RELAXATION
MEETING
SWIMMING
EATING
SLEEPING
THERAPY
UNIQUE EXPERIENCE
CAMPGROUND
TRAILER PARK
METRO AREA RESIDENTS
MSU STUDENTS
GALLATIN CO. RESIDENTS
TOURISTS
COMUNITY RESIDENTS
SKIERS
CONVENTIONERS
SENIOR CITIZENS

USERS NEEDS



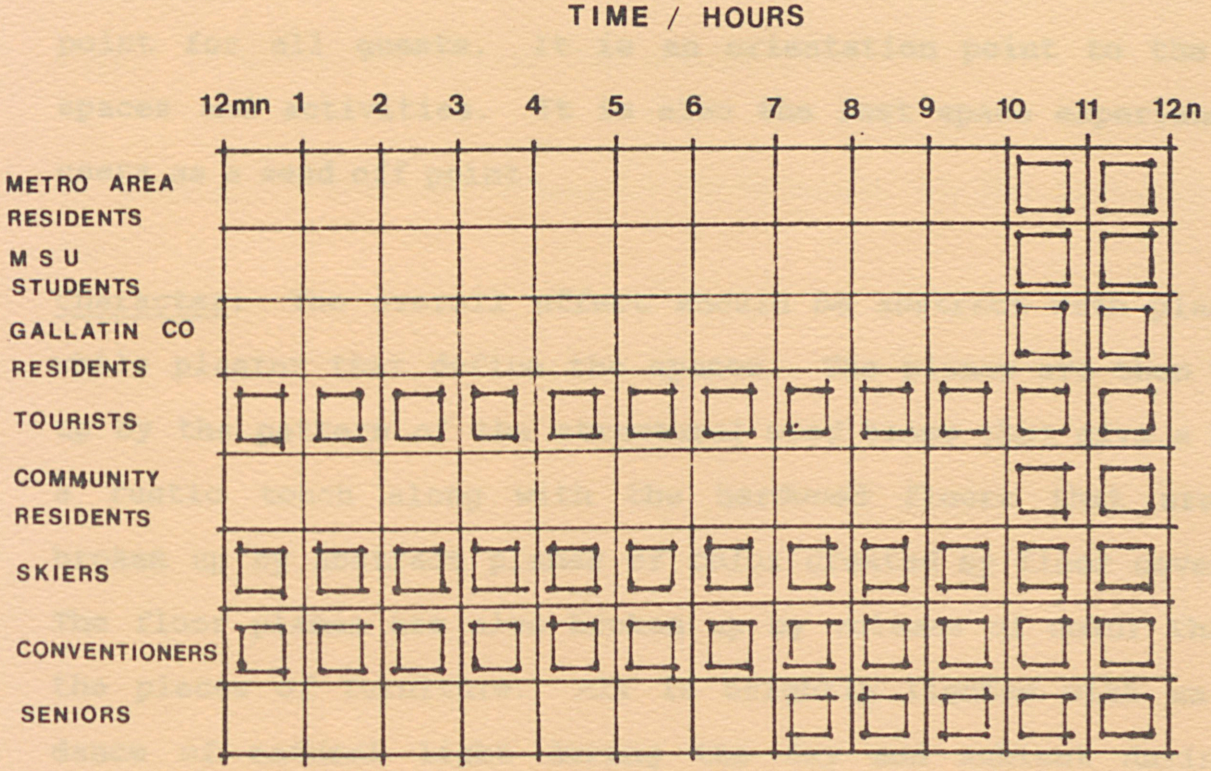
USERS TIME USAGE

monthly



USERS TIME USAGE

hourly



USERS TIME USAGE

hourly

LOBBY

Function: It is the point of arrival and departure and welcoming point for all guests. It is an orientation point to the other spaces and activities. It is also the last space experienced by users as a send off point.

Character: The overall effect should be abstract with planes of while plaster that define the spaces. The planes are then broken up by the pattern of the structural wood beams that give a bit of a rustic touch along with the hardwood floors that are also broken up by abstract planes of color created by floor coverings. The floor planes are also broken up by volumes of color that are the pieces of furniture. All is brightly lighted with an abundance of natural light during the day and ambient during the night.

Materials: There are hardwood floors, carpeting, furniture, plastered walls and ceiling, and exposed beams.

Size: It should be around 1000 square feet.

Adjacencies: This space should be adjacent to the foyer and main desk.

GIFT SHOP

Function: It will supply guests with various collectables such as post cards, magazines, and arts and crafts from local painters, potters, etc.

Character: This space is a very visible one with mostly glass walls for display. It is very open and easily accessible and sells only high quality goods. It should be well lighted, friendly and cheery in color to welcome visitors.

Materials: It mainly consists of wood and glass. Glass walls and wood shelving. It has a plaster ceiling and hard wood floors.

Size: It is to be around 400 square feet.

Adjacency: It is to be located at or around the main desk and lobby areas by the main entry.

MAIN SERVICE DESK

Functions: To be the service center to the whole complex. It is also the hotel registration. It serves the public and represents the complex as a whole.

Character: It is a very open, center oriented, focal point. It has a large hand crafted wood desk that defines the space. It is very open to the lobby and is well lighted, cheerful and busy on both sides of the desk.

Materials: It consists of a rich hard wood desk with a carpeted floor, plaster walls and ceilings.

Size: It should have about 300 square feet.

Adjacency: It is to be located must off of the lobby and main entry.

COFFEE SHOP

Function: To create a unique eating experience for breakfasts, lunch and snacks.

Character: It should be a very bright and cheery morning and afternoon spot. It will have checkerboard table cloths, heavy glass ware and stainless. It is very open and casual for it would be a little on the noisy side for fine dining. It is also very fast paced with a large turnover of guests per hour.

Materials: It should have hardwood floors, plastered walls and ceilings that are highlighted with exposed structural members. Also a well crafted fountain.

Size: It should be around 1000 square feet.

Adjacent: It should be located off the main entry.

RESERVATION DESK

Function: This is an area that is set aside for the specific and very important task of reserving spaces throughout the complex.

Character: This is a very private and internal space. The desk should be an elegant hard wood piece of furniture and could be built into a wall. It could be cultured most of the time for it deals with calenders and check in and check out dates. It is also very important for this desk to be updated to the minute for this is the first step in hotel business with guest rooms and other rentable spaces.

Materials: It is to be basically a room of plastered walls and ceiling with a main desk and possibly corked wall.

Adjacency: This room is located next to the hotel desk and should be located close the assistant manager's office.

ASSISTANT MANAGER'S OFFICE

Function: This is a space that will serve the assistant manager's needs as a private businessman.

Character: This office should be very elegant and plush for it represents a man that is also responsible for the complex as a whole. It should have plenty of natural lighting with a nice view. It should be more open and not as private as the manager's office for his is more responsible for the hotel and main desk that is the heart of the building. He also runs part of the restaurant. He is the true heart of the complex.

Materials: This space is carpeted and has plus furniture. The wall and ceilings are of plaster and are while abstract planes.

Size: This space should also have at least 400 square feet.

Adjacency: The office should be located directly off the main desk and access to work areas.

MANAGER'S OFFICE

Function: This is a space that will serve the manager's needs as a private businessman's office.

Character: This office should be very elegant and plush for it represents the man that is responsible for the complex as a whole. It should have plenty of natural lighting with a nice view. It should be plush with carpeting and furniture. It is also a spacious office with plenty of room for conversation.

Materials: This space has carpeted floors, plus furniture, and abstract white plastered wall and ceiling planes.

Size: It should have at least 400 square feet.

Adjacency: This space should be located by the conference area and also a secretary and reception area.

PUBLIC REST ROOMS

Function: This space is to facilitate the natural urges of human beings when duty calls.

Character: These spaces should be easily accessible, comfortable and relaxing. They should be well lighted with a cheery decor. It should be hard surfaced with water proofed finish materials.

Materials: The space should have quarry tiled floors, plastered walls and ceilings broken up by bathroom stalls for privacy.

Size: These two rooms should contain about 150 square feet apiece or 300 square feet combined.

Adjacency: They should be located off the lobby area or circulation off the lobby.

GAME ROOM

Function: This is a recreational and entertainment center with video games and ping pong tables.

Chracter: It's basically a get away for teens from parents and swimming. It's noisy and busy. It has little or no natural lighting and should have sound insultation between this space and others.

Materials: It should have indoor outdoor carpeting and plush furniture with many machines. The space also is enclosed with plastered walls and ceiling with exposed structural members.

Size: This space should have about 400 square feet.

Adjacency: The room should be located by the lobby off some circulation space.

SNACK BAR AND SWIM DESK

Function: This is a space of control over the swimming pools and also provides refreshment to swimmers and bathers in the interior pools.

Character: This is a very open space that consists of a desk and cabinetry for storage on the swim desk side and mostly fountain machines on the snack bar side. This space is responsible for the activity in the pool facilities.

Materials: It has quarry tiled floors, a wood desk, refreshment machines, large lighting fixtures and plastered walls and ceilings.

Size: These two spaces should include about 400 square feet.

Adjacency: It should be located between the dressing rooms and be adjacent to the interior pools.

CHANGE ROOMS

Function: These spaces are provided to allow people to change from wet to dry and dry to wet.

Character: They should be very bright and cheery with an open place. It is hard surfaced with a hard floor and lockers with bathroom fixtures provided. One area is for men and the other for women.

Materials: It has concrete and tile floors with brick or block walls and a plastered ceiling with steel lockers.

Size: It should contain about 1000 square feet apiece of 2000 square feet combined.

Adjacency: The rooms should be organized next to the swim desk and to the indoor pools.

INDOOR POOLS

Function: This space allows the swimming and bathing activities to happen indoors to assure a good time even in the worst of weather.

Character: This is a very passive space that encourages soaking and little swimming activity for it has hotter water and a misty, steamy atmosphere. It is a very wide open space with a high level of humidity that is controllable with upper story windows. It also has plush, tropical planting to break up the hard water proof and containing elements in the pool areas.

Materials: It has concrete and tiled floors and pools with glass, brick and tiled walls and exposed structural member high above.

Size: The pools should have about 400 square feet of swimming area.

Adjacency: They should be adjacent to the change rooms, snack bar, and outdoor pools.

OUTDOOR POOLS

Function: This area allows the water activities to move to the out of doors.

Character: These pools encourage heavy swimming and diving activities at high levels. These are very active pools and probably would be used mostly by young people while the older folks stay indoors with the slow crowd. The outdoor pools also have great views with a natural creek flowing by on the perimeter that is outlined by a thicket of trees and shrubs. It is very hot and sunny and during the night is well lighted with special lighting effects.

Materials: The pool area is of concrete and tile with the building and trees as walls and a blue sky ceiling.

Adjacency: These pools should be located by the interior pools and have easy access between them.

OBSERVATION DECK

Function: This is a place where the public as well as private guests may observe the happenings in the indoor pools.

Character: It is a very open, preferably two story space that looks over the intereior pools. It has tables for lunches or just viewing. The structure of the pool areas affect this space as beams and columns are exposed.

Materials: The materials are of long lasting material like brick or block with a thin layer of carpeting on the floor.

Size: The area of this space should have at least 300 square feet.

Adjacency: It should be located off of some circulation to the hotel.

DINING HALL

Function: To be a space where formal dining occurs and may be rented to large groups for gatherings for lunches.

Character: This a casual meeting space during the day with plenty of sunlight and nice view. During the evening it is a more formal space while the tables are covered with while linen and candelight and food and drink is served on china and crystal. It is a large space with an outward focus on view in the daytime and an inward focus on the candles and food during the evening hours.

Materials: It should have hardwood floors, plastered walls and ceilings and a glassed wall for a view. The structure is also exposed to give the space more definition.

Size: This space should be around 2000 square feet

Adjacency: It is to be located by the kitchen, circulation and bar access.

BAR AND LOUNGE

Function: This space will be an interaction area that is small and comfortable with lush surroundings. It is intimate and is great for one to one conversations. It is the only source of alcoholic beverages in the complex.

Character: To pick up on the new modernism it should have alot of exposed columns and beams. It should have the bar as a focus and maybe a fireplace and a few tables with chairs. The bar is elegant yet casual. The bar will also have tall wooden stools. The lounge area should have a juke box. The bar and lounge will have a view outward over the well lighted pool area.

Materials: It should have exposed structural members, hardwood floors with carpeting in places, a fireplace and a large hand crafted wood bar.

Size: It should be about 1000 square feet.

Adjacency: It is to be located by the kitchen and dining hall.

SPECIAL FUNCTIONS ROOM

Function: This is to be a private meeting room for special groups of 40 people or less and could be used as a formal dining space when not in use.

Character: It is a small group room that is formal and can be served from the kitchen. It is a quiet, private space that is decorated much like the formal dining area. Since it is connected to the dining area it should have pretty much the same flavor. This space should also have plenty of natural lighting when needed and also a good view.

Materials: This space will have carpeting, wood tables and chairs surrounded by plastered walls and ceilings with exposed structural members.

Size: The room should have about 800 square feet.

Adjacency: It should be located off some circulation to the dining hall and accessible from the dining hall.

T.V. ROOM

Function: This is a space for hotel guests only that provides them the service of a small meeting space for 2 to 8 people for a small formal meeting with kitchen service available or just a group to watch a football game with bar service.

Character: It is a small, private space much like a guest room but furnished with a table and plush chairs and a television set with large screen. It also has day and night blinds on the windows to control the sunlight.

Materials: The walls and ceiling are of plaster and the floor is carpeted.

Size: This space should occupy about 200 square feet.

Adjacency: The room should be located by a circulation corridor close to the bar and kitchen facilities.

KITCHEN

Function: This is a space that houses the activities of food preparation, food storage and dish washing.

Character: To be a clean, bright, well lighted area of hard surfaces from machines like stoves and grills and refrigerators. It has suspended pots and pans with plenty of storage areas in cabinet form. It should also have a great view.

Materials: It should have plastered walls and ceilings with wooden floors. It should also have plenty of glass on one wall.

Size: The kitchen should have about 800 square feet.

Adjacency: It should be located by the dining hall and have access to the employee lounge.

EMPLOYEE LOUNGE AND LUNCH ROOM

Function: This is to be a place of rest. It is used for breaks and lunches. It is used by all of the complexes employees.

Character: The room should be spacious and open with a view to the out of doors. It should also have plenty of natural lighting. It is a very loose and relax space with tables for eating, card playing and open conversation.

Materials: The walls and ceiling are of plaster with the exception of one wall of glass. It also has exposed structural members and a quarry tiled floor.

Size: This space should have around 400 square feet.

Adjacency: It should be located by the kitchen and other work spaces.

WORK AREA

Function: This space is provided as a very versatile space. It is a sorting area when trucks come in with restaurant supplies. It is also a shop area with a few pieces of machinery like a table saw, lathe and drill press. It is a fix it shop for the complex.

Character: It is a work area with hard long wearing surfaces. It has a warehouse feel because of the materials and use. It also has little or no natural lighting.

Materials: The floor covering is quarry tile for good wear. It also has block, brick and plastered walls with plastered ceilings.

Size: This space should contain about a 400 square foot area.

Adjacency: The work area is located by the shipping dock and shipping and receiving room.

SHIPPING AND RECEIVING

Function: This is a space for more record keeping of what comes in and what goes out of the shipping dock. It accounts for all of the restaurant's, hotel's, and complex's shipping and receiving.

Character: It is a desk in a warehouse space with file room so all can be accounted for. It has hard wall and floor coverings with some storage shelving for easier organization. It should also have some natural lighting.

Materials: It should have a hard concrete or tile floor with block, brick or plastered walls.

Size: This space should occupy at least 400 square feet in case the complex should expand.

Adjacency: It should be located by the dock and work area.

EMPLOYEE CHANGE ROOMS

Function: This space allows the employees of the complex to have a place to shower and change clothes before showing up to work. It also has employee rest rooms.

Character: It is to be like a change room and bathroom combination with some seating and lockers, a shower and bathroom fixtures.

Materials: These spaces should be of long wearing block or brick walls with concrete or tile floors and a plaster ceiling.

Size: Each room should have about 150 square feet and 300 square feet combined.

Adjacency: These spaces should be located by the employee lounge.

HOTEL LOUNGE

Function: This space provides hotel guests with a gathering space to collect before they go to other spaces and engage in other activities.

Character: It is a small lobby area for hotel guests that is very open and centrally located. It is flooded with natural light and has nice plush furniture. It is a transition of noise and circulation from noisy and busy to very quiet and little circulation.

Materials: The walls are glass and plaster with a plastered ceiling. The floor is carpeted for sound insulation.

Size: It is a small, open space that contains only 150 square feet.

Adjacency: It should be located on the hotel circulation between the guest rooms and the rest of the complex.

LAUNDRY AND LINEN STORAGE

Function: This is a place to clean hotel goods such as linens and towels and also restaurant linens, napkins, etc.

Character: It is a bright and cheerful work space that consists of linen storage of wood shelving and a washing and drying area of machines. It also has some horizontal work space for folding and pressing goods. It should also have plenty of natural light with a nice view.

Materials: This room has quarry tile and plastered walls and ceiling.

Size: This space should also include at least 600 square feet.

Adjacency: It is to be located by the main hotel circulation space.

GUEST ROOMS

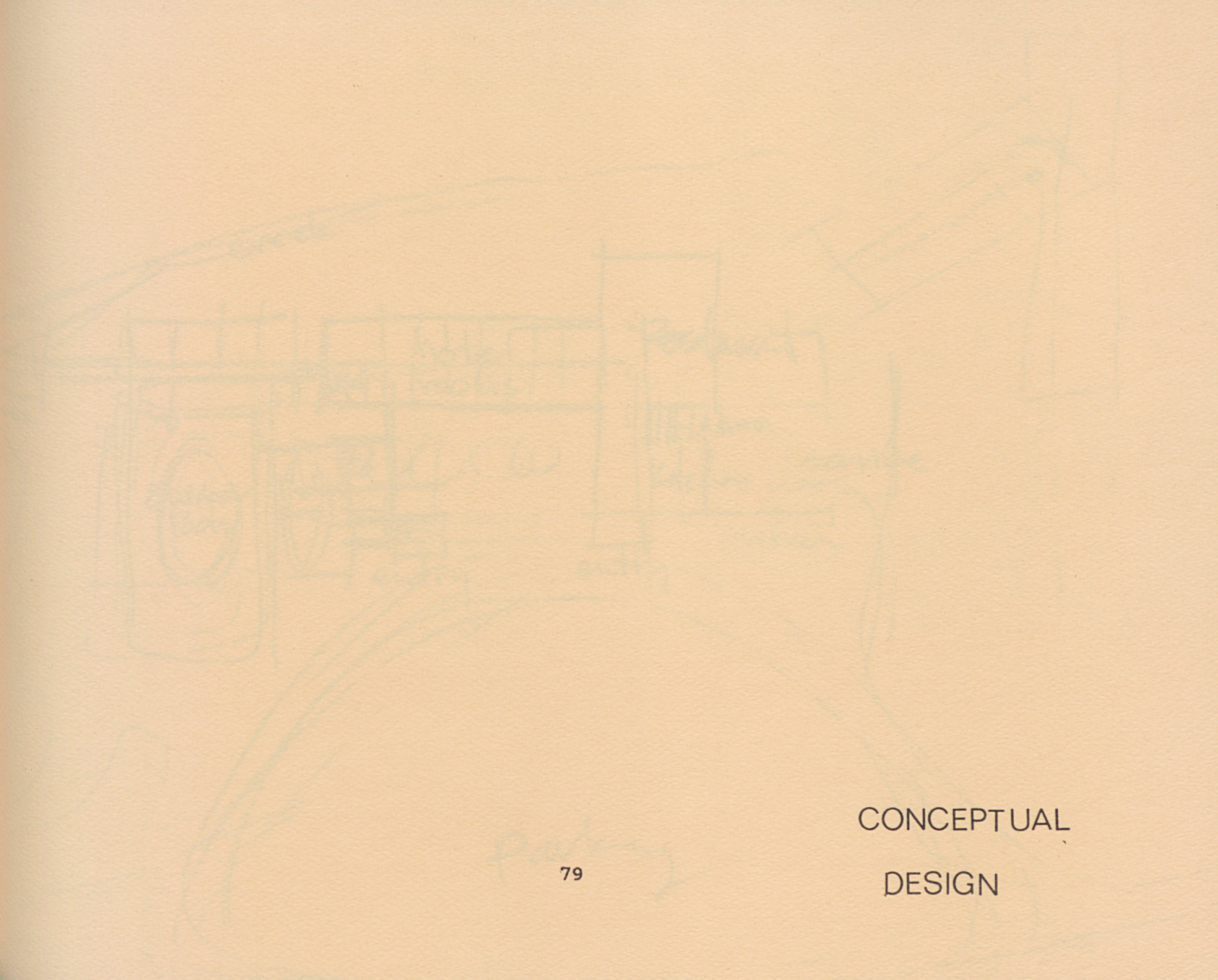
Functions: It is to be a private space for guests and should include all the necessities of home. It is to be primarily a sleeping space.

Character: These spaces are basically formal bedrooms. They have white walls to highlight the wall hangings such as paintings, mirrors, plants etc. For convenience they have a washroom and a bathroom with tub. Day and night curtains will be provided to cover the one glassed wall that focuses outward to a natural setting.

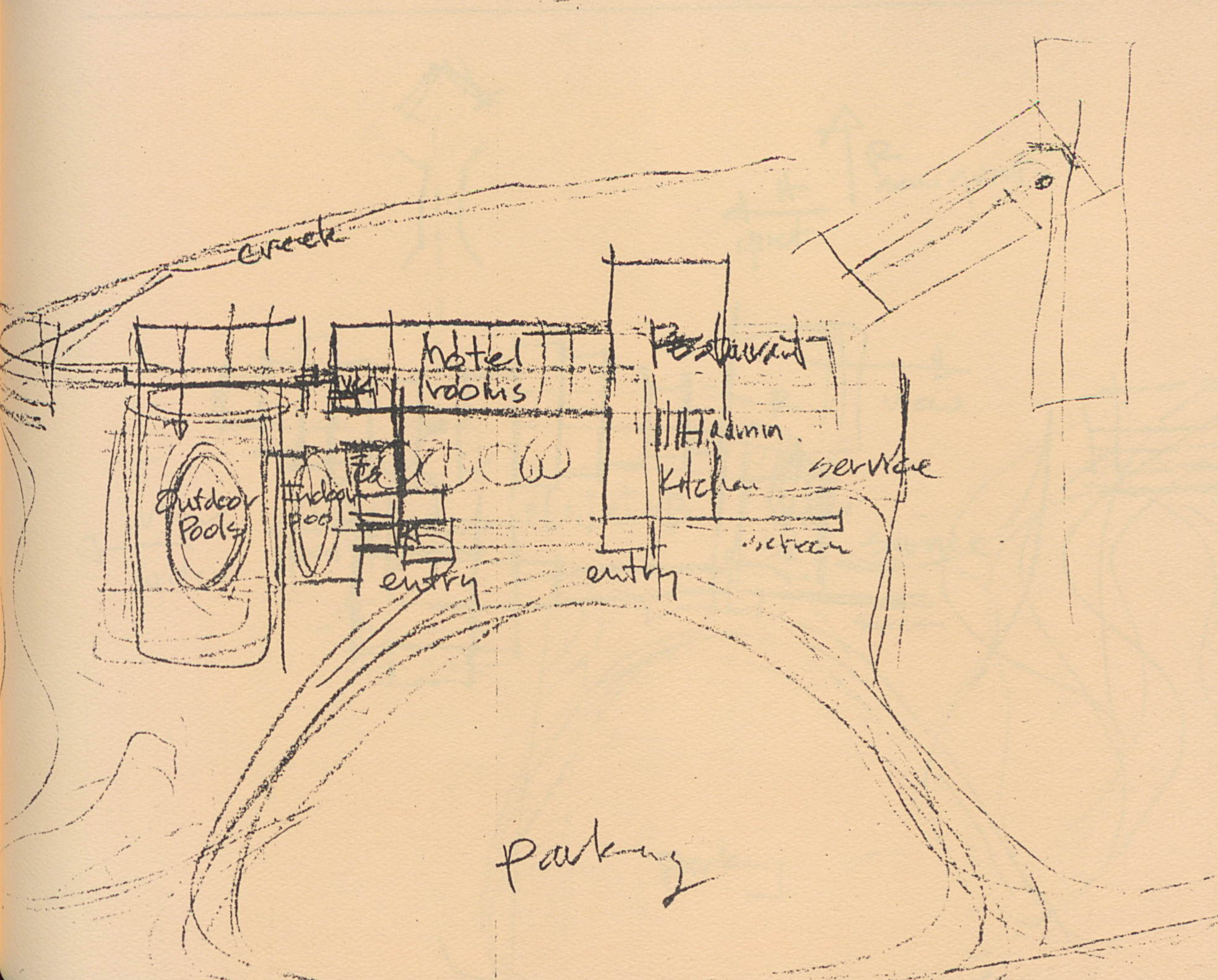
Materials: They consist of carpeted floors, heavy and light drapes, white plastered walls and ceilings and could be highlighted with columns and beams.

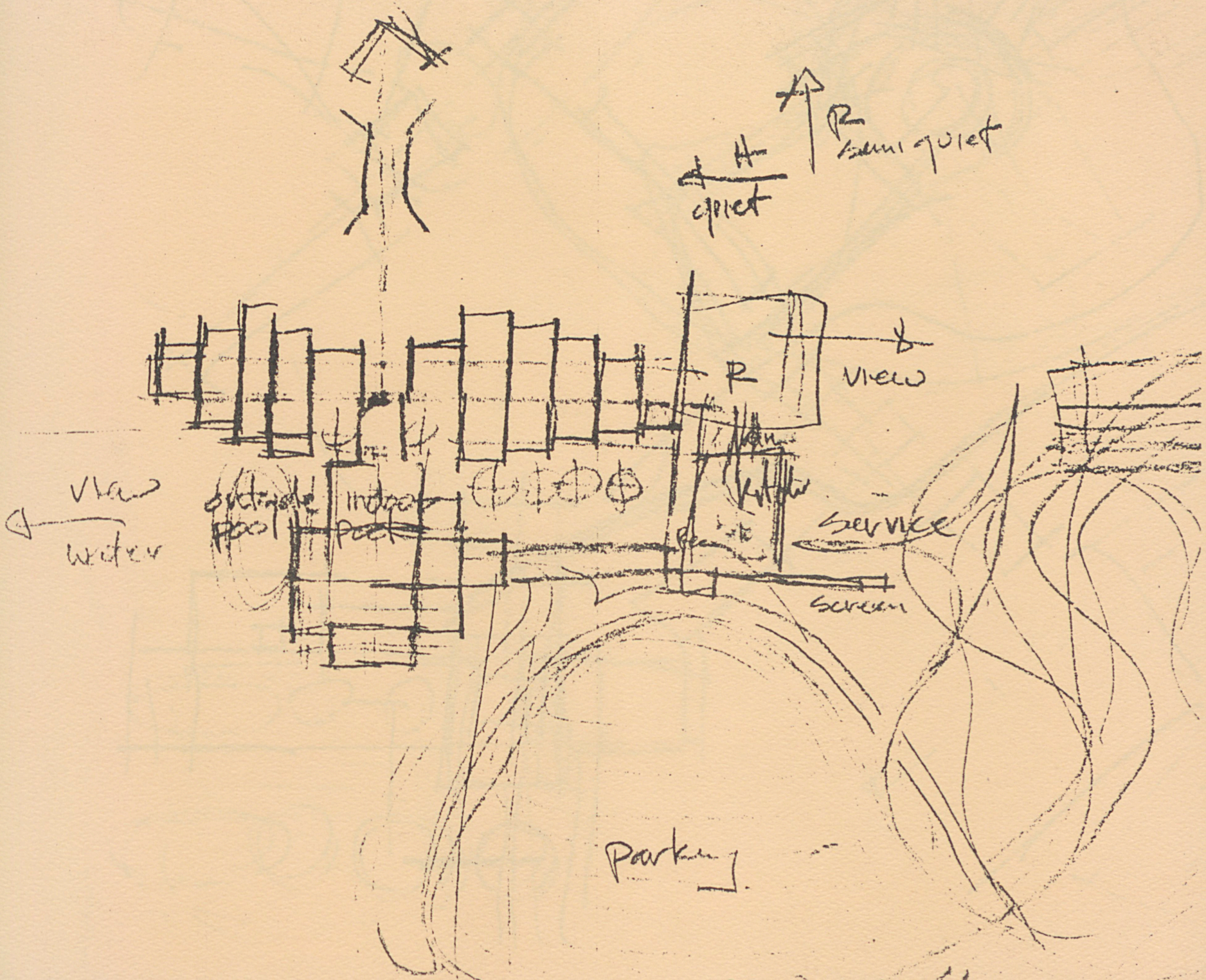
Size: Each room should be around 700 square feet with two double beds.

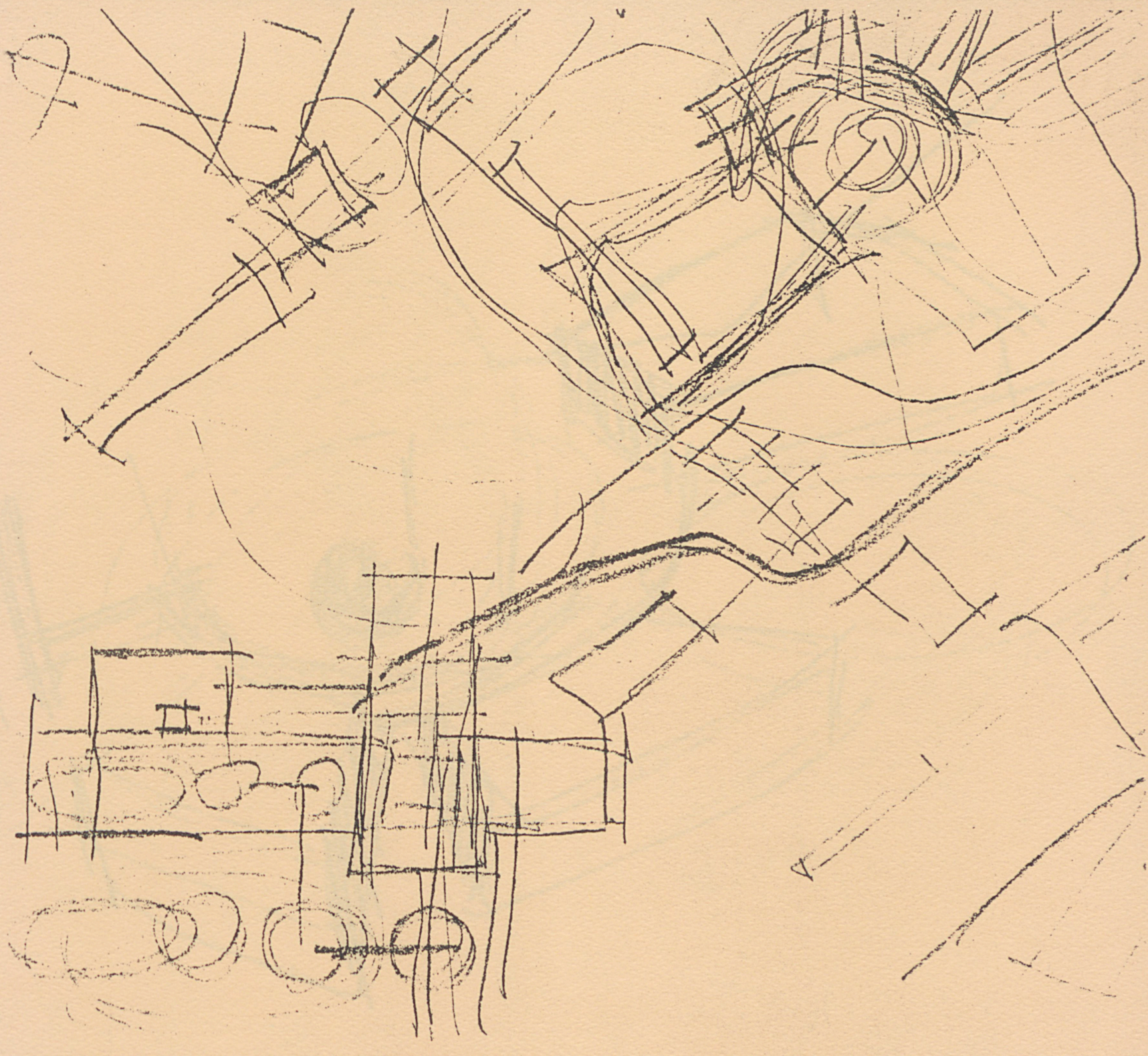
Adjacency: These spaces should be off a minor circulation artery that connects to the rest of the functions.

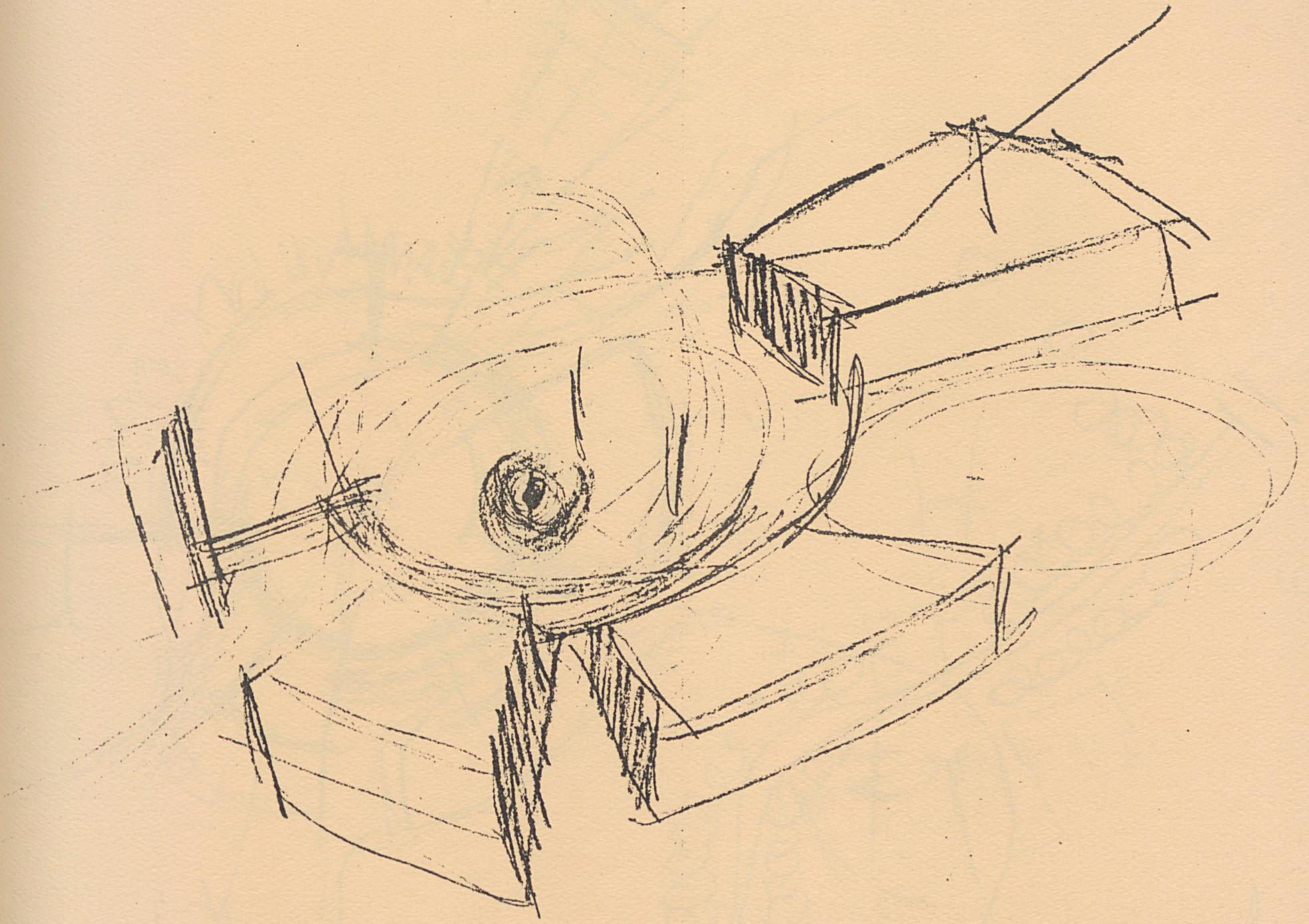


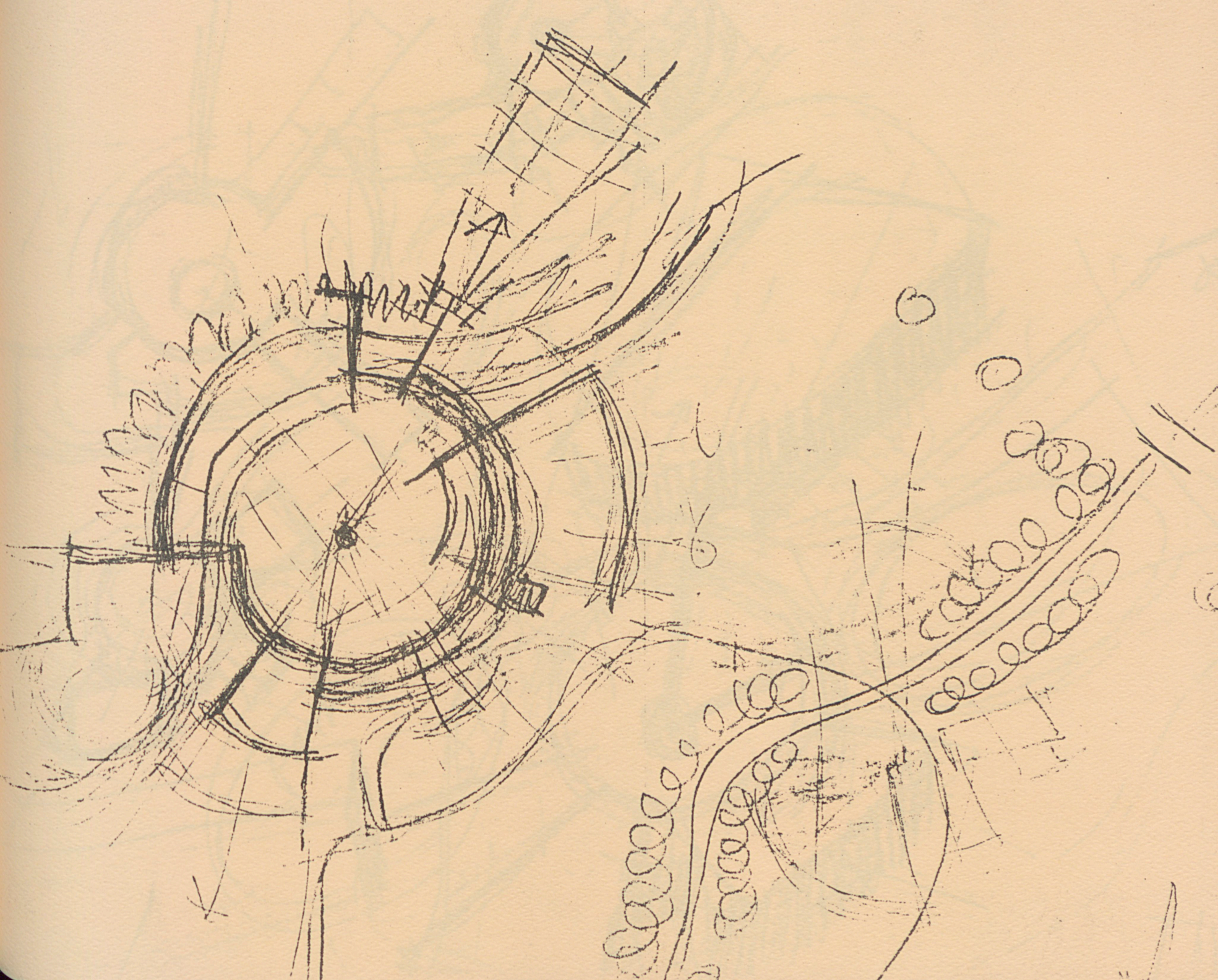
CONCEPTUAL DESIGN

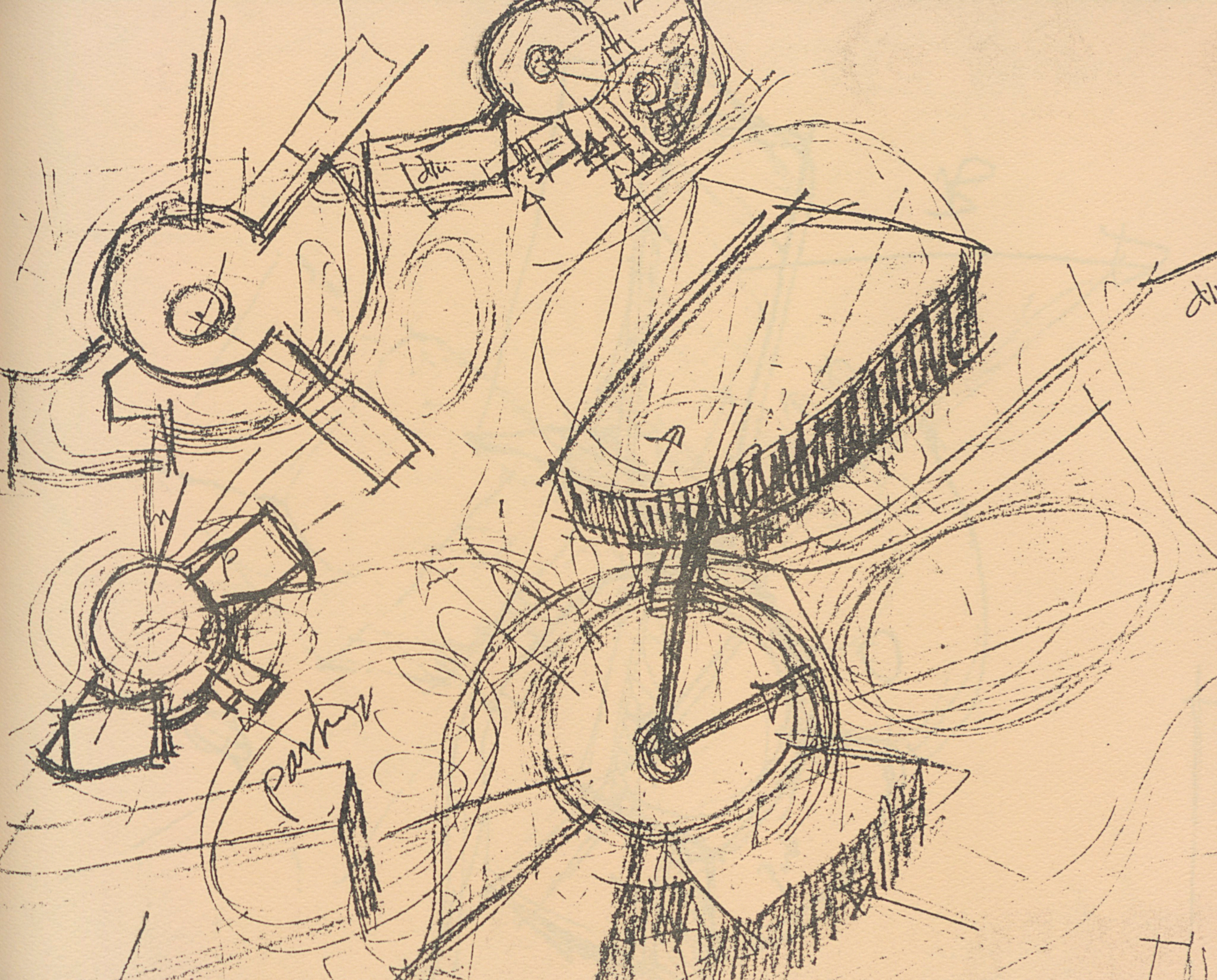

creek
hotel rooms
Restaurant
Admin.
Kitchen
service
screen
Outdoor Pools
Indoor Pool
entry
entry
Parking

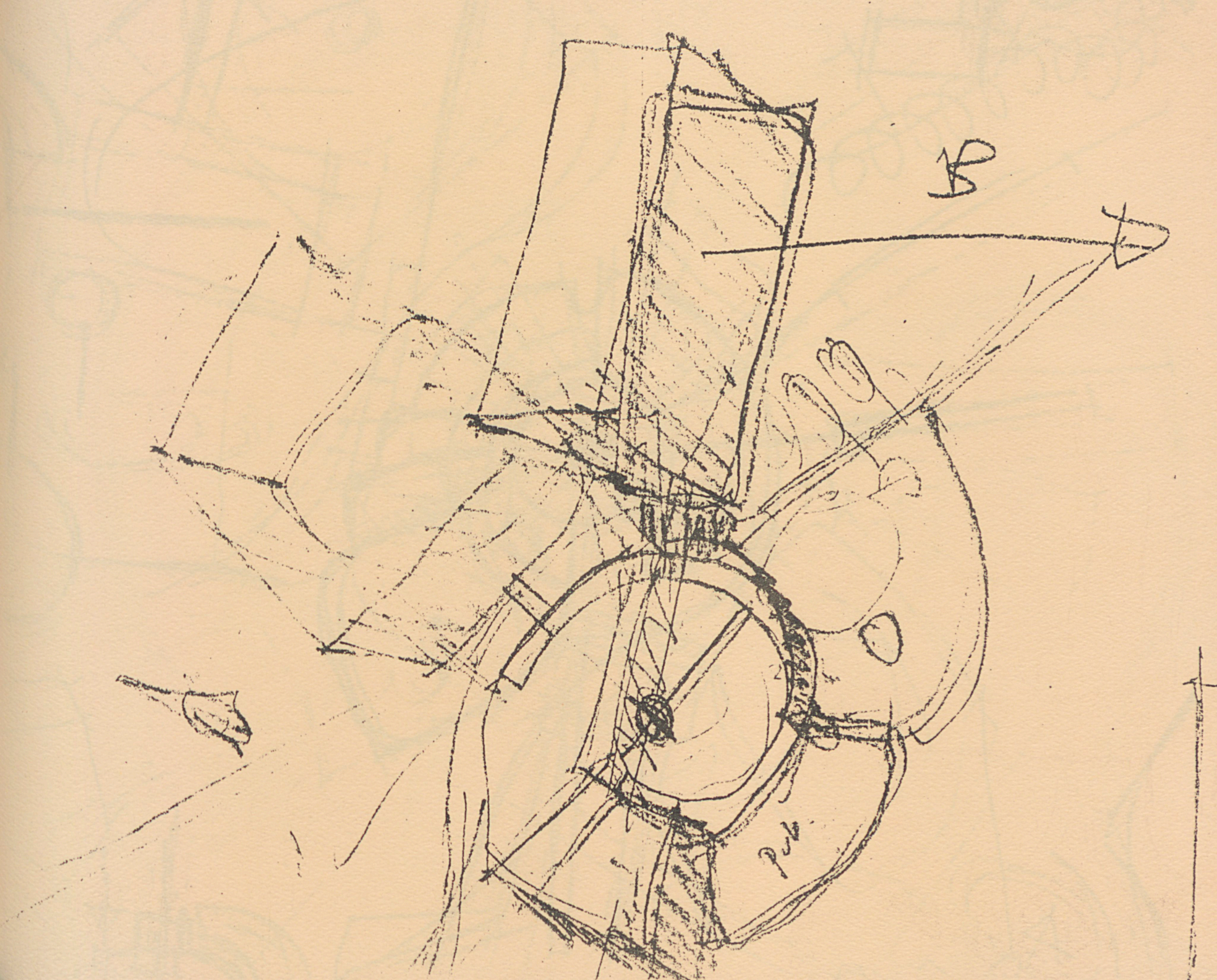

R
semi quiet
H
quiet
R
view
view
water
outside pool
indoor pool
service
screen
Parking

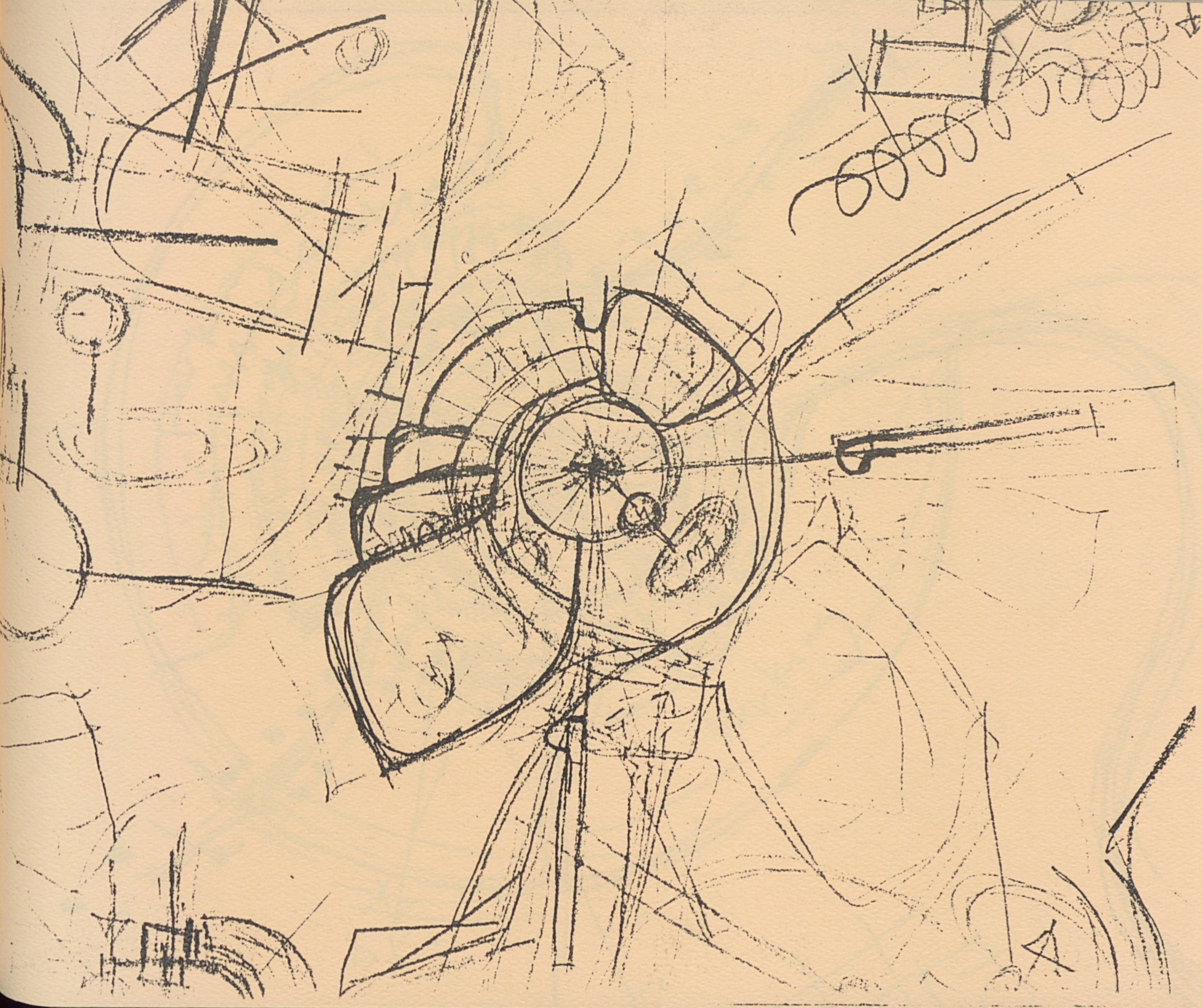


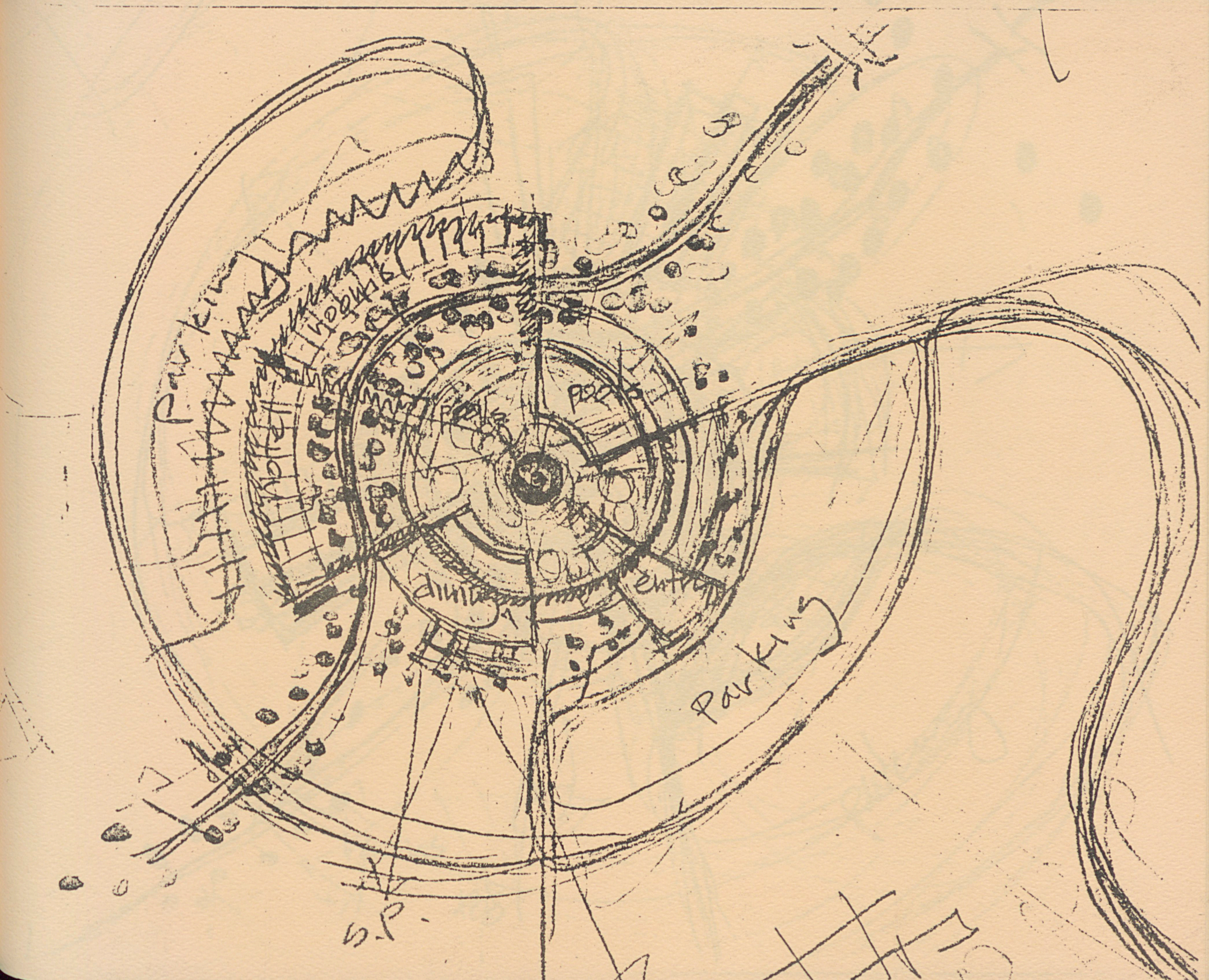


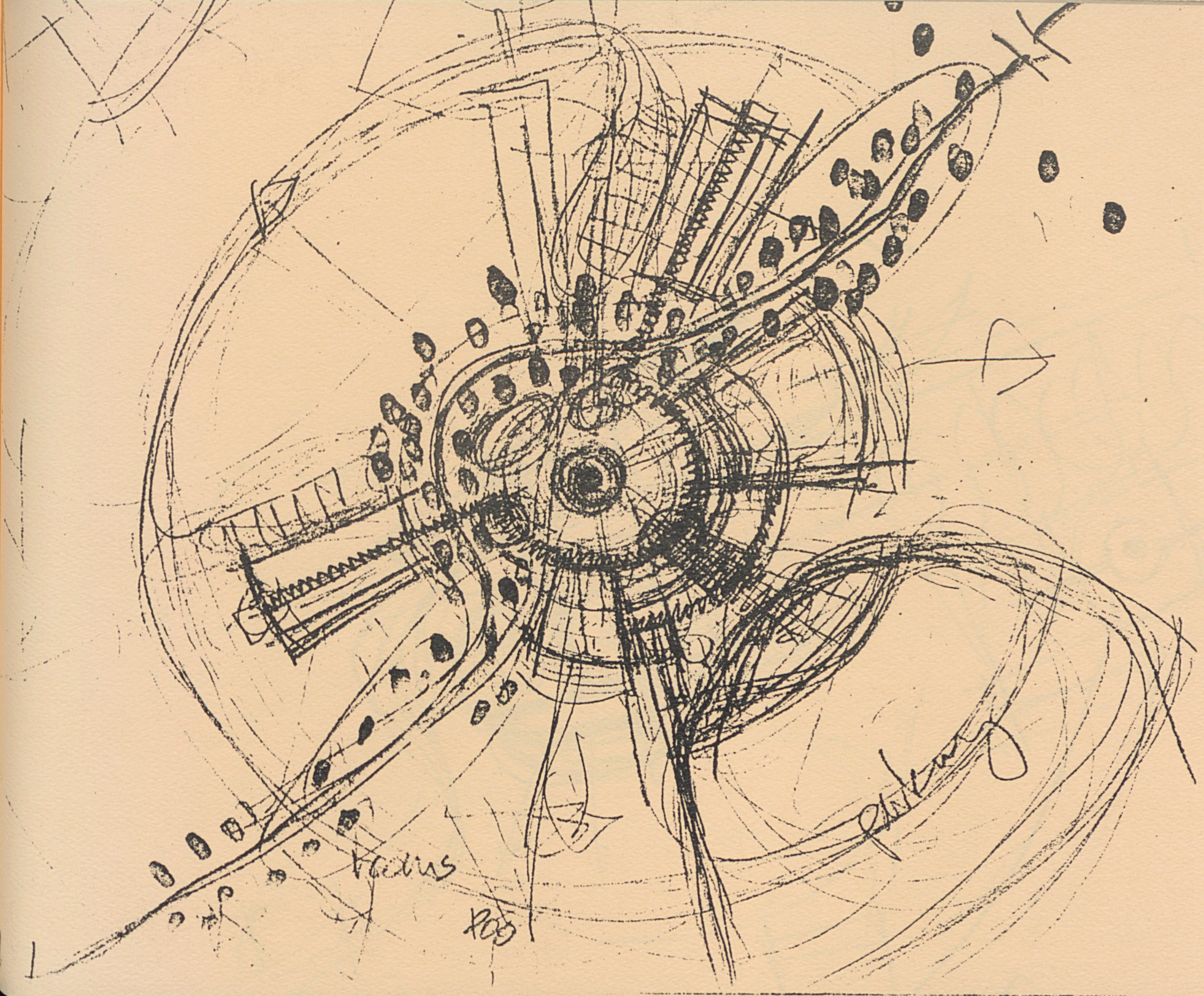


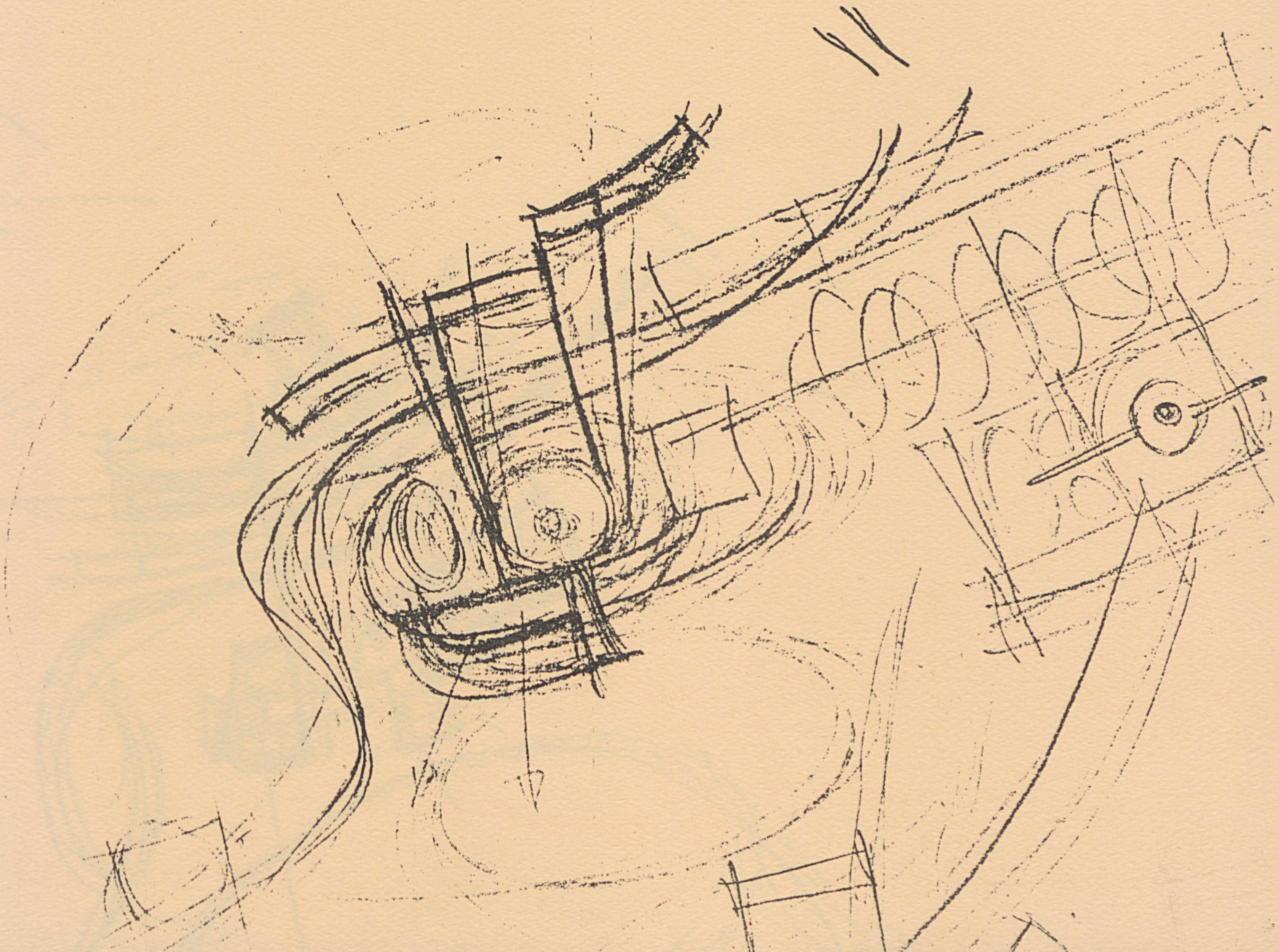


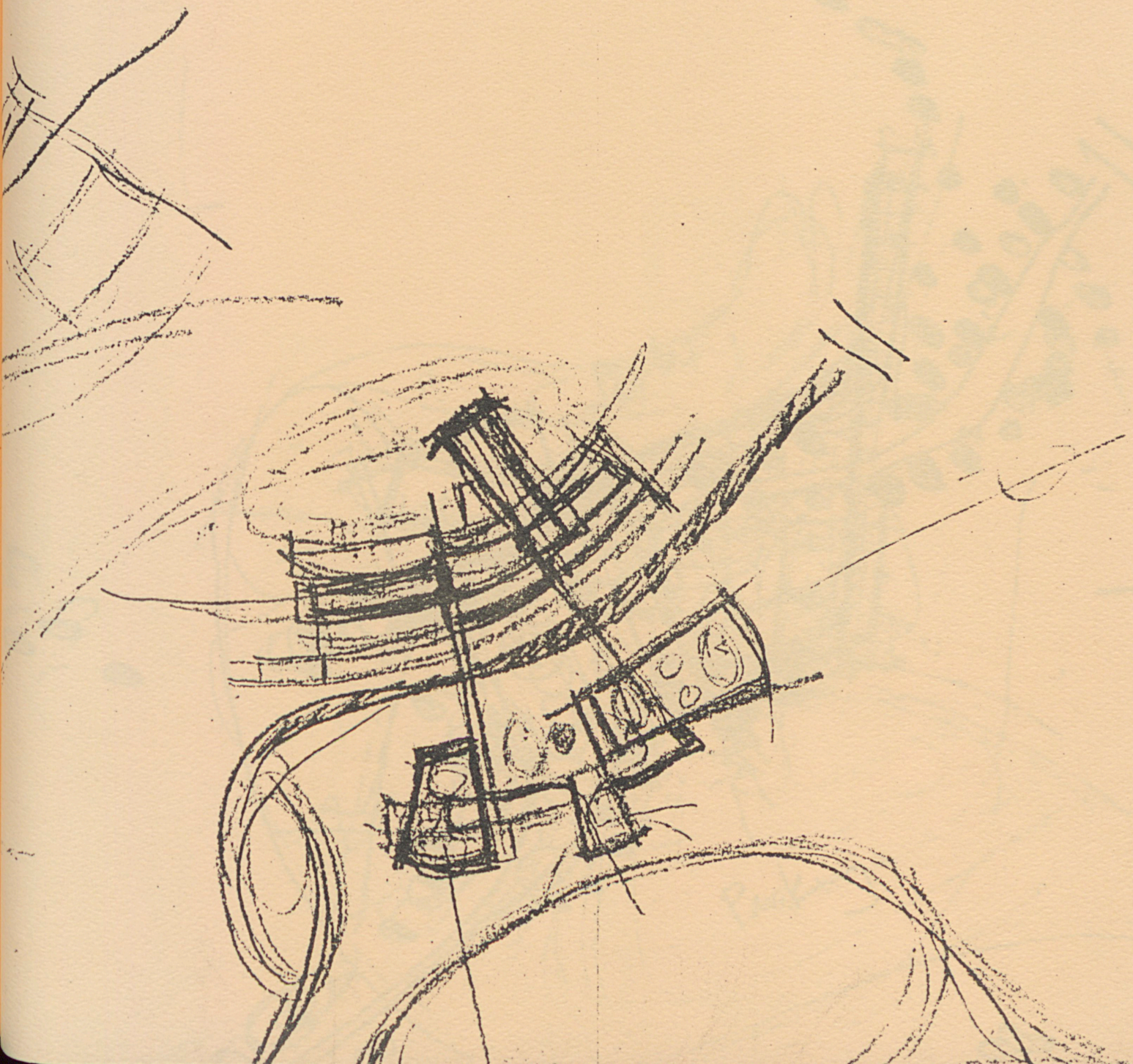


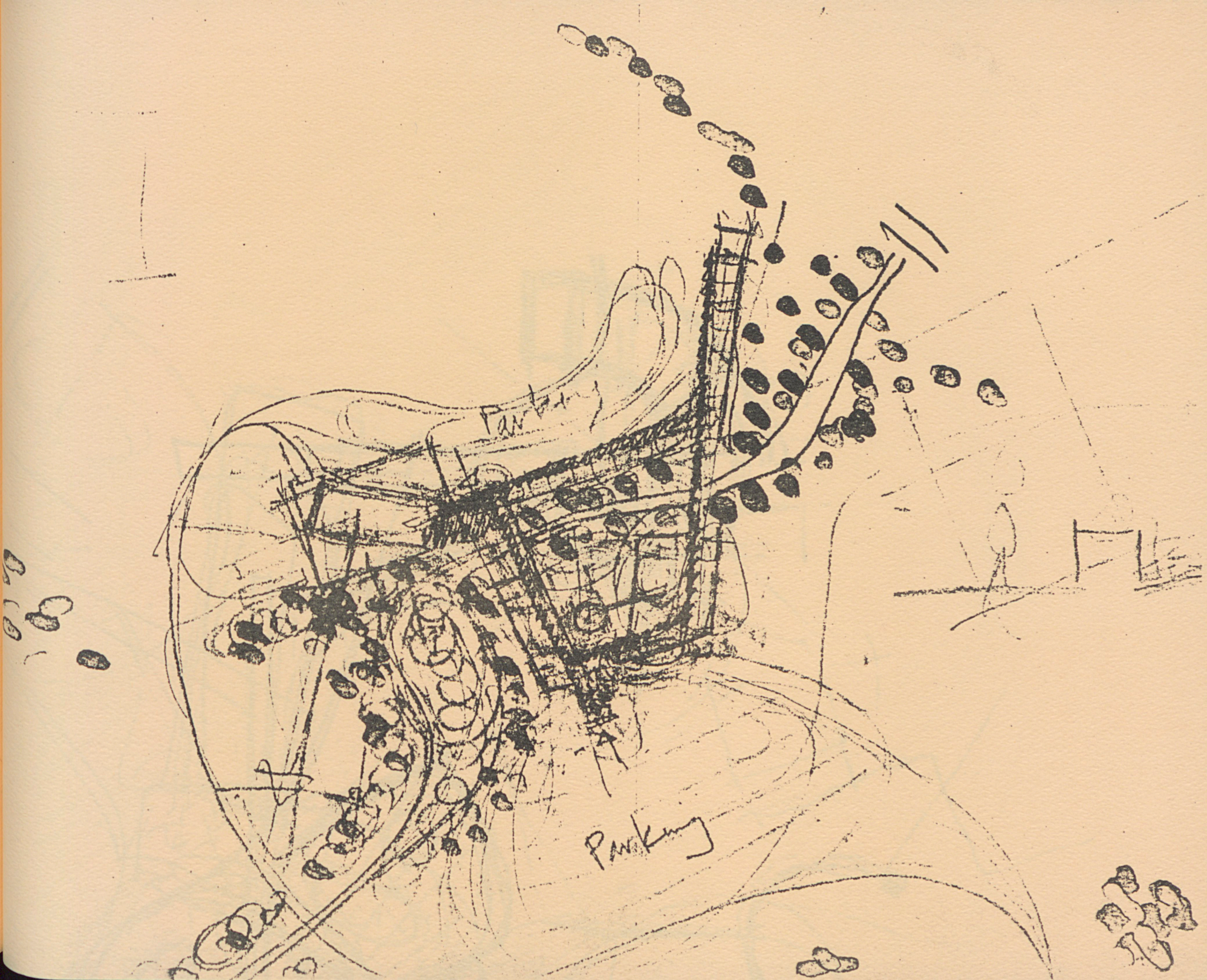


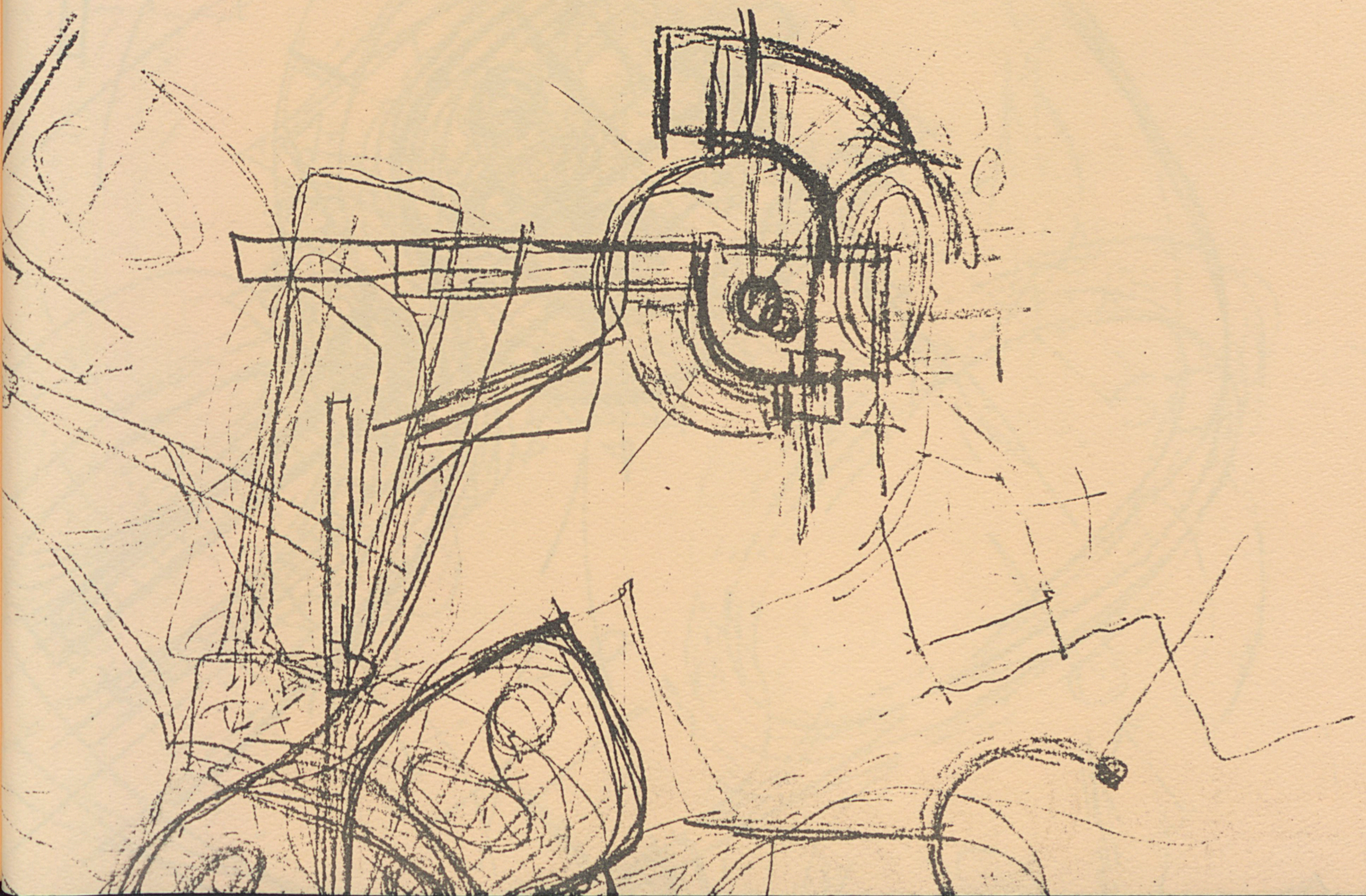

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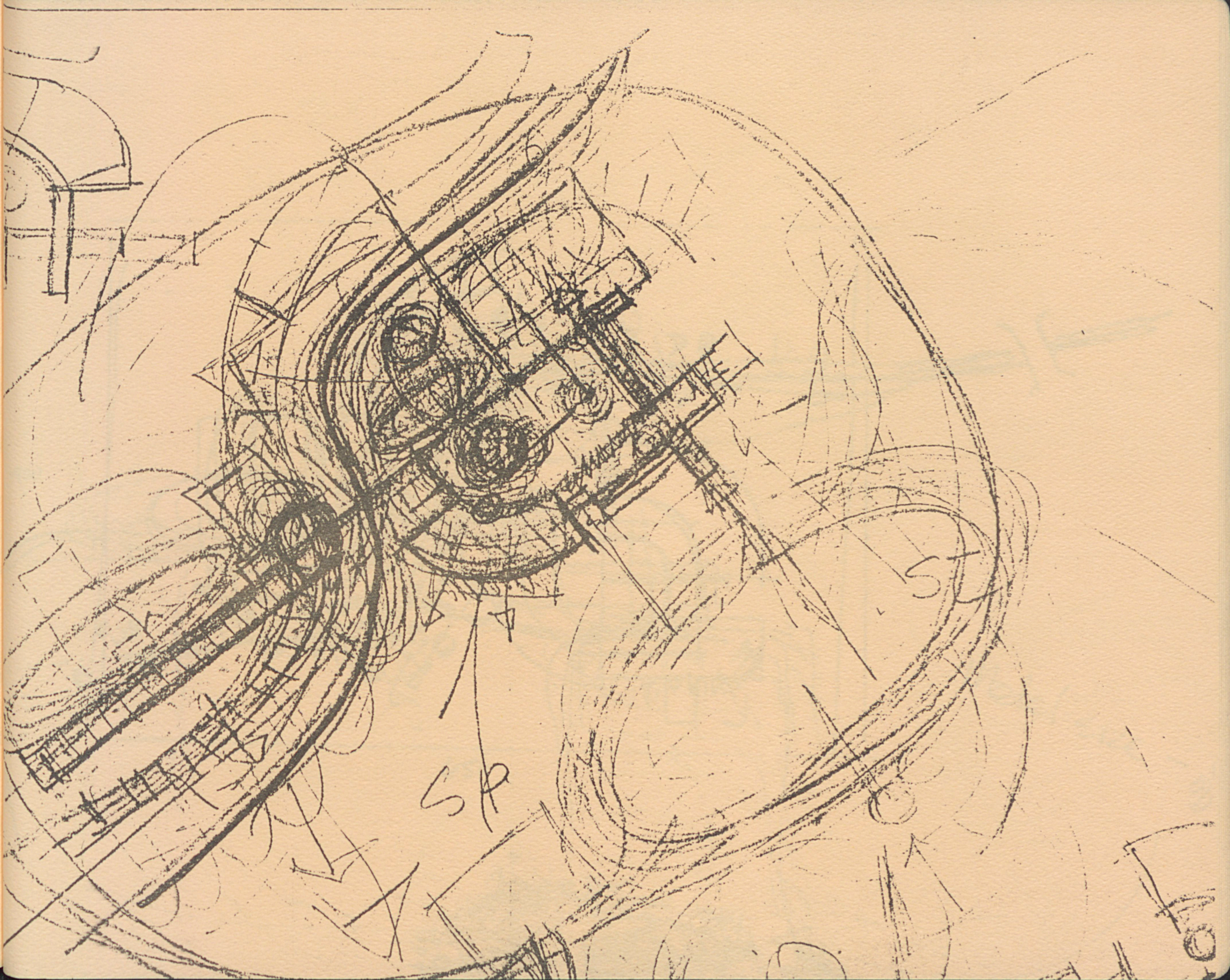


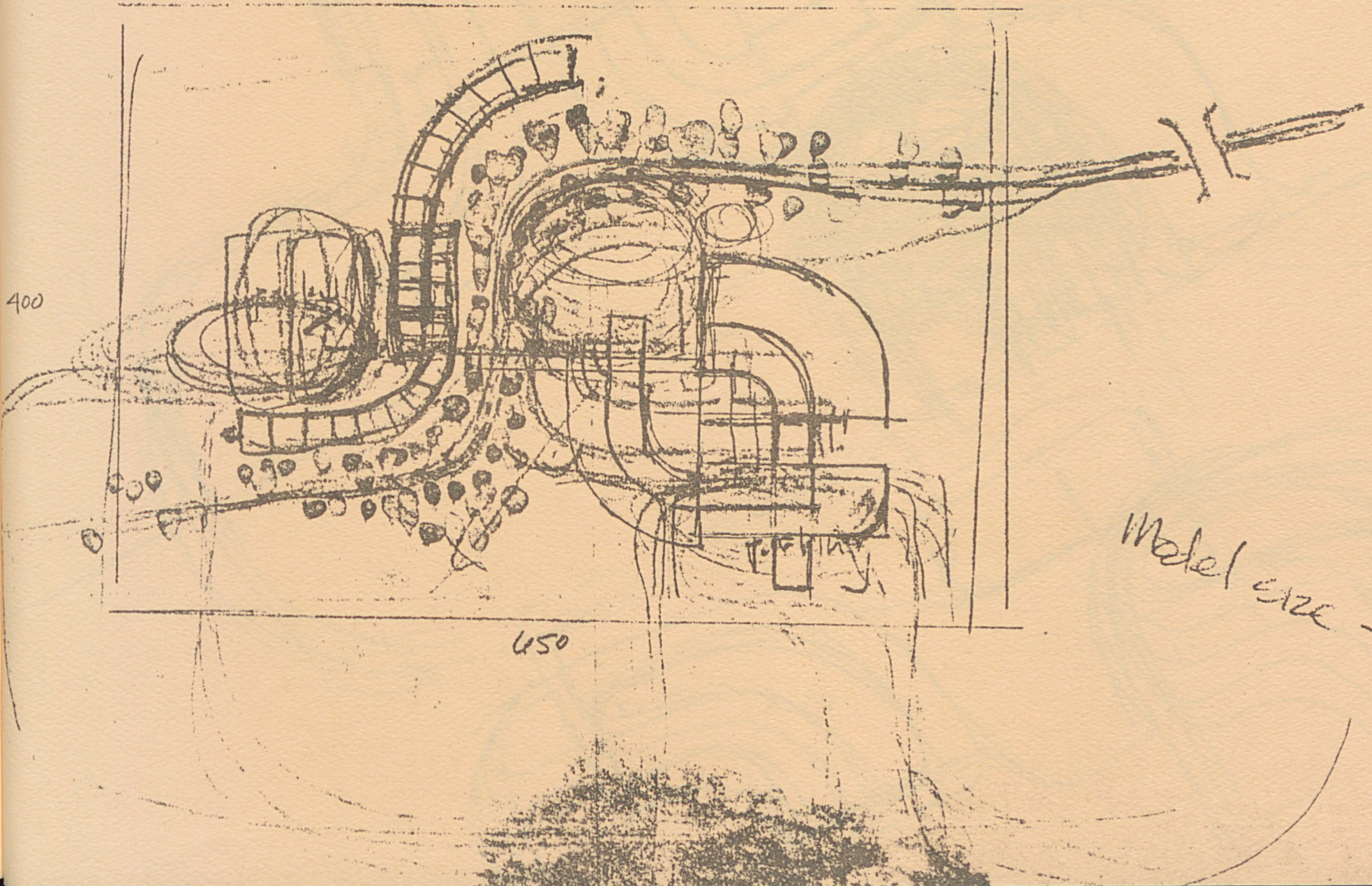


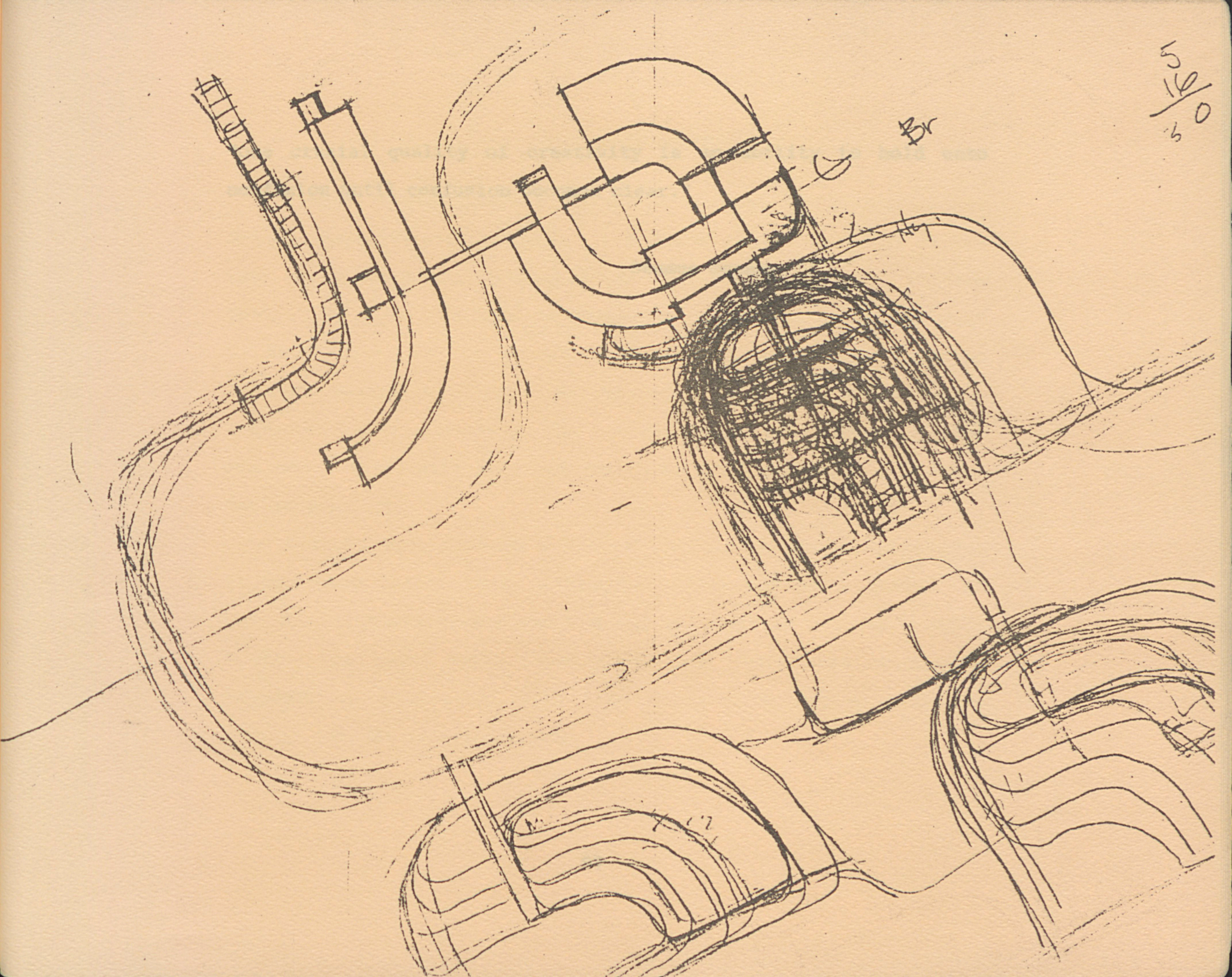



Parking
Parking






400
450
Model size - 3/1


Br

"One crusial quality of creativity is an ability to hold onto confusion until confusion becomes clear."

Seamus Heamey

CONCEPT SUMMARY

I went through quite a few design schemes in the preliminary design stage of this project. I believe that it is very important to explore all possibilities to any solution. I believe that it is also important to review those ideas and compare them to each other. It is through this process that we can progress and make design decisions. By looking through the overall design concepts for this project, one can see the progress that was made and how I eventually made the decisions that resulted in a final design solution.

I first went through a linear and almost symetrical stage. It was very formal with rectangular plans and gable roofs. It was also oriented toward the sun and up close as well as distant views. The hotel units, restaurants and pools were originally adjacent to each other with less circulation but no order or overall concept of organization.

I then came up with a radial concept. It had the focus on the source of the hot water. This idea was by far the strongest and when combined with the idea of an informal wing and formal wing for informal and formal guests it seemed to be the answer. The restaurant also seemed fit in a second story position where it could focus on a distinct view of the Spanish Peaks. Its curvature gave the dining area a great panaramic view without any bad seats in the house. The pool also was effected greatly in shape as the radius from the center of the source of hot water was drawn to outline its perimeter. This is also significant in that the hot water source itself affects the pool area as well as the rest of the complex for without the water, little or no activity would happen there. The radial scheme gave an order to nature as well as the human spaces for the creekbed that was close by was altered as to affected like everything else by the center point or water source in a radial type format. The parking lot was also wrapped around in a radial arrangement. The center focal point or water source was glorified in a fountain

form that was functional as well as visual. Its function was strictly to cool the 133°F water to a level that was comfortable and allowable for bathing and swimming usage. Its visual purpose is to emphasize the water and to celebrate the surfacing of the hot springs. The radial scheme wasn't all good for it is a trap in itself that is the concentric circle design. So, I then pressed onward with the strong ideas that were developed in the radial scheme but tried to break out of it.

I then experimented with rectangles and triangles with the hot water as a focal point but didn't seem to work as well as the radial scheme so I dropped the focal point but the overall scheme had no order. I soon went back to the focal point and to a partial radial scheme but just used the parts that fit the best.

I ended up with a compromise between the radial scheme and an orderless rectangular scheme. The strongest point is the fountain or focal point of the complex effects, first the pools which makes the most sense and then the rest of the complex. The hotel as in other schemes found itself situated across the street

for privacy and view. The dining hall is roughly the same as it was in the radial scheme and also the pool areas. The formal and informal wings were also kept on as a major order decision strictly because of the nature of space. The short term guest such as these just to swim have a shorter distance or circulation while longer term guest have the meander through longer corridors with great views and spaces that vary from totally personal to very public. The pool is also partially enclosing the outside pools which eliminates the possibility of having to wall or fence in the pool area and this is good. The creek also is used to limit the outdoor pool area as it winds in and then out of the complex.

Many other overall and detailed concepts were explored but there were just too many to mention but this brief comparison shows a very basic process of the decision making that was made in the design stages of this project.

FOOTNOTES

[1] Jayson Loan, Hot Springs and Pools of the Northwest (Santa Barbara: Capra-Press, 1980), p. 12.

[2] Ibid., p. 14.

[3] Ibid, p. 13.

[4] Ibid, p. 18.

[5] H.J. Viherjuuri, Sauna: The Finnish Bath (Brattleboro, Vermont: Stephen Green Press, 1972), p. 5.

[6] Ibid., p. 7.

[7] Ibid., p. 9.

[8] Ibid., p. 8.

[9] Ibid., p. 9.

[10] Ibid., p. 9.

[11] Ibid., p. 10.

[12] Charles and Nancy Page, The History of Bozeman Hot Springs (Bozeman, Montana: Nancy Page, 1963), p.8.

[13] Ibid., p. 5.

[14] Ibid., p. 7.

[15] Ibid., p. 3.

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