





# Dedication

This thesis is dedicated to the veterans of the Vietnam War, with honor and memory of their service.

*Rod Garrett*

Rod Garrett

## Acknowledgements

I would like to thank my parents, George and Bonnie Garrett, for their support and confidence in me and my decisions. This thesis would not be possible without them.

A special thanks to Marty Jo Rogers, she has helped me through very trying times. It is through her I can see the light in the future, she is my best friend.

Thanks also to:

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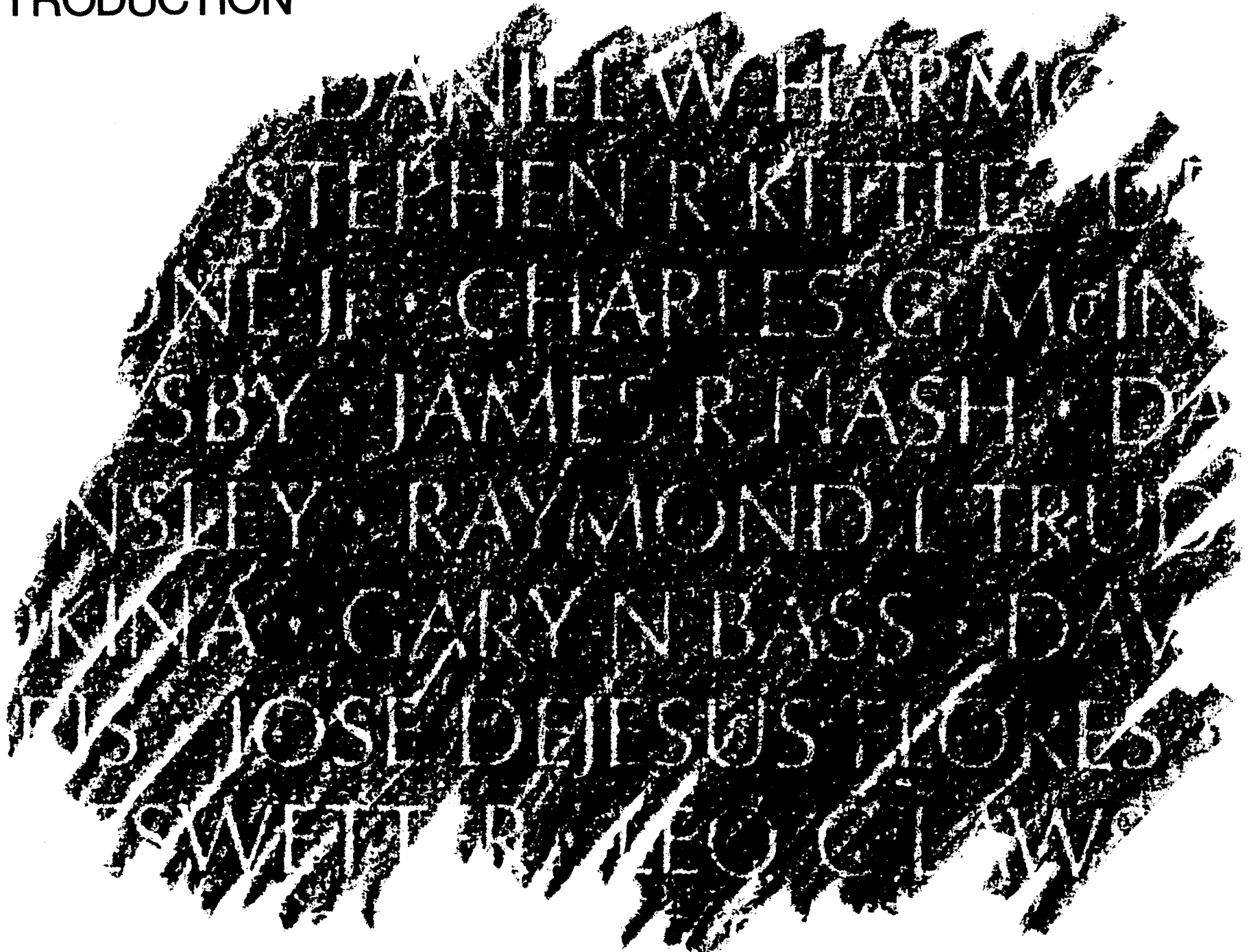
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# INTRODUCTION





# INTRODUCTION

## The Thesis

The thesis acts as a milestone, it is the final project of my formal education at Oklahoma State University, it is a culmination of all the architectural knowledge that I have induced. At the same time the thesis is a starting point into the architectural profession.

My primary goal was to select a project that presented a unique situation of designing for the emotions and feelings of the human being.

It is my thoughts that "true architecture " must be for the people who use and perceive it.

This resulted in my choice for designing a Museum and Resource Center for the Vietnam Veterans.

I felt this unique group of people needed a facility in which all people of the United States could take pride.

I also feel this project would present an exciting and challenging problem, to test my ability as a designer and architect.

The selected site is just off the mall in Washington, D.C. In close proximity to the Vietnam Veterans Memorial.

My challenge is to provide an extension for the people visiting the Vietnam Memorial, yet to act as a separate entity, to not compete with the importance of the memorial and the other historic monuments in this area.

## Mission Statement

From the beginning of the Vietnam War an air of uncertainty has screened the realities that face the Vietnam Veterans.

We cannot perceive the hardships that befell those who fought, nor can we explain why it happened.

It is our hope that this Complex will have a two fold purpose:

To serve as an eternal remembrance to those who served their country, that they are no longer perceived as the forgotten soldiers.

To serve as an educational tool to those who question, and to those who wish to become more knowledgeable about the Vietnam Veterans and the Vietnam War.

This Complex will attempt to meet those needs by providing the users of the Museum and Resource Center with the appropriate functions, that will serve as a vehicle for education, contemplation and personal enlightenment.

# FACTS



# FACTS

Washington  
D.C.

## History

Washington D.C. is one of the few cities in the world which was planned for one purpose...to be a national capital. Washington was, in truth, nothing more than a compromise. This compromise known as the Residence Act, was debated and passed on July 12, 1790 proposed seating the capital in a 10 mile square within a 75 mile stretch of the Potomac. The site located between the Potomac and Anacostia Rivers was chosen because of the proximity of two established cities or towns Alexandria and Georgetown and also because of its position at the head of a navigable river.

The choice of Pierre L'Enfant to plan the Capital City and George Washington's extensive familiarity with the natural features of the site gave rise to the L'Enfant Plan. With all his French and architectural origins, L'Enfant respect for the New World landscape was most evident in the way he interest in the countryside at large with his own European preferences for nature boldly restructured. The plan's open spaces included sites for memorials and other civic art, barracks and arsenals, cultural facilities, institutions such as hospitals, and some semi-public edifices as merchantile exchange and city markets. Streets and avenues were made broad so as to be park like, all of this open space constituted a single monumental network, not confined to a single core but providing evidence of the National Capital presence throughout the area defined by the river's intersection.

The McMillan Plan was concerned with reviving, refining and extending the L'Enfant Plan frame work in proportion to growth of the National Capital. The McMillan Plan of 1902 concerned itself with tow main problems: building a park system and grouping of public buildings. By connecting

## History

(cont.)

existing parkland and carrying the Capital's park system into the outlying areas of the district the plan established a systematic character for regional open space.

By grouping public buildings in formal landscape settings, the plan proposed a highly concentrated monumental core most conspicuously, the plan included a monumental mall composition to carry on the L'Enfant Plan, this established the mall much as it is now today.

Today Washington D.C. is continuing the concepts established by the L'Enfant and McMillan Plans. By creating agencies such as the National Capital Park and Planning Commission and the Commission of Fine Arts the city is almost assured of continual growth in a manner fitting the United States Capital.



# History

(cont.)

## THE L'ENFANT PLAN

This draft or "manuscript" plan developed a variety of interesting and functional waterfronts as one of the fundamental aspects of the overall city character.

Those who debated and passed the Residence Act of July 12, 1790, seating the Capitol in a 10 mile square within a 75 mile stretch of the Potomac River, may have seemed unconcerned with the physical character of the Federal District. Actually, thier was no great need to cite the two strongest advantages of the location. It's natural beauty and its position of the head of a navigable river.



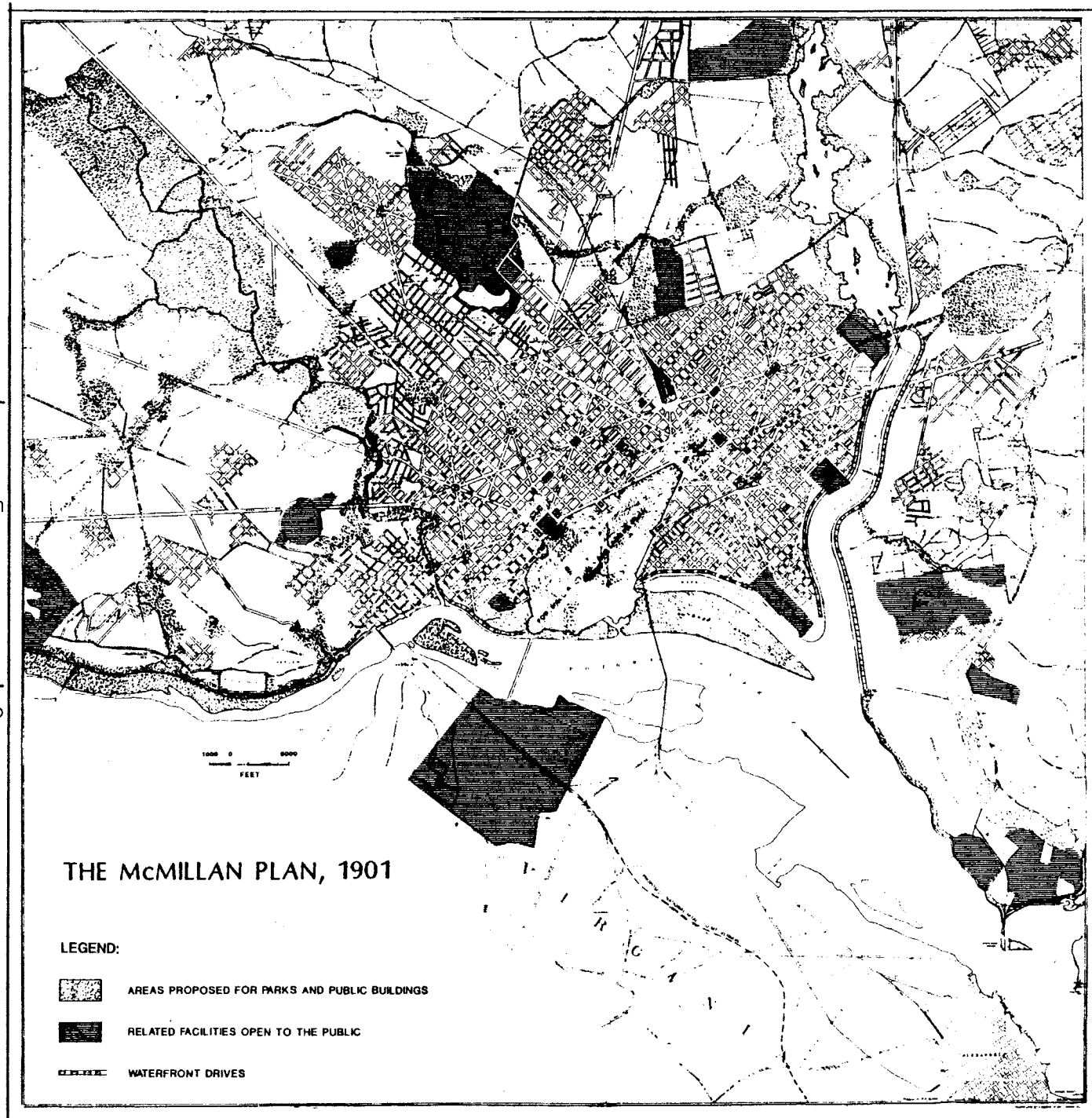
# History

(cont.)

## THE McMILLIAN PLAN

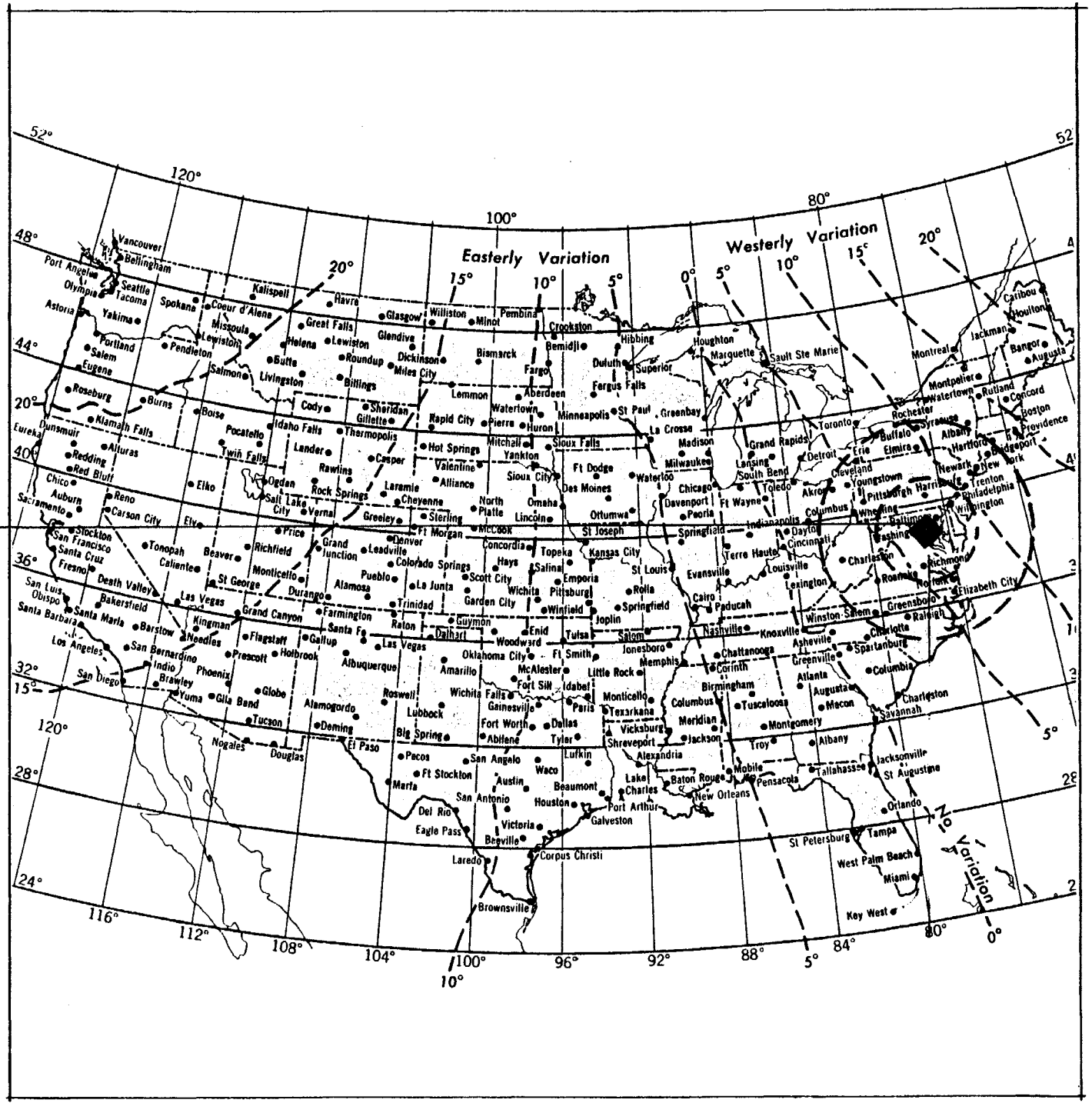
New waterfront quays which were developed to provide important connections and interesting activity between the larger park areas. Public access was provided in the design of the city-wide park system as well as the individual river parks.

An important part of this system was a new parkway along the shores of the Potomac River, from Mt. Vernon to Great Falls.

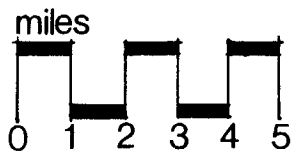
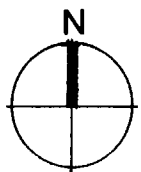
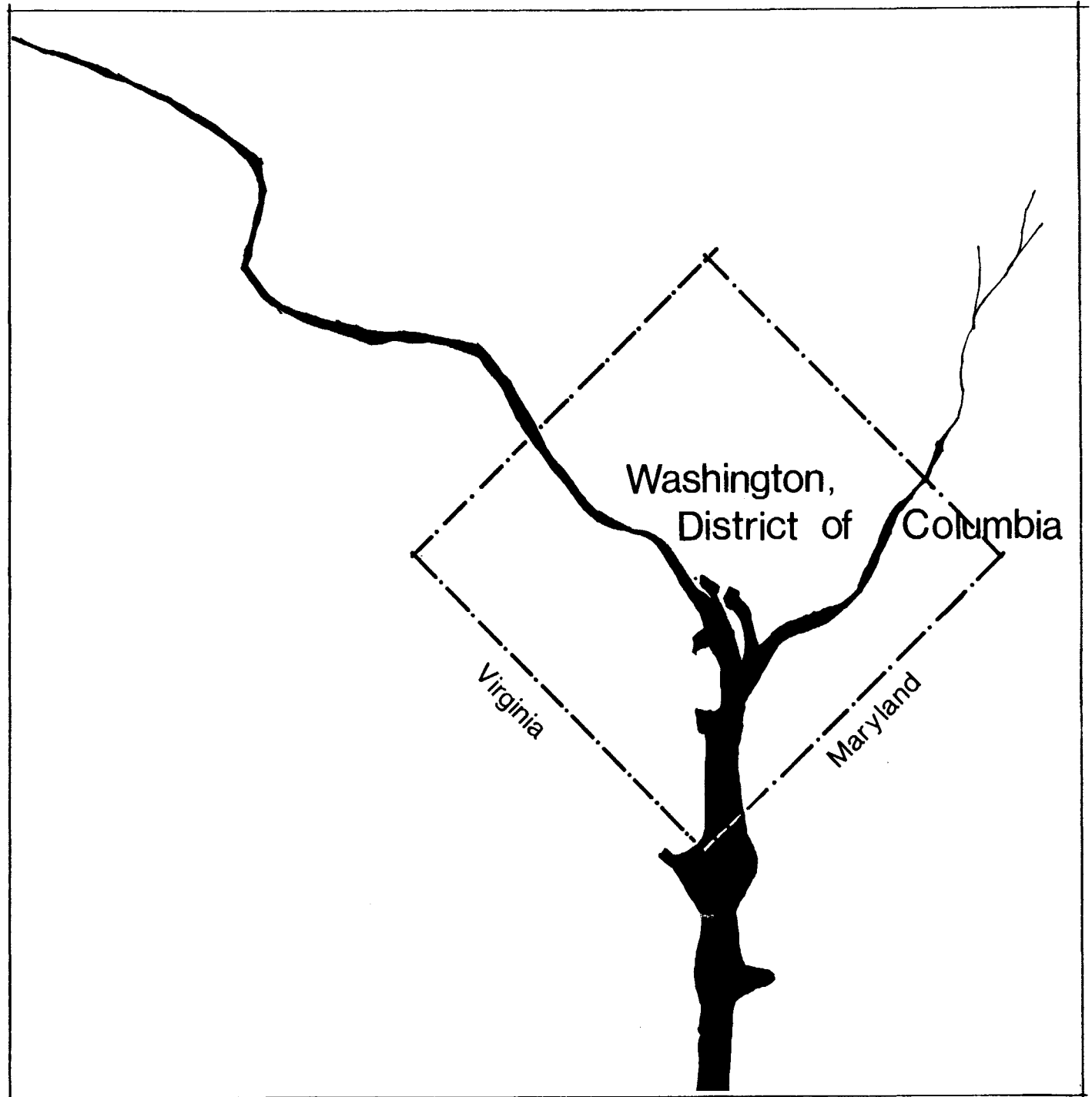


# U.S.A. Regional Map

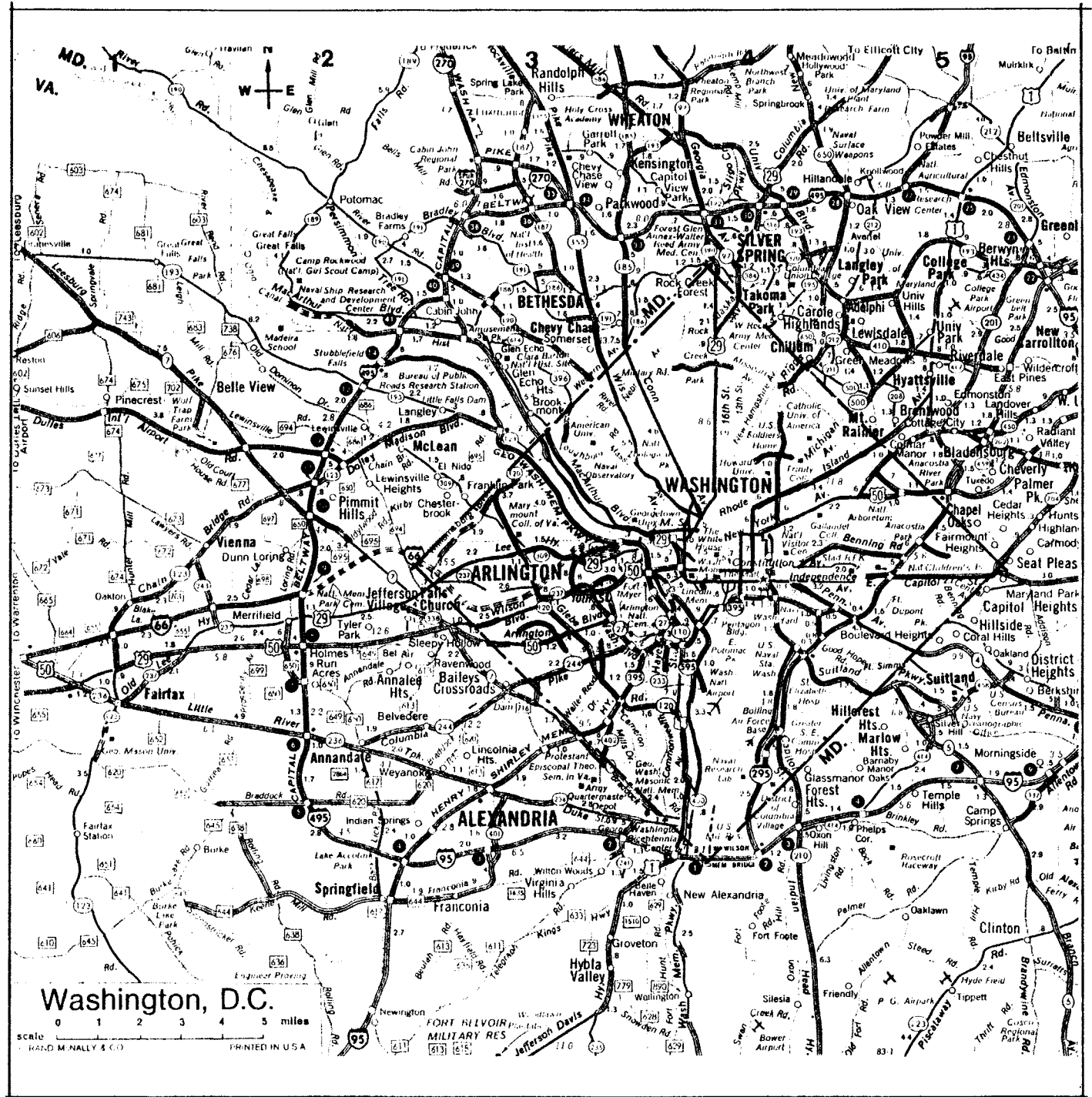
Washington, D.C.



# District Regional Map



# District Regional Traffic

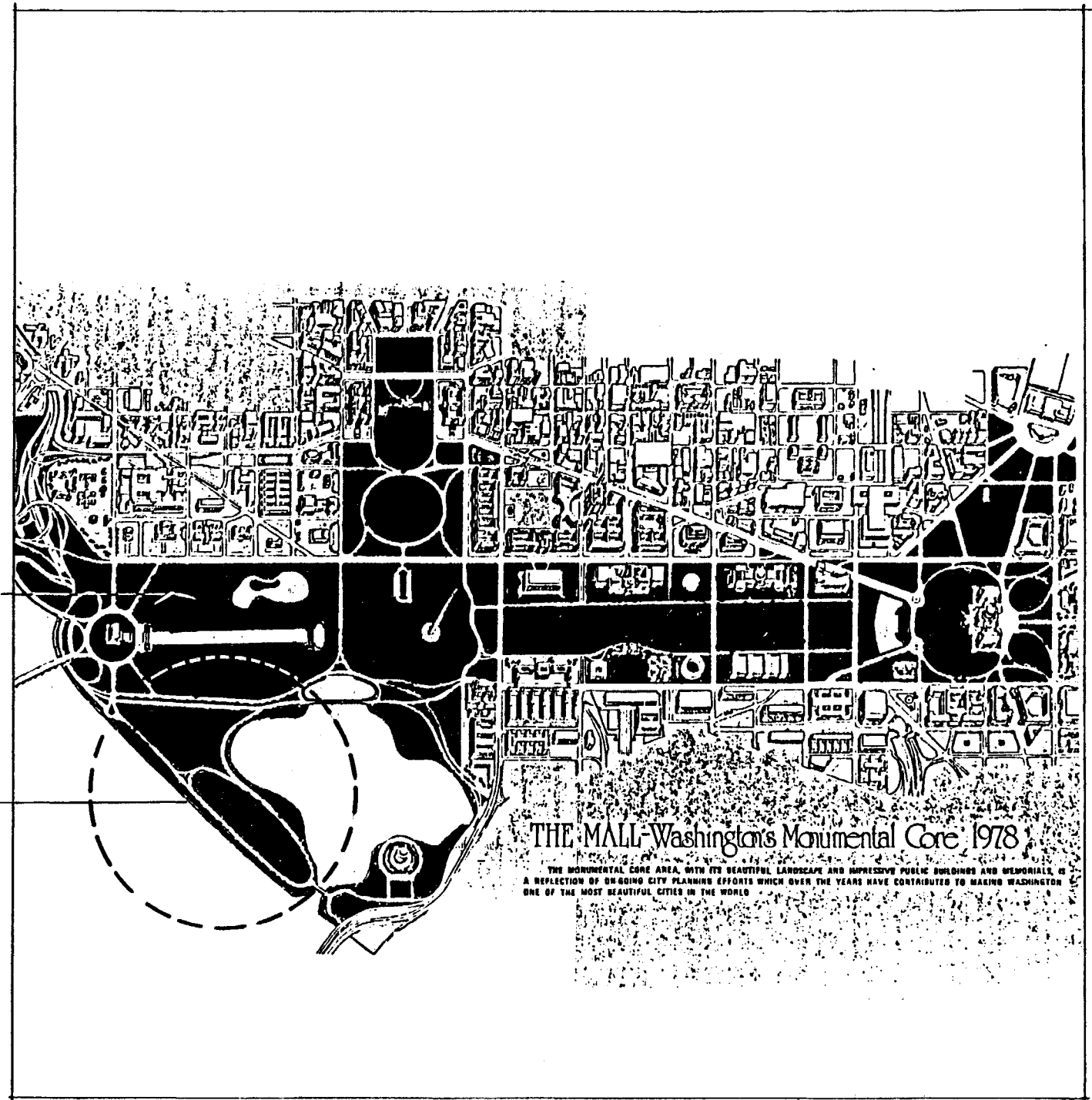


A COLLECTION MUSEUM AND RESOURCE CENTER FOR THE VIETNAM VETERANS WASHINGTON, D.C.

# The Mall

Vietnam Veterans Memorial

Site for Museum and Resource Center

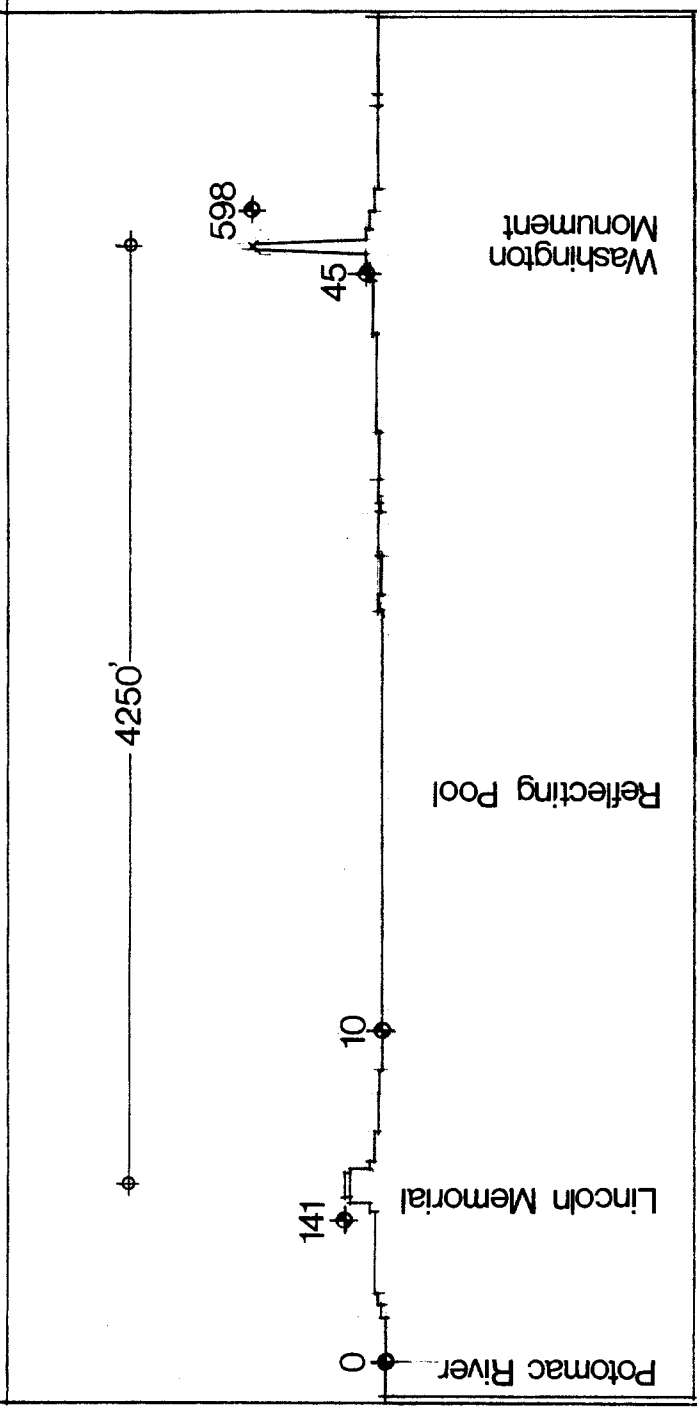


THE MALL-Washington's Monumental Core 1978

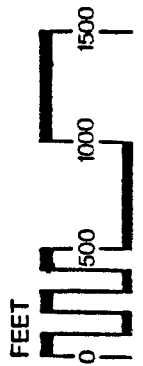
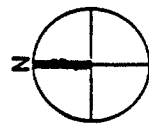
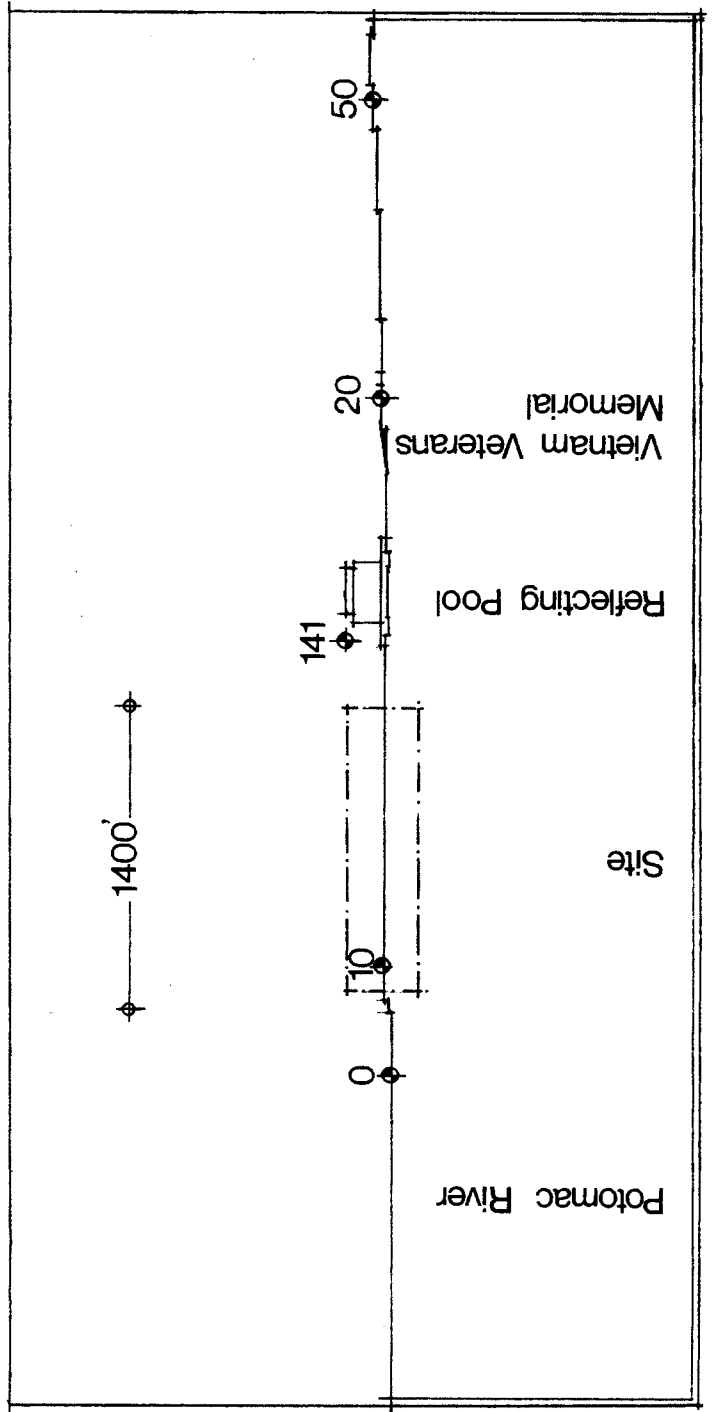
THE MONUMENTAL CORE AREA, WITH ITS BEAUTIFUL LANDSCAPE AND IMPRESSIVE PUBLIC BUILDINGS AND MEMORIALS, IS A REFLECTION OF ONGOING CITY PLANNING EFFORTS WHICH OVER THE YEARS HAVE CONTRIBUTED TO MAKING WASHINGTON ONE OF THE MOST BEAUTIFUL CITIES IN THE WORLD.

# Sections Through The Mall

East / West



North / South



# Site Analysis



## History Of The Site

Following an investigation by a Senate committee in 1881, Congress appropriated the first funds for the improvement of navigation of the Potomac and the reclamation of the Tidal flats and marshes west and south of the Washington Monument.

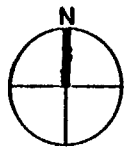
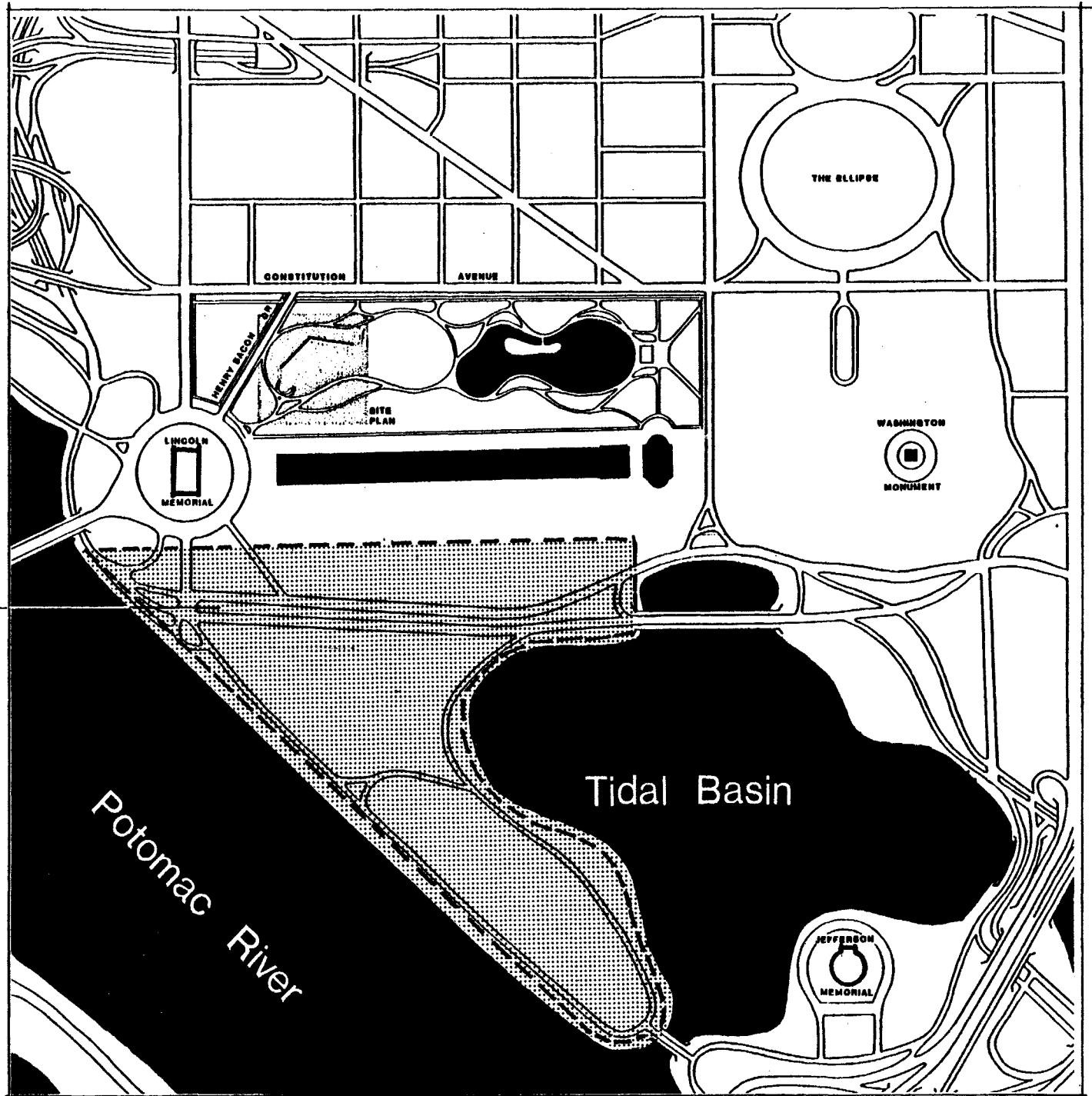
This project involved dredging the river channel and dumping the dredgings so as to fill the marsh area to a level several feet above high tide and flood level. The work proceeded over many years, but by the end of the century it had been substantially completed. An enormous area more than 600 acres in extent was reclaimed by this operation. Two separate tracts of land were created. To the south, stretching approximately two miles long and parallel with the old shoreline of the Potomac River, the engineers created a new island, known as East Potomac Park. Between the island and the District shore lay the newly deepened Washington Channel, to provide access to wharves and docks. To the north the fill area extended nearly a mile westward from the old water line which had reached almost to the foot of the Washington Monument. This area, West Potomac Park, also contained a narrow peninsula stretching south easterly almost to the tip of the island. In between these two reclaimed tracts the engineers found it necessary to create a tidal basin.

In 1982 a new "Comprehensive plan for the National Capital" was established. Within this plan there are several overall goals which can apply to the West Potomac Park area. These are:

- (1) PRESERVE THE IMPORTANT HISTORIC FEATURES OF THE NATIONAL CAPITAL WHILE PERMITTING NEW DEVELOPMENT WHICH IS RESPECTFUL OF THE EXISTING FEATURES.
- (2) CONSERVE THE NATURAL FEATURES AND RESOURCES OF THE NATIONAL CAPITAL AND INHANCE CULTURAL AND RECREATIONAL OPPORTUNITIES AND OPEN SPACE OF THE REGION.

# The Site And Context

Site for Museum and Resource Center



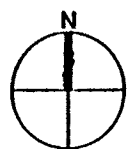
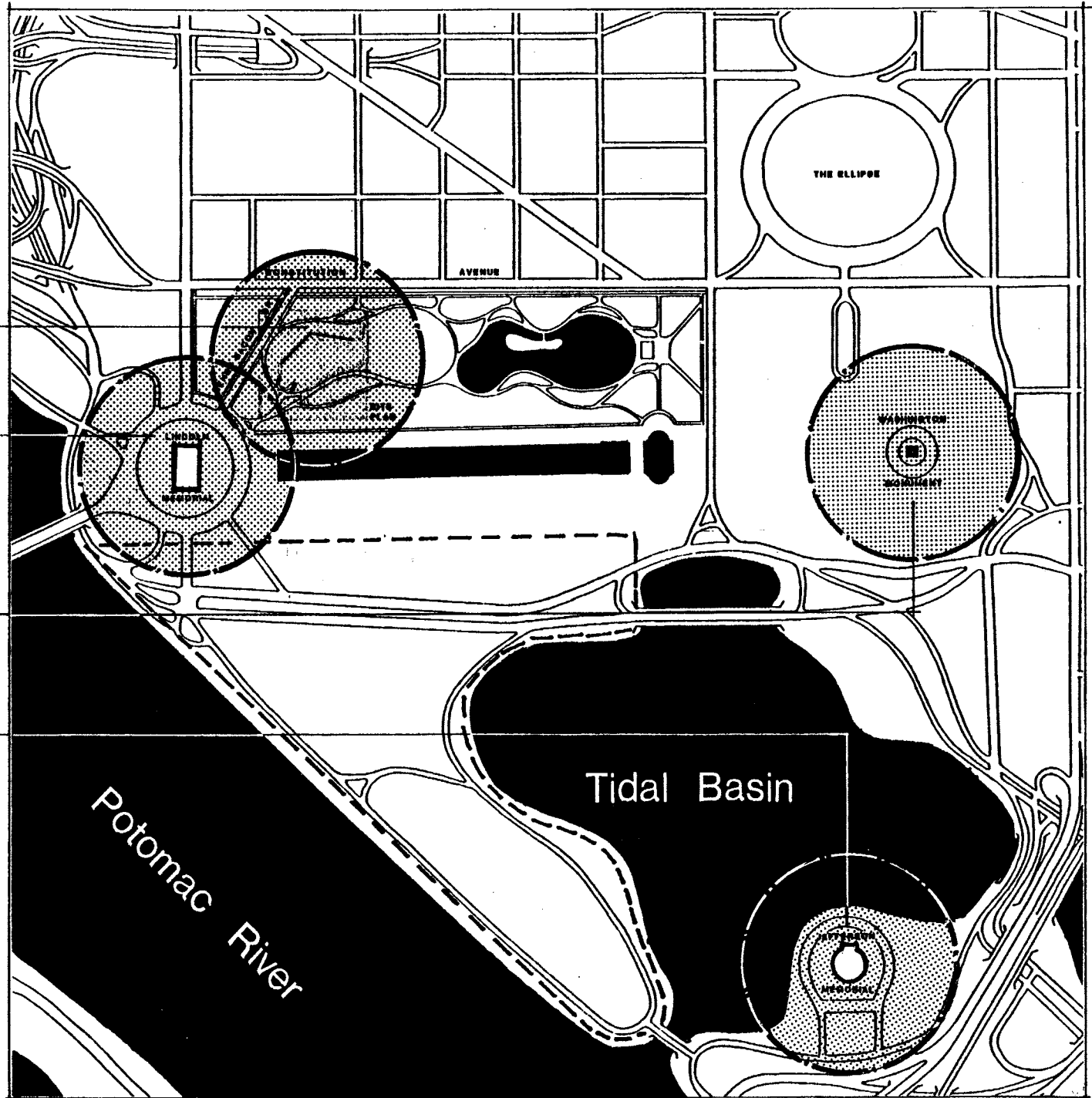
# Landmarks

Vietnam Veterans Memorial

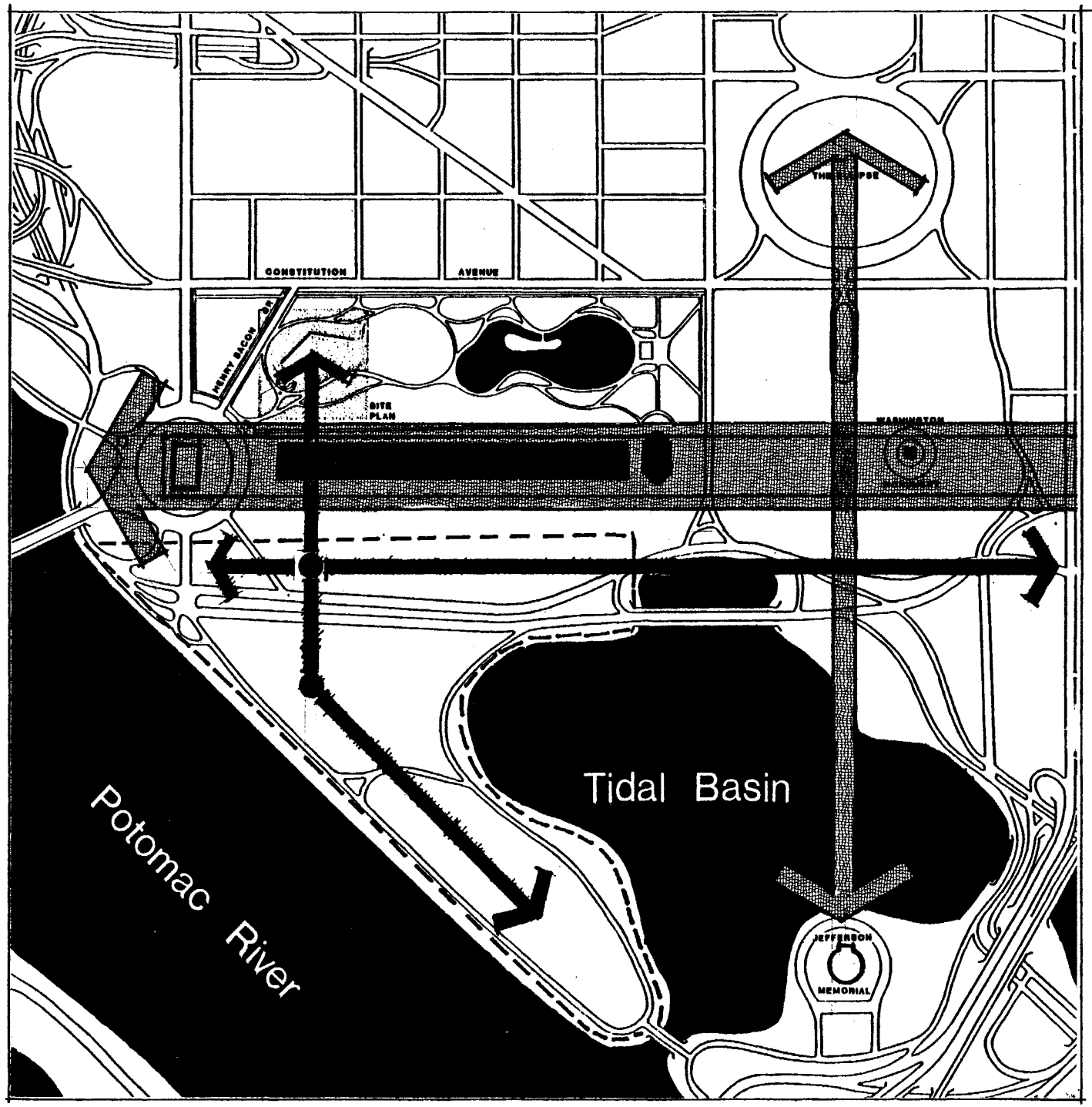
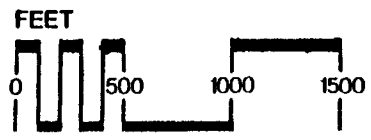
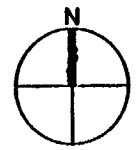
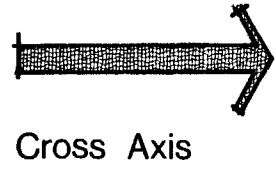
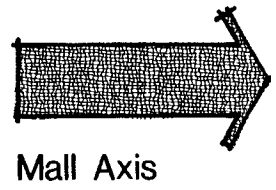
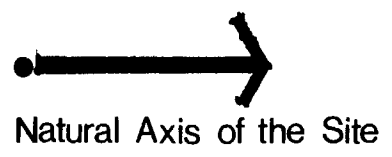
Lincoln Memorial

Washington Monument

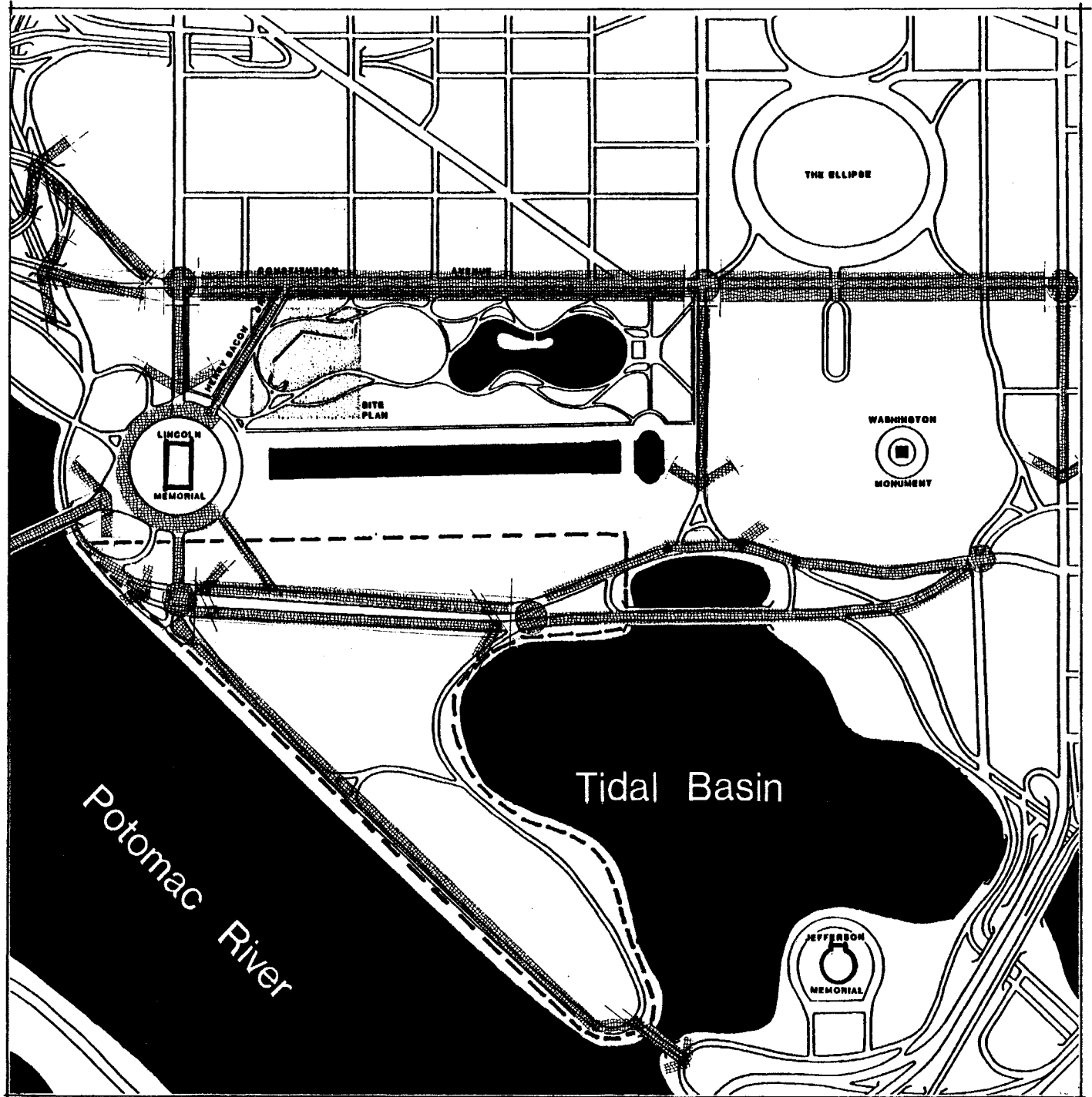
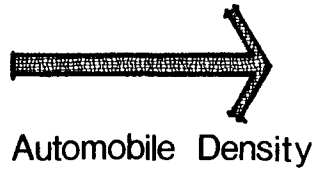
Jefferson Memorial



# Axes Of The Site



Automobile  
Traffic

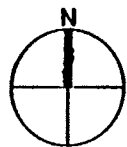


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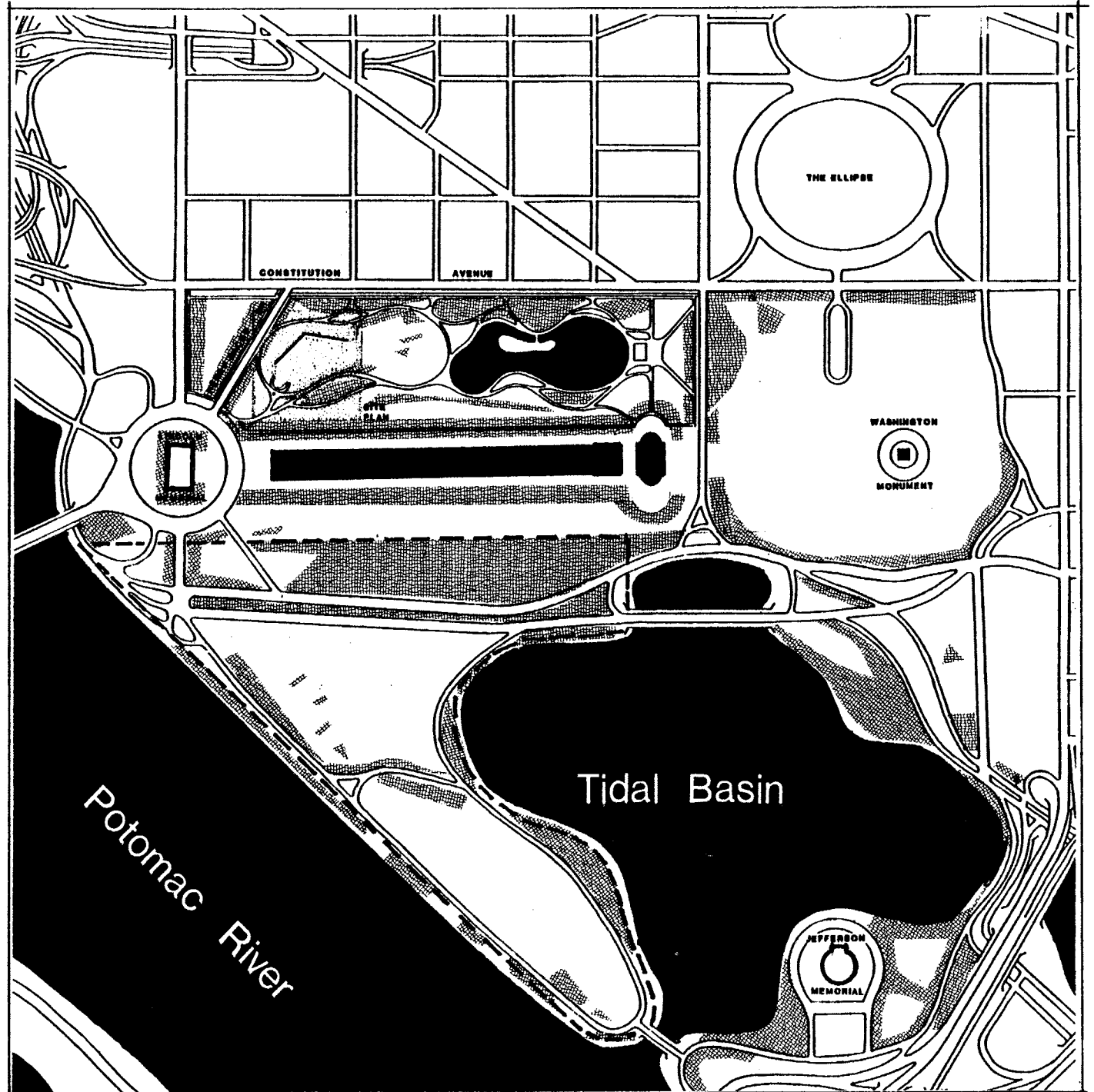
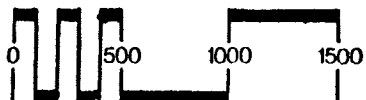
# Existing Vegetation



Existing Trees

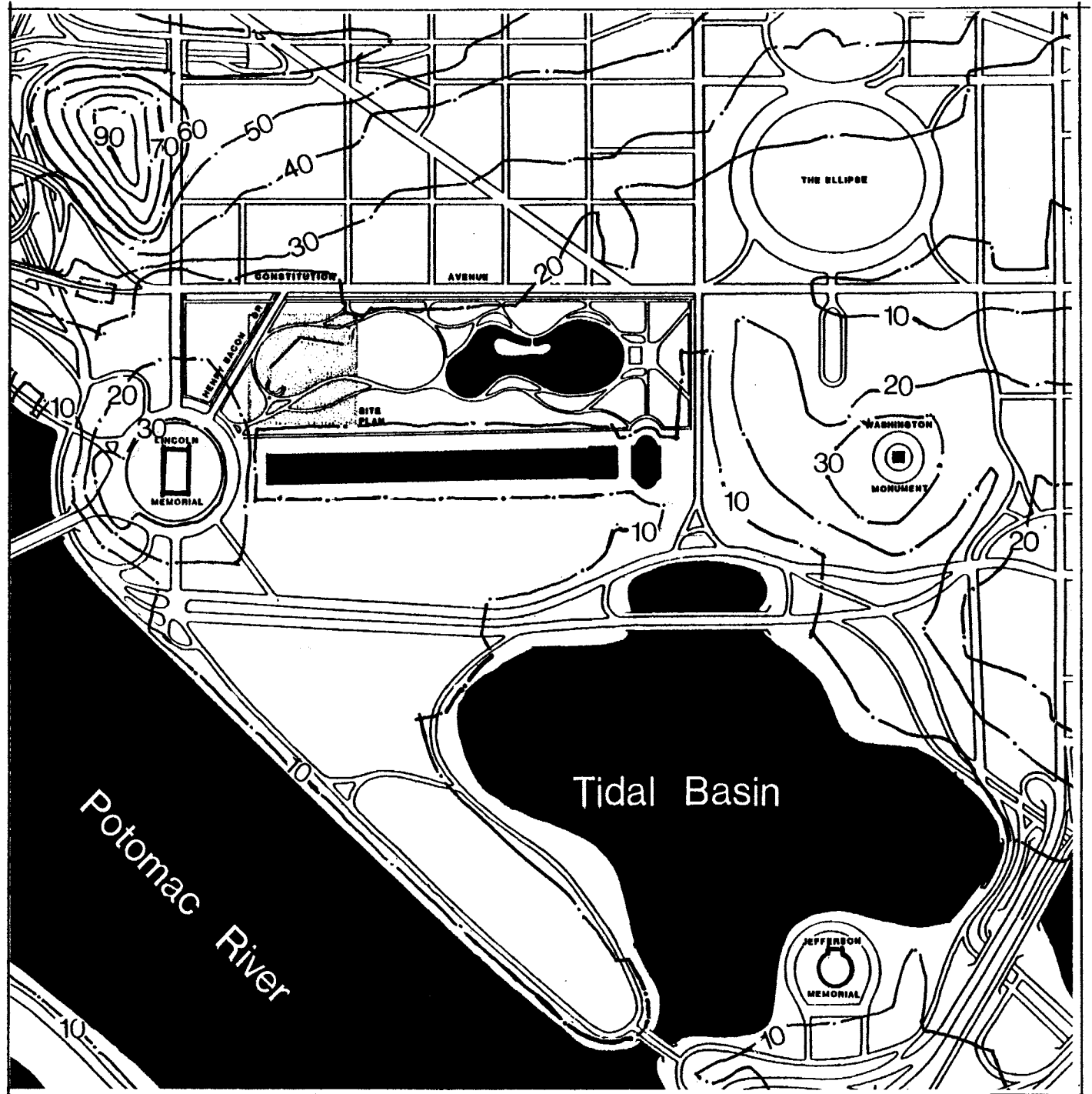


FEET



# Topography

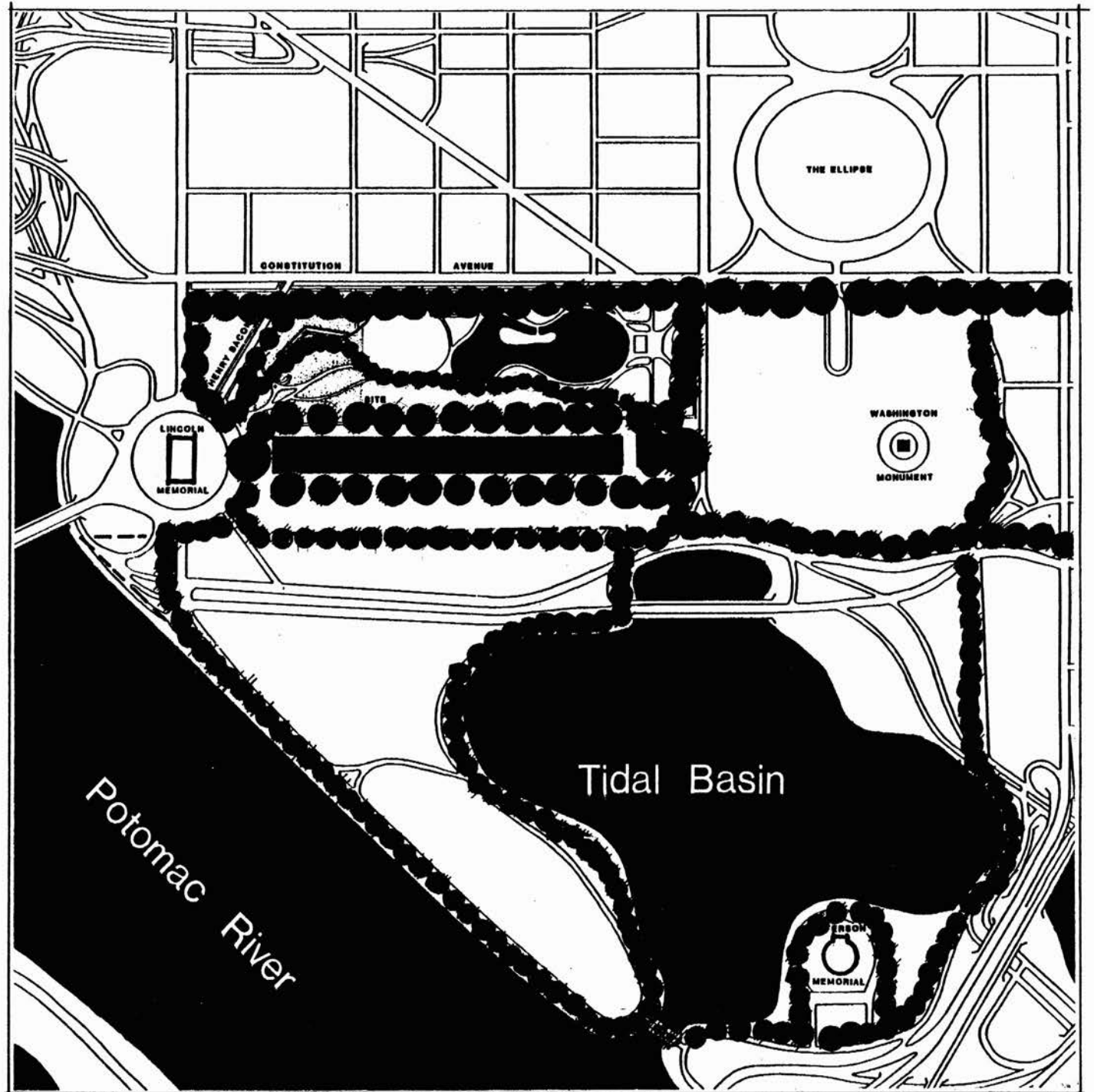
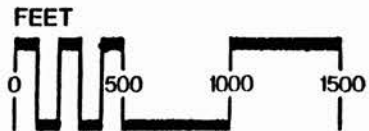
Contours at 10' intervals  
(above water level)



# Pedestrian Traffic

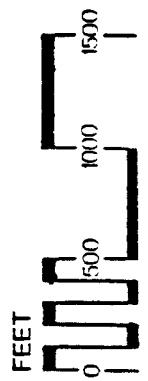
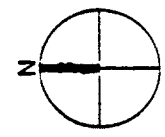
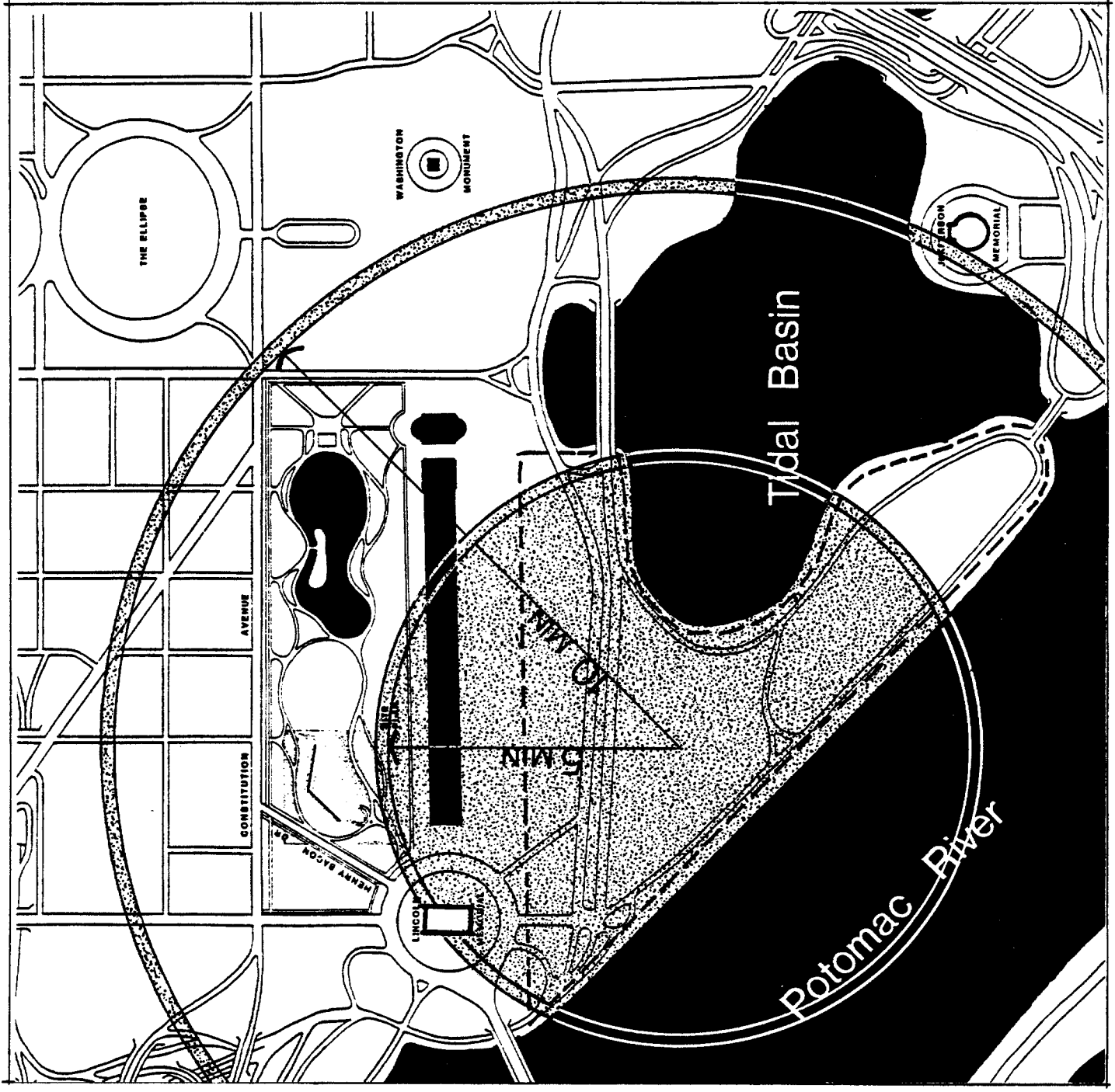


Pedestrian Densities



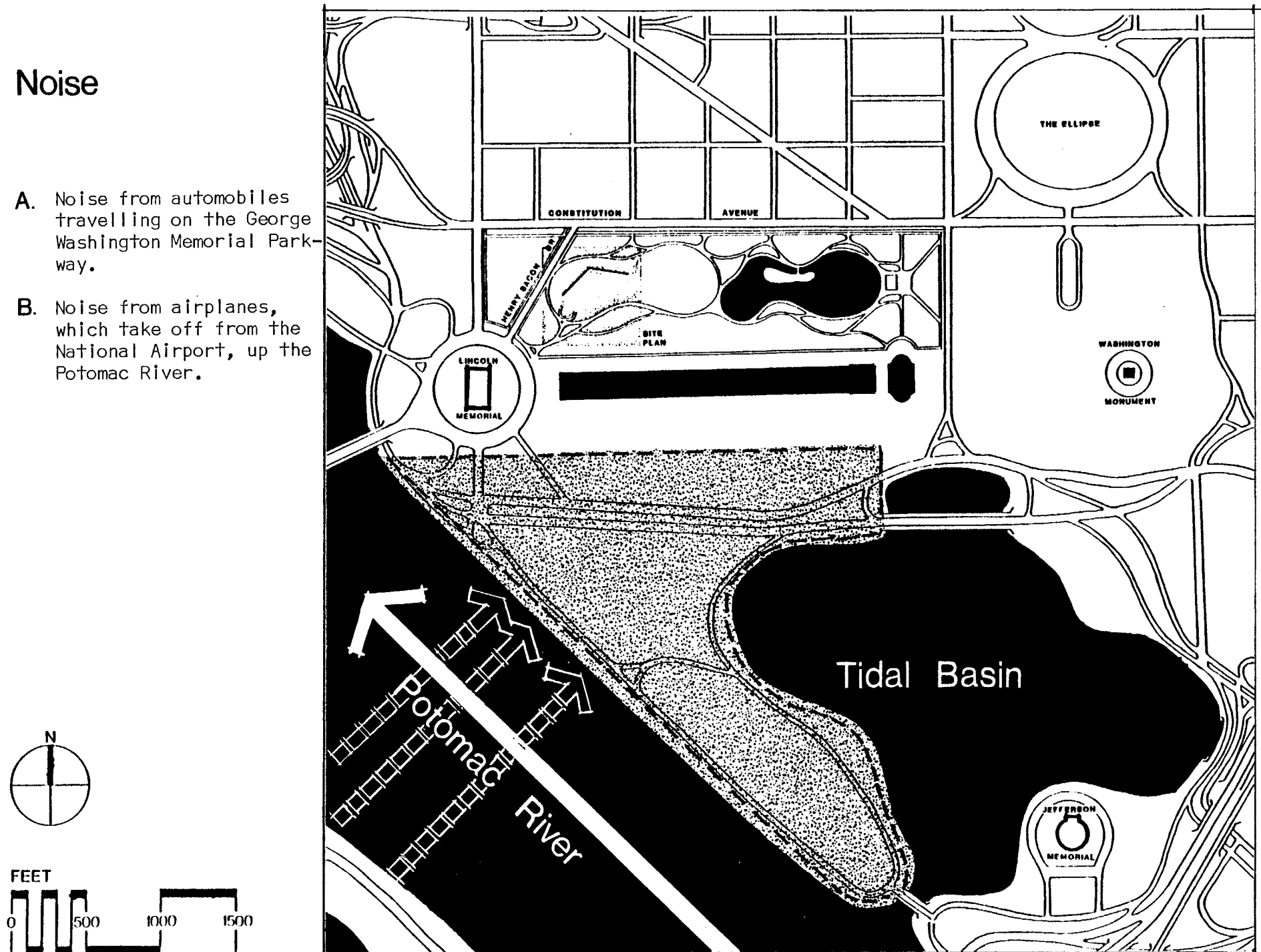


Walking  
Radius  
(15 minute mile)



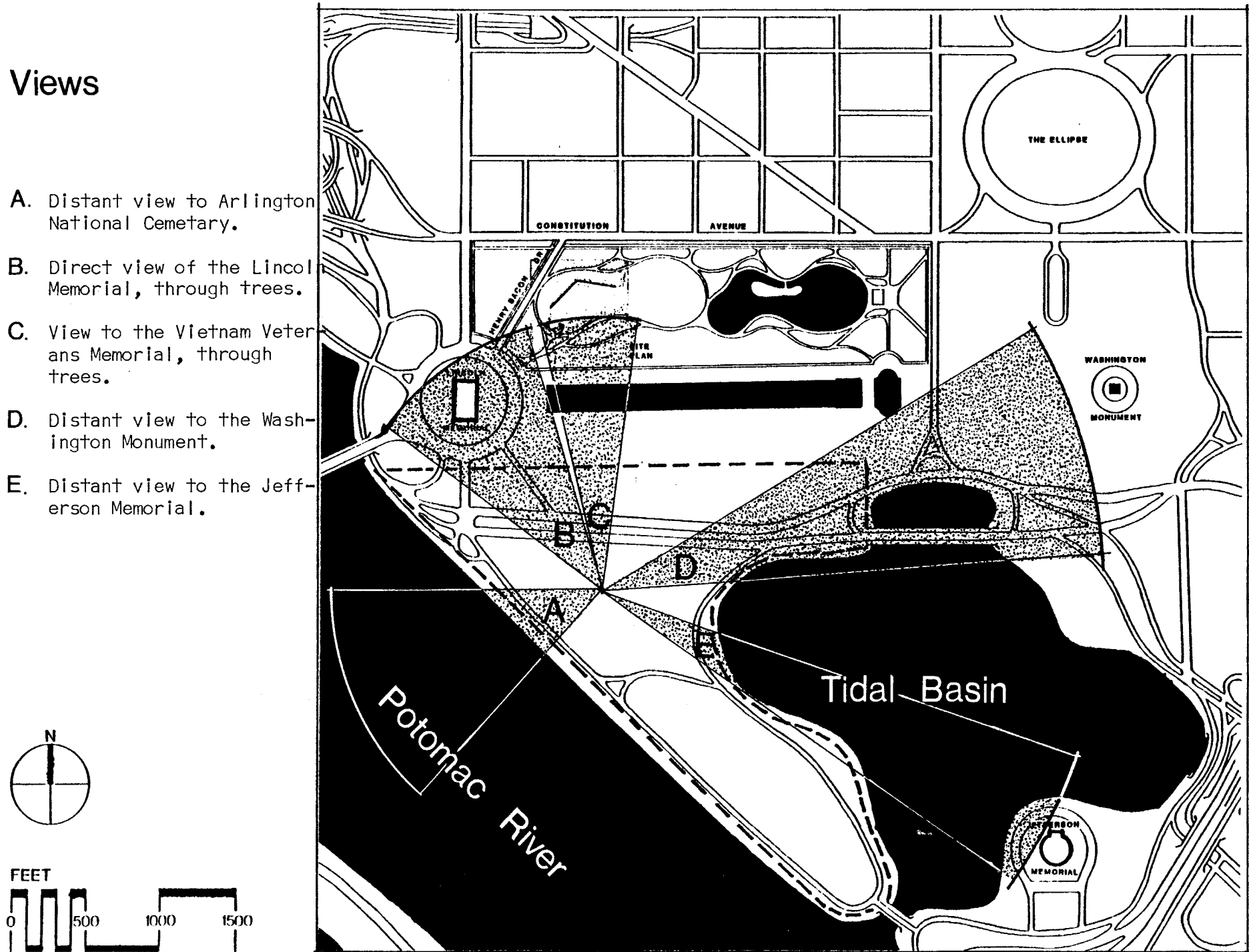
## Noise

- A. Noise from automobiles travelling on the George Washington Memorial Parkway.
- B. Noise from airplanes, which take off from the National Airport, up the Potomac River.

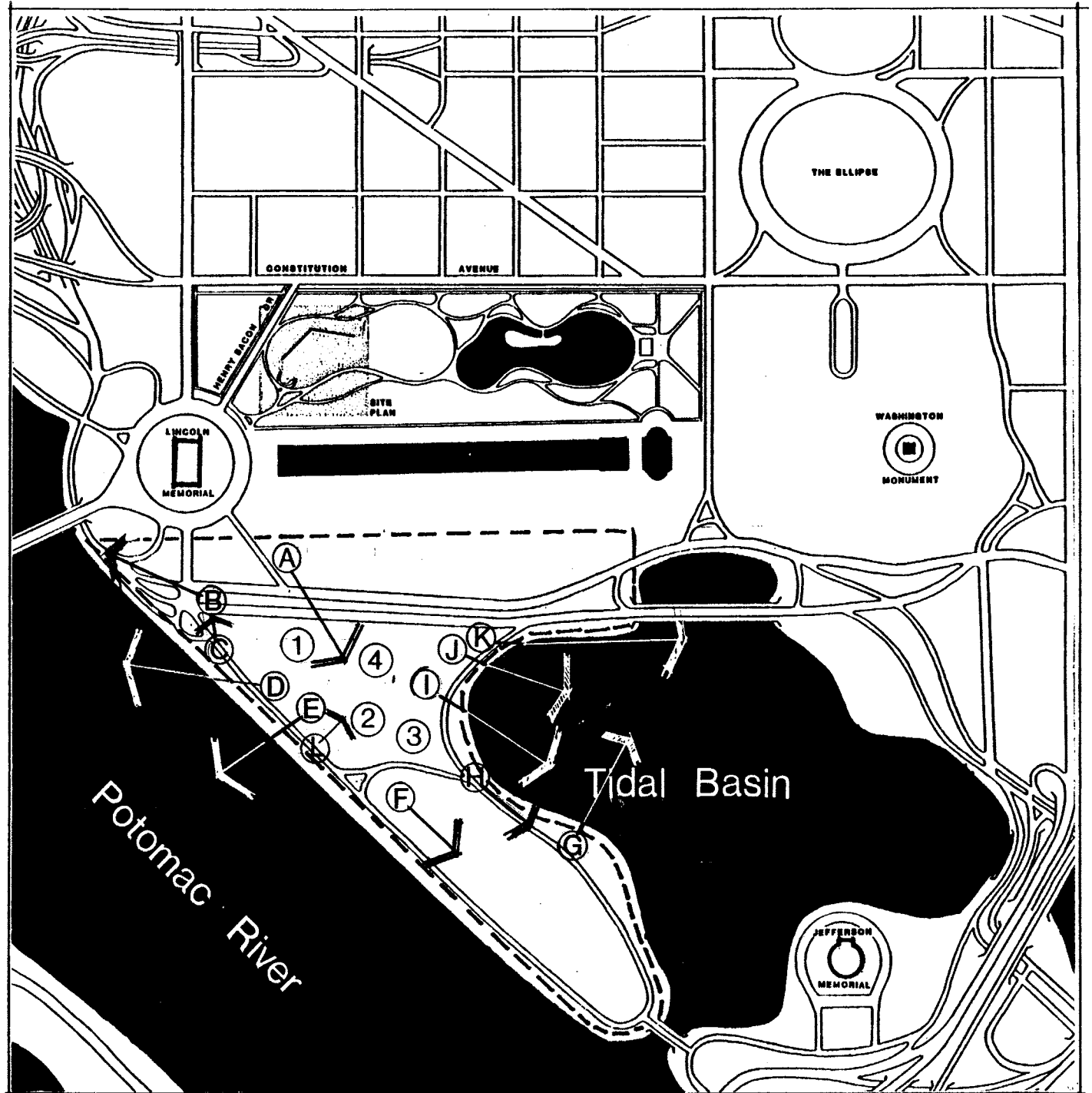


## Views

- A. Distant view to Arlington National Cemetery.
- B. Direct view of the Lincoln Memorial, through trees.
- C. View to the Vietnam Veterans Memorial, through trees.
- D. Distant view to the Washington Monument.
- E. Distant view to the Jefferson Memorial.



# Photographic Survey



A COLLECTION MUSEUM AND RESOURCE CENTER FOR THE VIETNAM VETERANS WASHINGTON, D.C.

## Photographic Survey

- A. View from the edge of the site, near the Lincoln Memorial to the central site area.



- B. View from Independence drive, near the Lincoln Memorial, across the Potomac River to Virginia.



## Photographic Survey

- C. View from the coner of Ohio Drive and Inependence Avenue, towards the Lincoln Memorial.



- D. View across the River to George Washington Memorial Parkway. Notice Arlington Cemetary in very distant background.



## Photographic Survey

- E. Walk along Ohio Drive.  
Notice the George Mason  
Memorial Bridge in the  
background, across the  
River.

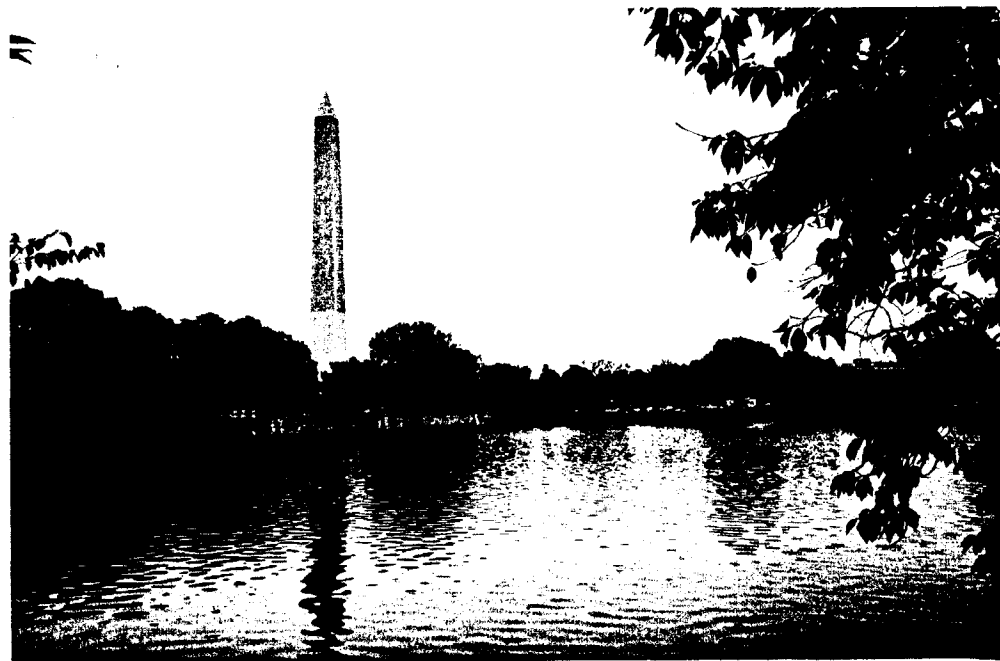


- F. View across the River,  
to George Memorial  
Parkway.



## Photographic Survey

- G. View within the Tidal Basin area, toward the Washington Monument.



- H. Walk along the Tidal Basin.





## Photographic Survey

- I. View across the Tidal Basin to East Potomac Park, notice the Jefferson Memorial.



- J. View across the Tidal Basin from the site, notice the spires of the Smithsonian Castle.



## Photographic Survey

- K. View across the Tidal Basin, from the site.



- L. View from the interior portion of the site showing the vast opening of the interior site.



# Climate Data

## Climatic Summary

Washington lies at the western edge of the middle Atlantic coastal plain, about 50 miles east of the Blue Ridge Mountains and 35 miles west of the Chesapeake Bay at the junction of the Potomac and Anacostia Rivers. Elevations range from a few feet above sea level to about 400 feet in parts of the northwest section of the city.

Summers are warm and winters mild; generally pleasant weather prevails in the spring and autumn. The coldest weather occurs in late January and early February. The warmest occurs in late July. There are no well pronounced wet and dry seasons. Thunderstorms, during the summer months, often bring sudden and heavy showers and may be attended by damaging winds, hail, and lightning.

Tropical disturbances occasionally, during their northward passage, influence Washington's weather mainly with high winds and heavy rainfall, but extensive damage from wind and tidal flooding is very rare.

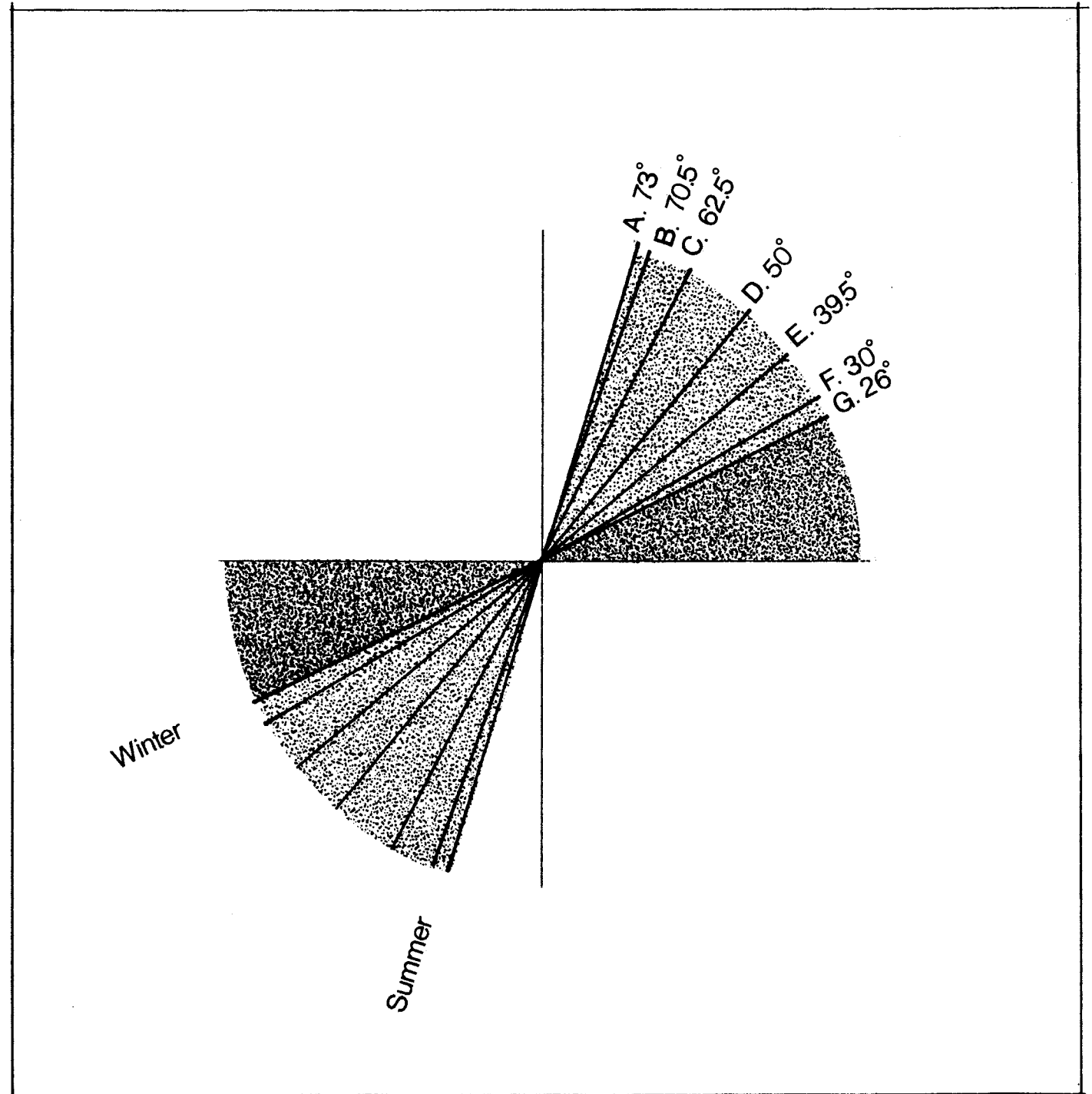
Snow accumulations of more than 10 inches are relatively rare. Usually the melt-off is rapid, but snow depths of 3 or more inches make driving hazardous, and slows or halts traffic. Schools may be closed and community activities may be temporarily disorganized, but usually conditions improve within a day or two. The first significant snow accumulation of a season is often the most disruptive. The greatest recorded snowfall from a single storm was 28 inches.

Records of the past 20 years show the average date of the last freezing temperature in the spring to be March 29 and the latest April 16. The average date of the first freezing temperature in the fall is November 10 and the earliest October 20.

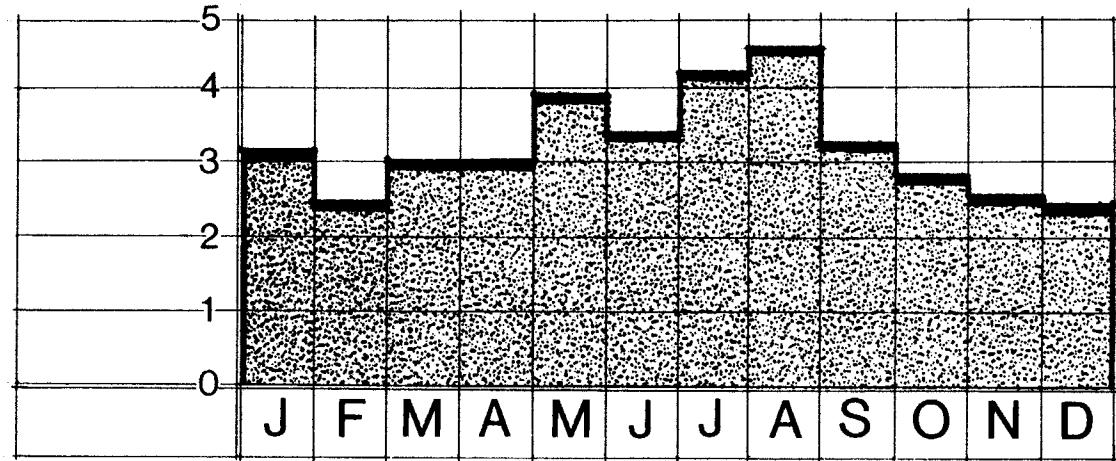
# Altitude Sun Angles

(Latitude  $40^\circ$ )

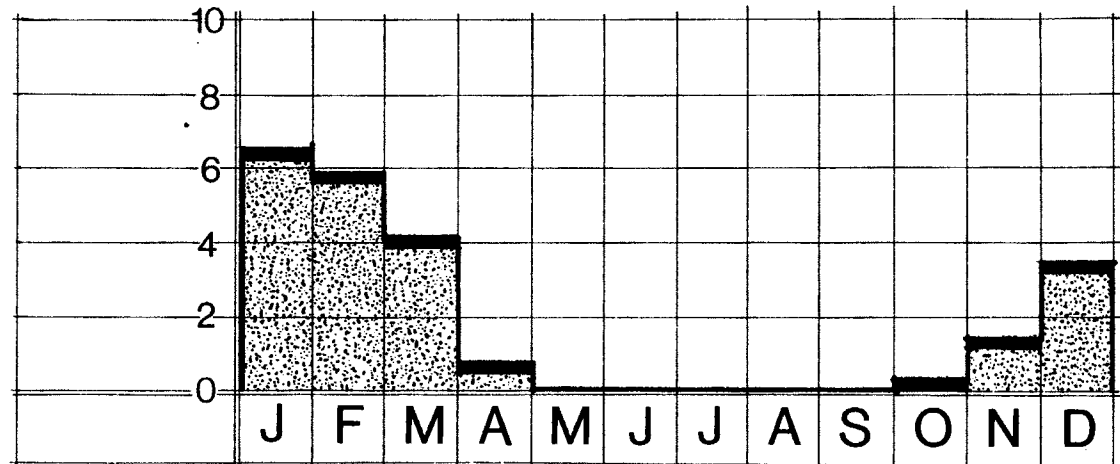
- A. June
- B. July/ May
- C. August/ April
- D. September/ March
- E. October/ February
- F. November/ January
- G. December



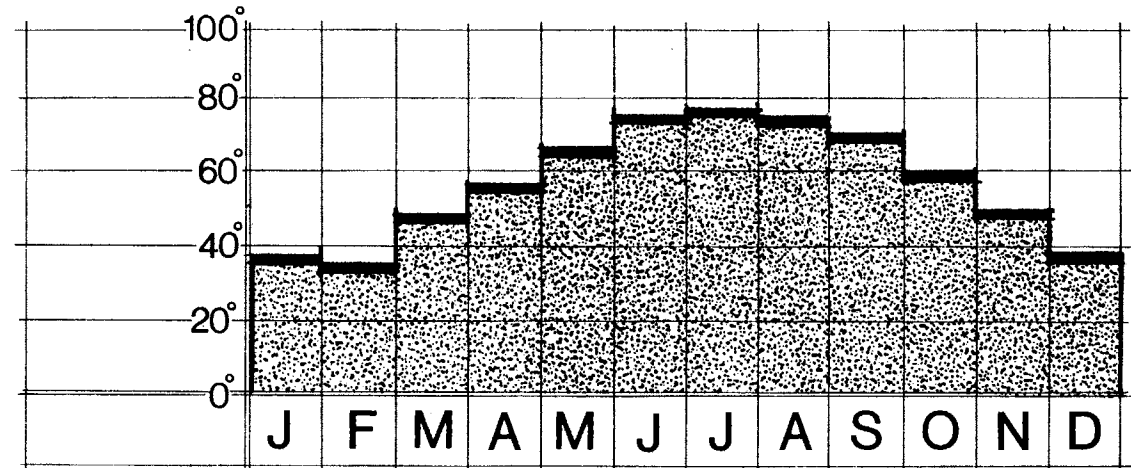
Annual  
Precipitation  
(inches)



Annual  
Snowfall  
(inches)



Annual  
Temperature  
Averages  
(F°)



## Soils Summary

Geographically the site is located just below the fall line of the Potomac River. Originally, it was within the river bed, near the shore. Tiber Creek emptied into the Potomac about 3000 feet to the north. The Chesapeake and Ohio Canal passed near the site. By 1884 the site had been largely reclaimed but undeveloped; by 1914 it had been filled.

Soil borings reveal seven layers of strata, the bottom being a moderately to highly fractured rock. The Lincoln and Jefferson Memorials rest on this rock, the loads transferred via concrete pilings. The rock is from 45 to 55 feet below ground surface.

The six strata above the rock strata are a mixture of organic matter, silt, sand, gravel, and disintegrated rock. Ground water may be encountered depending on ground surface elevation. The nature of the soil may also cause verticle movement unless it is carefully stabilized, since ground water ground water levels fluctuate and since soils compact under load.



# NEEDS



# NEEDS

# The Complex

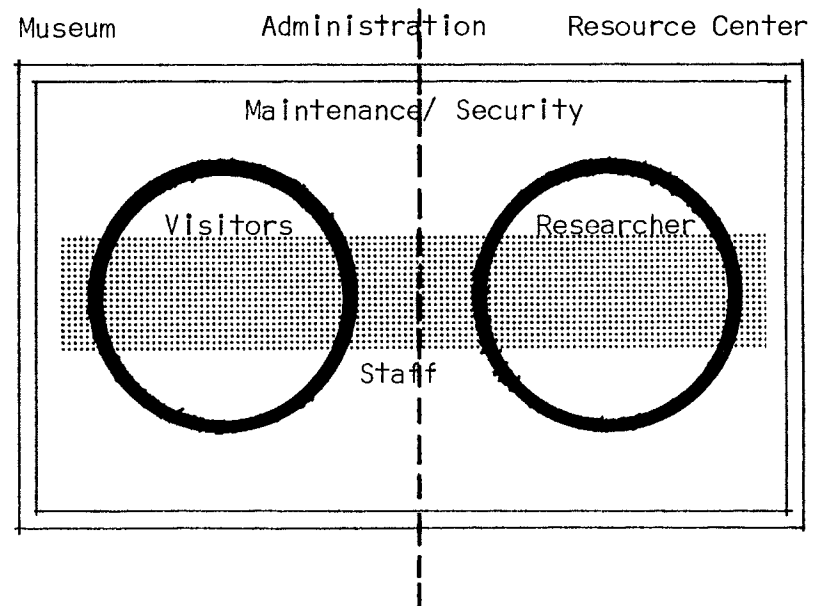
# Users

The users of the Complex can be divided into four categories:

VISITORS  
 RESEARCHERS/ HISTORIANS  
 STAFF  
 SECURITY/ MAINTENANCE

Each user comes to the Complex for various reasons and therefore each have different perspectives and perceptions of the Complex.

## USER DIAGRAM



# Users

(cont.)

## STAFF (administrative and professional)

1	Director
1	Assistant Director
1	Administrative Officer
2-3	Clerk/ Secretary
1	Supervisory Archivist (written material)
1	Supervisory Archivist (audio visual)
6-7	Archivist
6-7	Archivist Technitions
1	Librarian
1	Xerox Operator
1	Museum Curator
1	Museum Registrar
2	Museum Exhibit Specialist
1	Photographer
2	Photographer Aids
1	Handyman/ Messenger
1	Public Relations Maneger

## MAINTENANCE/ SECURITY

1	Building Superintendant
1	Mechanical Specialist
12	Gaurds
4	Janitors/ Gardeners

Functional  
Zones  
Within  
The  
Complex

FUNCTIONAL ZONE A ( The Museum )  
Square Footage 45300

FUNCTIONAL ZONE B ( The Resource Center )  
Square Footage 32600

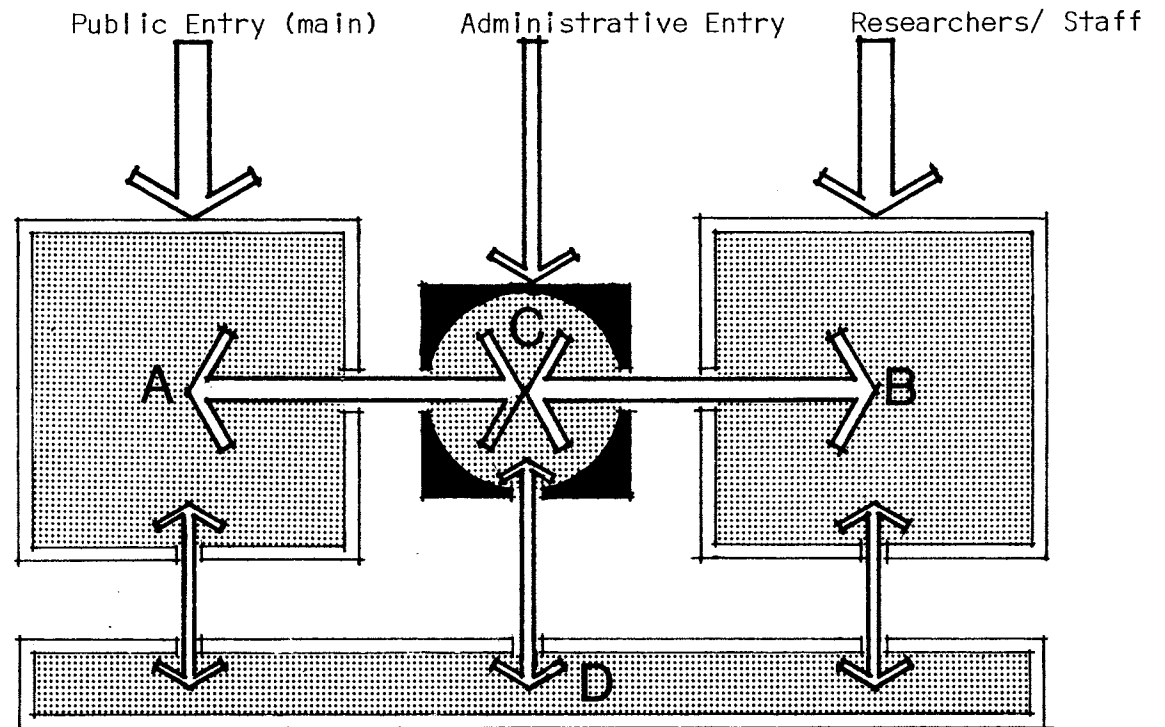
FUNCTIONAL ZONE C ( The Administration )  
Square Footage 3025

FUNCTIONAL ZONE D ( The Support )  
Square Footage 3000

Total Square Footage 83925

# Functional Zones Relationship Diagram

- A. Museum
- B. Resource Center
- C. Administration
- D. Support



The  
Museum  
(functional zone A )



## Performance Goals

Exhibit spaces should all be directly related to the lobby and shall act as a dispersal area for the people throughout the Museum.

Exhibit areas should have a variety of viewing spaces, with spaces for permanent and rotating exhibits.

There should be a clear separation between the public spaces and private functions of the staff.

Circulation through the exhibit spaces should be along a defined path with viewing spaces off the path.

Objects received and transferred from the receiving room to the production shop, work room, exhibit studio, and museum storage should be direct and avoid cross traffic with staff when possible.

Since the museum storage area contains articles which cannot be replaced, the security in this area should be of utmost importance.

## User Roles

The Users of the Museum include:

VISITORS  
STAFF  
SECURITY/ MAINTENANCE

### VISITORS

The visitors are individuals or groups who come to the Museum for personal enlightenment. This group consist of people varing from veterans and widows, for personal reasons, to the general public who wish to gain general knowledge about the Vietnam Veterans and the Vietnam War.

This group will be partially composed of people who have just visited the Vietnam Veterans Memorial and therefore have an emotional feeling before they enter the Museum. This is a very strong sense that should be responded to within the Museum.

The visitors should have a clear visual link to the Museum from the Vietnam Veterans Memorial.

### STAFF

The Staff includes all the workers in the museum with the exception of the maintenance and security. This group is primarily in charge of the museum's day to day operations.

## User Roles (cont.)

### STAFF (cont.)

The professional staff includes:

#### Museum Curator

The curator arranges displays, plans and designs museum exhibits, selects individual items to be displayed in the museum, prepares signs and labels, also does the necessary research that is required for exhibit activities.

#### Museum Registrar

The registrar is responsible for accessioning, cataloging and preserving of museum objects.  
(three dimensional objects)

#### Photographer

The photographer and his staff do every kind of photographic and reproduction work, including taking pictures of visitors and special events and reproducing photos and negatives.

#### Exhibit Specialist

Works with the curator and/ or the registrar to design exhibits and displays. Also does historic background on exhibits.

### SECURITY/ MAINTENANCE

This group is responsible for the security and up keep of the building and building grounds.

## User Roles (cont.)

### SECURITY/ MAINTENANCE (cont.)

#### Gaurds

Are responsible for the security of the building and its contents from robbery, vandalism, and fire.

#### Building Superintendent

Is responsible for the repair and up keep and the general appearance of the building. And keeping all mechanical equipment in good working order, including heating and air conditioning. Also supervises the janitorial service, and is responsible for good performance on all painting, cleaning, plumbing etc. of the building.

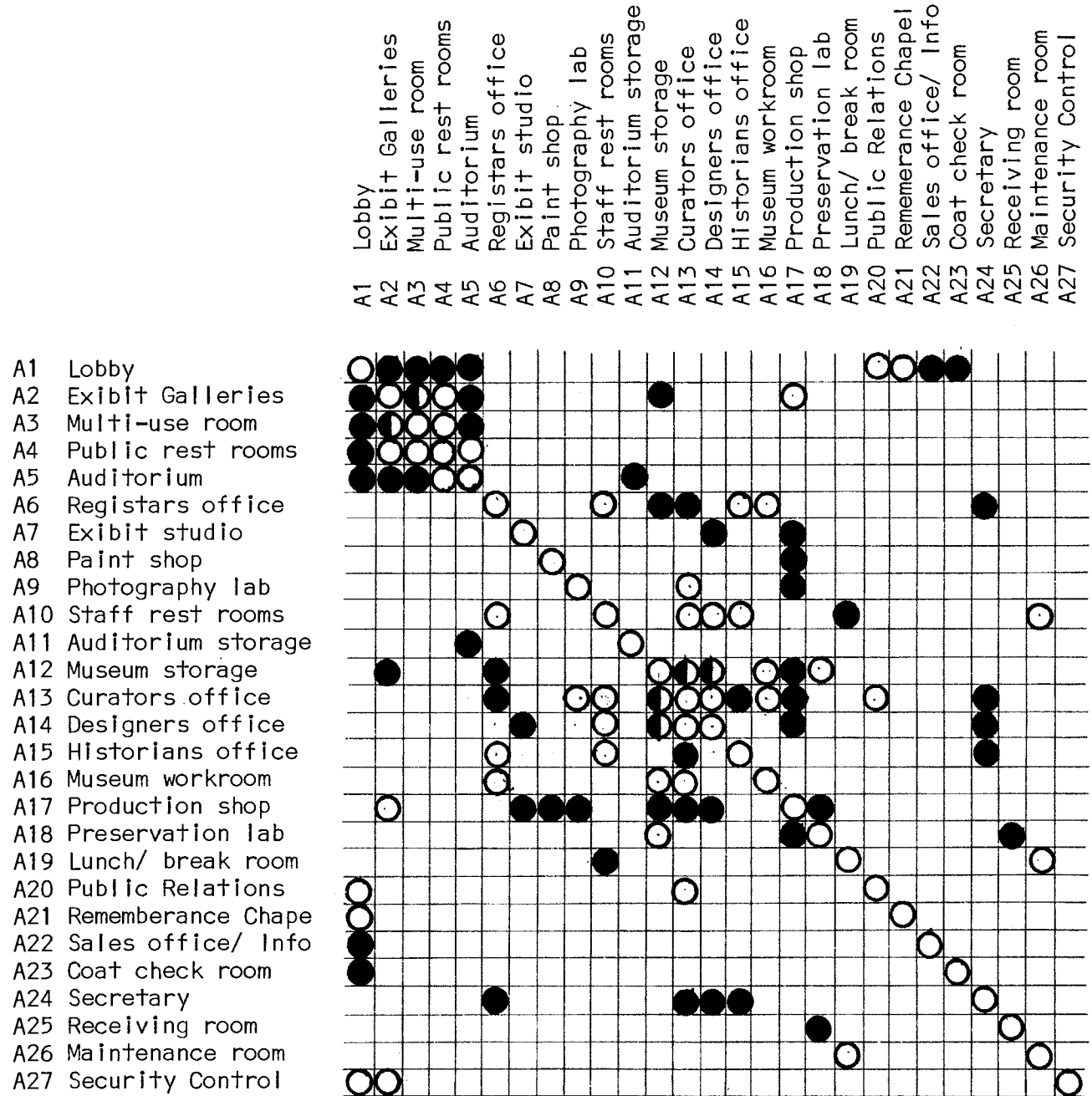
#### Janitors/ Gardeners

Janitors will do general cleaning of the Museum ,but are not allowed into storage areas except on occasional cleaning periods.  
The gardeners and general grounds keepers will be from the National Park Service.

## Required Spaces

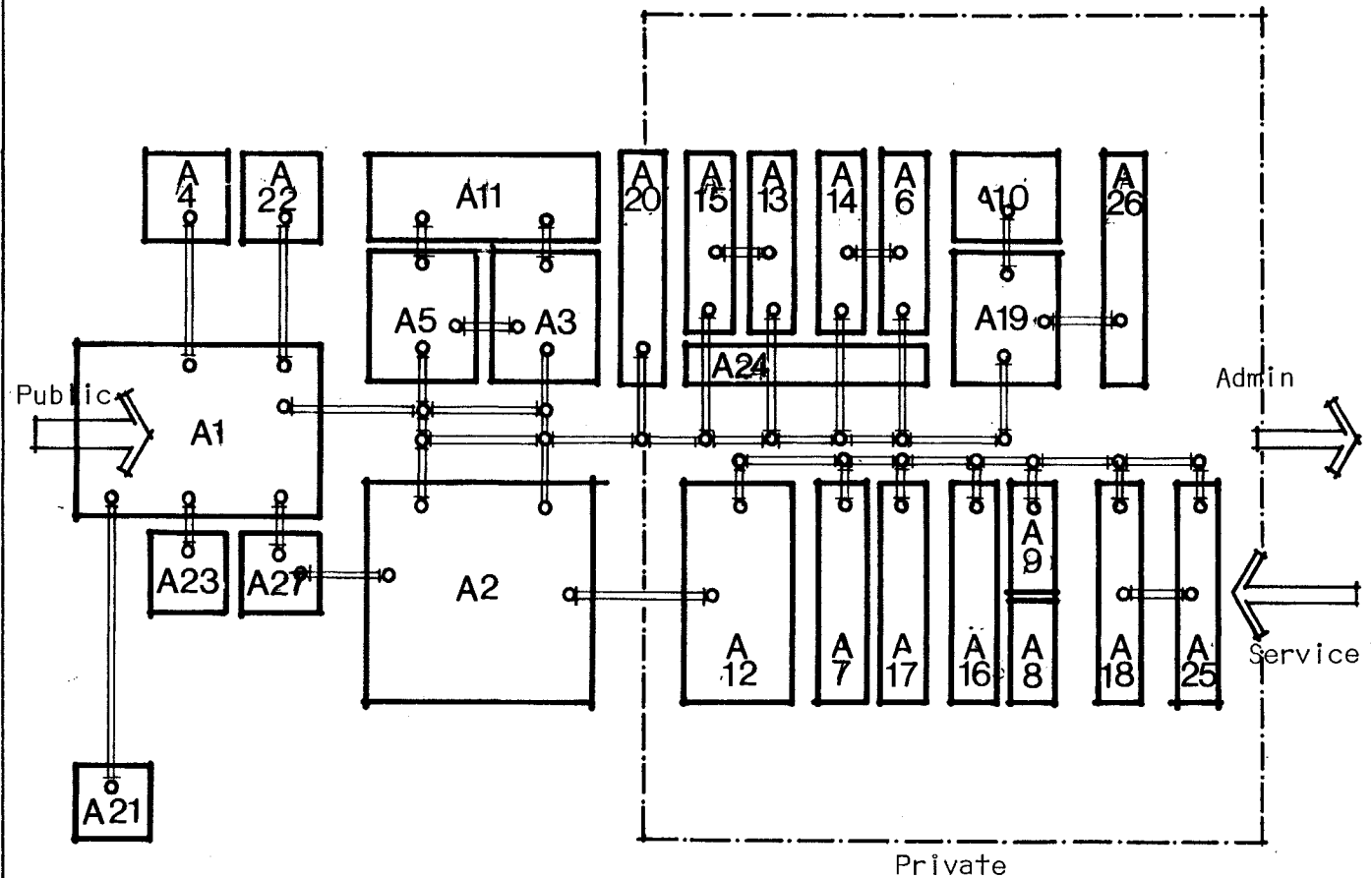
A1	Lobby	2000
A2	Exhibit Galleries	25000
A3	Multi-use Room	3000
A4	Public rest rooms	@ code
A5	Auditorium	3500
A6	Registrars Office	300
A7	Exhibit Studio	400
A8	Paint Shop	400
A9	Photograpy Lab	800
A10	Staff rest rooms	@ code
A11	Auditorium Storage	200
A12	Museum Storage	4000
A13	Curators Office	500
A14	Designers Office	300
A15	Historians Office	250
A16	Museum Workroom	500
A17	Production Shop	1000
A18	Preservation Lab	300
A19	Lunch/ Break room	600
A20	Public Relations Office	250
A21	Rememberance Chapel	varies
A22	Sales Office/ Information	450
A23	Coat check room	300
A24	Secretary	250
A25	Receiving room	600
A26	Maintenance room	200
A27	Security Control room	200
	Total Square Footage	45300

# Space Relationship Matrix



# Space Relationship Diagram

- A1 Lobby
- A2 Exhibit Galleries
- A3 Multi-use Room
- A4 Public rest rooms
- A5 Auditorium
- A6 Registrars Office
- A7 Exhibit Studio
- A8 Paint Shop
- A9 Photography Lab
- A10 Staff rest rooms
- A11 Auditorium Storage
- A12 Museum Storage
- A13 Curators Office
- A14 Designers Office
- A15 Historians Office
- A16 Museum Workroom
- A17 Production Shop
- A18 Preservation Lab
- A19 Lunch/ Break room
- A20 Public Relations Office
- A21 Remembrance Chapel
- A22 Sales Office/ Information
- A23 Coat check room
- A24 Secretary
- A25 Receiving room
- A26 Maintenance room
- A27 Security Control room



# A1 Lobby

**Users:** Visitors (general public)  
(2000 to 3000 per day)

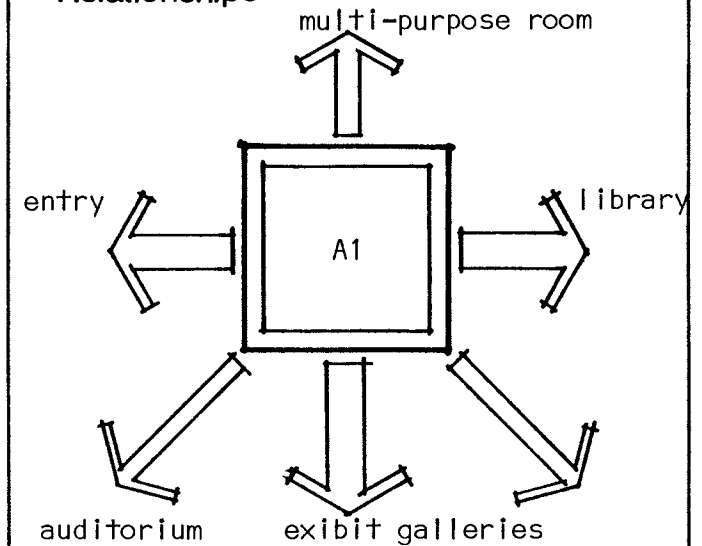
**Function/Activities:**

- to serve as a transitional area between the various segments of the building
- to serve as an information area and security check

**Special Considerations:**

- should have a smooth flow to and from the information desk, exhibit galleries, auditorium, and rest rooms
- should be close to the vertical circulation

**Relationships:**



**Area:** undetermined at this time (would be of grand scale)  
+2000 sf

**Height:** varies

**Finishes:**

- **Image:** strong, monumental
- **Floor:** hard- tile or stone
- **Ceiling:** acoustical- plaster
- **Walls:** soft and hard

**Systems**

- **HVAC:** multi zone- low vel
- **Lighting:** day light / indirect
- **Plumbing:** none

**Furniture/Equipment:** information desk



## A2 Exhibit Galleries

**Users:** Visitors (general public)  
(2000 to 3000 per day)

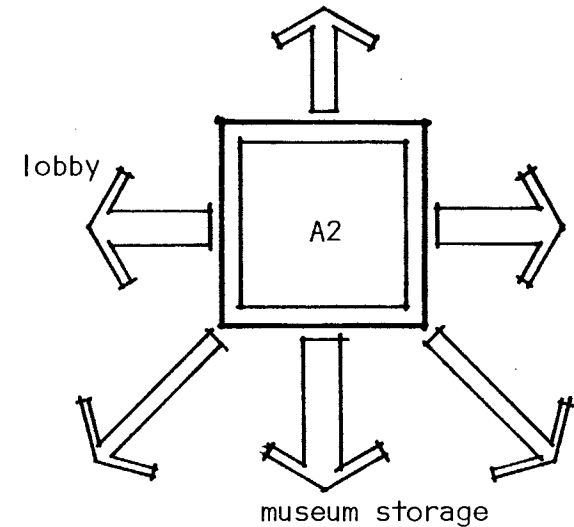
**Function/Activities:**

-viewing areas, spaces for various article and objects relating to the Vietnam Veterans

**Special Considerations:**

-must have a variety of spaces and be flexible for the changing of exhibits  
-should be partially broken up into smaller areas.  
-should allow for expansion

**Relationships:**



**Area:** undetermined at this time. will have a variety of spaces  
+25000 sf

**Height:** will break down from grand to intimate

**Finishes:**

- **Image:** peaceful and quiet
- **Floor:** soft- carpet  
hard - hard wood
- **Ceiling:** acoustically controlled
- **Walls:** (varies)

**Systems**

- **HVAC:** multi zone, low-vel
- **Lighting:** artificial light, track and display lights
- **Plumbing:** none

**Furniture/Equipment:** custom exhibit displays

## A3 Multi-use Room

**Users:** Visitors (100 persons)  
Staff

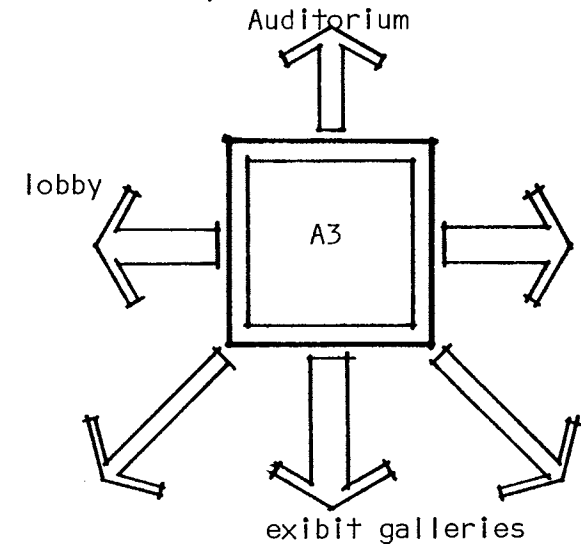
**Function/Activities:**

-this space used for meetings, conferences, seminars, and classes

**Special Considerations:**

-should have a small stage and projection booth

**Relationships:**



**Area:** 3000 sf

**Height:** 12 f

**Finishes:**

- **Image:** formal
- **Floor:** hard- carpet
- **Ceiling:** acoustically controlled
- **Walls:** acoustically controlled

**Systems**

- **HVAC:** multi zone, low-vel
- **Lighting:** minimum daylight, special dimmers, ambient
- **Plumbing:** none

**Furniture/Equipment:** should have an area for audio visual equipment

## A4 Public Rest rooms

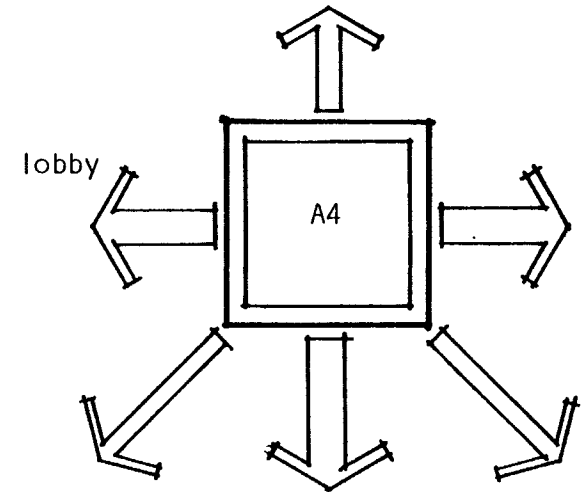
**Users:** Visitors

**Function/Activities:**

**Special Considerations:**

-it is recommended that these facilities be broken into two sets of rest rooms

**Relationships:**



**Area:** as required by code

**Height:** 8 f

**Finishes:**

- **Image:** clean
- **Floor:** hard- tile
- **Ceiling:** acoustical tile
- **Walls:** hard- tile

**Systems**

- **HVAC:** multi zone, low-vel
- **Lighting:** down light
- **Plumbing:** as required by code

**Furniture/Equipment:**

## A5 Auditorium

**Users:** Visitors (300 persons)

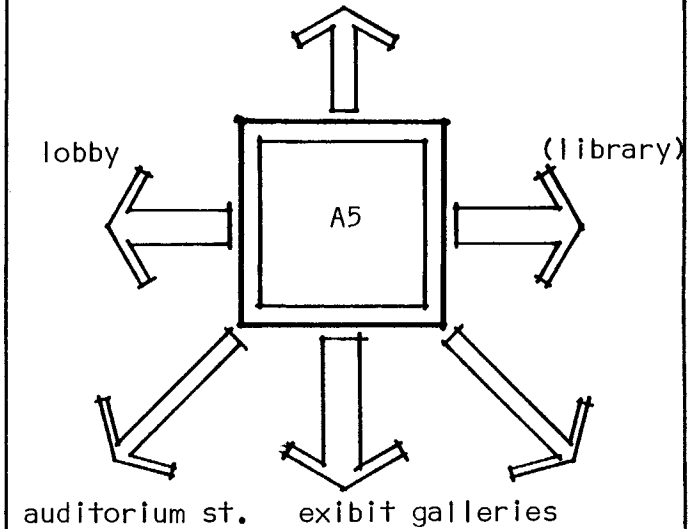
**Function/Activities:**

-this space is used for lectures, and to film clips as an active part of the museum

**Special Considerations:**

- should be able to handle a moving audience, as well as a start to finish audience  
 -sloped floor for seating  
 -seating for handicapped

**Relationships:** multi-use room



**Area:** 3500 sf

**Height:** arbitrary

**Finishes:**

- **Image:** educational
- **Floor:** soft- carpet
- **Ceiling:** acoustically controlled
- **Walls:** acoustically controlled

**Systems**

- **HVAC:** multi zone, low-vel
- **Lighting:** artificial light only or highly controlled daylight
- **Plumbing:** none

**Furniture/Equipment:** provide for front and rear screen projection capacity for (slides, movies, tv, etc.)

## A6 Registrars Office

**Users:** Staff (2) + room for 4 others

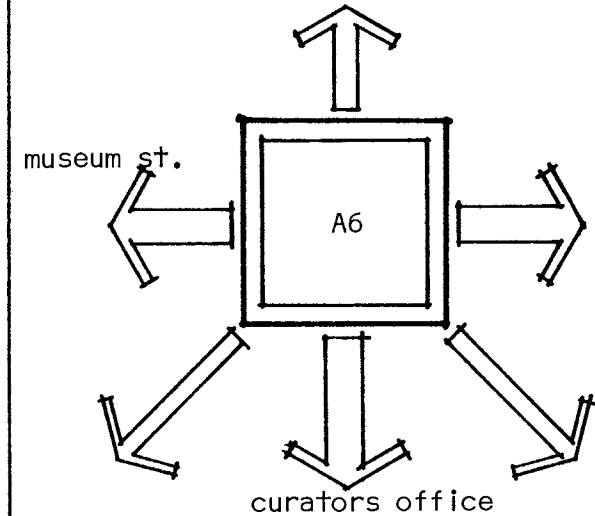
**Function/Activities:**

-responsible for the preservation and accountability of graphics, textiles, and three dimensional objects of the whole complex

**Special Considerations:**

-this office is an image setter for visitors to the registrar  
-should be of high importance within the staff area

**Relationships:**



**Area:** 300 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** authority
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** hard- vinyl

**Systems**

- **HVAC:** multi zone, low-vel
- **Lighting:** daylight, ambient, task
- **Plumbing:** none

**Furniture/Equipment:** furniture for 2 offices

## A7 Exhibit Studio

**Users:** Staff (1-2)

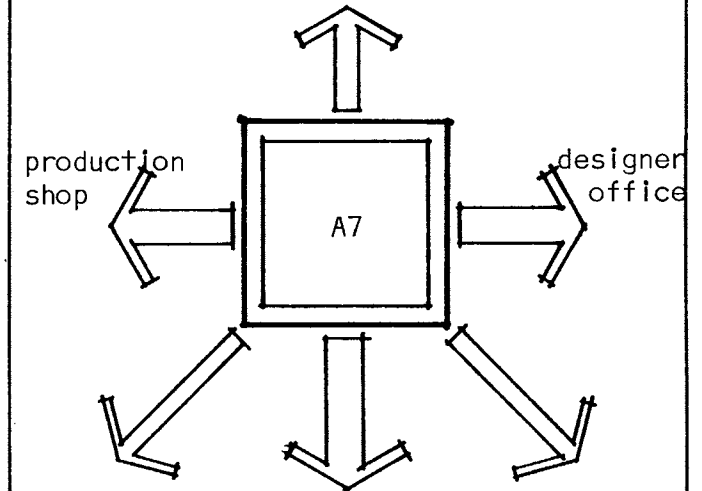
**Function/Activities:**

-this space is used for mock-up exhibits and final production of the displays

**Special Considerations:**

-this space should have high security for exhibits left overnight

**Relationships:**



**Area:** 400 sf

**Height:** 10-12 f

**Finishes:**

- **Image:** varies for each set
- **Floor:** hard- tile  
soft- carpet
- **Ceiling:** exposed
- **Walls:** hard- vinyl

**Systems**

- **HVAC:** multi zone, low-vel
- **Lighting:** track, ambient
- **Plumbing:** none

**Furniture/Equipment:** stage for viewing displays

# A8 Paint Shop

**Users:** Staff (1-2)

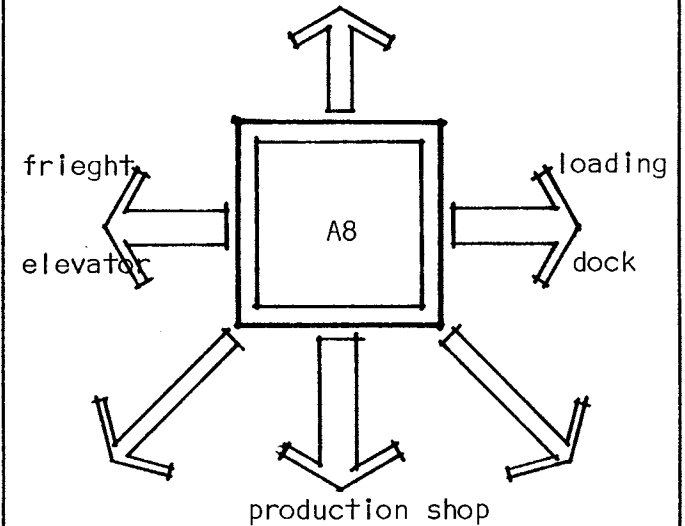
**Function/Activities:**

-this space for all brush, spray and roller painting of exhibit cases and pedestals

**Special Considerations:**

-should have an exterior exhaust system  
-also provide for special fire protection

**Relationships:**



**Area:** 400 sf

**Height:** 12 f

**Finishes:**

- **Image:** none
- **Floor:** hard- tile or concrete
- **Ceiling:** hard- vinyl
- **Walls:** hard- vinyl

**Systems**

- **HVAC:** independent system
- **Lighting:** ambient
- **Plumbing:** slop sink

**Furniture/Equipment:** paint booth (8x8x10)

## A9 Photography Lab

**Users:** Staff (1-2)

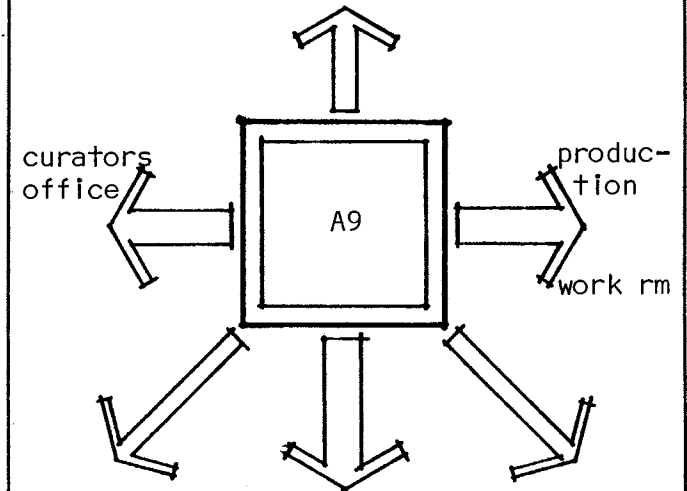
**Function/Activities:**

-this area used for photo copying service to the museum exhibit production program as well as for the copying needs of the staff

**Special Considerations:**

-noise control in this area should be considered

**Relationships:**



**Area:** 800 sf

**Height:** 8 f

**Finishes:**

- **Image:** none
- **Floor:**
- **Ceiling:** acoustically controlled
- **Walls:** acoustically controlled

**Systems**

- **HVAC:** multi zone low-vel
- **Lighting:** ambient, NO daylight
- **Plumbing:** none

**Furniture/Equipment:** general table space as well as space for PMT, xerox, slide copier, ect.



**A10  
Staff  
Rest rooms**

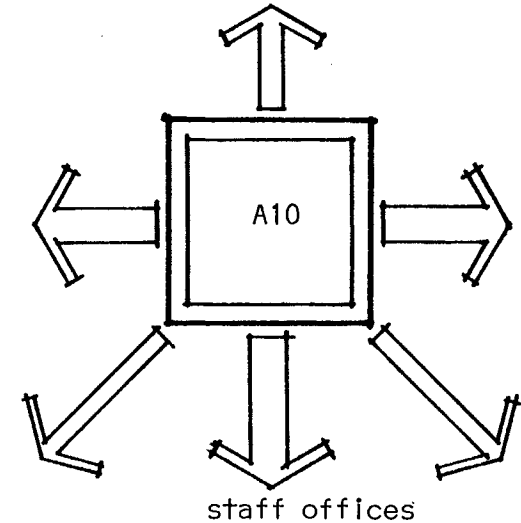
**Users:** Staff

**Function/Activities:**

**Special Considerations:**

- should have a direct relationship to lunch/ break area
- requirements for the handicapped

**Relationships:** lunch/ break area



**Area:** as required by code

**Height:** 8 f

**Finishes:**

- **Image:** clean
- **Floor:** hard- tile
- **Ceiling:** acoustical tile
- **Walls:** hard- tile

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient
- **Plumbing:** as required by code

**Furniture/Equipment:**

## A11 Auditorium Storage

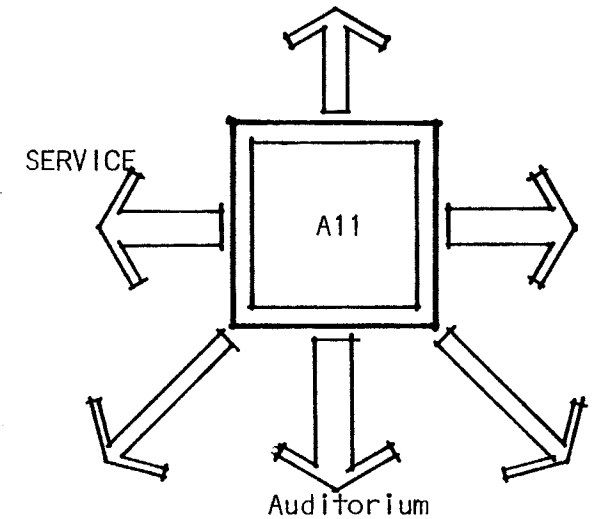
**Users:** Staff

**Function/Activities:**

provides storage for tables,  
chairs that are not in use

**Special Considerations:**

**Relationships:**



**Area:** 200 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** none
- **Floor:** hard- tile
- **Ceiling:** acoustical tile
- **Walls:** hard- tile

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient
- **Plumbing:** none

**Furniture/Equipment:** shelves and racks for chair and table storage

## A12 Museum Storage

**Users:** Staff (will not work here but will retrieve objects to be displayed)

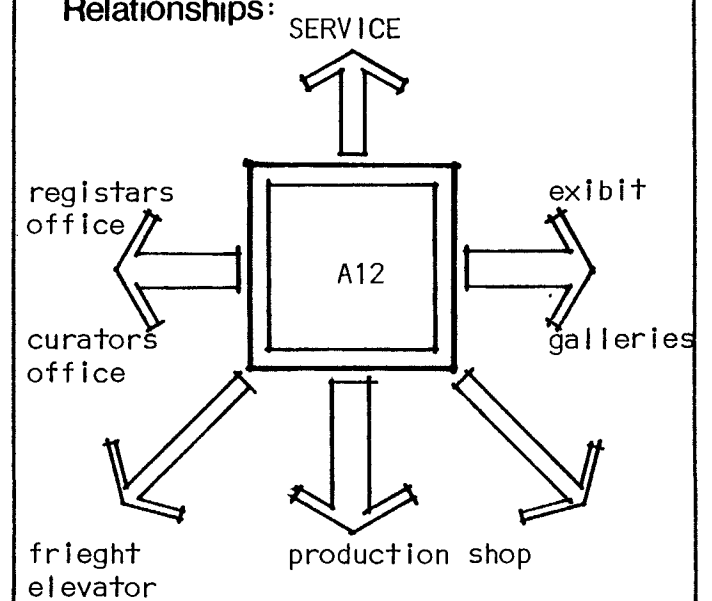
**Function/Activities:**

-provides storage for inactive displays and holdings

**Special Considerations:**

-temperature and humidity control is very important in this area  
-should have high security for this area

**Relationships:**



**Area:** 4000 sf

**Height:** 10-15 f

**Finishes:**

- **Image:** security
- **Floor:** hard- concrete
- **Ceiling:** exposed
- **Walls:** hard- paint

**Systems**

- **HVAC:** Independent system
- **Lighting:** ambient, NO daylight
- **Plumbing:** slop sink

**Furniture/Equipment:** various storage shelves designed for the various objects to be stored

## A13 Curators Office

**Users:** Staff (2 full time + 1)

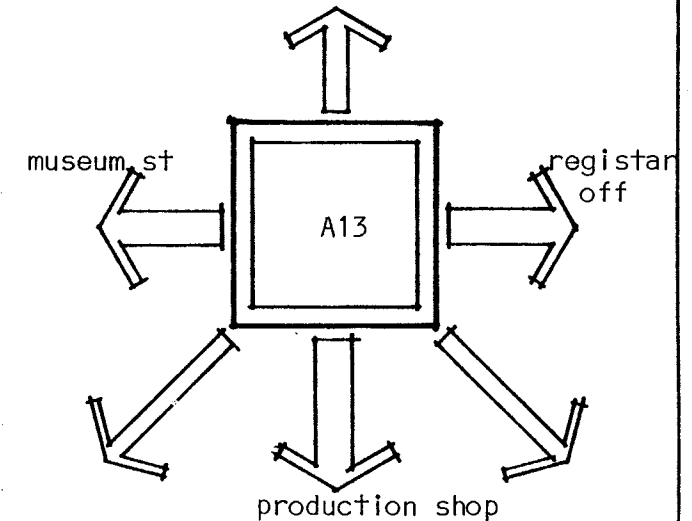
**Function/Activities:**

-for the design, production, installation, and maintenance of the exhibits

**Special Considerations:**

-works closely with the registrar and production staff  
-is basically in charge of the museum functions

**Relationships:**



**Area:** 500 sf

**Height:** 10 f

**Finishes:**

- **Image:** authority
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** hard- paint

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** daylight, ambient, task
- **Plumbing:** none

**Furniture/Equipment:** furnishings for 3 people (file cabinets, work tables, ect)

## A14 Designers Office

**Users:** Staff (1 full time + 1)

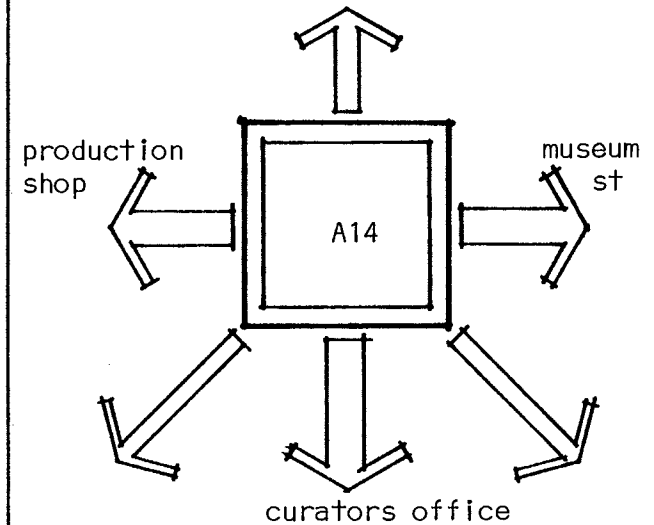
**Function/Activities:**

- design studio for the lay-out of museum exhibits
- presentations to the curator

**Special Considerations:**

- should have sound control from the production shop

**Relationships:**



**Area:** 300 sf

**Height:** 12 f

**Finishes:**

- **Image:** studio
- **Floor:** hard- tile
- **Ceiling:** acoustical tile
- **Walls :** soft acoustical

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** daylight, ambient, task
- **Plumbing:** slop sink

**Furniture/Equipment:** studio design equipment

## A15 Historians Office

**Users:** Staff (1) and 2 guest

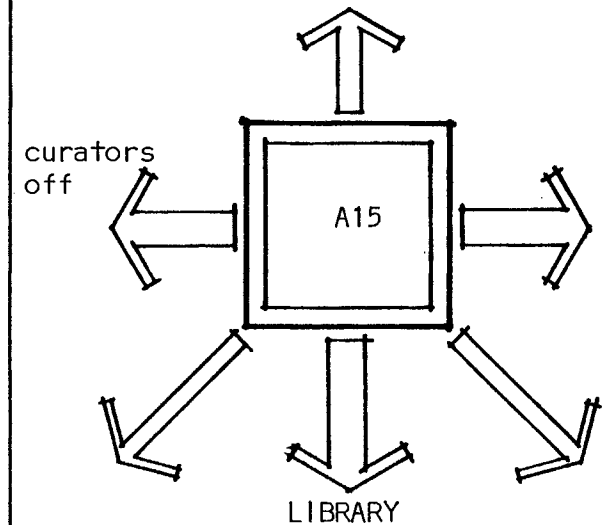
**Function/Activities:**

-this area contains historical information and is the work station for the historical researchers

**Special Considerations:**

-should have some degree of privacy

**Relationships:**



**Area:** 250 sf

**Height:** 8 f

**Finishes:**

- **Image:** private
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** soft- acoustical

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** daylight, ambient, task
- **Plumbing:** none

**Furniture/Equipment:** shelving and furniture for 1 person

## A16 Museum Workroom

**Users:** Staff (4)

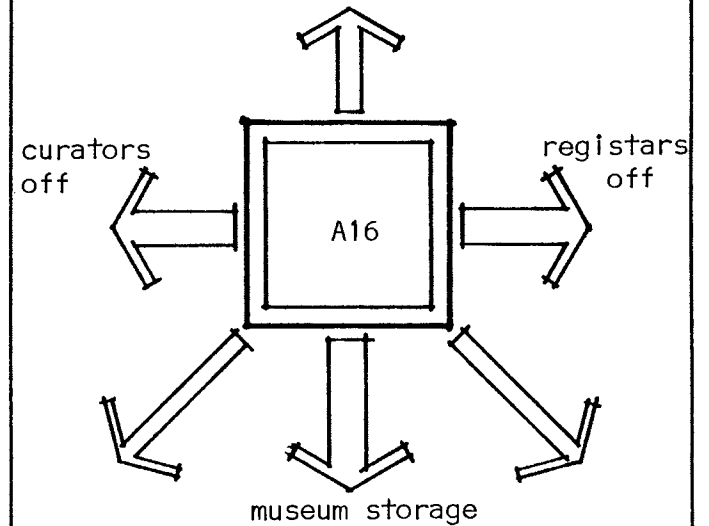
**Function/Activities:**

-work space for framing,  
cleaning, polishing, matting  
and mounting exhibits

**Special Considerations:**

-this area should have sound  
control

**Relationships:**



**Area:** 500 sf

**Height:** 12 f

**Finishes:**

- **Image:** none
- **Floor:** hard- concrete or tile
- **Ceiling:** exposed
- **Walls:** hard- vinyl

**Systems**

- **HVAC:** independent system
- **Lighting:** daylight, ambient
- **Plumbing:** jainitorial area

**Furniture/Equipment:** work tables and shelves

# A17 Production Shop

**Users:** Staff (1-2)

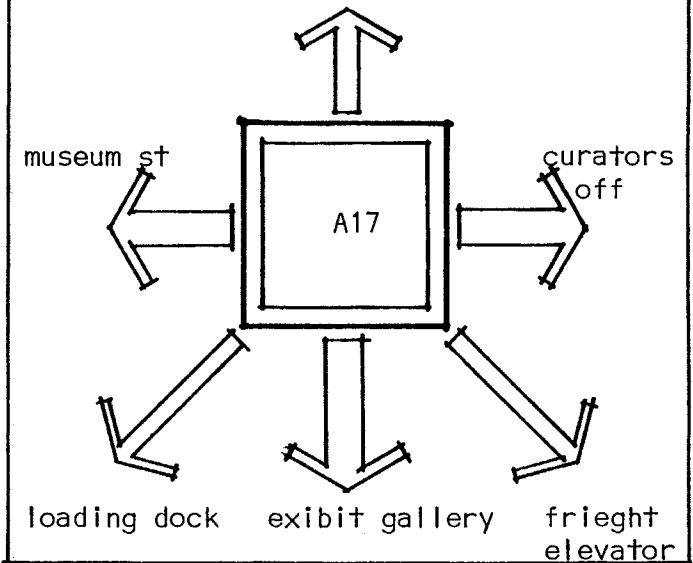
**Function/Activities:**

-construction of all exhibits  
and thier cases

**Special Considerations:**

-should have high sound  
control

**Relationships:**



**Area:** 1000 sf

**Height:** 12 f

**Finishes:**

- **Image:** none
- **Floor:** hard- tile
- **Ceiling:** acoustically controlled
- **Walls:** hard- vinyl

**Systems**

- **HVAC:** independent system
- **Lighting:** ambient
- **Plumbing:** wash facilities and slop sink

**Furniture/Equipment:** shelves and layout for power tools



# A18 Preservation Lab

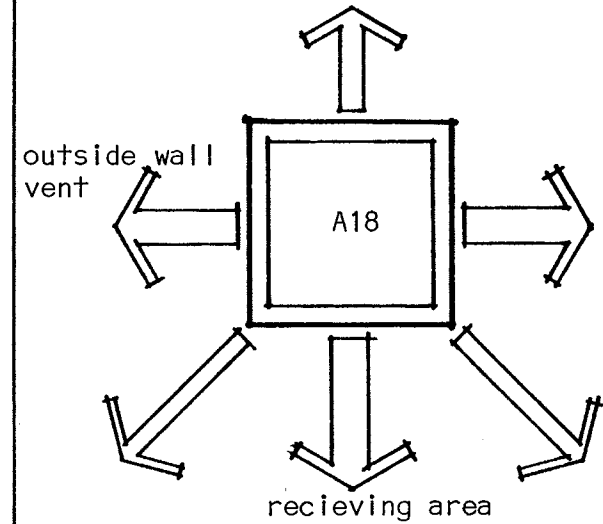
**Users:** Staff (1)

**Function/Activities:**

- space for the fumigation, cleaning, encapsulation, stain rust, dirt removal
- mending of documents

**Special Considerations:**

**Relationships:**



**Area:** 300 sf

**Height:** 8 f

**Finishes:**

- **Image:** none
- **Floor:** hard- tile
- **Ceiling:** exposed
- **Walls:** hard- vinyl

**Systems**

- **HVAC:** independent system
- **Lighting:** ambient
- **Plumbing:** sink area

**Furniture/Equipment:** should have lockable storage cabinets

## A19 Lunch / Break Room

**Users:** Staff (up to 20)

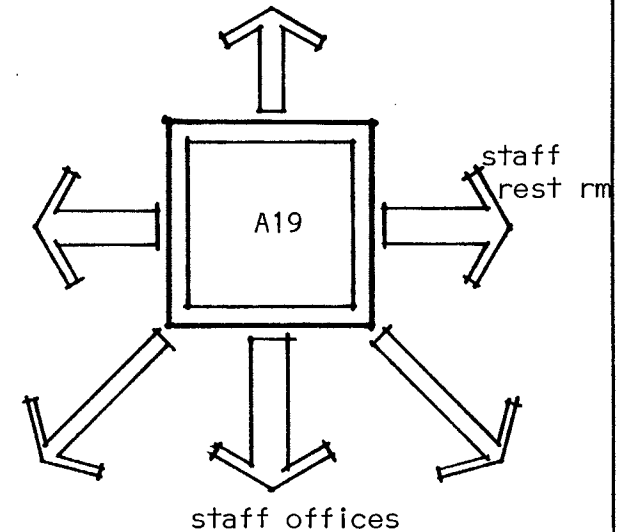
**Function/Activities:**

-this space is for the staff to eat lunch and take breaks

**Special Considerations:**

-should be as far from the museum storage areas as possible  
-should have a small kitchen

**Relationships:**



**Area:** 600 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** relaxing (informal)
- **Floor:** soft- carpet
- **Ceiling:** acoustical
- **Walls:** hard- vinyl

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** daylight , ambient
- **Plumbing:** kithchen facilities

**Furniture/Equipment:** seating for small groups  
kitchen facilities

## A20 Public Relations Office

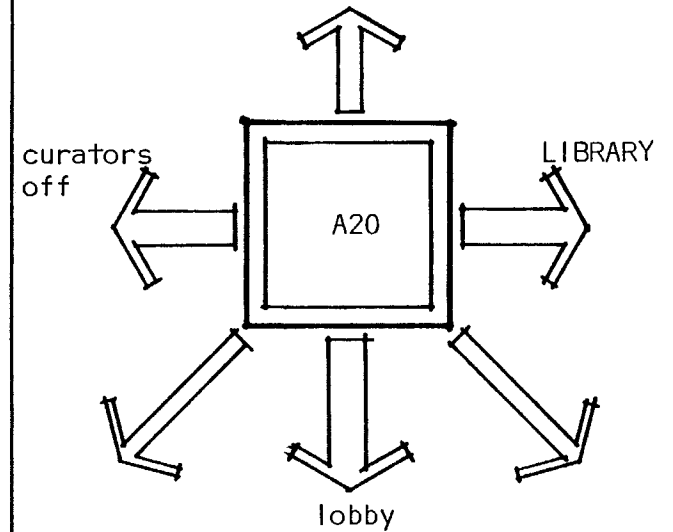
**Users:** Staff (1) + (up to 2 guest)

**Function/Activities:**

- this space for the public relations director, he is in charge of the advertising for the complex
- also schedules seminars

**Special Considerations:**

**Relationships:**



**Area:** 250 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** open (inviting)
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** hard- paint

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** daylight, ambient, task
- **Plumbing:** none

**Furniture/Equipment:** work tables and desk space

## A21 Remembrance Chapel

**Users:** Visitors (up to 25)

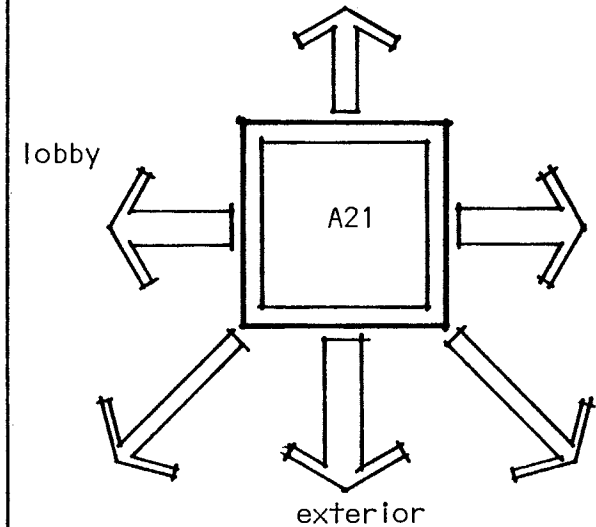
**Function/Activities:**

-this space is for personal  
meditation and contemplation

**Special Considerations:**

-should be intimate and se-  
cluded as possible  
-might be open air  
-could be accessible from  
outside as well as inside

**Relationships:**



**Area:** (undetermined at this time)

**Height:** (varies)

**Finishes:**

- **Image:** quiet, intimate
- **Floor:** hard or soft
- **Ceiling:** variable
- **Walls:** varies

**Systems**

- **HVAC:** may not be required
- **Lighting:** daylight, uplighting if exterior
- **Plumbing:** none

**Furniture/Equipment:** seating for 25-30 (pews or terrace seats)

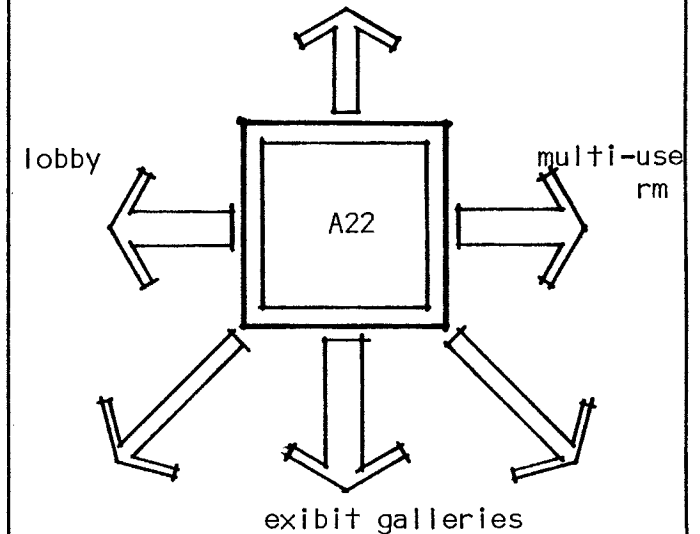
## A22 Sales shop/ Information

**Users:** Staff (2)  
Visitors (up to 4)

**Function/Activities:**  
-serves as a location for  
the to sell publications,  
catelogs, maps, and graphic  
material  
-also will function as info

**Special Considerations:**  
-should be low key and not  
compete with the exhibit  
space

**Relationships:**



**Area:** 450 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** low key
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** soft- wall cover

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** daylight, track
- **Plumbing:** none

**Furniture/Equipment:** should have sales counter and enclosure  
sales and information desk

## A23 Coat Check Room

**Users:** Staff (1)

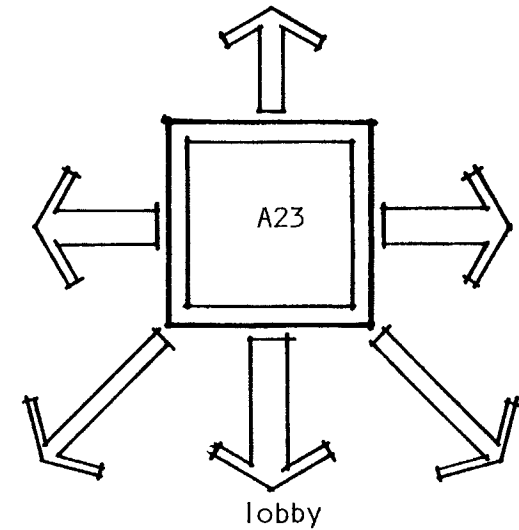
**Function/Activities:**

- place to leave coats and backpacks while going through the museum

**Special Considerations:**

- should be easily accessible to the public entry

**Relationships:**



**Area:** 300 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** low key
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** soft- wall cover

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** daylight, ambient
- **Plumbing:** none

**Furniture/Equipment:** storage shelving and lockers

## A24 Secretarial Office

**Users:** Staff (2)

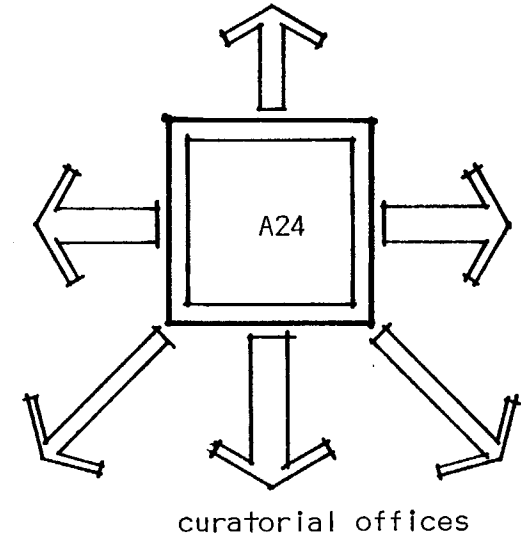
**Function/Activities:**

-paper work and basic secretarial work for the curatorial staff

**Special Considerations:**

-should have computer facilities

**Relationships:**



**Area:** 250 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** open (inviting)
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** hard- paint

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient, task
- **Plumbing:** none

**Furniture/Equipment:** office space for 2 with computer facilities

## A25 Receiving / Processing

**Users:** Staff (1-3)

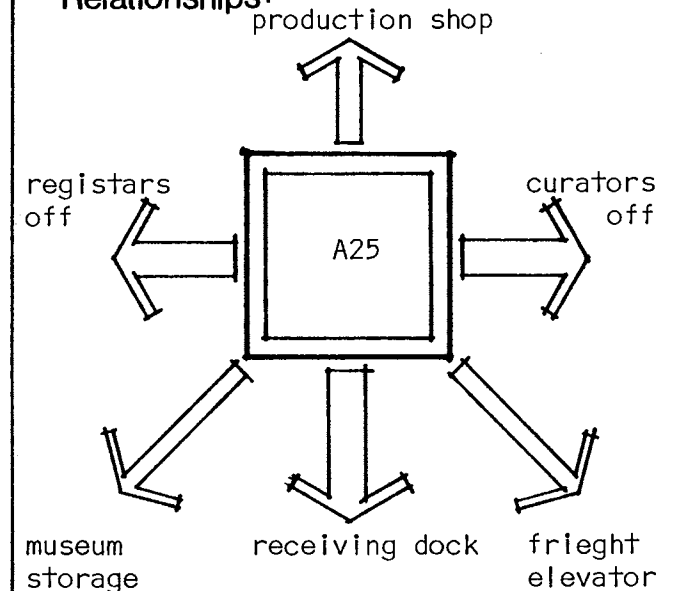
**Function/Activities:**

\_this space for receiving, unpacking, recording, photographing, and temporarily storing exhibits

**Special Considerations:**

\_security in this area should be considered

**Relationships:**



**Area:** 600 sf

**Height:** 8-12 f

**Finishes:**

- **Image:** security controlled
- **Floor:** hard- tile
- **Ceiling:** exposed
- **Walls:** hard- paint

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient
- **Plumbing:** small wash room, slop sink

**Furniture/Equipment:** shelving for tools and files  
desk for a clerk



## A26 Maintenance Room

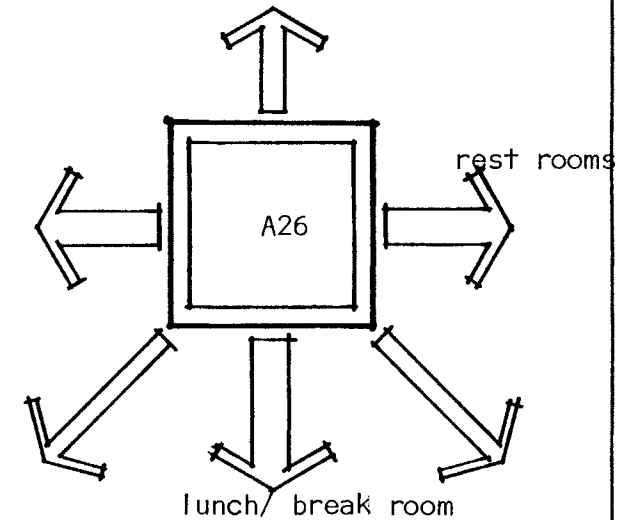
**Users:** Staff

**Function/Activities:**

-provides a space for the storage of janitorial supplies

**Special Considerations:**

**Relationships:**



**Area:** 200 sf

**Height:** 8 f

**Finishes:**

- **Image:** none
- **Floor:** hard- tile
- **Ceiling:** exposed
- **Walls:** hard- paint

**Systems**

- **HVAC:** none
- **Lighting:** ambient
- **Plumbing:** slop sink

**Furniture/Equipment:** steel shelving and slop sink

## A27 Security Control Room

**Users:** Gaurd (1)

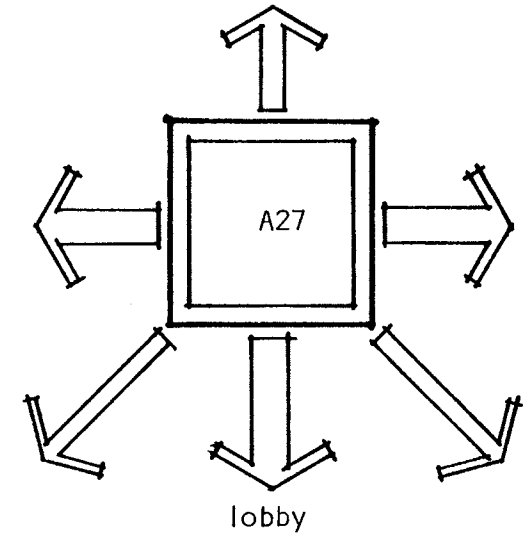
**Function/Activities:**

- control area for monitoring devices to provide security and fire protection
- also to act as a check in point for the gaurds

**Special Considerations:**

should be farilly low key in the museum area

**Relationships:**



**Area:** 200 sf

**Height:** 8 f

**Finishes:**

- **Image:** low key
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** hard- paint

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient, task
- **Plumbing:** none

**Furniture/Equipment:** television monitors, desk and chair  
fire protection monitor

The  
Resource  
Center  
( functional zone B )

## Performance Goals

The archival staff will make several trips per day to the storage areas, therefore the circulation between the storage areas and the research rooms should be very direct and clear of cross traffic.

Since the storage areas contain many documents and films which are originals and cannot be replaced, the security in the storage rooms should have maximum security.

The researchers are guest of the Resource Center and therefore should have some degree of separation from the staff.

Researchers are not allowed into the storage rooms or staff work areas.

## User Roles

The Users of the Resource Center include:

RESEARCHERS  
STAFF  
SECURITY/ MAINTENANCE

### RESEARCHERS/ HISTORIANS

This group would be composed of people who for various reasons, have a personal interest in the archives of the Resource Center and/or Museum. Researchers would range from doctoral candidates to press writers, collecting information for editorials.

The Researchers would have a responsibility to the Resource Center and the Museum, as far as the care of the archives and respecting regulations.

Researchers are guest, invited by the Resource Center or given special permission to conduct research at this facility.

The Researchers vary also, by extent of information to be gathered, hence some might use the facility for only one day and others might spend six months to a year.

User  
Roles  
(cont.)

STAFF

The Staff includes all the workers of the Resource Center with the exception of the maintenance and Security. This group is primarily in charge of the Resource Centers day to day operations.

The professional Staff includes:

Librarian

Selects and orders books, cards and computer equipment for the card catalog and the on line computer. The most important job of the librarian is to serve the books to the researchers in the research room.

Supervisory Archivist

Directs the work of their staff and frequently confers with researchers in person and on the phone.

Audio Visual Archivist

Processes A.V. materials and shows them to the researchers.

Archivist/ Archivist Technicians

Receives groups of personal papers, photos, and other items donated to the Resource Center. Arranges them in order, catalogs them, and places them into labeled document containers. They then prepare list inventories and indexes and other aids to make the information readily available to the researchers.

User  
Roles  
(cont.)

Archivist/ Archivist Technitions (cont.)

Also discusses research projects with the researchers, locates materials and brings the materials to the research room.

Clerical Personell

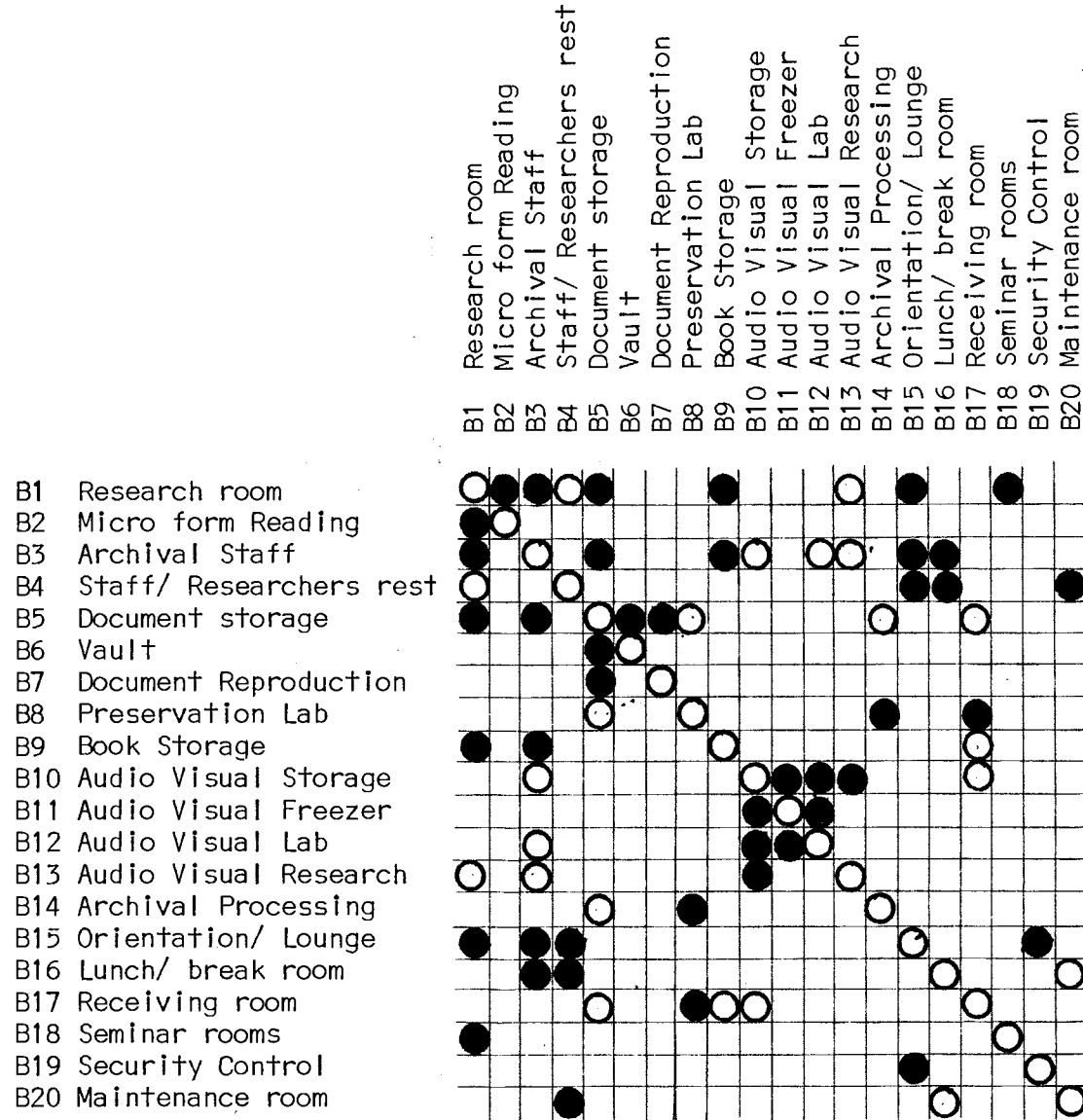
The Personell Group is in charge of answering the phone, typing of correspondence, transcribe dictation and type archival dictation and type archival finding aids.

## Required Spaces

B1	Reaserch Room	2000
B2	Micro Form Reading Room	200
B3	Archival Staff	2550
B4	Staff/ Researchers rest room	@ code
B5	Document Storage	14000
B6	Vault	1500
B7	Document Reproduction	200
B8	Preservation Lab	300
B9	Book Storage	2500
B10	Audio Visual Storage	2000
B11	Audio Visual Freezer	750
B12	Audio Visual Lab	1500
B13	Audio Visual Research Room	400
B14	Archival Processing	600
B15	Orientation/ Lounge	500
B16	Lunch/ Break room	600
B17	Receiving room	600
B18	Seminar rooms	4 @ 500
B19	Security Control room	200
B20	Maintenance room	200
	Total Square Footage	32600

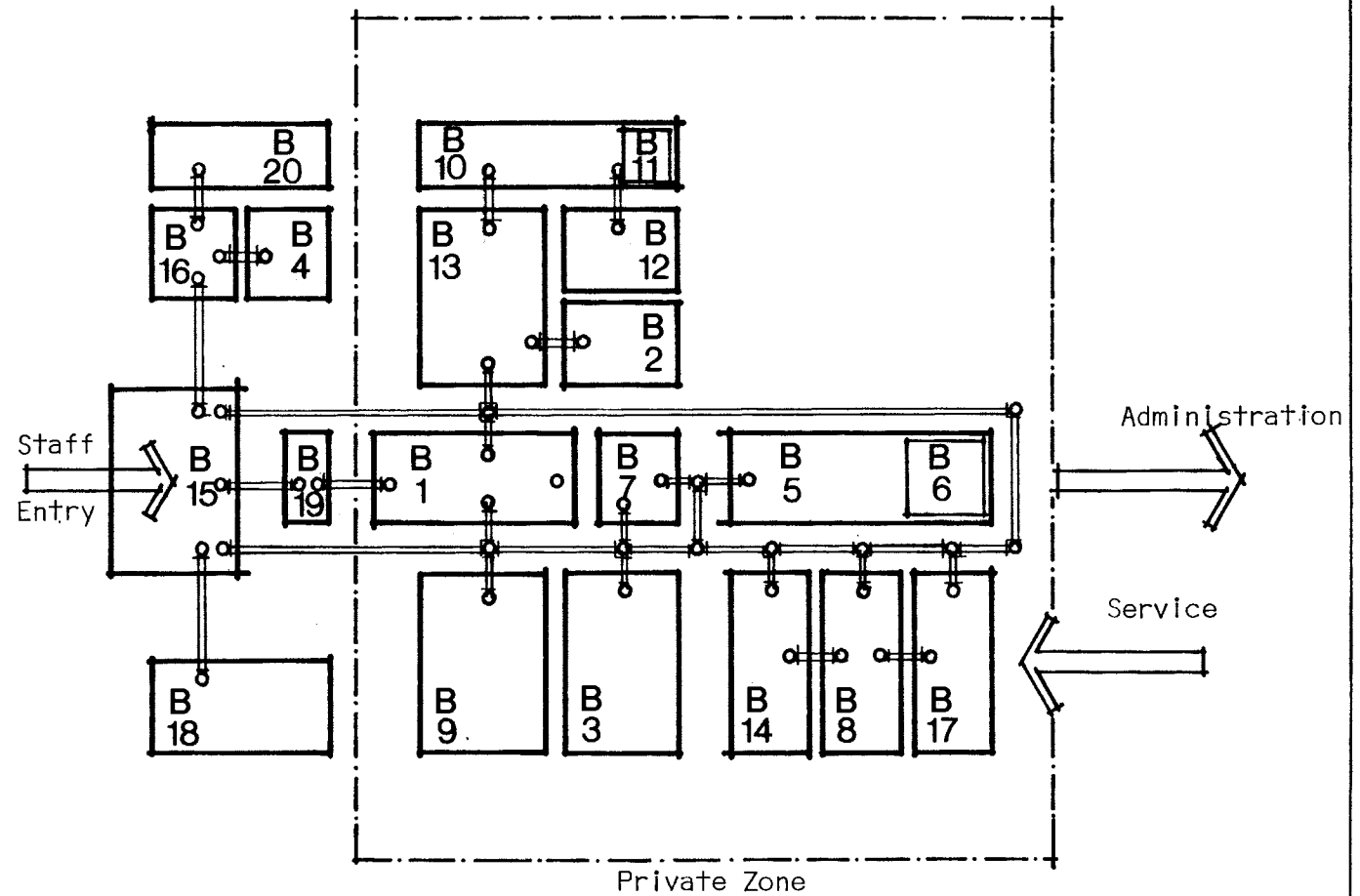


# Space Relationship Matrix



# Space Relationship Diagram

- B1 Research room
- B2 Micro form Reading room
- B3 Archival Staff
- B4 Staff/ Researchers rest
- B5 Document storage
- B6 Vault
- B7 Document Reproduction
- B8 Preservation Lab
- B9 Book Storage
- B10 Audio Visual Storage
- B11 Audio Visual Freezer
- B12 Audio Visual Lab
- B13 Audio Visual Research
- B14 Archival Processing
- B15 Orientation/ Lounge
- B16 Lunch/ break room
- B17 Receiving room
- B18 Seminar rooms
- B19 Security Control
- B20 Maintenance room



## B1 Research Room

**Users:** Staff (2)  
Researchers (up to 30)

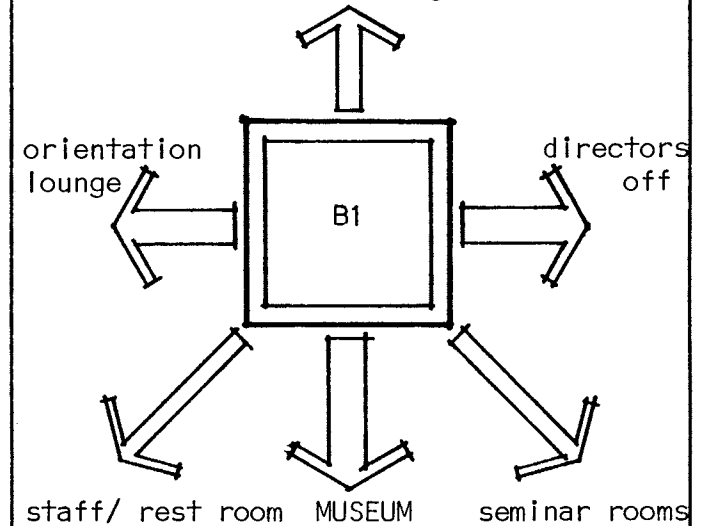
**Function/Activities:**

- area where researchers work on their projects within the Library
- the staff will bring the materials to this room

**Special Considerations:**

- should be capable of having very good surveillance

**Relationships:**



**Area:** 1500-2000 sf

**Height:** 10-15 f

**Finishes:**

- **Image:** quiet and relaxed
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** acoustically controlled

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient, task
- **Plumbing:** none

**Furniture/Equipment:** special desk for the archivist on duty with raised platform. also study desk and carrols

## B2 Micro Form Reading Room

**Users:** Researchers (up to 4)

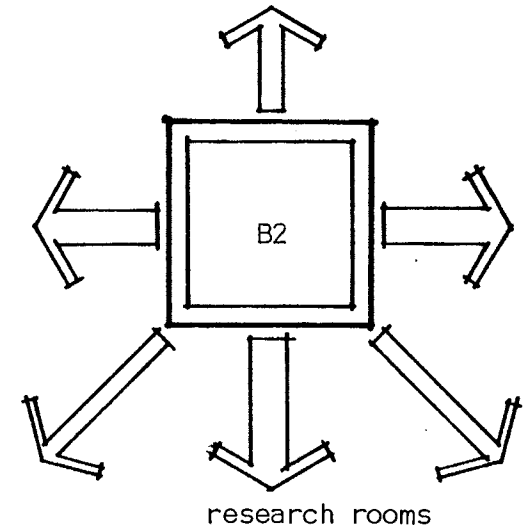
**Function/Activities:**

- area for viewing holdings on microform or micro fiche
- also for the reproduction of these materials

**Special Considerations:**

archivist on duty is responsible for assistance and surveillance

**Relationships:**



**Area:** 200 sf

**Height:** 8-10 f

**Finishes:**

- |                                    |   |
|------------------------------------|---|
| ◦ <b>Image:</b> controlled (quiet) | ◦ <b>Ceiling:</b> acoustical tile       |
| ◦ <b>Floor:</b> soft- carpet       | ◦ <b>Walls:</b> acoustically controlled |

**Systems**

- |  |                         |
|--|-------------------------|
| ◦ <b>HVAC:</b> multi zone-low vel              | ◦ <b>Plumbing:</b> none |
| ◦ <b>Lighting:</b> light control, NO day light |                         |

**Furniture/Equipment:** tables and carrols

## B3 Archival Staff

**Users:** Staff (17)

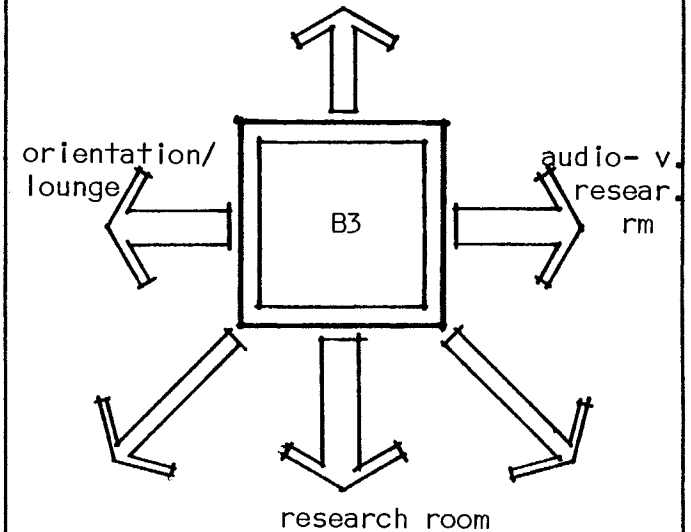
**Function/Activities:**

- the staff archivist process historical documents of the collections and provide
- assistance to the researcher

**Special Considerations:**

- these offices should be in close proximity to the research rooms

**Relationships:**



**Area:** 2550 sf (supervisor 2 @ 200 sf) (librarians off 1 @ 150 sf)  
 (2 person office 5 @ 250 sf) (computer room 1 @ 250 sf)  
**Height:** 8-10 f (4 person office 1 @ 500 sf)

**Finishes:**

- **Image:** executive
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** hard- paint

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** daylight, ambient, task
- **Plumbing:** none

**Furniture/Equipment:** should have computer capabilities

## B4 Staff / Researchers Rest Room

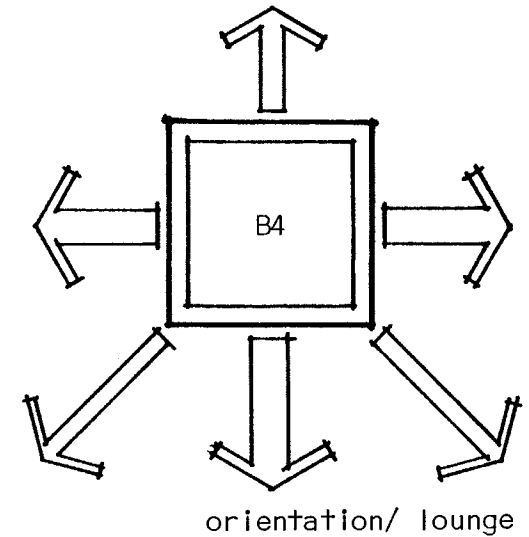
**Users:** Staff

**Function/Activities:**

**Special Considerations:**

- should have a direct relationship to lunch/ break area
- requirements for the handicapped

**Relationships:**



**Area:** as required by code

**Height:** 8 f

**Finishes:**

- |                            |                                   |
|----------------------------|-----------------------------------|
| ◦ <b>Image:</b> clean      | ◦ <b>Ceiling:</b> acoustical tile |
| ◦ <b>Floor:</b> hard- tile | ◦ <b>Walls :</b> hard- tile       |

**Systems**

- |                                   |  |
|-----------------------------------|--|
| ◦ <b>HVAC:</b> multi zone-low vel | ◦ <b>Plumbing:</b> as required by code |
| ◦ <b>Lighting:</b> ambient        |  |

**Furniture/Equipment :**

## B5 Document Storage

**Users:** Staff (must have security)

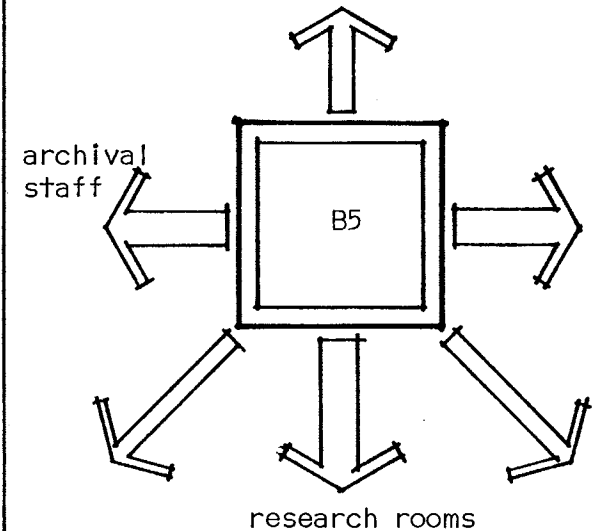
**Function/Activities:**

-used to preserve and store documents, the documents are placed into acid free folders and placed onto steel shelves

**Special Considerations:**

-since the staff will be moving a great deal of material to and from this room and the the research room the path between these two should be free of stairs

**Relationships:**



**Area:** 14000 sf

**Height:** +16 f

**Finishes:**

- **Image:** security
- **Floor:** hard- tile
- **Ceiling:** exposed
- **Walls:** hard- paint

**Systems**

- **HVAC:** independent system
- **Lighting:** No daylight, ambient, special task
- **Plumbing:** none

**Furniture/Equipment:** a smaller, lockable area within this room

## B6 Vault

**Users:** Staff (2)

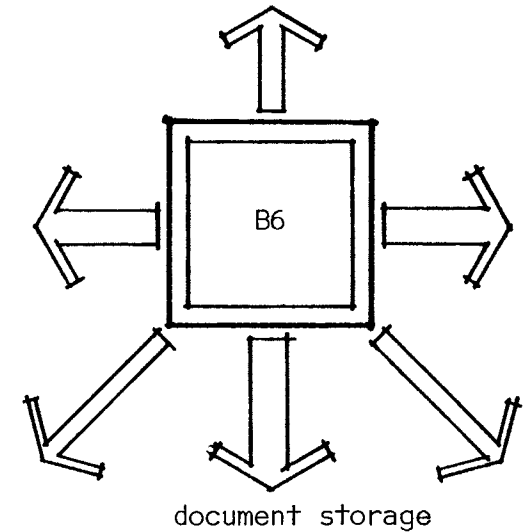
**Function/Activities:**

-this space to house the special documents requiring special security and handling

**Special Considerations:**

-only authorized staff can go into this area  
the vault should open into the document storage area  
-must have special fire protection

**Relationships:**



**Area:** 1500 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** security (strong)
- **Floor:** government spec.
- **Ceiling:** government specified
- **Walls:** government specified

**Systems**

- **HVAC:** highly controlled
- **Lighting:** government specified
- **Plumbing:** none

**Furniture/Equipment:** special fire protected cabinets



# B7 Document Reproduction

**Users:** Staff (1)

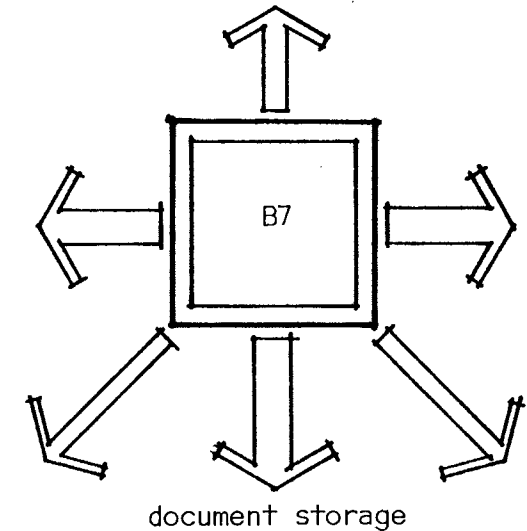
**Function/Activities:**

-place where researchers can have copies made of thier specific work

**Special Considerations:**

-should have some degree of sound control

**Relationships:**



**Area:** 200 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** none
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** acoustically controlled

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient
- **Plumbing:** none

**Furniture/Equipment:** room for copy machine and desk with lay space

## B8 Preservation Lab

**Users:** Staff (1)

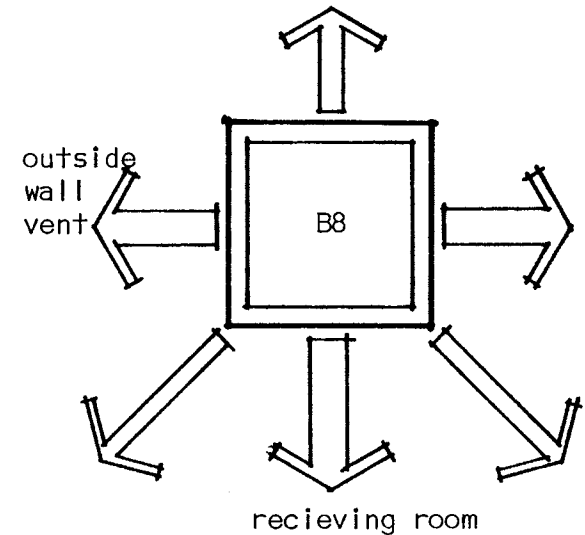
**Function/Activities:**

-this space used for the fumigation, cleaning, encapsulation, stain, dirt, rust, removal and mending of historical documents.

**Special Considerations:**

-should have an exterior exhaust system

**Relationships:**



**Area:** 300 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** none
- **Floor:** hard- tile
- **Ceiling:** exposed
- **Walls:** hard- vinyl

**Systems**

- **HVAC:** independent system
- **Lighting:** ambient
- **Plumbing:** sink area

**Furniture/Equipment:** should have lockable storage cabinets

## B9 Book Storage Area

**Users:** Staff (1)

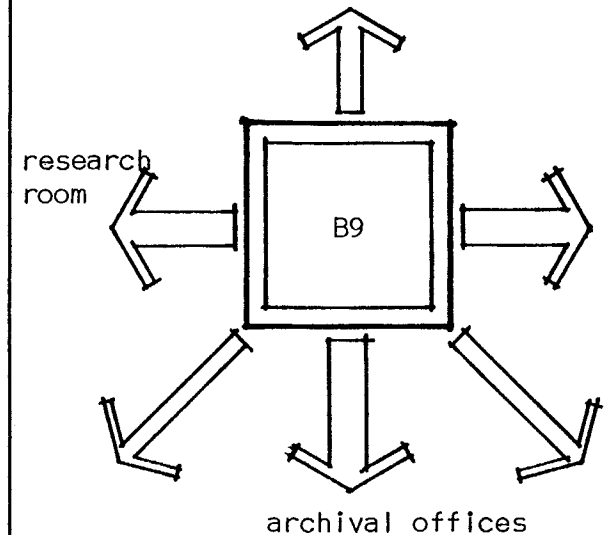
**Function/Activities:**

-this space for the volumes  
micro film , pamphlets, and  
periodicals

**Special Considerations:**

-because of the load on the  
floors, this space might be  
best on the the ground floor

**Relationships:**



**Area:** 2500 sf

**Height:** 12-15 f

**Finishes:**

- **Image:** security
- **Floor:** \ hard- tile
- **Ceiling:** exposed
- **Walls:** hard- paint

**Systems**

- **HVAC:** independent system
- **Lighting:** ambient
- **Plumbing:** none

**Furniture/Equipment:** shelves, racks, and movable book trucks

# B10 Audio Visual Storage

**Users:** Staff

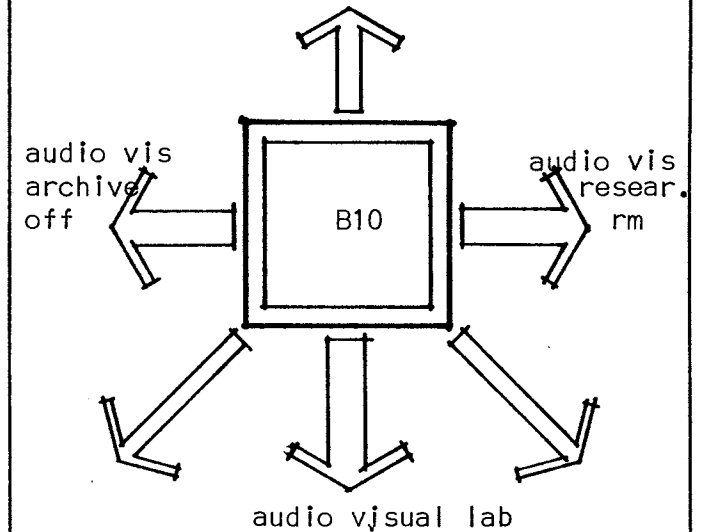
**Function/Activities:**

- storage space for the photographic negatives, motion pictures films, and audio visual tapes used on a day by day basis

**Special Considerations:**

- since high temperatures affect the films, this room should have a special environmental control system

**Relationships:**



**Area:** 2000 sf

**Height:** 8-10 f

**Finishes:**

- |                            |                             |
|----------------------------|-----------------------------|
| ◦ <b>Image:</b> security   | ◦ <b>Ceiling:</b> exposed   |
| ◦ <b>Floor:</b> hard- tile | ◦ <b>Walls:</b> hard- paint |

**Systems**

- |  |                         |
|--|-------------------------|
| ◦ <b>HVAC:</b> special cooling system to monitor temp. | ◦ <b>Plumbing:</b> none |
| ◦ <b>Lighting:</b> ambient                             |                         |

**Furniture/Equipment:** file cabinets , carrols

# B11 Audio Visual Freezer

**Users:** Staff

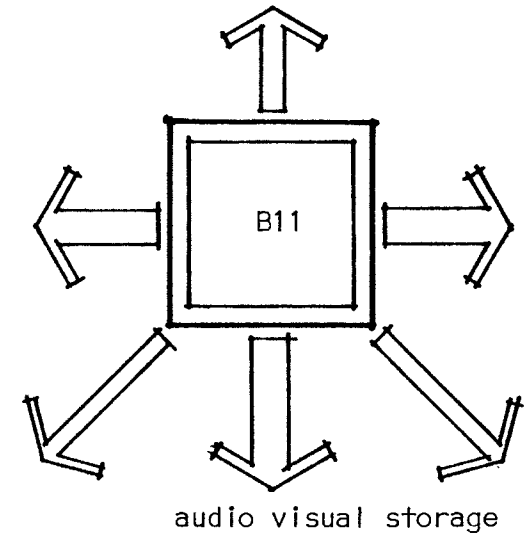
**Function/Activities:**

- storage for original negatives and motion pictures
- these negatives are also duplicated there for the day to day use

**Special Considerations:**

- this space is kept very cold and should be designed with this in mind
- should access into the audio visual storage area

**Relationships:**



**Area:** 750 sf

**Height:** 8-10 f

**Finishes:**

- |                           |                              |
|---------------------------|------------------------------|
| ◦ <b>Image:</b> security  | ◦ <b>Ceiling:</b> exposed    |
| ◦ <b>Floor:</b> hard-tile | ◦ <b>Walls:</b> freezer type |

**Systems**

- |                                     |  |
|-------------------------------------|--|
| ◦ <b>HVAC:</b> special temp control | ◦ <b>Plumbing:</b> special overflow drains |
| ◦ <b>Lighting:</b> ambient          |  |

**Furniture/Equipment:** space for viewing, stack shelving

# B12 Audio Visual Lab

**Users:** Staff

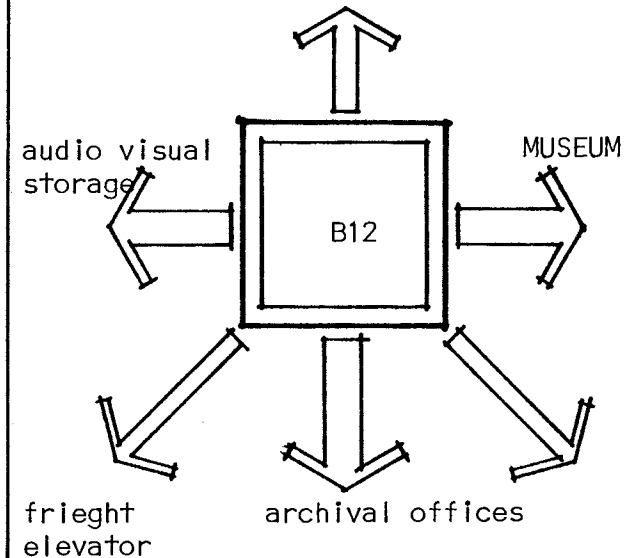
**Function/Activities:**

-this space is used for the reproduction and research of the researchers and the public

**Special Considerations:**

-this space is for photographic processing and therefore light control is very important

**Relationships:**



**Area:** 1500 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** studio (darkroom)
- **Floor:** hard- tile
- **Ceiling:** exposed
- **Walls:** hard- vinyl

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient and darkroom lighting  
NO daylight
- **Plumbing:** 2 sinks for the darkroom and main area

**Furniture/Equipment:** built in darkroom

## B13 Audio/ Visual Research Room

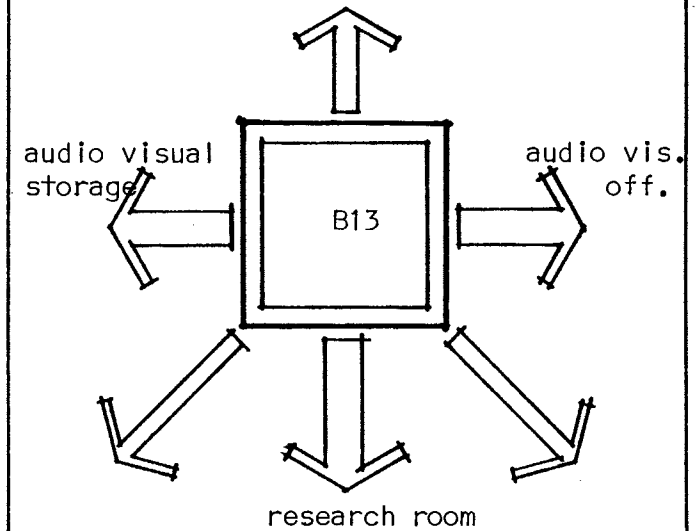
**Users:** Researchers (2)

**Function/ Activities:**

-place for the researchers to view video tapes or motion picture films, and to listen to audio tapes

**Special Considerations:**

**Relationships:**



**Area:** 400 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** quiet (dark)
- **Floor:** soft- carpet
- **Ceiling:** acoustically controlled
- **Walls:** acoustically controlled

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** special ambient non glare lighting
- **Plumbing:** none

**Furniture/Equipment:** carrols for viewing

## B14 Archival Processing

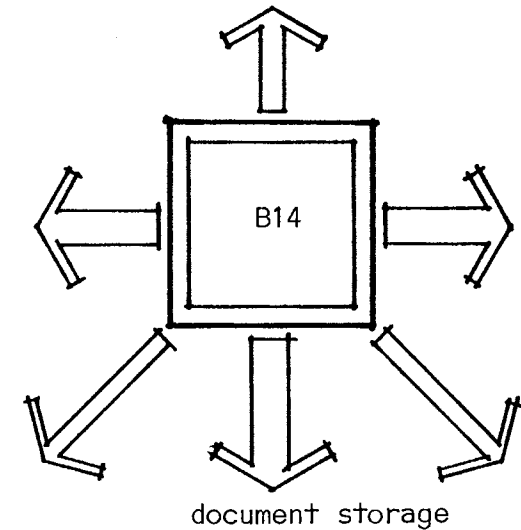
**Users:** Staff (2-4)

**Function/Activities:**

-this space for the final assembly processing of the archival collection

**Special Considerations:**

**Relationships:**



**Area:** 600 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** none
- **Floor:** hard- tile
- **Ceiling:** exposed
- **Walls:** hard- vinyl

**Systems**

- **HVAC:** multi zone+low vel
- **Lighting:** ambient, task
- **Plumbing:** none

**Furniture/Equipment:** movable carts, and shelving



## B15 Orientation/ Lounge

**Users:** Staff (2)

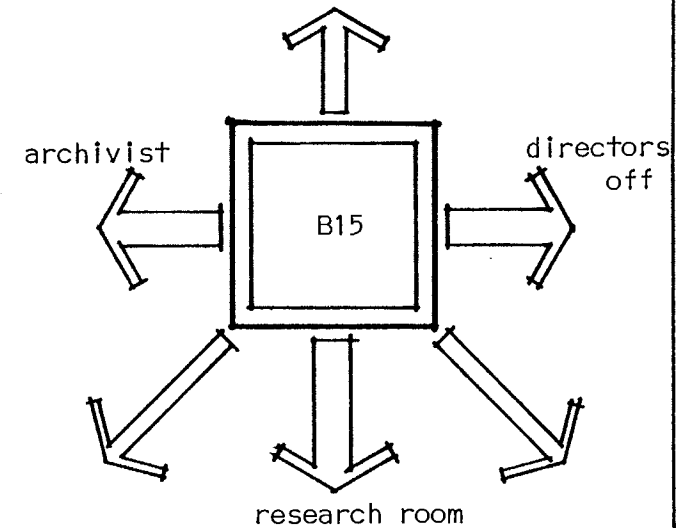
**Function/Activities:**

-place to orient the researchers to the holdings of the Resource Center as they relate to each topic

**Special Considerations:**

-this area should have the capacity for some privacy because of the confidentiality of some researchers projects

**Relationships:**



**Area:** 500 sf (orientation 100 sf)  
(lounge 400 sf)

**Height:** 8-10 f

**Finishes:**

- **Image:** semi-formal
- **Floor:** soft-carpet
- **Ceiling:** acoustical tile
- **Walls:** hard-paint

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** daylight, ambient
- **Plumbing:** none

**Furniture/Equipment:** desk and lockers for the researchers

## B16 Lunch/ Break Room

**Users:** Staff (up to 20)

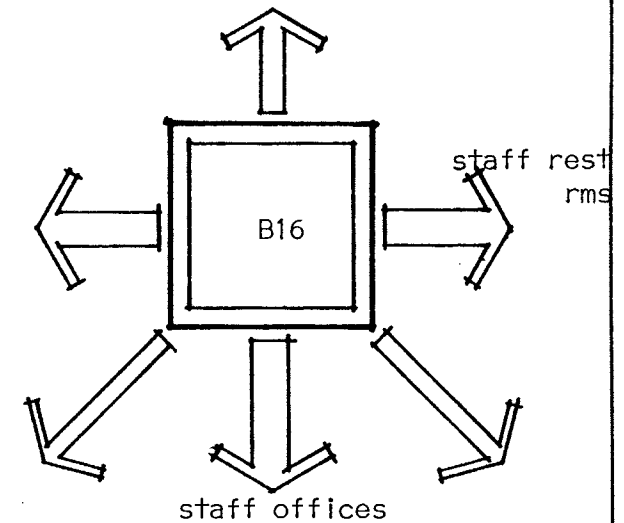
**Function/Activities:**

-relaxation area for the staff members

**Special Considerations:**

-should be as far from the museum storage as possible  
-should have a small kitchen

**Relationships:**



**Area:** 600 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** relaxing (informal)
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** hard- vinyl

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** daylight, ambient
- **Plumbing:** kitchen facilities

**Furniture/Equipment:** seating for small groups, kitchen equipment

## B17 Receiving / Processing Area

**Users:** Staff (1-3)

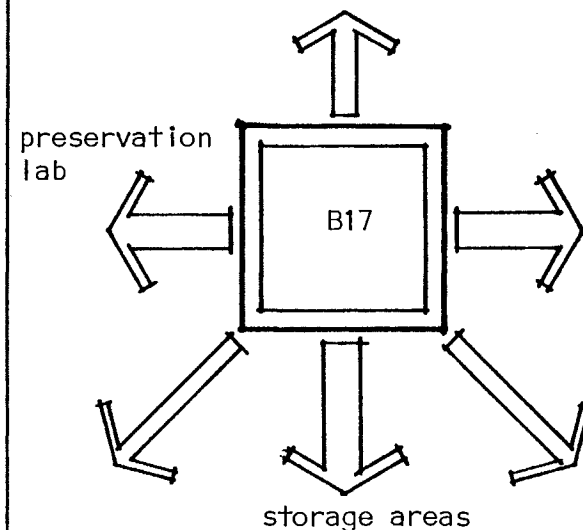
**Function/Activities:**

-this space for receiving,  
unpacking, recording, photo  
graphing, and temporary  
storage of the resource cent  
ers holdings

**Special Considerations:**

-security in this area is  
very important

**Relationships:**



**Area:** 600 sf

**Height:** 8-12 f

**Finishes:**

- **Image:** security control
- **Floor:** hard- tile
- **Ceiling:** exposed
- **Walls:** hard- paint

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient
- **Plumbing:** facilities for a small washroom/ slop sink

**Furniture/Equipment:**

## B18 Seminar Rooms

**Users:** Researchers and Staff  
(up to 50)

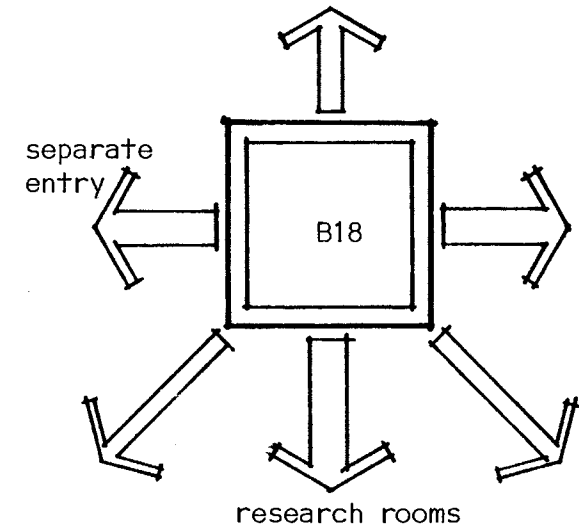
**Function/Activities:**

-this space for small meeting and lecture seminars, and series to the researchers and staff

**Special Considerations:**

-should have audio visual capabilities

**Relationships:**



**Area:** 2000 sf (4 rooms @ 500 sf)

**Height:** 10-12 f

**Finishes:**

- **Image:** educational
- **Floor:** soft- carpet
- **Ceiling:** acoustically controlled
- **Walls:** acoustically controlled

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient, with dimmers
- **Plumbing:** none

**Furniture/Equipment:** audio visual equipment (movable)

## B19 Security Control Room

**Users:** Gaurd (1)

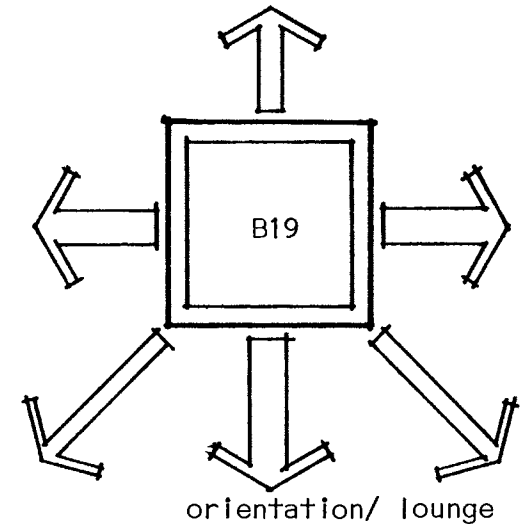
**Function/Activities:**

- control area for monitoring devices to provide security and fire protection
- also to act as a check in point for the gaurds

**Special Considerations:**

- should be farily low key in the resource center

**Relationships:**



**Area:** 200 sf

**Height:** 8 f

**Finishes:**

- **Image:** low key
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** hard- paint

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient, task
- **Plumbing:** none

**Furniture/Equipment:** television monitors, desk and chair  
fire protection monitor

## B20 Maintenance Room

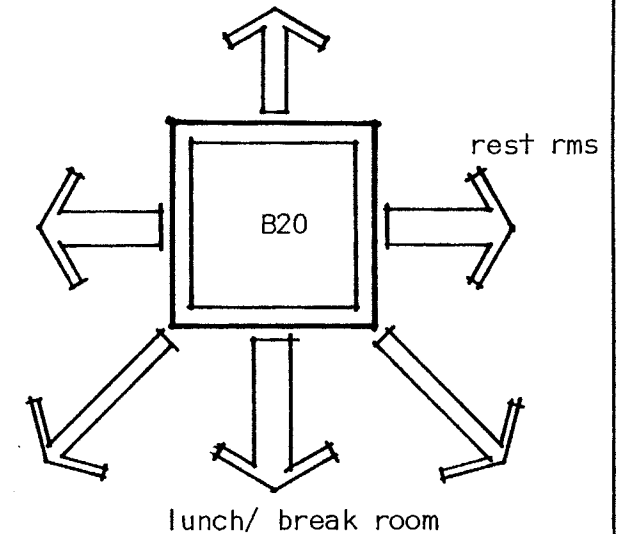
**Users:** Staff

**Function/Activities:**

—provides a space for the storage of janitorial supplies

**Special Considerations:**

**Relationships:**



**Area:** 200 sf

**Height:** 8 f

**Finishes:**

- **Image:** none
- **Floor:** hard- tile
- **Ceiling:** exposed
- **Walls:** hard- paint

**Systems**

- **HVAC:** none
- **Lighting:** ambient
- **Plumbing:** slop sink

**Furniture/Equipment:** steel shelving and slop sink

# The Administration (functional zone C )

## Performance Goals

The Administrative zone should have direct access to both the Museum and Resource Center.

The Administrative offices are the link between the Museum and the Resource Center.

This area should be separate from the public circulation.

The Administration could act as the entry for the researchers.



## User Roles

The Users of the Museum include:

STAFF  
MAINTENANCE

STAFF

The Staff includes all of the workers in the Administration except the maintenance people.

The professional Staff includes:

Director

The Director is responsible for all of the broad planning for the Complex, also conducts the Museum and Resource Center's most important correspondence, provides general supervision. He is the Museum and Resource Center's representative in dealing with distinguished visitors, also he handles the overall conduct of the external affairs.

Assistant Director

Aids the Director in his responsibilities, directly supervises the senior staff, and subsitutes for the director in his absence.

Administrative Officer

Maintains day to day liaison with other offices concerned with the fiscal and personell administration and maintenance of the Museum/ Resource Center. This officer is in charge of the business affairs.

**User  
Roles**  
(cont.)

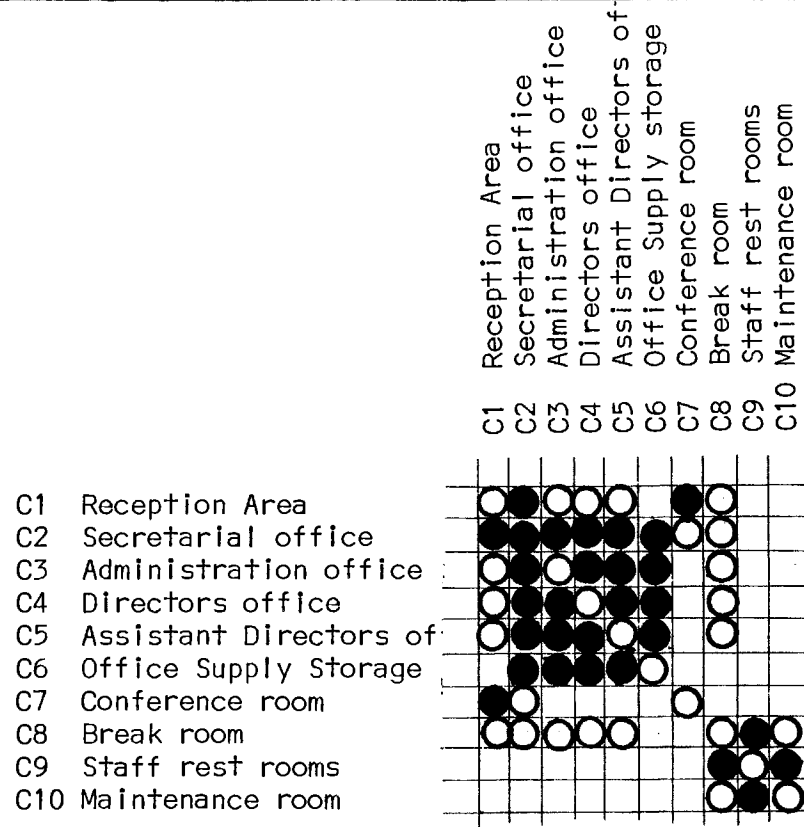
MAINTENANCE

Janitors will do general cleaning of the administration area.

## Required Spaces

C1	Reception Area	150
C2	Secretarial office	250
C3	Administrative Officers office	300
C4	Directors office	300
C5	Assistant Directors office	225
C6	Office Suppy storage	400
C7	Conference room	1000
C8	Break room	300
C9	Staff rest rooms	@ code
C10	Maintenance room	100
	Total Square Footage	3025

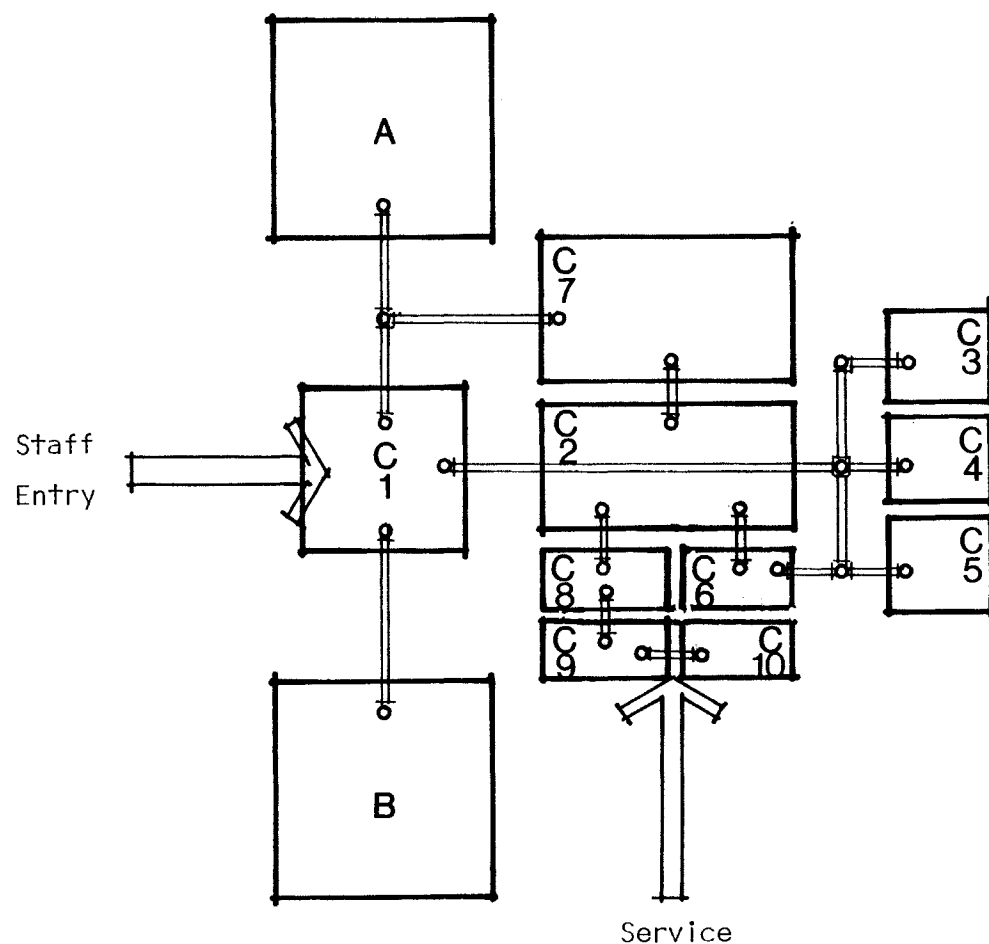
# Space Relationship Matrix



# Space Relationship Diagram

- C1 Reception Area
- C2 Secretarial office
- C3 Administration office
- C4 Directors office
- C5 Assistant Directors off
- C6 Office Supply storage
- C7 Conference room
- C8 Break room
- C9 Staff rest rooms
- C10 Maintenance room

- A Museum
- B Resource Center



# C1 Reception Area

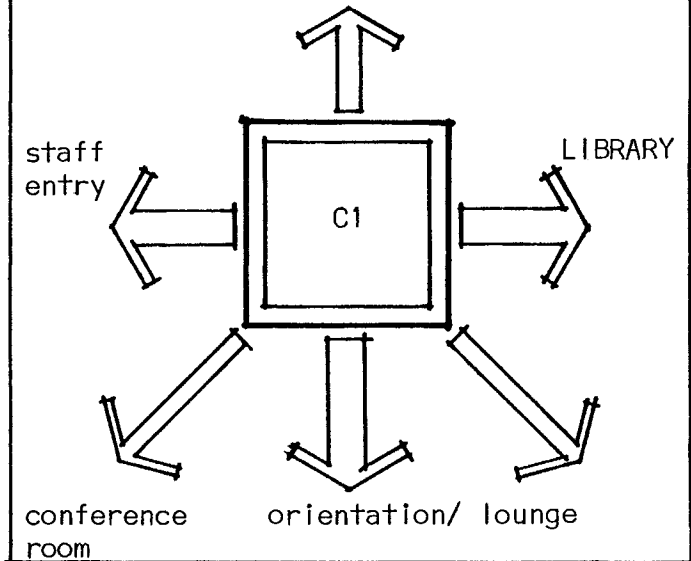
**Users:** Staff (1)

**Function/Activities:**

- waiting area for guest to see administrators
- also takes phone calls for the entire complex, acts as a switch board

**Special Considerations:**

**Relationships:**



**Area:** 150 sf

**Height:** 8-10 f

**Finishes:**

- |                              |                                   |
|------------------------------|-----------------------------------|
| ◦ <b>Image:</b> relaxing     | ◦ <b>Ceiling:</b> acoustical tile |
| ◦ <b>Floor:</b> soft- carpet | ◦ <b>Walls:</b> hard- paint       |

**Systems**

- |  |                         |
|--|-------------------------|
| ◦ <b>HVAC:</b> multi zone-low vel          | ◦ <b>Plumbing:</b> none |
| ◦ <b>Lighting:</b> daylight, ambient, task |                         |

**Furniture/Equipment:** lounge seating for guest, desk for receptionist

## C2 Secretarial Office

**Users:** Staff (2)

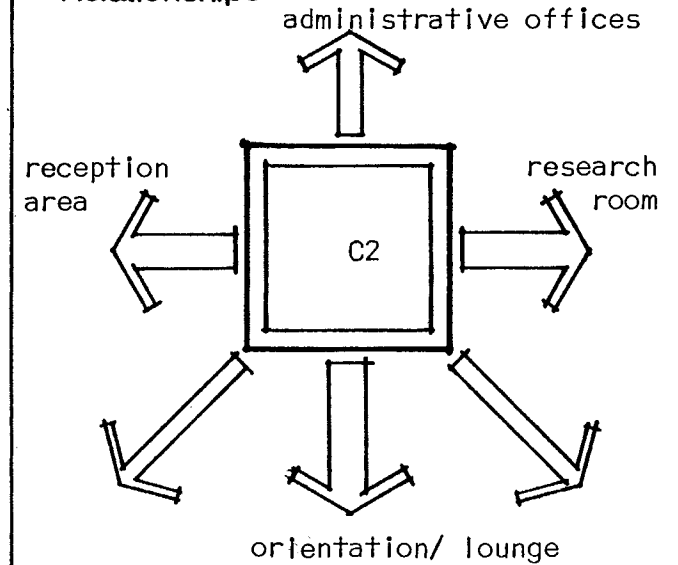
**Function/Activities:**

-space for paper work and  
basic secretarial work for  
the administrative offices

**Special Considerations:**

should have computer cap-  
abilities

**Relationships:**



**Area:** 250 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** inviting (open)
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** hard- paint

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient, task
- **Plumbing:** none

**Furniture/Equipment:** open office furniture for 2  
must have computer terminals

## C3 Administrative Officer's Office

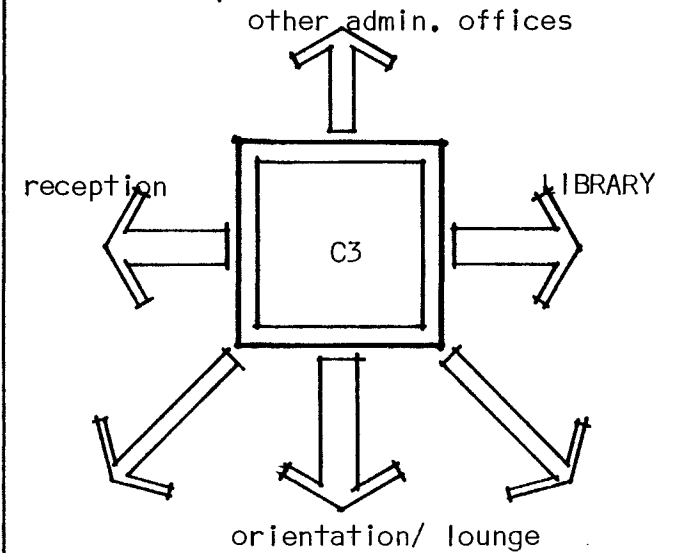
**Users:** Staff (2)

**Function/Activities:**

-does basic administration work, purchasing, accounting etc.

**Special Considerations:**

**Relationships:**



**Area:** 300 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** executive
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** hard- paint

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** daylight, ambient, task
- **Plumbing:** none

**Furniture/Equipment:** desks, files for 2, seating for 2 guest



## C4 Directors Office

**Users:** Staff (1)

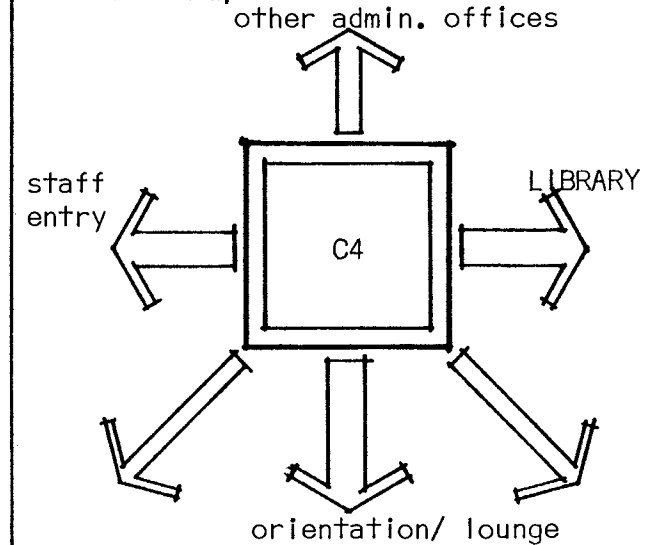
**Function/Activities:**

- head administrator of the whole complex
- in charge of the day to day operations of the complex

**Special Considerations:**

- this office should be the heart of the administration yet maintain a private character

**Relationships:**



**Area:** 300 sf

**Height:** 8-10 f

**Finishes:**

- |                              |                                   |
|------------------------------|-----------------------------------|
| ◦ <b>Image:</b> executive    | ◦ <b>Ceiling:</b> acoustical tile |
| ◦ <b>Floor:</b> soft- carpet | ◦ <b>Walls:</b> hard- paint       |

**Systems**

- |  |                         |
|--|-------------------------|
| ◦ <b>HVAC:</b> multi zone-low vel          | ◦ <b>Plumbing:</b> none |
| ◦ <b>Lighting:</b> daylight, ambient, task |                         |

**Furniture/Equipment:** office furniture for 1

## C5 Assistant Directors Office

**Users:** Staff (1)

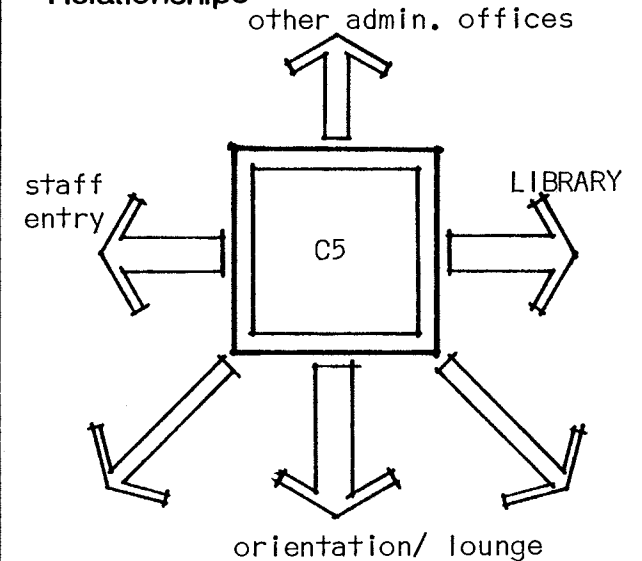
**Function/Activities:**

- is second in command
- administrates over his staff and is in charge when the director is absent

**Special Considerations:**

- should have a private character

**Relationships:**



**Area:** 225 sf

**Height:** 8-10 f

**Finishes:**

- |                              |                                   |
|------------------------------|-----------------------------------|
| ◦ <b>Image:</b> executive    | ◦ <b>Ceiling:</b> acoustical tile |
| ◦ <b>Floor:</b> soft- carpet | ◦ <b>Walls:</b> hard- paint       |

**Systems**

- |  |                         |
|--|-------------------------|
| ◦ <b>HVAC:</b> multi zone-low vel          | ◦ <b>Plumbing:</b> none |
| ◦ <b>Lighting:</b> daylight, ambient, task |                         |

**Furniture/Equipment:** office furniture for 1

## C6 Office Supply Storage

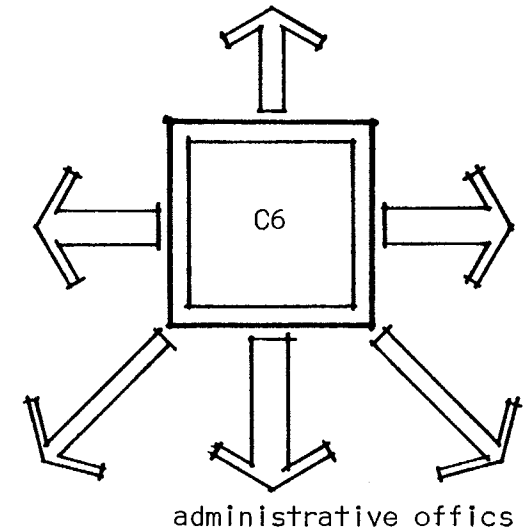
**Users:** Staff

**Function/Activities:**

this space provides storage  
for office supplies and  
back files

**Special Considerations:**

**Relationships:**



**Area:** 400 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** none
- **Floor:** hard- tile
- **Ceiling:** exposed
- **Walls:** hard- vinyl

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient
- **Plumbing:** none

**Furniture/Equipment:** shelving and files

## C7 Conference Room

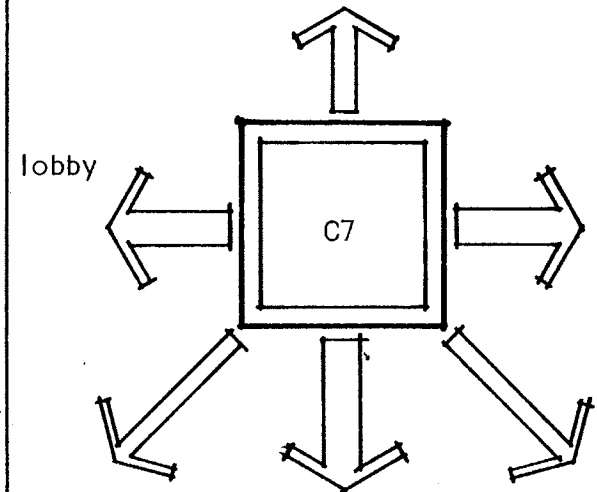
**Users:** Staff (5-15)  
Visitors

**Function/Activities:**

-room for small group meeting  
college seminar groups

**Special Considerations:**

**Relationships:**



**Area:** 1000 sf

**Height:** 10-15 f

**Finishes:**

- **Image:** flexibility
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** acoustically controlled

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** daylight, ambient, dimmers
- **Plumbing:** none

**Furniture/Equipment:** must have a small closet and conference table for a group of up to 15

## C8 Break Room

**Users:** Staff (up to 15)

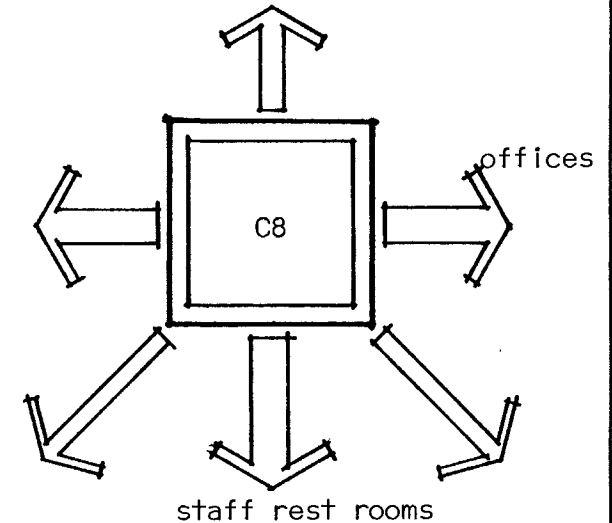
**Function/Activities:**

-this area is used for breaks  
and small lunches

**Special Considerations:**

-has a small kitchenette

**Relationships:**



**Area:** 300 sf

**Height:** 8-10 f

**Finishes:**

- **Image:** relaxing (informal)
- **Floor:** soft- carpet
- **Ceiling:** acoustical tile
- **Walls:** hard- vinyl

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient
- **Plumbing:** kitchenette facilities

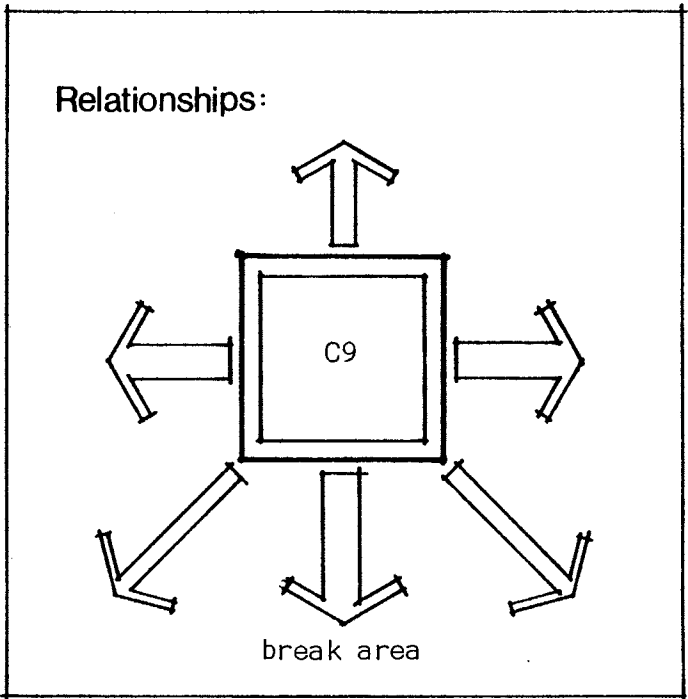
**Furniture/Equipment:** seating and tables for 10  
kitchenette

**C9  
Staff  
Rest  
Room**

**Users:** Staff

**Function/Activities:**

**Special Considerations:**  
 -should have a direct relationship to break area



**Area:** as required by code

**Height:** 8 f

**Finishes:**

- **Image:** clean
- **Floor:** hard- tile
- **Ceiling:** acoustical tile
- **Walls:** hard- tile

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient
- **Plumbing:** as required by code

**Furniture/Equipment:**

## C10 Maintenance Room

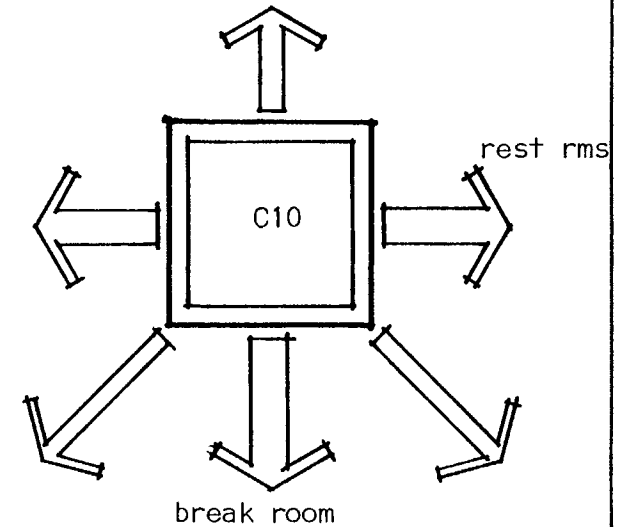
**Users:** Staff

**Function/Activities:**

provides space for the storage of janitorial supplies

**Special Considerations:**

**Relationships:**



**Area:** 100 sf

**Height:** 8 f

**Finishes:**

- **Image:** none
- **Floor:** hard- tile
- **Ceiling:** acoustical tile
- **Walls:** hard- paint

**Systems**

- **HVAC:** none
- **Lighting:** ambient
- **Plumbing:** slop sink

**Furniture/Equipment:** steel shelving and slop sink

# Support

( functional zone D )



## User Roles

The Users of the Support Areas are:

### MAINTENANCE/ SECURITY

#### Building Superintendant

Responsible for the repair, upkeep and general appearance of the building, also keeping all mechanical equipment in good working order. Including heating and air conditioning. He supervises the janitors and is responsible for good performance on all painting, cleaning, plumbing, etc. of the building.

#### Gaurds

Are responsible for the security of the building and it's contents from, robbery, vandalism, and fire.

#### Gardeners

The Gardeners will be from the National Park Service and will be in charge of the grounds of the building and surrounding areas.

## Required Spaces

D1 Loading Dock	
D2 Maintenance room	1000
D3 Security Control rooms	varies
D4 Main Mechanical room	+2000 *
Total Square Footage	+3000

\* small fan rooms are dispersed through out the building.  
The main mechanical room acts as an entry point and switch station for the mechanics of the complex.

# D1 Loading Dock

**Users:** Delivery trucks

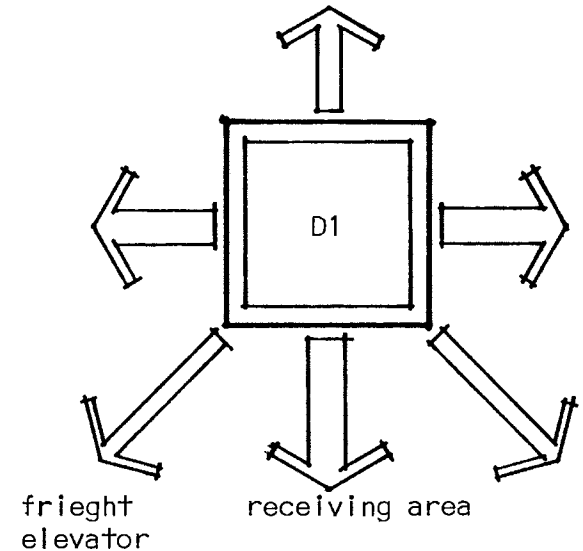
**Function/Activities:**

- place for receiving and shipping

**Special Considerations:**

- should be well concealed from the rest of the complex
- should accommodate a 45' truck

**Relationships:**



**Area:**

**Height:**

**Finishes:**

- Image:
- Floor:
- Ceiling:
- Walls:

**Systems**

- HVAC:
- Lighting:
- Plumbing:

**Furniture/Equipment:**

## D2 Maintenance Room

**Users:** Staff (up to 18)  
(building man. 1)  
(maintenance 7 )  
(guards 10 )

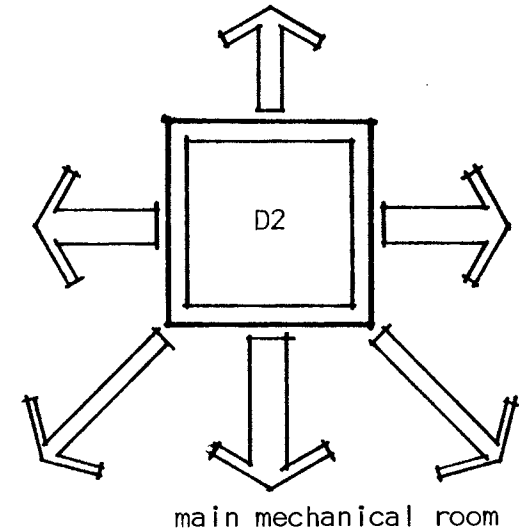
**Function/Activities:**

-this space provides for the maintenance needs for the complex

**Special Considerations:**

-these spaces should be as inconspicuous as possible  
-should have a slop sink on each floor

**Relationships:**



**Area:** 1000 sf

**Height:** 8 f

**Finishes:**

- **Image:** none
- **Floor:** hard- tile
- **Ceiling:** exposed
- **Walls:** hard- paint

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient
- **Plumbing:** slop sink, wash area

**Furniture/Equipment:** lockers and shelving

## D3 Security Control Room

**Users:** Guard (1)

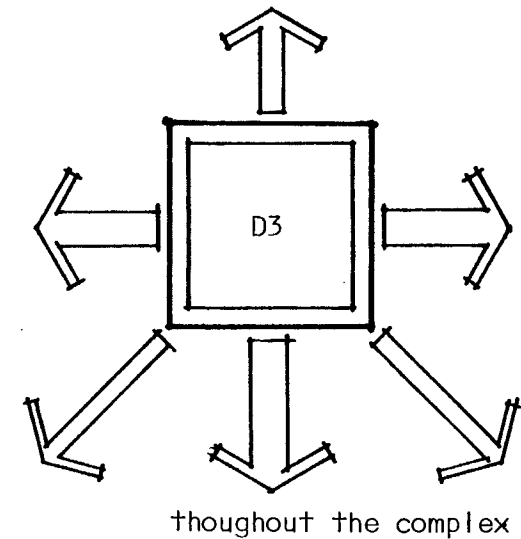
**Function/Activities:**

-this space provides room for control panel and monitoring devices, used to provide security and fire protection  
-also acts as the main secur.

**Special Considerations:**

there should be a security post close to the exhibit galleries  
this space is a series of smaller spaces, spread throughout the complex

**Relationships:**



**Area:** this space is dispersed throughout the complex as small posts

**Height:** varies

**Finishes:**

- **Image:** inconspicuous
- **Floor:** soft- carpet
- **Ceiling:** varies
- **Walls:** varies

**Systems**

- **HVAC:** multi zone-low vel
- **Lighting:** ambient(non glare)
- **Plumbing:** none

**Furniture/Equipment:**

## D4 Main Mechanical Room

**Users:** Maintenance

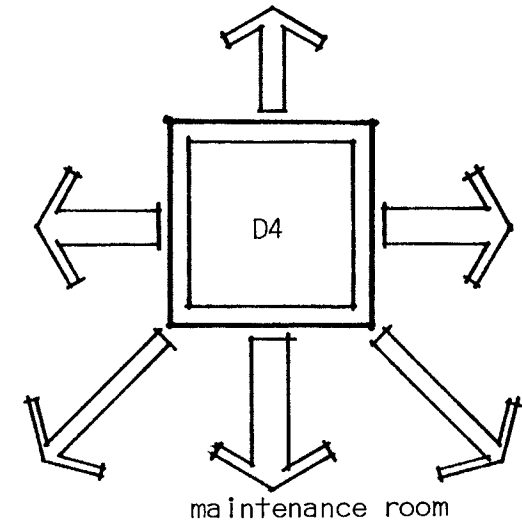
**Function/Activities:**

-this space is the main room for the entry of electricity, steam, chilled water, etc.

**Special Considerations:**

-this space might be best on the ground floor because of the loads of the equipment

**Relationships:**



**Area:** 2000 sf

**Height:** 10-12 f

**Finishes:**

- **Image:** none
- **Floor:** hard- concrete
- **Ceiling:** exposed
- **Walls:** hard- paint

**Systems**

- **HVAC:** not required
- **Lighting:** ambient
- **Plumbing:** as required

**Furniture/Equipment:** Space for required switch gear and equipment

GOALS  
AND  
CONCEPTS



# GOALS AND CONCEPTS



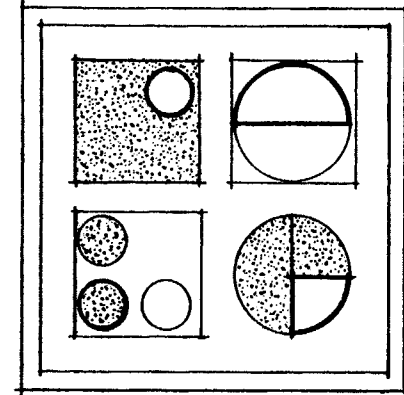
## Function

### Goal

To create a facility to educate the general public on the Vietnam Veterans and the Vietnam War.

### Concept

Displaying the personal items of the veterans with the hard facts of the Vietnam War.

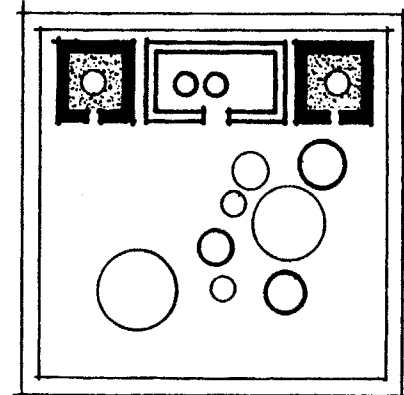


### Goal

To provide a facility which will accommodate large groups of people and still retain respect for the individual.

### Concept

Having a mix between open public spaces and more intimate public spaces.



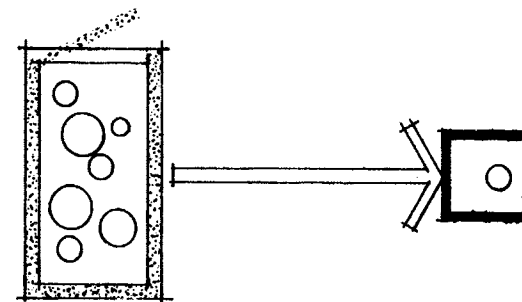
## Function

### Goal

To provide a place of contemplation and meditation for the individual or small group.

### Concept

Having a secluded space for private self contemplation ,away from the main building , to act as a remembrance chapel.

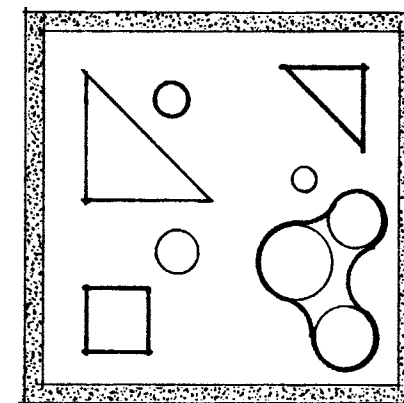


### Goal

To provide a unique yet flexible exhibit space for viewing the articles on display.

### Concept

By having a variety of viewing spaces with various , scale, form, lighting, and emotional sense.



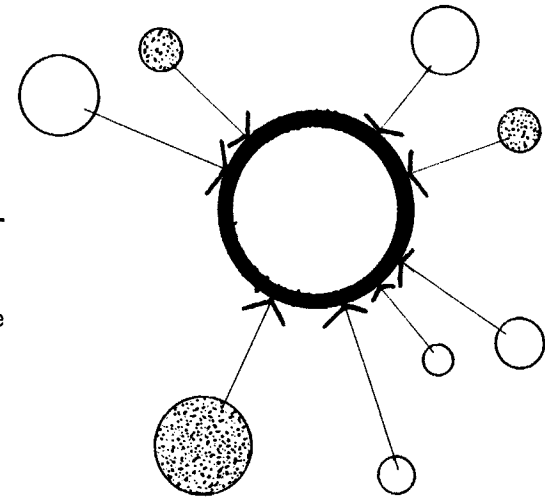
## Function

### Goal

To provide a facility for the researchers to congregate for specific topics on the Vietnam Veterans and/ or the Vietnam War.

### Concept

Consolidation of all the resources on the veterans and the war, which are now scattered in different locations, to a single resource center.

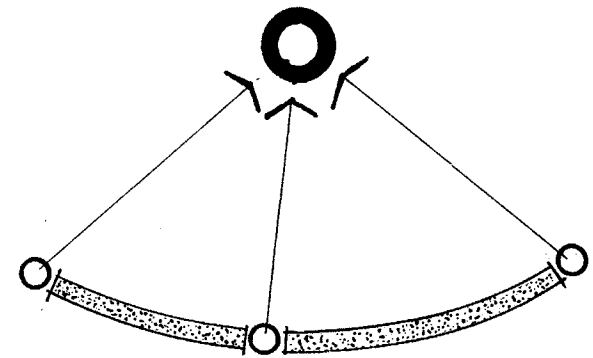


### Goal

To provide a sense of orientation.

### Concept

Using a focal point as a reference within the Complex to prevent the feeling of being lost.



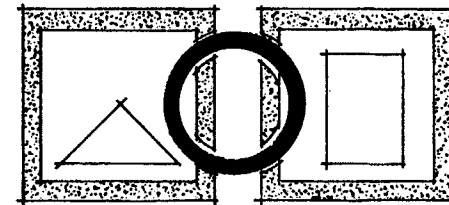
# Function

## Goal

To provide a clear separation between the general public and the private functions of the Complex.

## Concept

To physically separate the private and public functions and to use the administration as the connecting link between them.

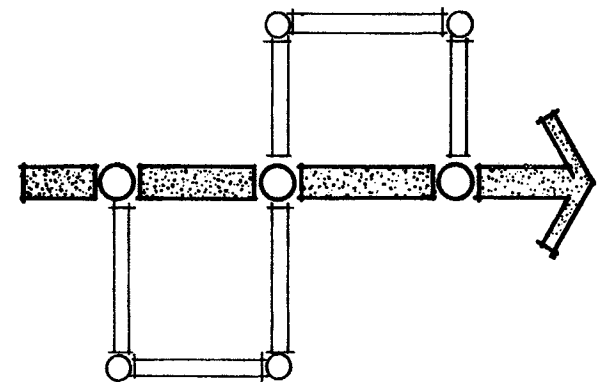


## Goal

To provide a clear circulation for public spaces through the museum functions.

## Concept

Developing a sequence of events along a path with sub-paths.



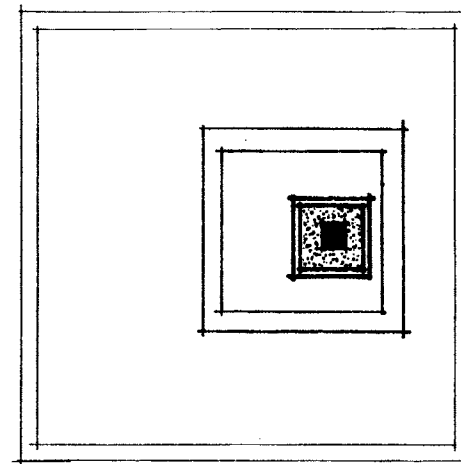
## Function

### Goal

Provide for various levels of security.

### Concept

By zoning security into three areas, private security, public security, and restricted security.



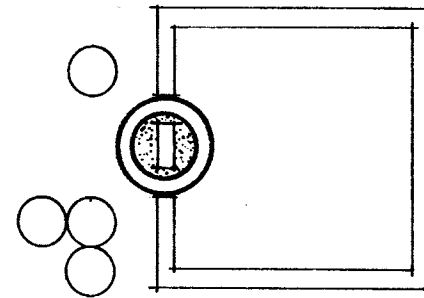
## Form

## Goal

Provide a sense of entry to the Complex for the public.

## Concept

Use of landscaping and scale, at the entry to focus the public's eye to the Complex.

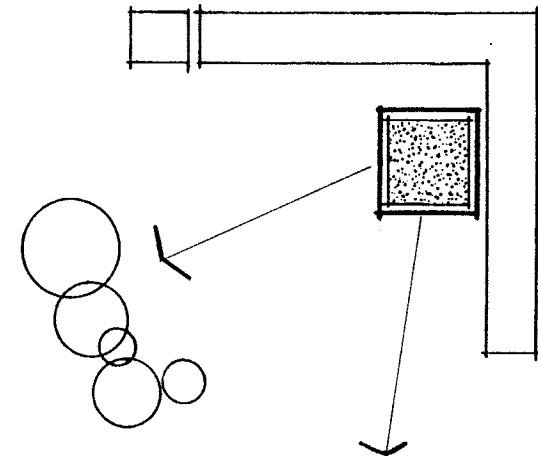


## Goal

To maximize preservation of the existing features of the site, such as views, vegetation, etc.

## Concept

Locating the building on the site as to not restrict views, and to scale the building down to not overpower the site.



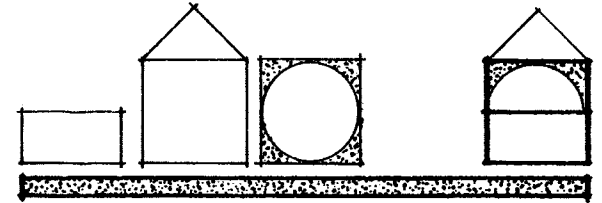
# Form

## Goal

To respect the existing architecture, axes, and character of the region.

## Concept

By considering the building materials, massing, detail, and character which compliments or contrast the existing buildings in this area.

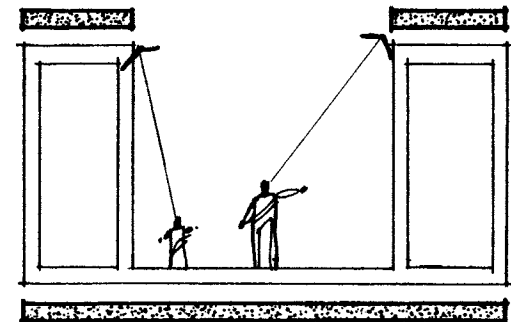


## Goal

Provide an image which would not be monumental in form, but to a more human scale.

## Concept

Through the use of building heights, set backs, etc. And the use of material details.



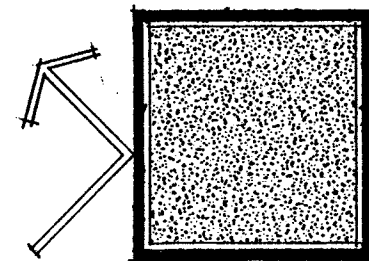
# Economy

## Goal

To minimize maintenance cost.

## Concept

Consider building materials which require a minimal maintenance and repair, both interior and exterior.

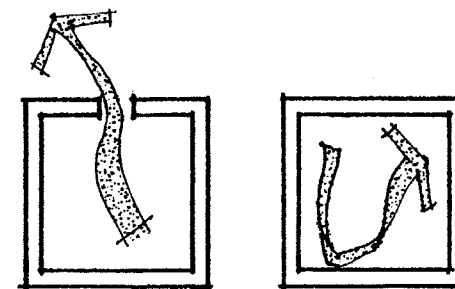


## Goal

To minimize operational cost.

## Concept

The form, construction and orientation, should be sympathetic to an energy conscious design, through the use of daylighting, and other forms of passive energy conservation.





## Time

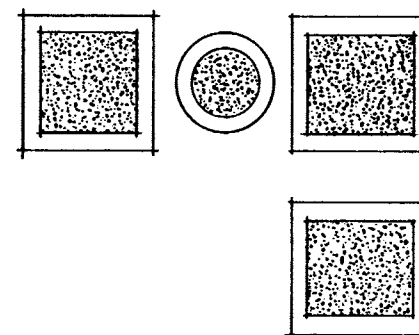
## Goal

To create a flexible environment which will accommodate the exhibits and storage of the exhibits "today" and has the potential for minimal expansion in the future.

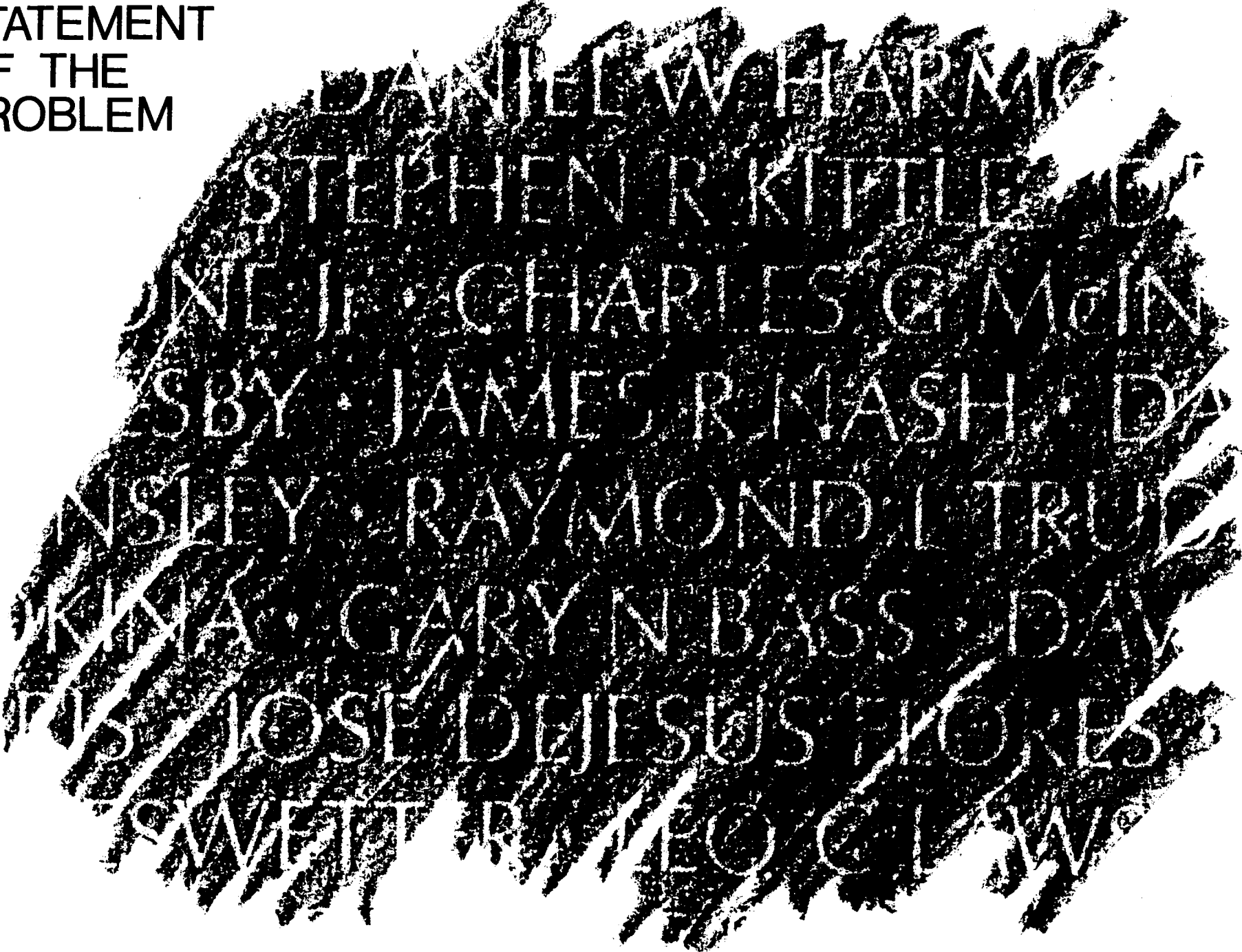


## Concept

Through site planning and functional zoning, the exhibit space and storage should have the flexibility to expand in the future.



STATEMENT  
OF THE  
PROBLEM



# STATEMENT OF THE PROBLEM

## Function

Since the major function of the Museum and Resource Center is to educate the general public, on the facts of the Vietnam Veterans and the Vietnam War, the museum exhibits should be relatively simple and easily comprehensible.

Since the security varies from extreme public, (the museum exhibits) to extreme private, (the document storage), there should be a clear separation between the Museum and the Resource Center.

## Form

Since the Museum and Resource Center is to be located on a very unique site, it should respond to the existing elements of the site, such as the views, trees, topography, and the federal function of the city.

Since the Museum is to be used by groups and individuals with various emotional feelings about the Vietnam Veterans and the Vietnam War, the Museum should have a very humanistic scale.

Since the Resource Center is a central collection area of all the information concerning the Vietnam War, the Resource Center should project an image of security and strength.

## Economy

Since the Museum and Resource Center is for the people of the United States of America, it should be constructed of the highest quality materials to reflect the American sense of pride.

## Time

Since the Museum and Resource Center will expect some growth through donations, the Museum should be designed with expansion in mind.









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# BACKGROUND



# BACKGROUND

## The Veterans

The tragedy of the Vietnam War continues years after the signing of the truce, long after the final American withdrawal. Among those still suffering are numerous veterans who have felt forgotten, unappreciated, and even discriminated against. For some of them, the trauma of their battle experiences or their physical disabilities have shattered their lives. For even more, adjustment of civilian life has not been easy; they have been truly "strangers at home."

Much of the travail of the Vietnam veterans is in keeping with the lot of veterans since Homeric times or earlier. For Americans returning from earlier wars, psychological and economic adjustments were painful even for Revolutionary War heroes. The hardships and perils facing the Continental Army were so acute, and the needs of families back on the farms were so imperative, that large numbers of soldiers quietly slipped home. During the Civil War the numbers of deserters from both the Union and Confederate armies were in the hundreds of thousands. In World Wars I and II, discipline was so much tighter that desertion was kept to a minimum, but the vicissitudes of army life and the horrors of fighting were the lot of millions of combat troops. Many veterans never fully recovered either physically or psychologically.

Quite possibly in years to come, as perceptions of the Vietnam War alter, a larger proportion of the veterans of this war will, like those of earlier wars, come to enjoy the roles of heroes. Already by 1979, the Vietnam government's invasion of Cambodia and its cruel treatment of the Chinese minority, the forced exodus of the "boat people," and the dedication of the Vietnam Veterans Memorial, were

## The Veterans

making a difference. In time the Vietnam War, too, might generally be perceived as a "just war."

Overall most of the veterans adjusted well both to military service and to their return to civilian life. However, less than half were stationed in Vietnam, and only part of these were combat veterans. It is upon those who served in Vietnam, and especially those who were in combat, that this study, and public attention, rightfully focuses.

In the perceptive analysis and the excerpts from excellent oral history interviews one finds all of the varied responses to combat service that earlier soldiers have experienced, from becoming "war lovers" to suffering shocked revulsion against killing and especially feeling guilt over not somehow preventing the death or wounding of a buddy.

The anguish of of Vietnam veterans, although not in most respects different from that resulting from previous wars, is not easy to alleviate. The fact that public opinion is more sympathetic and that the government may be of more help is encouraging. Most Vietnam veterans have successfully become civilians; life may become more tolerable for the remainder. It is difficult to visualize any number ever living to look with nostalgia upon their experiences, as did Civil War veterans, but the future should bring them a sense of dignity and pride.

# The Veterans



## The Veterans.....

Our Father, our hearts are saddened and our spirits are in anguish for we continue to kill those whom we should be healing. We know that the enemies of peace are in all men, avarice, fear, enmity, anger and pride. We know that the first casualty of war is truth, and yet we debate in ignorance the rightness or wrongness of our cause. Help us rise above our petty truths and national interests. May we know Thy will for all men and all nations. Save us from the brink of this man made Hell of destruction. As we pray for peace, show us what you would have us to be and do.

Pfc. Carl D. Rogers

# The Veterans

Letters from Vietnam

Dear Folks,

I'm writing this letter as my last one. You've probably already received word that I'm dead and that the government wishes to express its deepest regret.

Believe me, I didn't want to die, but I know it was my part of the job. I want my country to live for billions and billions of years to come.

I want it to stand as a light to all people oppressed and guide them to the same freedom we know. If we have done the job God set down for us. It's up to every American to fight for the freedom we hold so dear. If we don't the smells of free air could become dark and damp as in a prison cell.

I can hold my head high because I fought, whether it be in heaven or hell. Besides, the saying goes, "one more GI from Vietnam, St. Peter; I've served my time in hell."

Don't mourn me, Mother, for I'm happy I died fighting my country's enemies, and I will live forever in people's minds. I've done what I've always dreamed of. Don't mourn me, for I died a soldier of the United States of America.

God bless you all and take care. I'll be seeing you in heaven.

Your loving son and brother.  
Butch



# The Veterans

Letters from Vietnam

Dear Mom,

... Mom, I know I will never be the same Joe. Last night I lost one of my best buddies. It wasn't Bob, but he used to run around with us. Some how the V.C. got through our lines and threw a grenade into where my buddy was sleeping. One of my other buddies was wounded seriously and he's expected to die any time. You know, Mom, things didn't really bother me until we got out here in the bad part of Da-Nang. And now I lose two buddies. It's hard, Mom, to get over something like this, that's why I say it's gonna be different.

I don't even smile anymore, nothing seems funny to me, e erything is serious now. Once I get out of here I never want to hear another word about Vietnam or wars. Y u r ad in the papers about demonstrators and all this other bull shit, they ask why we are over here. Well we're stopping communism over here instead of in the people's backyard back home in the U.S.A. And we're doing a damn good job over here and we'll keep on doing a good job. Our Marine corps saying "Death Before Dishonor."

Well the rainy season has finally moved in. It rains just about every day now. Sometimes all day and night.

I sure would like to see my family, especially my little niece. It's gonna be like a new world when I get home. Everything is gonna be so different....

Well, Mom I'm gonna have to rush off now. I'll write more later. God Bless you.

I love you,  
Joe

# The Veterans

Letters from Vietnam

I work seven days a week. Yesterday I stood guard for twelve hours in continuous pouring, pouring rain, covered only by a poncho, trying to keep my rifle dry. Had a most miserable bout with diarrhea-and only an outhouse. A toad just jumped into my sleeping bag. Did you know that this here is the domain of King Cobra? I am thinking of getting me a mongoose, as so many do for protection. Haven't had a cold drink yet. My dreams consist of snow capped mountains, huge icicles, and frosted glasses of beer. Drove three miles by truck to take a shower, am back and just as sweaty as before. Everything sticks; the heat and the humidity are unbearable, inhuman!!! In the rain it is only a cool 90 or so. I asked one of our cooks, "How come there is so much rain here, when other parts of the world there is not enough water?" He said: " My boy, this here is not part of the earth; this here is Hell and He is trying to put the fire Out!" In spite of all, I am in real good spirits, mainly because you and all the family have been so wonderful with your letters. Mostly I miss fresh milk. Once in a while we get fresh eggs, instead of powdered ones. We had steak for dinner; at least I think it was steak.....

(name with-held)

The  
Veterans  
Letters from Vietnam

Dear Barbara,

.... I'm sorry that I've neglected to write, but I've been so tired and tensed up that I hardly know what I'm doing at times. It has gotten to the point where I'm still groggy and half alert an hour and a half after I've been up. I wish they were going to give us some time off. It had better be soon, as most of us have been working 18 and 20 hours a day, besides having 12 hours of guard very fourth night...

Was in V.C. territory this morning and had a couple of shots go whizzing past our vehicle. I wish these little SOB's would come out in the open so we could "clean their clocks" for them. We have a "code of ethics" over here. Don't shoot at them unless they shoot at you first. Just great, isn't it! I sometimes wonder who we are trying to impress over here.....

Your loving brother,  
George

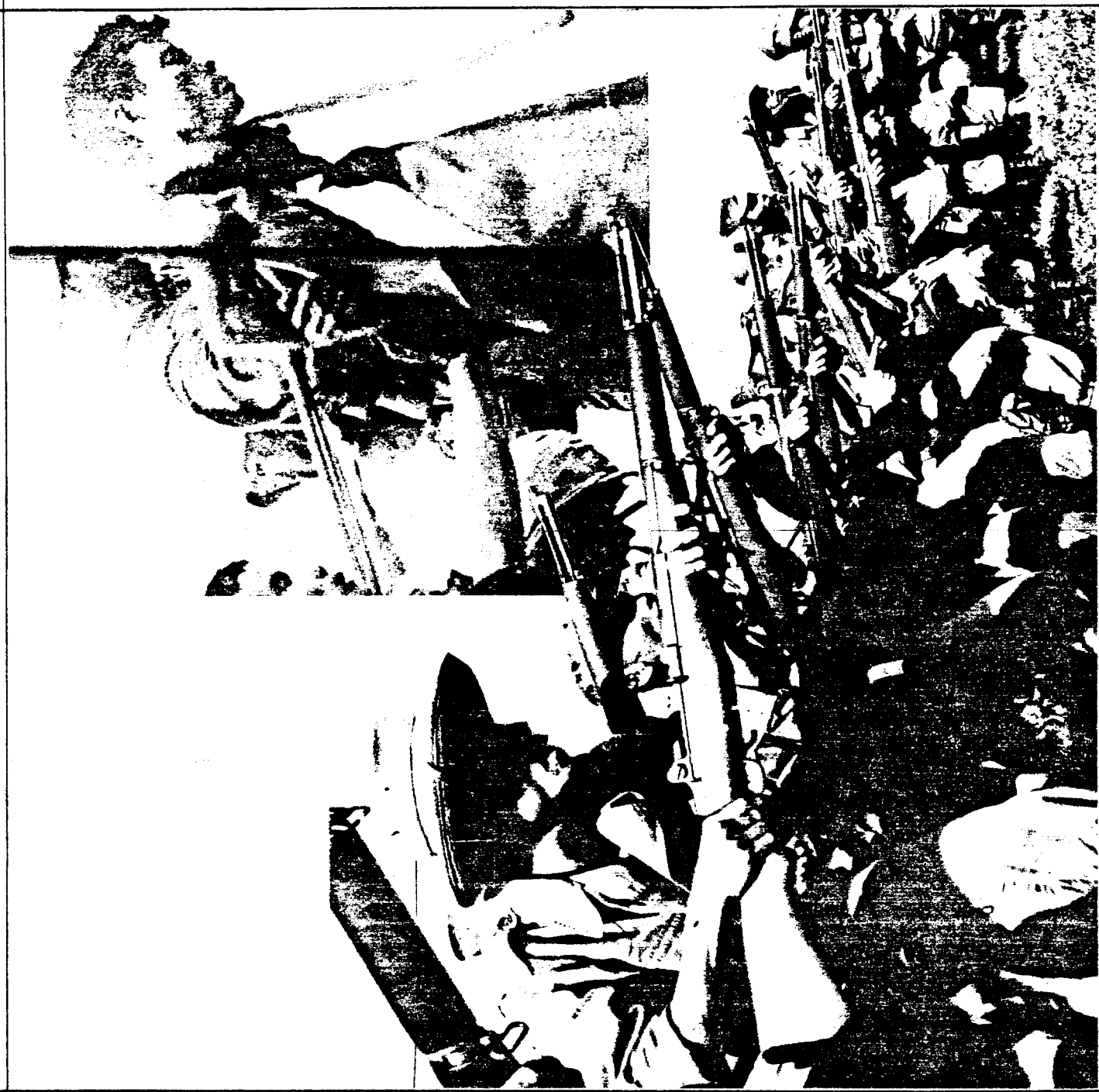
## The War

The Vietnam War was the longest in our Nation's history. Two American advisers were killed on July 8, 1959, and the last casualties in connection with the war occurred on May 15, 1975, during the "Mayaguez" incident. Approximately 2.7 million Americans served in the war zone; 300,000 were wounded and approximately 75,000 permanently disabled. Of the casualties, about 1300 remain missing and unaccounted for.

The American advisory role began in the mid-1950s, and by 1964 U.S. personnel numbered approximately 20,000. With the "Gulf of Tonkin" Resolution, on August 7, 1964 the U.S. Congress authorized the President "to take all necessary measures to repel any armed attack against the forces of the United States and to prevent further aggression." The first American combat troops were landed in March 1965; by mid-1969, at the height of U.S. involvement, American military personnel in Vietnam numbered 550,000. Under a treaty signed by North Vietnam, South Vietnam, the Viet Cong, and the United States, a cease-fire went into effect on January 28, 1973. On April 30, 1975, the government of the Republic of Vietnam surrendered to the advancing North Vietnamese forces and all remaining U.S. civilian and military personnel were evacuated.

During the war, American soldiers, sailors, airmen, and marines fought with heroism and determination under some of the most difficult circumstances ever encountered by American military personnel. Tragically, upon their return home they received virtually no recognition for their service and sacrifice because of the raging domestic controversy over U.S. policy in conducting the war.

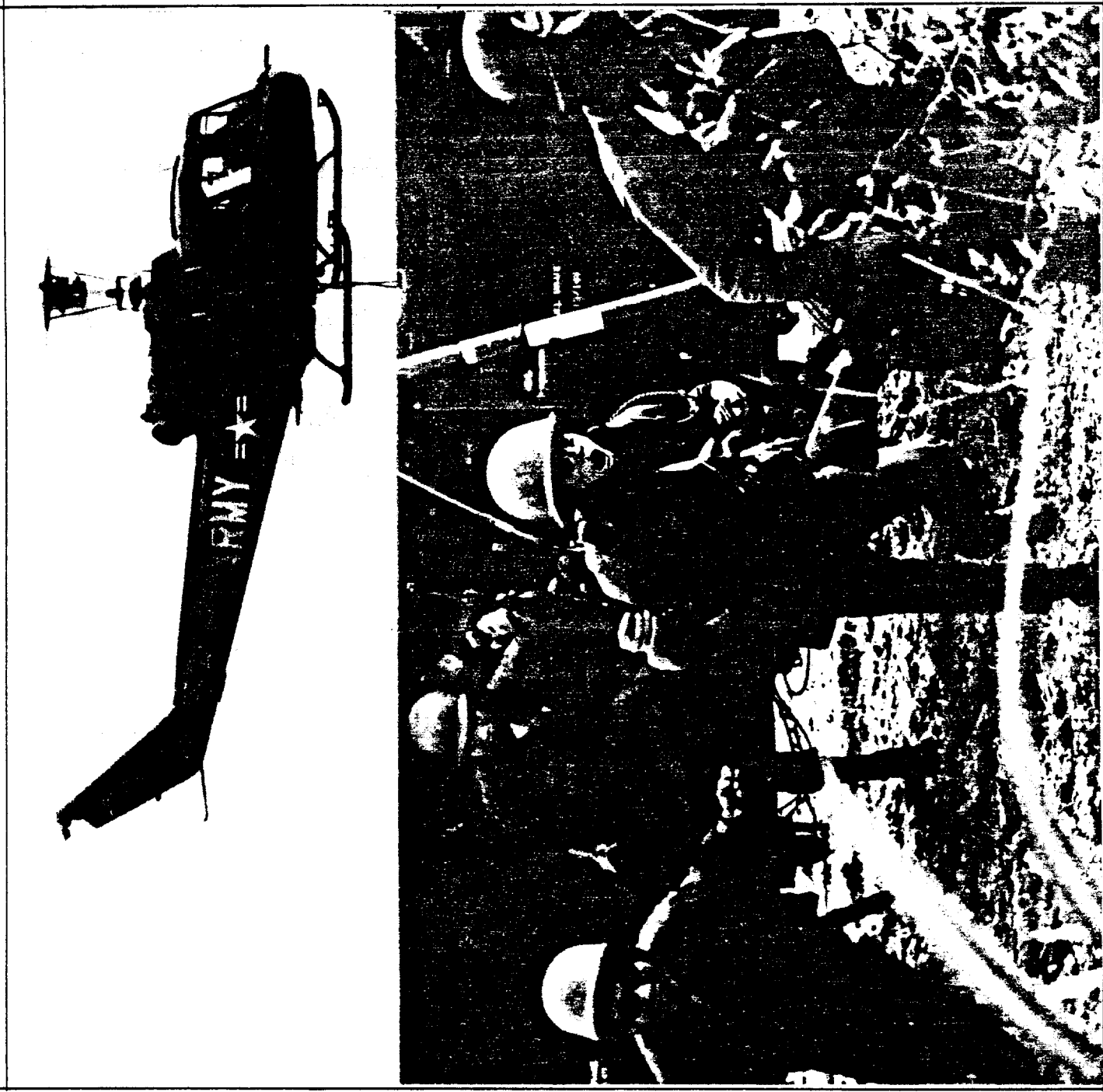
# The War



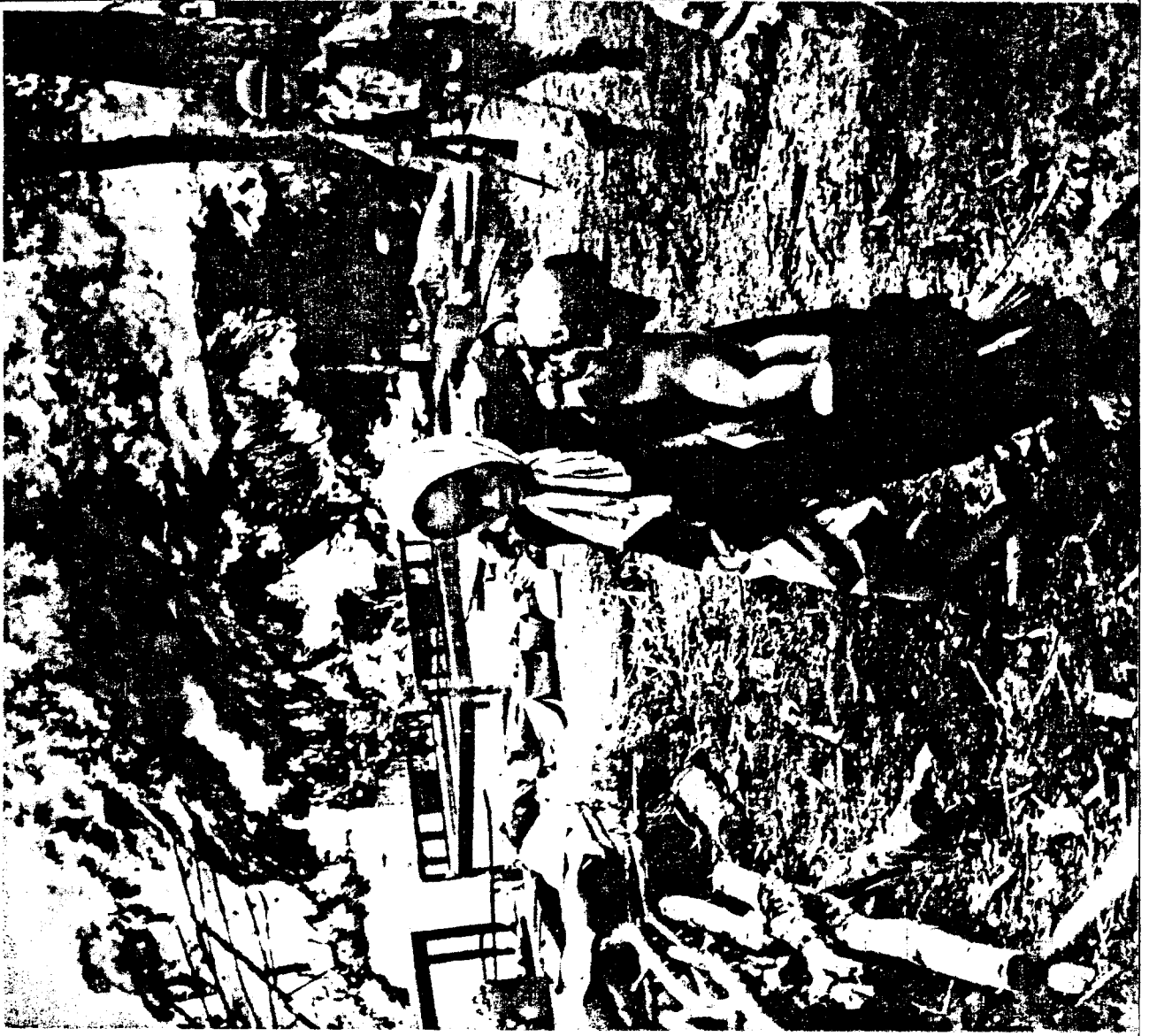
The  
War



# The War



The  
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# The War



# The War

## *Chronology of Events in Viet-Nam and Southeast Asia*

From: "The Vietnam Reader"  
By: Marcus G. Raskin and  
Bernard B. Fall

- 1945*
- September 2. Proclamation by Ho Chi Minh of the Democratic Republic of Viet-Nam.
- 1946*
- March 6. France recognizes the Democratic Republic of Viet-Nam as a "free state within the French Union." French troops return to North Viet-Nam.
- September 14. *Modus vivendi* signed in Paris between Ho Chi Minh and French Overseas Affairs Minister Marius Moutet.
- November 23. At Hai Phong French troops open fire on civilian population, kill 6,000.
- December 19. Viet-Minh forces throughout Indochina attack French troops. The French-Indochina War begins.
- 1947*
- March. Last attempts at negotiation between French and Viet-Minh fail.
- 1948*
- June 5. Bao Dai, French High Commissioner Émile Bollert, and General Nguyen Van Xuan sign

# The War

the Baie d'Along Agreement to establish State of Viet-Nam with Bao Dai as chief of state within the French Union.

## 1949

- March 8. The Elysée Agreement, in the form of an exchange of letters between Bao Dai and President Auriol of France, outlines the general principles affecting French-Viet-Nam relations.
- July 1. Bao Dai decrees formally establish State of Viet-Nam and provide a basis for its organization on a constitutional framework.

## 1950

- February 7. Great Britain and the United States extend *de jure* recognition to Viet-Nam.
- February 19. U.S. Consulate General in Saigon is raised to Legation, and Minister accredited to Viet-Nam, Cambodia, and Laos.
- December 23. United States signs Mutual Defense Assistance Agreement with France, Viet-Nam, Cambodia, and Laos for indirect U.S. military aid to Viet-Nam, Cambodia, and Laos.

## 1951

- September 7. United States signs agreement with Viet-Nam for direct economic assistance.
- September 8. Delegates from Viet-Nam, Cambodia, and Laos participate in the signing of the Japanese Peace Treaty at San Francisco.

## 1952

- July. U.S. Legation in Saigon is raised to Embassy status. U.S. Ambassador presents credentials to Bao Dai. Vietnamese Embassy is established in Washington, D.C.
- October 12. The 200th U.S. ship carrying military aid arrives in Saigon.

## 1954

- May 8. Fall of Dien Bien Phu.
- May 8-July 21. Geneva Conference on Indochina. The delegates are from Great Britain and the U.S.S.R. (Joint chairmen), France, the United States, Communist China, Cambodia, Laos, and Viet-Nam and the Viet-Minh regime. Agreements are signed on July 20 and 21 and the main provisions concerning Viet-Nam are that (1) Viet-Nam is to be partitioned along the 17th Parallel into North and South Viet-Nam, (2) regulations are imposed on foreign military bases and personnel and on increased armaments, (3) country-wide elections, leading to the reunification of North and South Viet-Nam, are to be held by July 20, 1956, and (4) an International Control Commission (I.C.C.) is to be established to supervise the implementation of the agreements. The United States and Viet-Nam are not signatories to the agreements. The United States issues a unilateral declaration stating that it (1) "will refrain from the threat or the use of force to disturb" the Geneva Agreements, (2) "would view any renewal of the aggression in violation of the aforesaid agreements with grave concern and as seriously threatening international peace and security," and (3) "shall continue to seek to achieve unity through free elections, supervised by the U.N. to insure that they are conducted fairly."
- July 7. Head of State and former Emperor Bao Dai appoints Ngo Dinh Diem Premier of Viet-Nam.
- October 24. President Eisenhower sends a letter to Premier Diem of South Viet-Nam stating that American assistance will be given directly to the government of South Viet-Nam. The letter also states that the U.S. government

# The War

	"expects this aid will be met by . . . undertaking needed reforms."		who becomes the first President of South Viet-Nam.
December 29.	Conference of France and the Associated States (Cambodia, etc.) terminates the economic and customs union between the Associated States and France.	December 12.	U.S. Consulate in Hanoi is closed.
			1956
		January.	South Vietnamese Army units occupy Tay Ninh, principal Cao-Dai political center, leading to breakup of the organized Cao Dai armed sect.
January 1.	United States begins to render direct assistance to Viet-Nam.	February 12.	Tran Van Soai, leader of an important Hoa-Hao faction, surrenders. Ba Cut, another principal Hoa-Hao leader, is captured on April 13. Hoa-Hao armed insurgency continues.
February 12.	The U.S. Military Assistance Advisory Group (M.A.A.G.) takes over the training of the South Vietnamese Army.		
February 19.	Southeast Asia Collective Defense Treaty (SEATO)—with its protocol covering Viet-Nam, Cambodia, and Laos—comes into force.	March 4.	General elections for South Viet-Nam's first National Constituent Assembly, which is to have 123 members, results in the victory of the National Revolutionary Movement and other political parties supporting President Diem.
April 23.	Chou En-lai and the North Vietnamese Foreign Minister give assurances of "noninterference" to ex-King Sihanouk of Cambodia.	April 6.	Viet-Nam government announces it will continue to co-operate with the I.C.C. and reiterates its position of supporting Viet-Nam-wide elections at such time as conditions in Communist North Viet-Nam permit genuinely free voting.
May 10.	Premier Diem forms a new Cabinet composed largely of his own followers.	April 26.	French High Command in Indochina dissolved.
July 20.	Talks were scheduled to begin (according to Geneva Agreement) for the preparation of all-Viet-Nam elections to be held on July 20, 1956, to reunite the country. The government of South Viet-Nam rejects the North Vietnamese government's invitation to discuss the elections, on the grounds that in North Viet-Nam the people would not be able to express their will freely and that falsified votes in North Viet-Nam could overrule the votes in South Viet-Nam.	July 20.	All-Vietnamese election, as provided in 1954 Geneva declaration, fails to take place.
		July 30.	Vietnamese liaison mission to the I.C.C. is established preparatory to the transfer of functions from the French liaison mission.
October 23.	A national referendum deposes Bao Dai, former Emperor and, since March 7, 1949, head of State of Viet-Nam. Ninety-eight per cent of the votes express preference for Premier Diem.	October 26.	South Viet-Nam's first constitution is promulgated and the National Constituent Assembly is officially transferred into a National Assembly.
			1957
October 26.	A Republic is proclaimed by Ngo Dinh Diem	January 3.	International Control Commission reports that between December, 1955, and August,

# The War

	1956, neither North Viet-Nam nor South Viet-Nam has been fulfilling its obligations under the 1954 armistice agreement.		
May 5-19.	President Diem visits the United States. He addresses on May 9 a joint session of Congress. In a joint communiqué (issued May 11), President Eisenhower and President Diem declare that both countries will work toward a "peaceful unification" of Viet-Nam.	April 30.	ance and Advisory Group in South Viet-Nam. An opposition group of 18, calling themselves the Committee for Progress and Liberty, sends letter to President Diem demanding drastic economic, administrative, and military reforms.
June 30.	French naval and air force training mission withdrawn at South Vietnamese request.	May 5.	United States announces that at the request of the government of South Viet-Nam, the U.S. Military Assistance and Advisory Group will be increased by the end of the year from 327 to 685 members.
October 22.	Bombing of U.S. M.A.A.G. and U.S.I.S. installations in Saigon; U.S. personnel injured.	November 10.	South Viet-Nam government sends letter to the I.C.C. charging that Communist attacks in the Kontum-Pleiku area in October (1) involved regular army forces from Communist North Viet-Nam through Laos, (2) constituted open aggression which was well prepared, commanded by high-ranking officers, and conducted by regular forces trained in North Viet-Nam, and (3) employed weapons made in North Viet-Nam and other Communist countries.
	<i>1958</i>		
January 4.	Large Communist guerrilla band attacks plantation north of Saigon, reflecting steady increase in Communist armed activity in South Viet-Nam since mid-1957.		
May 17.	North Vietnamese liaison mission to the I.C.C. withdrawn from Saigon at request of South Viet-Nam.		
September 10.	France and South Viet-Nam sign agreement under which France provides aid for the Viet-Nam government's agrarian reform program —1,490 million francs.	November 11.	Military coup attempt against President Diem's regime. Rebel Col. Thi declares that President Diem is guilty of autocratic rule and nepotism and has "shown himself incapable of saving the country from communism and protecting national unity."
	<i>1959</i>		
August 30.	Second national elections give the National Revolutionary Movement and other pro-Government political parties all seats in the National Assembly in South Viet-Nam. No opposition candidates are allowed to take their seats.	November 12.	Loyalist troops enter the capital and subdue the rebels.
		November 13.	U.S. State Department expresses satisfaction at the failure of the coup against President Diem and also hopes that "his powers will be established on a wider basis with rapid implementation of radical reforms and energetic action against corruption-suspected elements."
	<i>1960</i>		
April 17.	North Viet-Nam protests to the chairmen of the 1954 Geneva Conference (Britain and the U.S.S.R.) against a "formidable" increase of personnel in the American Military Assist-	December 20.	Foundation of National Liberation Front of South Viet-Nam.

# The War

1961

January 29.	Radio Hanoi praises establishment of the "National Front for the Liberation of South Viet-Nam (NLFSV)."		communiqué states that during the month of August there were 41 engagements between Government forces and Communist rebels in South Viet-Nam.
April 3.	United States-Vietnamese Treaty of Amity and Economic Relations signed in Saigon.	September 17.	British advisory mission on administrative and policy matters, headed by R. K. G. Thompson (former Permanent Defense Secretary in Malaya), leaves for South Viet-Nam.
April 4.	National Assembly ratifies treaty on June 14. President Diem appeals to the I.C.C. to make an "immediate and energetic investigation" of growing Communist terrorism and subversion throughout South Viet-Nam.	September 18.	Communist forces estimated at 1,500 men attack and seize the capital of Phuoc Thunh Province, only 60 miles from Saigon.
April 9.	President Diem and Vice President Tho are elected by an overwhelming majority in Viet-Nam's Presidential elections.	September 25.	President Kennedy, addressing the U.N. General Assembly in New York, declares that a threat to peace is "the smoldering coals of war in Southeast Asia."
May 5.	President Kennedy declares at a press conference that consideration is being given to the use of U.S. forces, if necessary, to help South Viet-Nam resist Communist pressures. He declares that this will be one of the subjects discussed during the forthcoming visit of Vice President Johnson in South Viet-Nam.	October 1.	Military experts of SEATO meet in Bangkok, Thailand, to consider the increasing Communist menace to South Viet-Nam. Adm. Harry D. Felt, U.S. Navy Commander in Chief in the Pacific, declares that there is no immediate prospect of using U.S. troops to stop the Communist advance in Southeast Asia, but he indicates that among the plans evolved for "every eventuality" some do call for the use of American troops.
May 11-13.	U.S. Vice President Johnson in South Viet-Nam. Joint communiqué on May 13 declares that additional U.S. military and economic aid will be given to help South Viet-Nam in its fight against Communist guerrilla forces.	October 2.	President Diem declares at the opening of the National Assembly's budgetary session: "It is no longer a guerrilla war . . . It is a war waged by an enemy who attacks us with regular units fully and heavily equipped and who seeks a strategic decision in Southeast Asia in conformity with the orders of the Communist International." The President also says that the U.S. committee headed by Dr. Eugene Staley recommended an increase in aid both for military measures and for economic and social development.
May 16.	Fourteen-nation conference on Laos convened in Geneva.	October 11.	President Kennedy announces at his news conference that he is sending General Max-
June 12.	Communist Chinese Premier Chou En-lai and North Vietnamese Premier Phan Van Dong (in Peking on a visit) accuse the United States of aggression and intervention in South Viet-Nam.		
August 2.	President Kennedy declares that the United States will do all it can to save South Viet-Nam from communism.		
September 1-4.	Series of attacks by 1,000 Communist guerrillas in Kontum Province. Army Command		

# The War

	well D. Taylor, his military adviser, to South Viet-Nam to investigate there the military situation and to report on it to him personally.	February 27.	Two South Viet-Nam Air Force fighter planes bomb and strafe Presidential palace in Saigon. Mme. Ngo Dinh Nhu slightly injured.
October 18.	State of emergency is proclaimed in South Viet-Nam by President Diem.	March 17.	Tass Soviet news agency publishes Soviet Ministry note to the signatories of the 1954 Geneva Agreements. The note charges the United States with creating "a serious danger to peace" by its "interference" in South Viet-Nam, in contravention of the Geneva Agreements, and demands immediate withdrawal of U.S. troops.
November 16.	Following closely the recommendations in General Taylor's report, President Kennedy decides to bolster South Viet-Nam's military strength, but not to commit U.S. combat forces at this time.	March 22.	"Operation Sunrise," a comprehensive plan to eliminate the Viet-Cong guerrillas in South Viet-Nam, begins with a mopping-up operation of rebels in Binh Duong Province.
December 8.	U.S. State Department publishes White Paper that South Viet-Nam is threatened by "clear and present danger" of Communist conquest.	April 20.	National Assembly pledges full support to President Diem's plan to establish thousands of "strategic hamlets" in the Communist-infested Mekong Delta during the current year.
December 14.	U.S. President Kennedy pledges increased aid to South Viet-Nam.	June 2.	Canadian and Indian members of the I.C.C. find North Viet-Nam guilty of subversion and covert aggression against South Viet-Nam. The Polish delegation to the Commission rejects the charge.
	1962	June 26.	South Viet-Nam's National Assembly votes to extend its term of office by one year, to August, 1963. The explanation given is that it is impossible to hold elections now, because it would tie down troops needed against the Communist guerrillas.
January 4.	A joint United States-South Vietnamese communiqué announces "broad economic and social program [to raise living standards] . . . Measures to strengthen South Viet-Nam's defense in the military field are being taken simultaneously."	July 6.	U.S. Secretary of Defense Robert McNamara declares that, while a final victory over the Communists in South Viet-Nam is years away, he is encouraged by the increased effectiveness of U.S. aid to the South Vietnamese forces.
February 7.	Two U.S. Army air-support companies totaling 300 men arrive in Saigon, increasing the total of U.S. military personnel in South Viet-Nam to 4,000.	August 20.	Sihanouk asks President Kennedy for an international conference to guarantee Cambodia's neutrality—threatens to ask for Chi-
February 8.	United States reorganizes its South Viet-Nam military command, establishes new "U.S. Military Assistance Command, Viet-Nam" (M.A.C.V.) under four-star General Paul D. Harkins.		
February 24.	In a Peking Radio broadcast, Communist China declares her security seriously threatened by an "undeclared war" being waged by the United States in South Viet-Nam. The broadcast demands the withdrawal of U.S. personnel and equipment.		

# The War

	nese Communist protection in the absence of guarantees.		
October 26.	National Assembly extends by one year President Diem's emergency powers to rule by decree.		
November 8.	South Viet-Nam withdraws its Ambassador to Laos as a result of Laos' establishment of diplomatic relations with North Viet-Nam.	March 5.	
December 6.	South Vietnamese government protests to the I.C.C. against the introduction of Chinese-made weapons and ammunition.		
December 29.	Government in Saigon announces that 4,077 strategic hamlets have been completed (of a total of 11,182 to be built) and that 39 per cent of South Viet-Nam's population is now living in these communities.	May 8.	
	1963		
January 2.	At the village of Ap-Bac, in the Mekong Delta, 200 VC soldiers hold their ground against 2,000 A.R.V.N. troops supported by helicopters, airplanes, and armor (shoot down 5 helicopters, kill 3 Americans). This is the first "stand-and-fight" battle of the Second Indochina war.	June 3.	
January 9-11.	Adm. Harry D. Felt, Commander in Chief of U.S. forces in the Pacific, confers with Gen. Paul D. Harkins and declares, before his departure, that the Viet-Cong guerrillas face "inevitable" defeat, and he says: "I am confident the Vietnamese are going to win the war."	June 11.	
January 30.	Admiral Felt, Commander in Chief, Pacific, states that "the South Vietnamese should achieve victory in three years."	June 16.	
April 17.	President Diem proclaims an "open arms" campaign to induce Viet-Cong guerrillas to give up their weapons and return to the side of South Viet-Nam.	June 27.	
April 22.	U.S. Secretary of State Dean Rusk calls the	July 11.	
			situation in South Viet-Nam "difficult and dangerous," and says that the United States "cannot promise or expect a quick victory" and that its role is "limited and supporting." Gen. Paul D. Harkins, Commander of Military Assistance Command, Viet-Nam (M.A.C.V.) affirms that "the South Vietnamese Armed Forces have now attained the experience, training, and necessary equipment required for victory."
			Riot erupts in northern city of Hué, former imperial capital, 400 miles north of Saigon. Involves Buddhist celebration of the anniversary of Buddha's birth and the flying of flags on the special day—12 persons are killed, including some children. Buddhist leaders charge that government troops fired into the crowd, while government officials say that Communists were responsible for the explosion.
			Buddhist demonstrations break out in Hué. Martial law is swiftly imposed.
			Buddhist monk (Thich Quang Duc) commits suicide by burning himself to death with gasoline in front of the Cambodian legation. Further aggravates religious crisis involving South Vietnamese Buddhists.
			Government troops use force to suppress riots in Saigon which follow an agreement between Buddhist leaders and the government.
			President Kennedy announces the appointment of Henry Cabot Lodge as the next American Ambassador to South Viet-Nam.
			U.S. Ambassador Nolting returns to South Viet-Nam after consultations in Washington and issues a statement assuring continued U.S. support to President Diem and warning that "unity of purpose and purpose in action" must not be weakened by "internal dissension."



# The War

- August 21. Martial law is proclaimed throughout South Viet-Nam by President Diem after hundreds of armed police and government troops raided the main Buddhist Xa Loi pagoda in Saigon.
- August 22. Foreign Minister Vu Van Mau (a Buddhist) submits his resignation to President Diem. Also on the same day, South Viet-Nam's Ambassador to the United States Tran Van Chuong (father of Mme. Ngo Dinh Nhu) resigns. Both resign in disapproval of government policies toward Buddhists. Department of State issues statement deploring action against Buddhist pagodas.
- August 26. U.S. Ambassador Henry Cabot Lodge presents his credentials to President Diem.
- August 27. Cambodia breaks off diplomatic relations with South Viet-Nam.
- August 28. A senior M.A.C.V. officer is quoted in the New York *Herald Tribune* as saying that "there has been no evidence of any increase in the number of Viet-Cong units in the Mckong Delta even though we expected there would be because our strategy is to sweep them steadily southward and finally corner them. The delta area under our control is increasing, not spectacularly, but steadily."
- August 29. French President de Gaulle issues policy statement on South Viet-Nam. He declares that France is able "to appreciate the role this people would be capable of playing in the current situation of Asia for its own progress and for the benefit of international understanding once it was able to exercise its activity in independence from foreign influence, in internal peace and unity, and in concord with its neighbors. Today, more than ever, this is what France wishes for all of Viet-Nam."
- September 2. *Times of Vietnam* charges that U.S. Central Intelligence Agency agents had planned a *coup d'état* for August 28 to overthrow President Diem. On the same day, U.S. President Kennedy declares that the United States is prepared to continue to assist South Viet-Nam "but I don't think that the war can be won unless the people support the effort and, in my opinion, in the last 2 months, the government has gotten out of touch with the people."
- September 13. Marquis Childs is quoted in the Washington *Post* as stating that "confidential reports from high American authorities in Saigon say that the war can be won in 9 months. They say that the border with North Viet-Nam has been 95 per cent closed. The Viet-Cong guerrillas are being starved out."
- September 14. Decree announces end of martial law in Viet-Nam on September 16.
- September 21. President Kennedy orders Secretary of Defense Robert S. McNamara and Gen. Maxwell D. Taylor, Chairman of the Joint Chiefs of Staff, to go to South Viet-Nam to review the military efforts against the Communist Viet-Cong. McNamara and Taylor in South Viet-Nam from September 24 to October 1.
- September 27. Elections are held for the 123-member National Assembly. All candidates were approved in advance by the government; many were unopposed, including President Diem's brother, Ngo Dinh Nhu, and his wife, Mme. Nhu.
- October 2. In a statement released by the White House, Secretary McNamara and General Taylor reported their judgment that "the major part of the United States military task [Viet-Nam] can be completed by the end of 1965." They reported that by the end of this year the United States program for training Viet-

# The War

October 8.	<p>namease should have progressed to the point where 1,000 U.S. military personnel assigned to South Viet-Nam can be withdrawn.</p> <p>U.N. General Assembly agrees to send a fact-finding mission to South Viet-Nam to investigate charges of government oppression of Buddhists. The Diem government on October 4 had invited the U.N. to send such a mission.</p>	November 15.	<p>for a neutral, independent Viet-Nam, stating that the result would be a Communist Viet-Nam.</p> <p>U.S. military spokesman in Saigon reports that 1,000 U.S. servicemen will be withdrawn from South Viet-Nam, beginning December 3.</p>
November 1.	<p>"Victory in the sense it would apply to this kind of war is just months away and the reduction of American advisers can begin any time now," says Gen. Harkins in <i>The Stars &amp; Stripes</i>, Tokyo.</p>	November 20.	<p>U.S. Defense Secretary Robert S. McNamara and Secretary of State Dean Rusk confer in Honolulu, Hawaii, with U.S. Ambassador to South Viet-Nam, Henry Cabot Lodge and Gen. Paul D. Harkins.</p>
November 1.	<p>Military coup (organized by the key generals of the armed forces) against the Diem regime. Rebels lay siege to the presidential palace in Saigon, which is captured by the following morning. President Diem and his brother, Ngo Dinh Nhu, escape from the palace, but a few hours later are taken by the rebels, and while being transported in an armored carrier to rebel headquarters they are assassinated.</p>	November 22.	<p>President John F. Kennedy is assassinated in Dallas, Texas. His successor Lyndon B. Johnson affirms on November 24 the U.S. intention to continue its military and economic support of South Viet-Nam's struggle against the Communist Viet-Cong.</p>
November 2.	<p>Military leaders in South Viet-Nam set up a provisional Government headed by former Vice President Nguyen Ngoc Tho (a Buddhist) as Premier. The Constitution is suspended and the National Assembly dissolved. Buddhists, students, and other political prisoners arrested by the former regime are released.</p>	December 19-20.	<p>U.S. Defense Secretary McNamara and Director of C.I.A. John A. McCone in Saigon to evaluate the new government's war efforts against the Viet-Cong.</p>
November 4.	<p>Premier Nguyen Ngoc Tho of South Viet-Nam announces formation of a mixed military-civilian Cabinet which has been approved by the military leaders. United States recognizes the new provisional government of South Viet-Nam. U.S. Secretary of State Dean Rusk rejects, during a press conference, French President de Gaulle's proposals</p>	January 2.	<p>1964</p> <p>Secretary Rusk announces in news conference that "A Vietnamese Army group seized in the delta area of Viet-Nam some 300,000 rounds of small arms ammunition, weapons like mortars, recoilless ammunition, made in China" and that almost certainly Hanoi was primarily responsible for their infiltration into South Viet-Nam.</p>
		January 17.	<p>The joint Vietnamese-American survey of the strategic hamlet program shows serious flaws and less than 20 per cent of the 8,000 villages as viable. Gen. Nguyen Khanh was to say in April, 1964, that VC controlled close to 7 million (about 57 per cent of South Viet-Nam's rural population).</p>

# The War

January 27.	Secretary McNamara testifies before the House Armed Services Committee: "Viet-Cong activities were already increasing in September [1963] and continued to increase at an accelerated rate in October and November, particularly in the [Mekong] Delta area."	March 26.	In a major policy speech, Secretary McNamara announces that an additional 50 million dollars would be requested for Viet-Nam, that 50 thousand more troops would be levied in South Viet-Nam, and that the war there might not be finished "in the first thousand days of the Johnson Administration."
January 27.	U.S. Secretary of Defense McNamara in a speech before the House Armed Services Committee states that the situation in South Viet-Nam "continues grave," but that "the survival of an independent government in South Viet-Nam is so important to the security of Southeast Asia and to the free world that I can conceive of no alternative other than to take all necessary measures within our capability to prevent a Communist victory." France establishes diplomatic relations with Communist China.	April 27.	VC regular strength is now estimated at 45 battalions.
January 30.	Military coup, organized by Maj. Gen. Nguyen Khanh, ousts government of Maj. Gen. Duong Van Minh from power in South Viet-Nam.	May 2.	Explosion in Saigon Harbor sinks U.S. aircraft transport ship.
February 7.	When asked at a press conference about certain neutralization proposals regarding South Viet-Nam, Secretary Rusk reiterates U.S. policy that, "If the agreements which have already been reached and which have been signed by those in the north would be fulfilled, there could be peace in Southeast Asia."	May 12.	Secretary Rusk asks NATO members to give greater support to South Viet-Nam.
February 18.	Secretary McNamara testifies before Congress that the "bulk" of the United States forces in Viet-Nam can still be expected to leave by 1965.	May 12-13.	Secretary McNamara and General Taylor make fifth on-the-spot review of South Viet-Nam.
March 7.	General Khanh announces a one-year reform program to rebuild South Viet-Nam's political and administrative structure and raise standard of living.	May 18.	The White House requests an additional 125 million dollars for economic and military aid to Viet-Nam.
March 8-12.	McNamara and Taylor in Saigon.	May 20.	France proposes reconvening of 14-nation conference on Laos in Geneva. This proposal is rejected by the United States and United Kingdom and endorsed by the Soviet Union, Poland, Cambodia, India, and Communist China.
		May 22.	Secretary Rusk, stating the choices in Viet-Nam, says: "A third choice would be to expand the war. This can be the result if the Communists persist in their course of aggression."
		June 12.	President de Gaulle calls for an end to all foreign intervention in South Viet-Nam.
		June 23.	President Johnson announces appointment of Gen. Taylor to be U.S. Ambassador to South Viet-Nam and Alexis Johnson as Deputy Ambassador.
		July 4-9.	Three Special Forces camps are attacked on the Highlands.
		July 28.	An additional 5,000 U.S. troops will be sent

# The War

	to Viet-Nam, raising total U.S. forces there to 25,000.	September 3.	Gen. Khanh resumes premiership; Taylor sees him "rested and recovered." Duong Van Minh restored to position of chief of state.
July 30.	A South Vietnamese naval force strikes at North Vietnamese radar and naval installations at Hon Mat and Hon Ngu islands. Units of the U.S. 7th Fleet apparently were not informed of the strike.	September 13.	Bloodless coup by Brig. Gen. Lam Van Phat against Gen. Khanh in Saigon. It fails.
August 2.	A U.S. Navy destroyer on patrol in the Gulf of Tonkin is pursued by North Vietnamese patrol torpedo boats. They are driven off by gun fire and air attacks.	September 20.	Tribesmen from the Special Forces mutiny against Vietnamese officers and demand autonomy for the mountain areas.
August 4.	U.S. destroyers <i>Maddox</i> and <i>C. Turner Joy</i> report torpedo attack. Two North Vietnamese PT boats sunk.	September 26.	Viet-Nam High National Council formally inaugurated and is charged with preparing a new constitution.
August 5.	United States sends reinforcements to Tonkin Bay area.	October 20.	Revolutionary Council presents new Viet-Nam constitution.
August 5.	President Johnson's message to Congress; joint resolution is introduced "To promote the maintenance of international peace and security in Southeast Asia."	October 21.	United States charges Cambodian troops crossed South Viet-Nam border and seized a U.S. officer.
August 7.	U.S. Congress approves Southeast Asia resolution (Senate vote, 88-2; House vote, 416-0). Gen. Khanh declares state of emergency in Viet-Nam.	October 25.	United States charges Cambodians fired on U.S. helicopter in South Viet-Nam searching for missing U.S. officer.
August 11.	President Johnson signs Southeast Asia resolution into law (Public Law 88-408).	October 26.	Viet-Nam Revolutionary Council elects Phan Khac Suu chief of state.
August 16.	Gen. Khanh, elected Vietnamese President by "Military Revolutionary Council," ousts Duong Van Minh as chief of state and proclaims new "constitution."	October 27.	Cambodia claims it shot down U.S. C-123. United States admits plane over Cambodian territory due to "map-reading error."
August 25.	Gen. Khanh promises liberalization of regime after repeated protests by Vietnamese.	November 1.	Tran Van Huong named Premier of Viet-Nam.
August 27.	New Viet-Nam Constitution is withdrawn; Revolutionary Council disbands; Gen. Khanh, Duong Van Minh, and Tran Thien Khiem are named provisional leaders.	November 2.	Russia delivers new arms shipment to Cambodia to replace American equipment.
August 29.	Nguyen Xuan Oanh is named acting premier of Viet-Nam to head caretaker government. He states Gen. Khanh has suffered "mental and physical breakdown."	December 4.	South Viet-Nam military leaders announce support of Premier Tran Van Huong's government.
		December 20.	Military stage purge; dissolve civilian High National Council (provisional legislature). United States opposes power takeover of military and dissolution of civilian parliament.
		December 21.	Gen. Khanh supports power of military versus U.S. appeals; declares Viet-Nam forces would not fight "to carry out the policy of any foreign country."

# The War

December 24.	Terrorist bombing in Saigon kills 2 Americans and wounds 52 Americans and 13 Vietnamese.		
	1965		
January 1.	Battle for Binh-Gia. In a stand-and-fight battle, three Communist battalions attack and destroy a larger South Vietnamese force inflicting heavy casualties.	February 9.	The President orders "retaliatory" strikes on North Vietnamese targets. The round-the-clock bombardment of North Viet-Nam begins. Russian Prime Minister Kosygin was in Hanoi when raids began.
January 4.	In State of the Union message, President Johnson states: "In Asia, communism wears a more aggressive face. We see that in Viet-Nam. "Why are we there? "We are there, first, because a friendly nation has asked us for help against Communist aggression. Ten years ago we pledged our help. Three Presidents have supported that pledge. We will not break it. "Second, our own security is tied to the peace of Asia. Twice in one generation we have had to fight against aggression in the Far East. To ignore aggression would only increase the danger of a larger war. "Our goal is peace in Southeast Asia. That will come only when aggressors leave their neighbors in peace. "What is at stake is the cause of freedom. In that cause we shall never be found wanting."	February 11.	Prime Minister Kosygin in a speech in Hanoi promises increased aid to North Viet-Nam. South Vietnamese air force planes also hit North Viet-Nam.
		February 12.	Viet-Cong blow up U.S. barracks at Qui-Nhon. Kill 19 U.S. troops and injure 13.
		February 15.	160 U.S. and Vietnamese aircraft attack North Viet-Nam.
		February 16.	North Viet-Nam asks the withdrawal of International Control Commission Field Teams. Peking urges "concrete action" against the U.S. American dependents are being evacuated from South Viet-Nam.
		February 17.	According to a Gallup poll 60 per cent of those questioned are in favor of a United Nations force to deal with the problem of Southeast Asia and Viet-Nam. 20 per cent disapprove and 20 per cent have no opinion.
		February 18.	Secretary of Defense McNamara in his annual defense review before Congress states that the U.S. has no alternative but to continue the struggle in South Viet-Nam.
		February 20.	India Prime Minister Shastri outlines a proposal for the neutrality and independence of both Viet-Nams.
January 14.	U.S. Army reports that between January 1, 1962, and November 30, 1964, a total of 28 army helicopters were lost in battle and 58 in accidents.	February 21.	It is reported that major Communist supplies enter South Viet-Nam via the sea rather than via the "Ho Chi Minh" trail.
February 2.	Presidential Assistant McGeorge Bundy flies to Viet-Nam for on-the-spot evaluation.	February 24.	U.S. jet bombers are used inside South Viet-Nam for air strikes against Viet-Cong targets.
February 7.	8 American servicemen were killed and 62 wounded in an attack by 100 VC guerrillas on Pleiku. Several American helicopters were also destroyed.	February 27.	The State Department publishes a second White Book on Viet-Nam.
		March 7.	A Marine force of 3,500 men is being sent to Da Nang. This brings the total of U.S. troops in Viet-Nam to 27,000.

# The War

March 24.	Secretary of State Dean Rusk explains in a press conference that the use of "police type" gases in South Viet-Nam does not constitute "gas warfare."	June 25.	Red China and North Viet-Nam refuse to receive the Commonwealth peace mission.
March 30.	Viet-Cong saboteurs blow up U.S. Embassy in Saigon, kill 20 and injure 175.	July 8.	General Maxwell D. Taylor resigns as U.S. Ambassador to South Viet-Nam and is replaced by Henry Cabot Lodge.
April 7.	President Johnson, at Baltimore, offers "unconditional" discussions to North Viet-Nam and a regional 1-billion-dollar aid program to Southeast Asia.	July 10.	At a press conference, the President declares that in Viet-Nam "we committed our power and our national honor and that has been reaffirmed by three presidents."
April 14.	In a joint statement issued by Soviet Premier Kosygin and North Vietnamese Premier Pham Van Dong, a four-point program for negotiations is outlined involving withdrawal of foreign bases and troops from both Viet-Nams and reunification of both Viet-Nams at a later date through free elections.	July 11.	Secretary of State Dean Rusk, referring to U.S. air attacks on North Viet-Nam, states that "the idea of the sanctuary is dead."
May 4.	President Johnson bids Congress for another special appropriation of 700 million dollars for Viet-Nam.	July 15.	"Voluntary censorship" of news requested of journalists by U.S. Military Assistance Command, Viet-Nam.
June 9.	American ground combat troops are now openly committed to operations in Viet-Nam. The White House denies that this constitutes a change in U.S. policies.	July 16.	In Moscow, roving Ambassador W. Averell Harriman begins informal Viet-Nam talks with Soviet Premier Alexey Kosygin.
June 10.	There are now in Viet-Nam 54,000 U.S. troops, including 24,500 Army men, 16,500 Marines, 9,500 Air Force and 3,500 Navy men.	July 25.	Secretary of Defense McNamara, on another visit to Saigon, is met with requests for additional U.S. troops. Upon leaving Viet-Nam on July 20 he declares that "in many respects there has been a deterioration" in the Viet-Nam war since his last visit fourteen months earlier.
June 17.	American B-52 heavy jet bombers attack Viet-Cong installations inside South Viet-Nam with conventional explosive bombs. By October, 1965, close to 15,000 tons of bombs were dropped by the B-52's.	July 28.	Soviet surface-to-air (SAM) missiles positioned in the Hanoi area shoot down a U.S. Air Force jet fighter-bomber operating over North Viet-Nam.
June 24.	The Soviet Union refuses to receive a Commonwealth mission, composed of representatives of Britain, Nigeria, Trinidad-Tobago, and Ghana; seeking to promote Viet-Nam peace talks.	July 29.	United States retaliates by bombing some of the SAM sites. In his press conference of the same day, President Johnson states that "we must not let this mask the central fact that this is really war."
	The new South Vietnamese military regime of Brig. Gen. Nguyen Cao Ky breaks diplomatic relations with France.	August 13.	A brigade task force of the 101st Airborne Division lands in Viet-Nam, reinforcing the 173d Airborne Brigade and the 3d Marine Division already there. Fifty thousand more U.S. troops are ordered to Viet-Nam.
			The United States formally reaffirms its ad-

# The War

- herence to the 1949 Geneva Conventions on the treatment of prisoners and war victims.
- August 14.** The 7th Regimental Landing Team, 1st Marine Division, lands in Viet-Nam.
- August 18.** The Senate approves a \$1.7 billion supplementary appropriation for military operations in Viet-Nam. The presence of the North Vietnamese 325th Division (18th, 95th, and 101st Regiments) inside South Viet-Nam is reported.
- September 12.** With the arrival of the 1st Cavalry Division (Airmobile), in Viet-Nam, U.S. servicemen there now number 128,500.
- September 21.** The Pentagon recommends the increase of U.S. forces in Viet-Nam to the 200,000-man level.

# The War

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NOTE: This bibliography is merely indicative of the increasingly vast body of literature available on Viet-Nam, but it groups some of the most important recent books on the subject and is representative of the diverse viewpoints now prevailing.

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# The Memorial

## HISTORY

On April 27, 1979, the Vietnam Veterans Memorial Fund, Inc. (VVMF) was formed for the purpose of establishing a memorial in Washington, D.C. to serve as a symbol of the nation's honor and recognition of the men and women who served in Vietnam War. On July 1980, through the support of U.S. Senator Charles McC. Mathias, Jr., of Maryland and John W. Warner of Virginia, Congress authorized a two-acre site in Constitution Gardens near the Lincoln Memorial as the future location of the Vietnam Veterans Memorial.

On May 1, 1981, the design of the memorial was selected through a national design competition. The winning design was authored by Maya Ying Lin of Athens, Ohio, who at the time was a 21 year old architectural student attending Yale University. In August of 1981, VVMF selected an architecture firm, Cooper-Lecky Partnership, and a construction manager, Gilbane Building Company, to develop and build the design. Ms. Lin was retained as a design consultant to the architect of record. In January of 1982, the decision was made to add a figurative sculpture and flag staff to the memorial site to provide a realistic depiction of Vietnam fighting men and a symbol of their devotion to country. Soon after, Washington sculptor Frederick Hart was selected to provide the sculpture "Three Fighting Men" to be placed at the site.

Construction of the memorial proceeded in four phases. The initial work included the granite wall and walkway paving, the curb behind the wall, the landscaping in the bowl area and the addition of trees, mainly to the north and west of the wall. This work was completed in late October 1982, and dedicated on Veterans Day, November 13. The second phase was primarily work to the bowl area, and included the surface drain system and alterations to the soil to improve permeability rate. The work was completed in the spring of 1983. The third phase, initiated in April 1983, was the erection of the flagpole and the sculpture, and also included alterations to the bituminous paving, landscaping, and foundations in the sculpture area. During the final phase, the granite walk in front of the wall was widened and extended with granite sets; the granite paving was installed at the base of the flagpole and in the sculpture area; lighting was added for the wall, the sculpture and the flag; the sculpture area landscaping was completed; and the bronze housings for the directories were installed. The sculpture, which will be bronze cast, is expected to be installed in November 1984.

# The Memorial

## MEMORIAL DESIGN:

Situated in a park-like setting, the memorial appears as a long, low V-shaped rift in the earth. Lined with polished black granite, the walls of the memorial emerge from and recede into the earth, bearing the names of all who gave their lives or remain missing as a result of the Vietnam War. Though the names appear infinite in number, their organization on the wall brings closure to the experience. Maya Ying Lin, the designer of the memorial, explains:

The memorial is composed not as an unchanging monument, but as a moving composition, to be understood as we move into and out of it; the passage itself is gradual, the descent to the origin slow, but it is at the origin that the meaning of the memorial is to be fully understood. At the intersection of these walls, on the right side, at the wall's top, is carved the date of the first death. It is followed by the names of those who have died in the war, in chronological order. These names continue on this wall, appearing to recede into the earth at the wall's end. The names resume on the left wall, as the wall emerges from the earth, back to the origin, where the date of the last death is carved, at the bottom of this wall. Thus the war's beginning and end meet; the war is 'complete,' coming full circle, yet broken by the earth that bounds the angle's open side, and contained within the earth itself. As we turn to leave, we see these walls stretching into the distance, directing us to the Washington Monument, to the left, and the Lincoln Memorial, to the right, thus bringing the Vietnam Memorial into historical context. We the living are brought to a concrete realization of these deaths.

The cast bronze sculpture is sited in a grove of trees southwest of the memorial. Entitled "Three Fighting Men", the sculpture depicts three Vietnam veterans returning from battle, and is oriented such that the figures look toward the vertex of the memorial. The sculptor, Frederick Hart, describes his creation as follows:

The portrayal of the figures is consistent with history. They wear the uniform and carry the equipment of war; they are young. The contrast between the innocence of their youth and the weapons of war underscores the poignancy of their sacrifice. There is about them the physical contact and sense of unity that bespeaks the bonds of love and sacrifice that is the nature of men at war. And yet they are each alone. Their strength and their vulnerability are

## The Memorial

both evident. Their true heroism lies in these bonds of loyalty in the face of their aloneness and vulnerability.

Located near the sculpture, the American flag flies from a bronze staff. The cast bronze base contains the emblems of the five armed services.

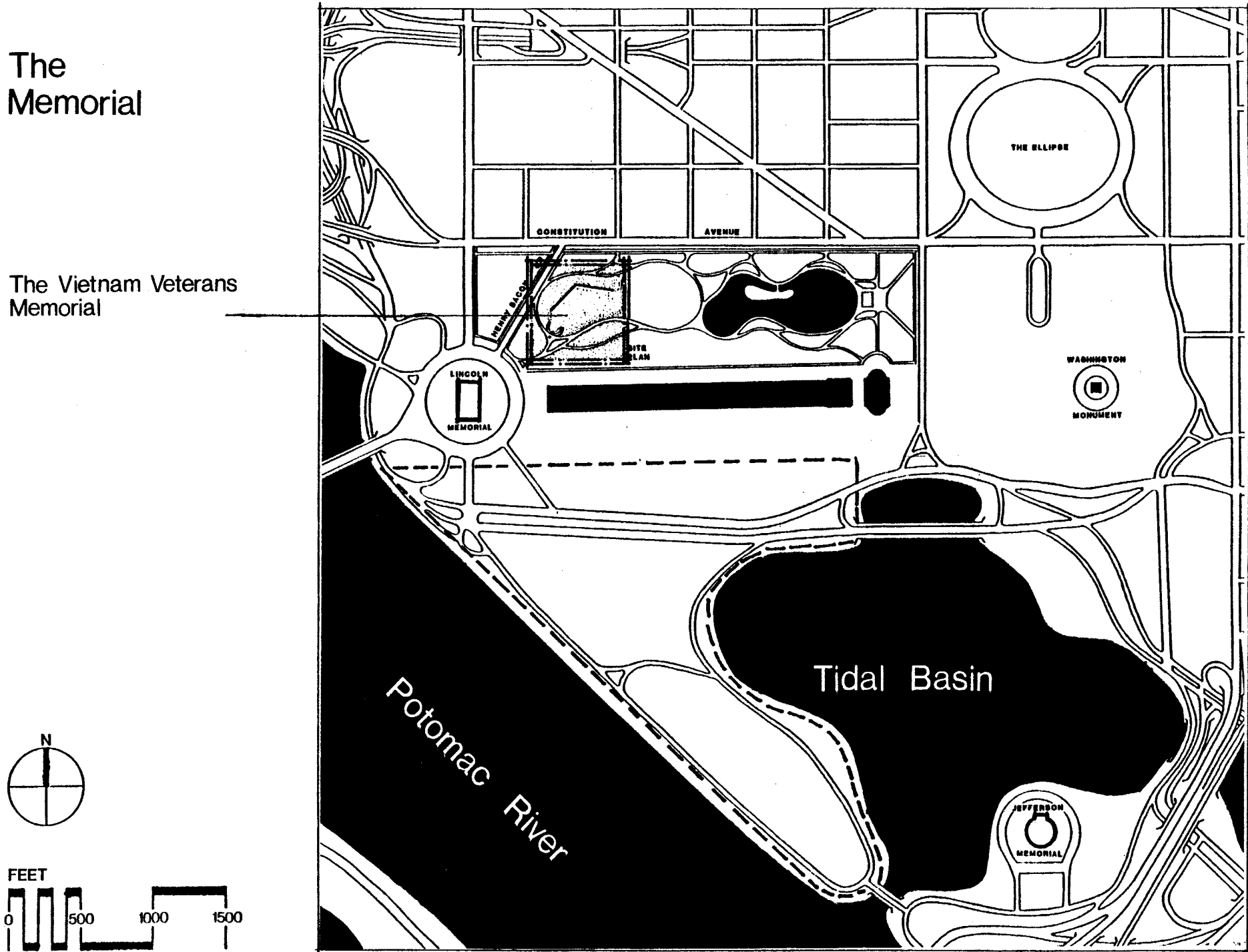
### ARRANGEMENT OF NAMES:

Each of the walls is composed of seventy separate inscribed granite panels. The largest panels have 137 lines of names; the shortest have a single line. There are five names on each line. Lines on each panel are oriented toward the vertex, with one "justified" side where all the lines are aligned vertically, and one "ragged" side with an irregular margin. Thus, on the east wall the alignment occurs on the left side of each panel, and on the west wall it occurs on the right. On both walls the panels are numbered from "1" to "70," with panel number 1 at the vertex and panel number 70 at the far ends. The numbers are inscribed at the bases of the panels and include an "E" or a "W" to designate east (toward the Washington Monument), or west (toward the Lincoln Memorial). On alternate panels, every tenth line is denoted by a drilled "dot" in the margin to facilitate counting the lines.

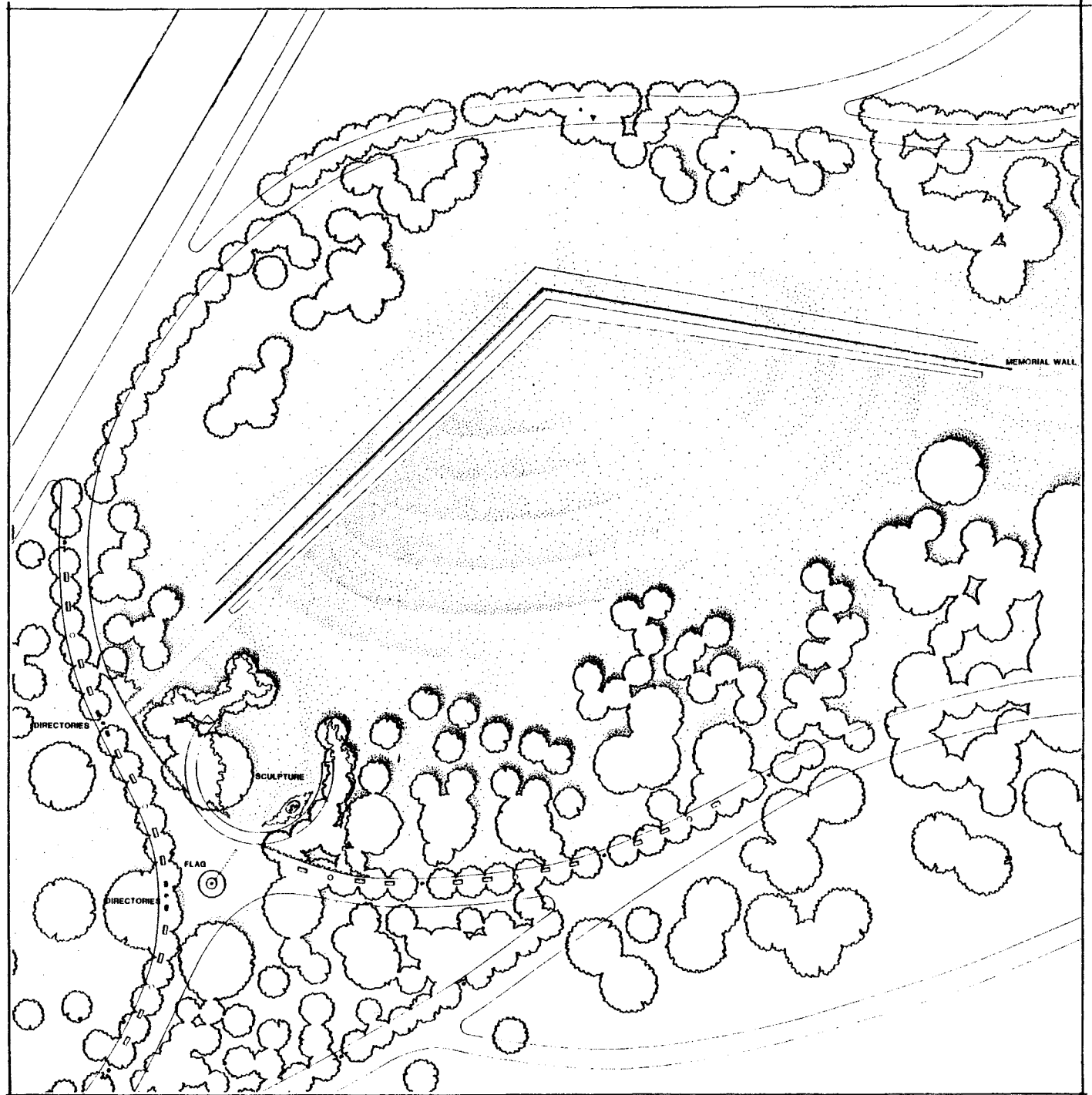
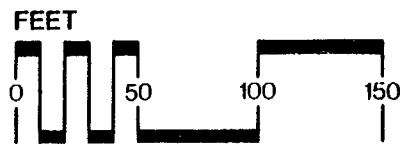
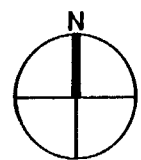
The names of the first casualties, in July 1959, appear on the first line of the first panel on the east wall below the date "1959." The chronological listing of the names proceeds line by line down each panel and then to the top line of the panel to the right, as though the panels were pages in a book. The sequence of names proceeds from panel 70 on the east wall to panel 70 on the west wall. The listing continues on each panel to the right, until the names of the last casualties, in May 1975, form the last lines of the last panel on the west wall, above the date, "1975." Thus the beginning and the end are on adjacent panels on either side of the vertex, at the intersection of the two walls. The prologue and epilogue, immediately adjacent to the large dates on the wall panels, are also etched in the glass tops of the bronze locators.

The Memorial

The Vietnam Veterans Memorial



# The Memorial



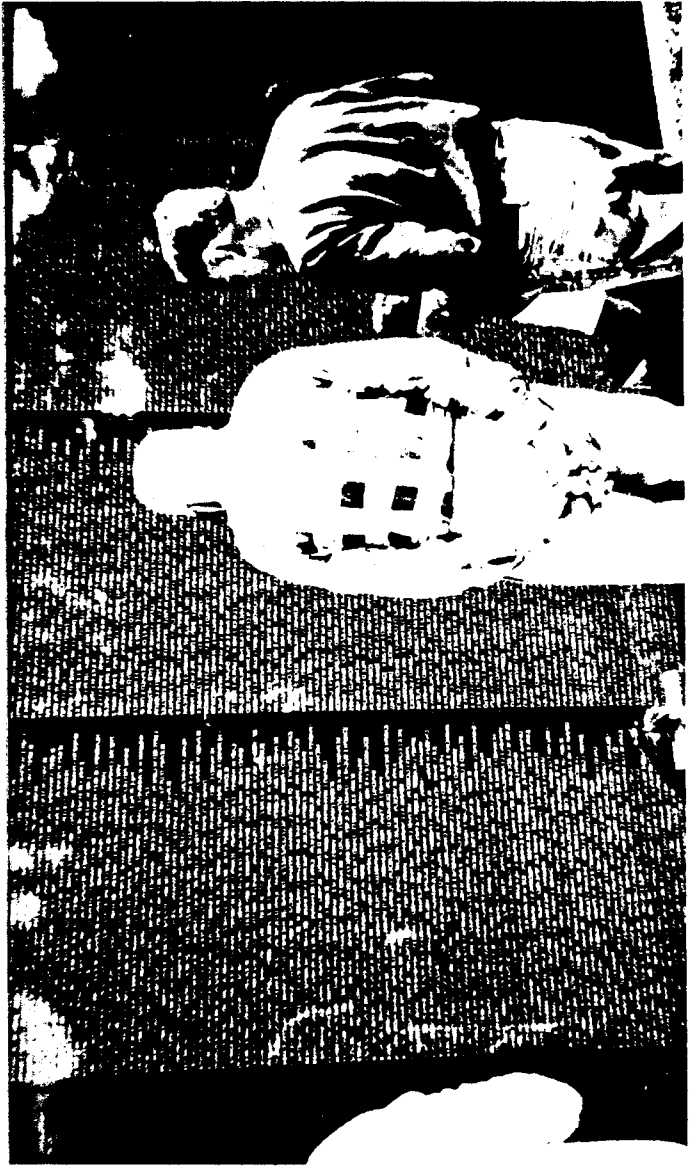
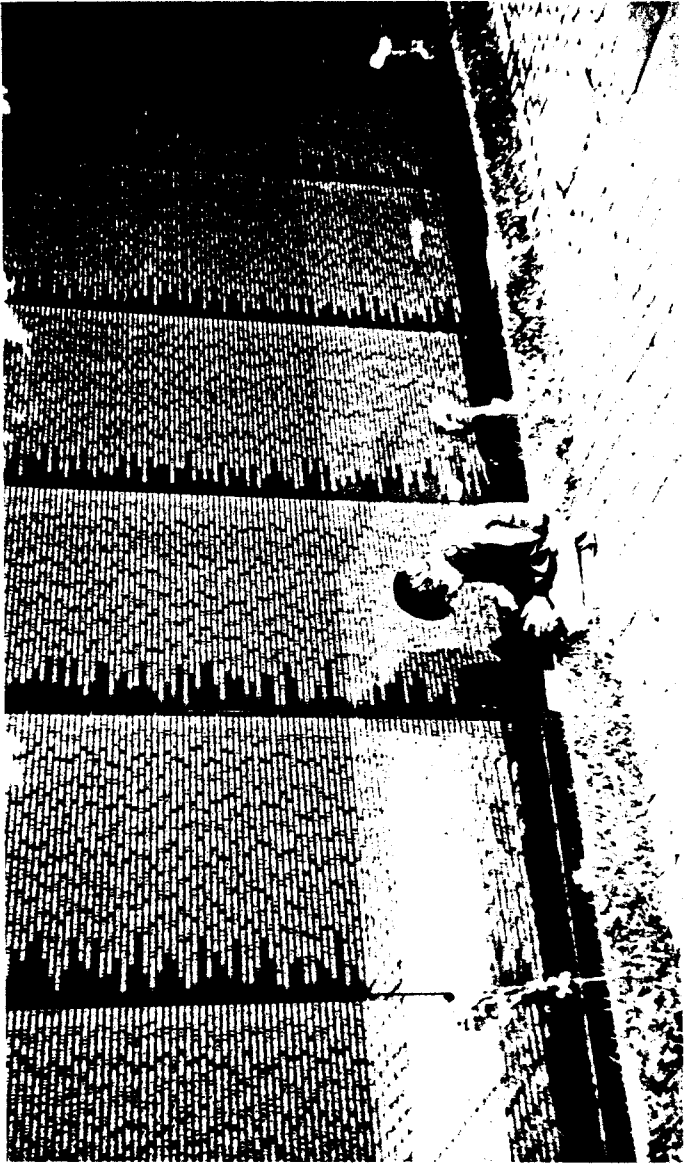
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(Sculpture addition)



# The Memorial



# The Memorial







## The Memorial

### Sadness of War Lingers in Flowers, Medals, Letters

WASHINGTON (AP) — They come to the Vietnam Veterans Memorial by the thousands. Some cry softly, some run their fingers across the names on the black granite wall and some leave a part of themselves.

Flowers, fresh or plastic; a scruffy teddy bear; medals; leather holsters; fatigues; candles; miniature American flags; pictures; handwritten poems encased in plastic. And letters.

Those are just some the memorabilia that visitors place at the foot of the sweeping, V-shaped memorial on which the names of the 58,022 Americans killed or missing in action are engraved. "People treat

that place more like a cemetery than a monument. It's like a grave site," said Bill Clark, an employee of the National Park Service, which is responsible for maintenance at the memorial.

For some of the tourists, reading and seeing the letters and gifts to the Vietnam dead seems to open the floodgate of emotion that marked the divisive war. Take Lester Paquin's letter. A small group of passers-by stooped or knelt to read the letter; most were crying by the time they had finished.

"Dear Neil, we never had a chance to meet," wrote Paquin, who described his anger that Neil Robert Burnham of Petersham, Mass., had

died so young.

But, Paquin wrote: "You found someone who loved you very much ... Mary Lou is doing well. She has two beautiful children, a promising career and is now married to a man who is perhaps my dearest friend. ... Your dying has forever

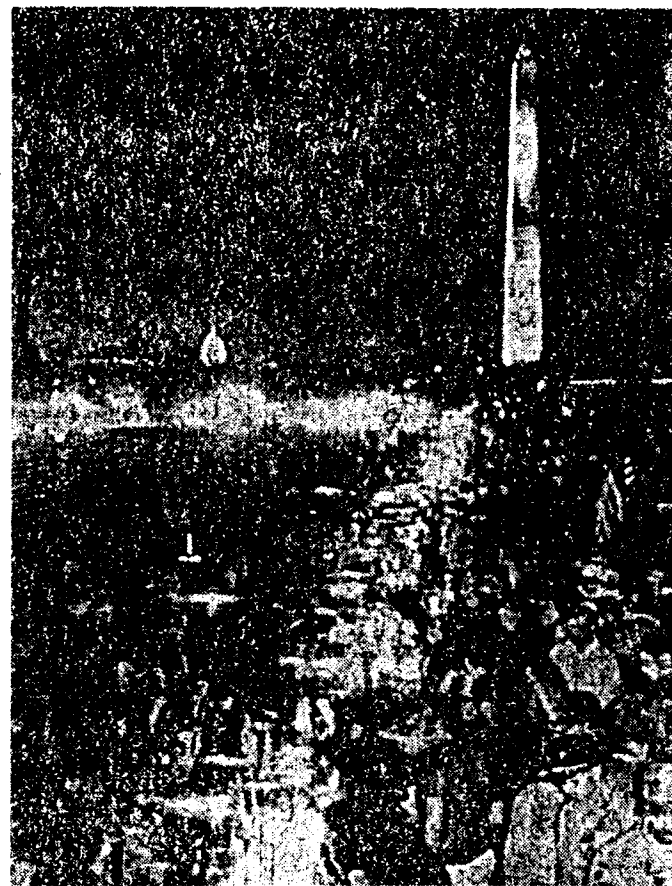
changed our lives."

Burnham died Dec. 17, 1968, at age 20.

"People put all kinds of things here," said Gary Young, a park service volunteer and former Vietnam veteran. The memorabilia is collected daily by park service maintenance crews. The non-perish-

able items are taken to the maintenance area near the Potomac River. There it is stuffed; willy-nilly, into boxes; which are locked away in a dark tool room.

Rummaging through the boxes is like going through grandmother's attic, except that the sadness of war lingers.



## The Memorial

### Statue of Three GIs Added to Vietnam Veterans Memorial

**Knights-Riddler Service**  
WASHINGTON — In a quiet but emotional ceremony Friday, a statue of three GIs was added to the Vietnam Veterans Memorial, kicking off a Veterans Day celebration that is expected to attract tens of thousands of Vietnam veterans to the nation's capital over the weekend.

Several thousand people, many of them Vietnam veterans wear-

ing jungle fatigues, broke into applause as sculptor Frederick Hart unveiled the statue, calling it a testament to the Vietnam soldier's "face of youth crossed by the shadows of war."

The statue depicts a Hispanic, a Caucasian and a black, standing close together, carrying their weapons in a casual manner. Their weary faces appear to gaze across the Mall at the other half

of the memorial, a 2-year-old black granite wall engraved with the names of 58,022 Americans who were killed in Vietnam.

"The faces of these bronze-cast, teen-age warriors stirred the conversation of Vietnam veterans and other visitors who paraded somberly past the statue."

"When I look at it, I can see my son and all the blood and guts I'm sure were there," said Shirley Delaney of Utica, N.Y., whose son,

Mike Jones, was killed in 1967. "You can feel the pain and agony when you look at the faces."

"They've got that 1,000-yard stare," said Herman Woods, 37, of Petaluma, Calif., who lost his legs to a jungle land mine in 1970. "We see ourselves in it. We see the horror, the passion, the excitement and the pain."

"That is troops coming out of the bush and all of a sudden they see their comrades," said Doug

Spies, 35, of Maple Grove, Minn. "They're staring in disbelief as they look at the names on the wall."

At 4:30 p.m. Sunday, Hart's statue officially will be dedicated by President Reagan. The memorial, built with private donations, then will be turned over to the National Park Service for perpetual government maintenance.

Organizers of this weekend's tribute to Vietnam veterans said they hoped that the placement of the statue under a grove of trees near the memorial wall will end the often bitter dispute concerning the sunken granite memorial, which had come to be known as The Wall.

The battle divided veterans and politicians into two camps. Those who believed the stark, granite wall to be an appropriate monument to the controversial war and others who wanted a more positive tribute.

After months of bitter debate, Hart was commissioned to create the statue of the three soldiers as a compromise.

"When I look back on the endless meetings we had, I can only believe that the hand of divine providence rests on this statue," Sen. John Warner, R-Va., said during the dedication.

In 1982, when more than 100,000 Vietnam veterans gathered here to dedicate the monument and participate in a "Wel-

come Home" parade down Constitution Avenue, The Wall was the main topic of conversation.

In often emotional exchanges, veterans argued over the propriety of the design of the monument, which has since become an American Walling Wall, where mothers leave letters to dead sons, widows come to talk with fallen husbands and psychologists bring emotionally troubled veterans to confront past horrors.

Unlike two years ago, when fights broke out because of disputes over the memorial's design, veterans attending Friday's unveiling offered high praise for Hart's statue and its portrayal of conflicting emotions on the faces of the young soldiers.



AP Laserphoto

The statue "Three Fightingmen" is unveiled at the Vietnam Veterans Memorial in Washington.

STATE  
OF  
THE  
ART



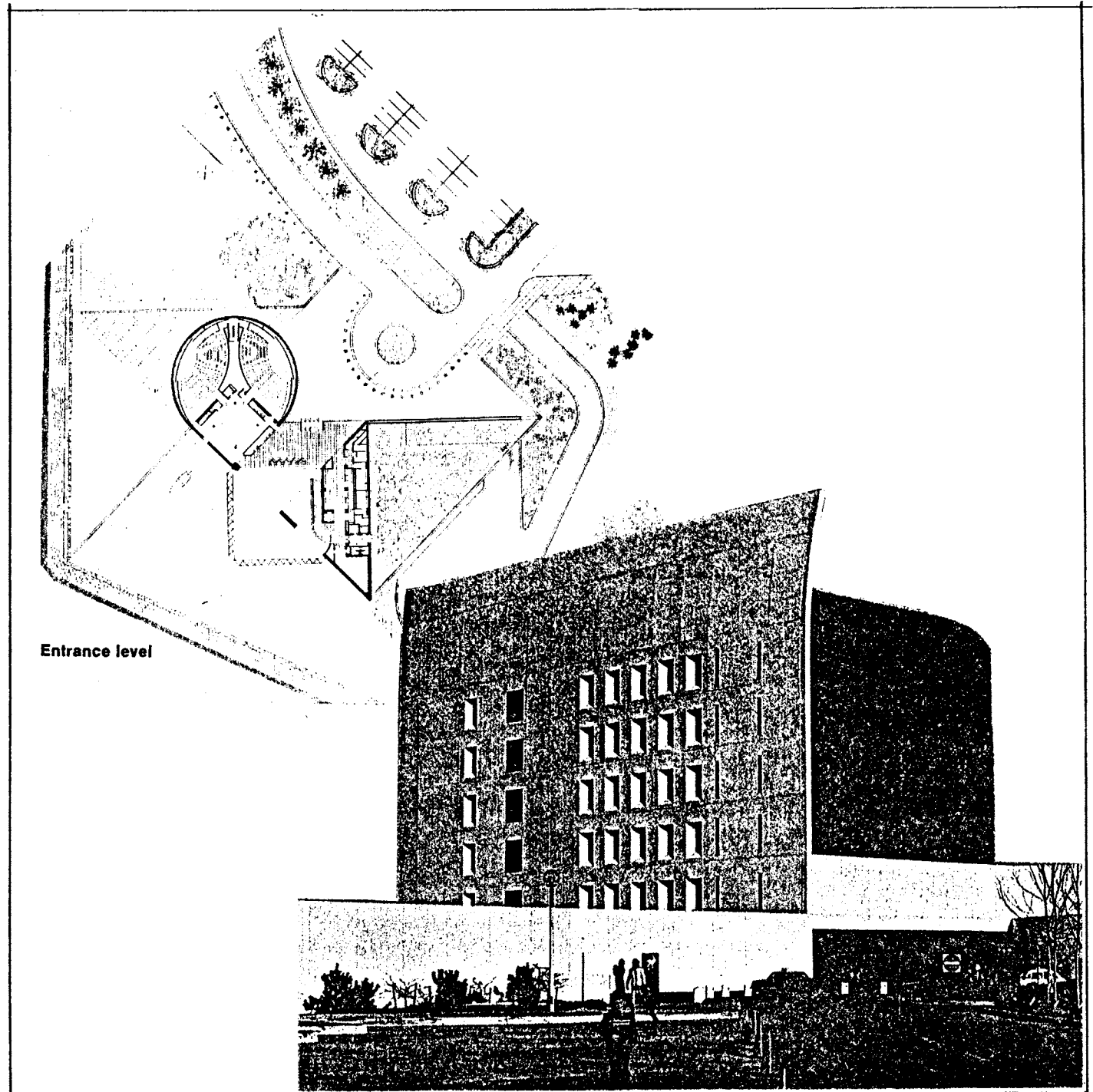
A COLLECTION MUSEUM AND RESOURCE CENTER • FOR THE VIETNAM VETERANS • WASHINGTON, D.C.

STATE  
OF  
THE  
ART

John  
F.  
Kennedy  
Library  
Boston, Mass.

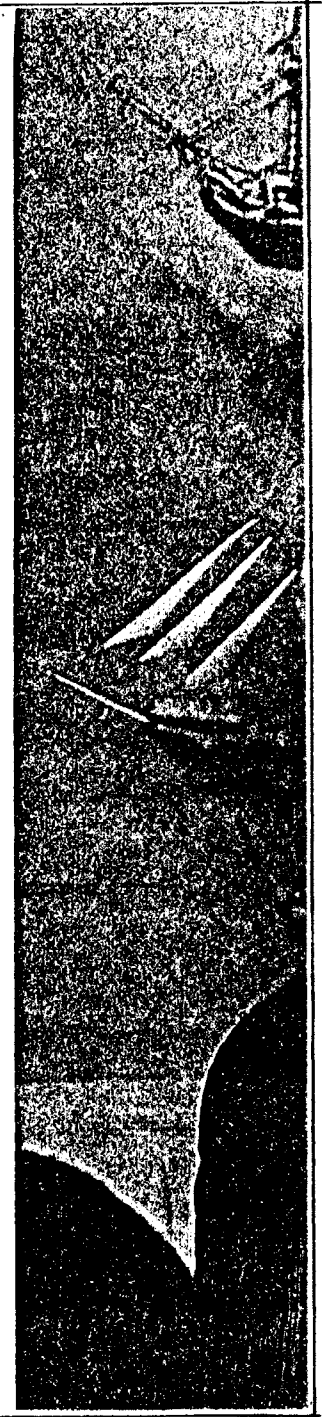
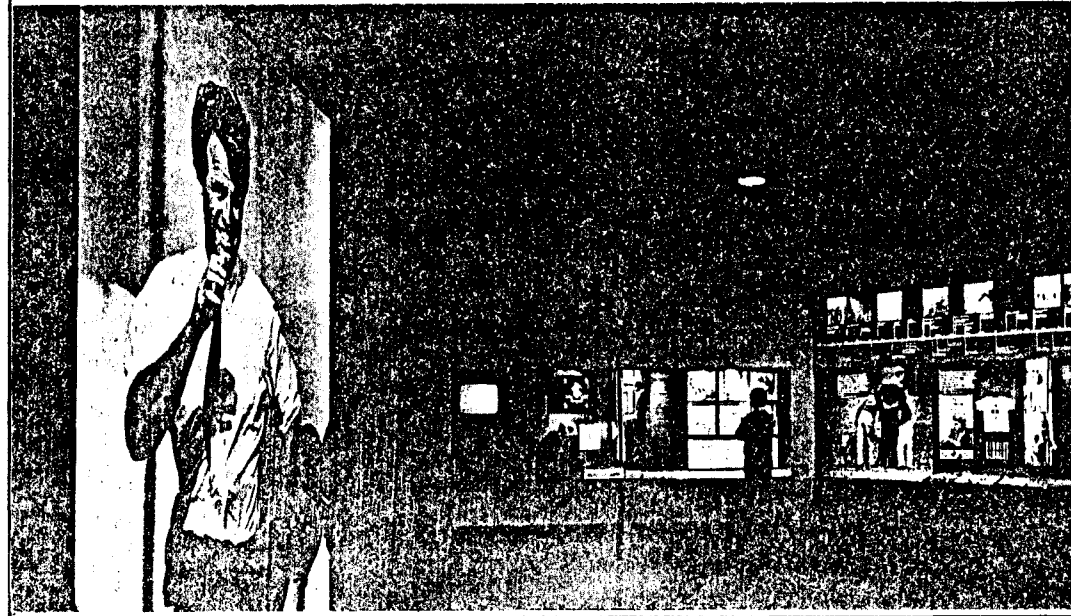
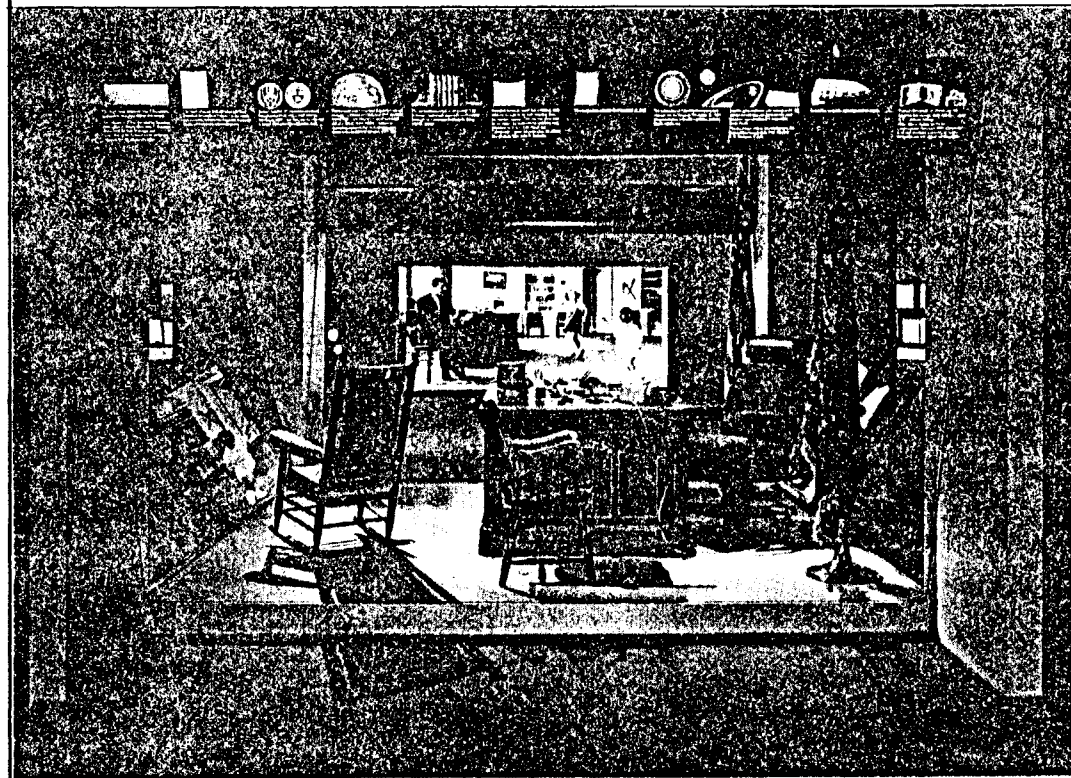
In October, 1979, the John Fitzgerald Kennedy Library opened at Columbia Point, across the harbor from downtown Boston. From the outside of the building a variety of assembled geometries: rectangular solids, wedges, cylinders and free standing planes are joined together to create a building that dominates the barren point. These shapes are used to form the interior spaces into, one which gives an idea of the power Kennedy possessed. After entering the building and proceeding down to the exhibit areas the focus is not on the architecture but on the man and his family, his presidency, his assassination. The exhibits are located near the water, an important part of John Kennedy's life. After seeing the often emotional exhibits progression is made from this area to the buildings main space. Within this space a gaint American Flag hangs, reinforcing the historical nature of the Libraries holdings. The combination of the exhibit space and the archives is one of balance. While the exhibits are located near the water and the general public, the archives soars above connected by the verticle American Flag. The archives have a complete separation from the public functions yet there is a visual and more important a phychological link. Making the John F. Kennedy Library one; dedicated to the life and Presidency of the man.

# J.F.K. Library



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J.F.K.  
Library



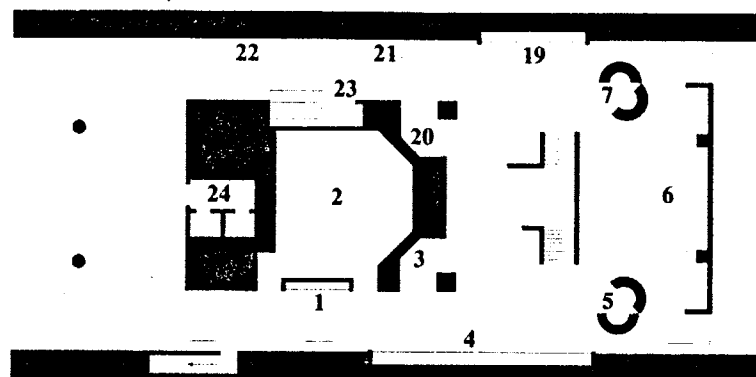


Lyndon  
B.  
Johnson  
Library  
Austin, Texas

In 1965, soon after Johnson's Inaugural ceremony the process began to create a Library to hold L.B.J.'s papers. The location at the University of Texas provided an opportunity to create a place where in the words of Johnson "scholars can study the past for the sake of the future." The building would not only provide a place to store the papers but also a graduate school of public affairs would be created on campus. The building that was designed by S.O.M. is one of monumentality. The Library is divided into two parts: the Library/Museum and the L.B.J. School of Public Affairs. Entry to the Library is from a large marble plaza with the building rising 8 floors above. The exhibits are broken into two areas, the first two floors dealing with the early life and career of Johnson while on the 8th floor the Presidency is shown. Between these areas the archives are housed open to the exhibits below. In addition to the permanent exhibits the Museum host a procession of traveling exhibits each year. The traveling exhibits have brought some of the world's greatest art and also important historical documents. The inner connection between the Library and the School of Public Affairs is important in the concept of the Library as a whole. One part of the Public Affairs department is a lecture series serving as a forum for the exchange of ideas on education the arts and the life of L.B.J. The Johnson Library is more than a memorial to a president but an institution that is growing on the foundation of Johnson's life.

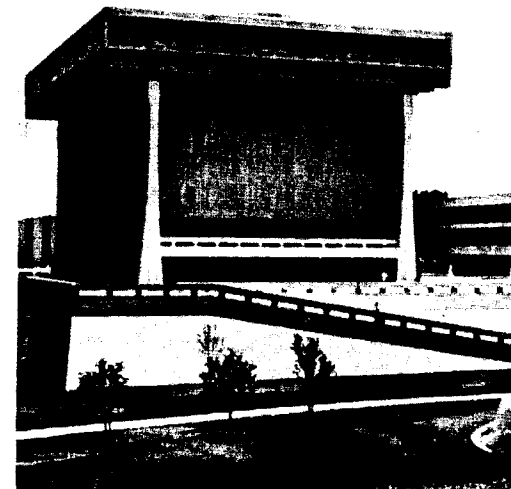
# L.B.J. Library

**Note:** All documents on exhibit are shielded by a yellow ultraviolet filter. This protection prevents fading of ink and deterioration of paper and insures that the document will be in good condition for future generations.



## ON THE FIRST FLOOR

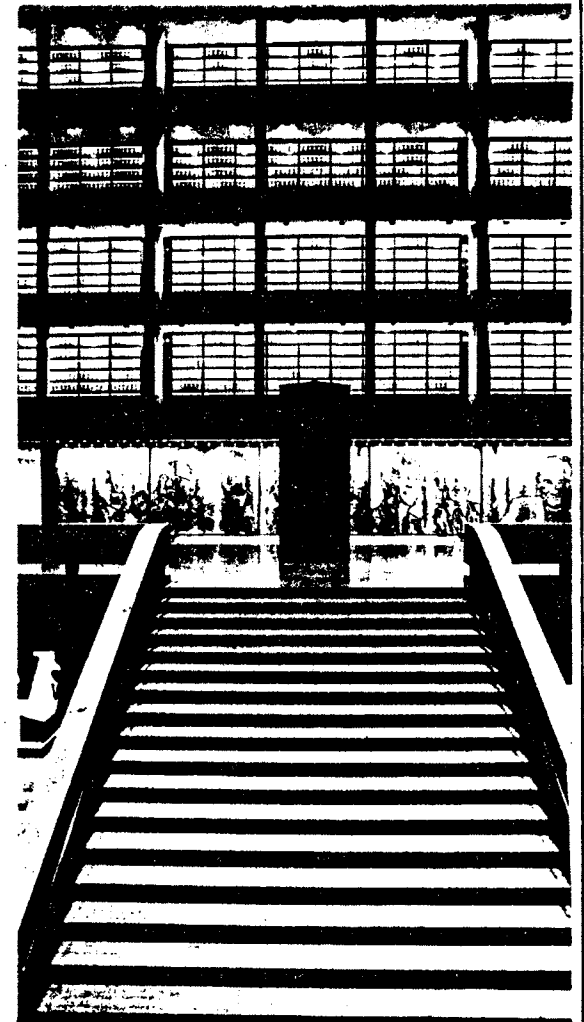
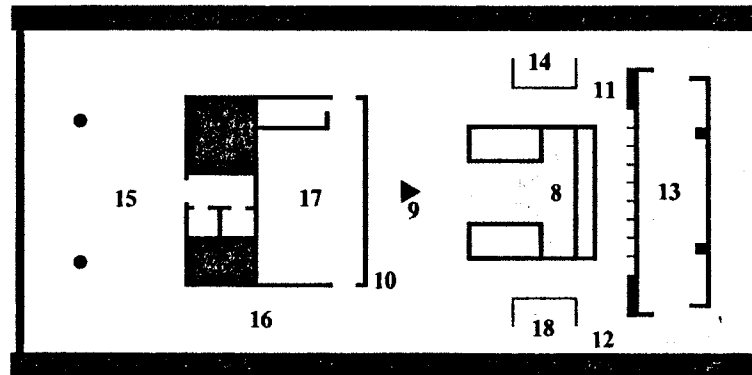
1. **The Early Years.** The background of the 36th President. Probably this will be the first exhibit you will see, while you are waiting to go into the Orientation Theater. If you go into the theater first, be sure to look at this exhibit when you leave it.
2. **Orientation Theater.** 20-minute audio-visual presentation which will make your tour of the museum more meaningful.
3. **Family Album.** The daughters of Lyndon and Lady Bird Johnson, and *their* families.
4. **Road to the Presidency.** This exhibit traces LBJ's career from his service in the House of Representatives to his inauguration as President.
5. **Treasures from Around the World.** A selection from the gifts given to the President of the United States by leaders of other countries.
6. **Foreign Affairs.** Three areas of activity during the Johnson years are highlighted: Vietnam, the 6-Day War in the Middle East and the Summit Meeting at Glassboro.
7. **Treasures from Around the World.**



# L.B.J. Library

## NOW PROCEED UP THE STAIRCASE TO THE SECOND FLOOR

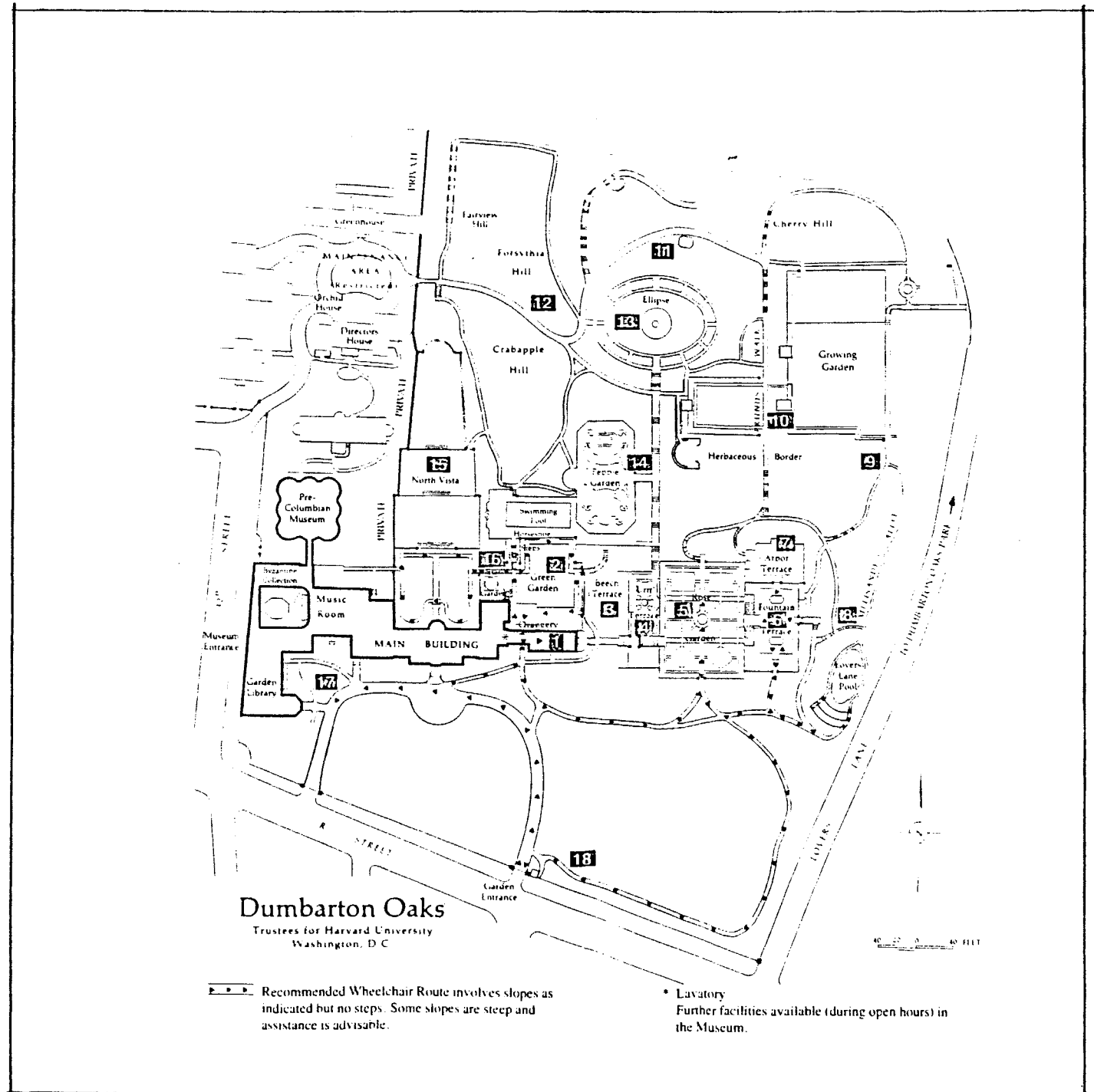
8. **Key to the Archives** (on the landing). This exhibit explains what is in the red manuscript boxes you see as you look up the grand staircase.
9. **A President's Philosophy.** The statements on this pylon were selected from speeches made by President Johnson.
10. **A Generation of Presidents.** Magnesium mural of LBJ and the Chief Executives with whom he served. By Naomi Savage.
11. **Treasures from Around the World.**
12. **Painting, "Thirteen Americans"** by Alfred Leslie.
13. **The Great Society.** Depiction of the major social programs of the Johnson Administration.
14. **The Johnson Style.** 5-minute video presentation, showing how LBJ worked.
15. **Hall of American History.** The exhibits in this gallery change at least every six months.
16. **American Political Memorabilia.** From George Washington's time to the present.
17. **The First Lady Theater.** Exhibits on the life and work of Lady Bird Johnson. Regular showings of a motion picture about her. (Times posted on the door.)
18. **America's Handiwork.** Gifts from people across the nation to the President of the United States.



Dumbarton  
Oaks  
Washington, D.C.

Dumbarton Oaks has importance as a research facility in the areas of Byzantine studies, the history of landscape architecture, and Pre-Columbian studies. Housed in a complex ranging from a Federal style mansion to contemporary additions, the facilities are open to researchers upon presentation of appropriate credentials. Each area has its own library. Together they now contain over 100,000 volumes and continue to grow. There are resident scholars in each area of study. About thirty fellowships are awarded each year to scholars in these fields from the United States and the rest of the World. These fellowships allow the scholars to live and work within Dumbarton Oaks. For over 20 years this foundation has provided a place of scholarly research away from the main stream of activity, yet, the location in Washington D.C. provides the researchers opportunities to explore other areas of study to reinforce the holdings of Dumbarton Oaks.

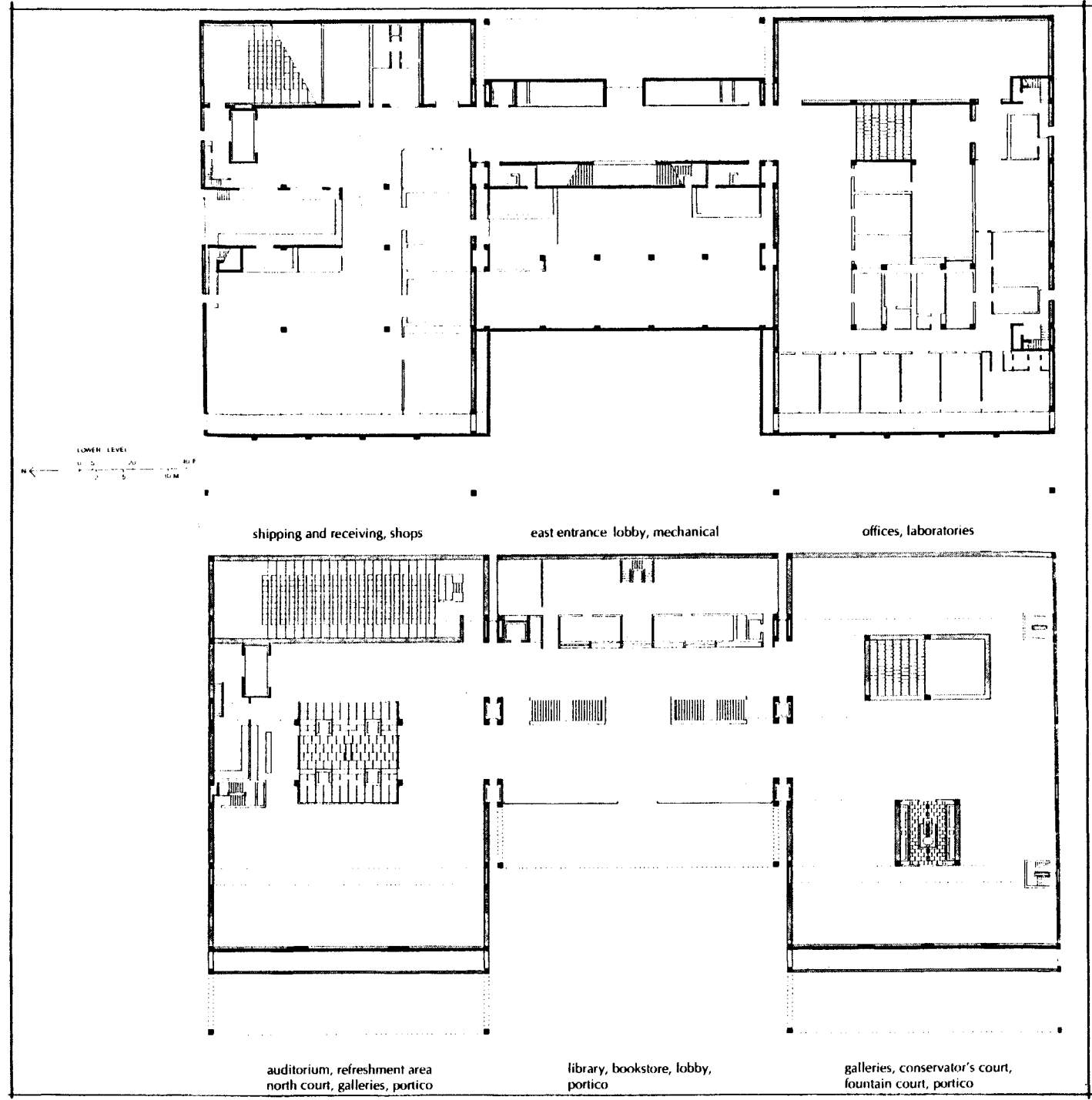
# Dumbarton Oaks



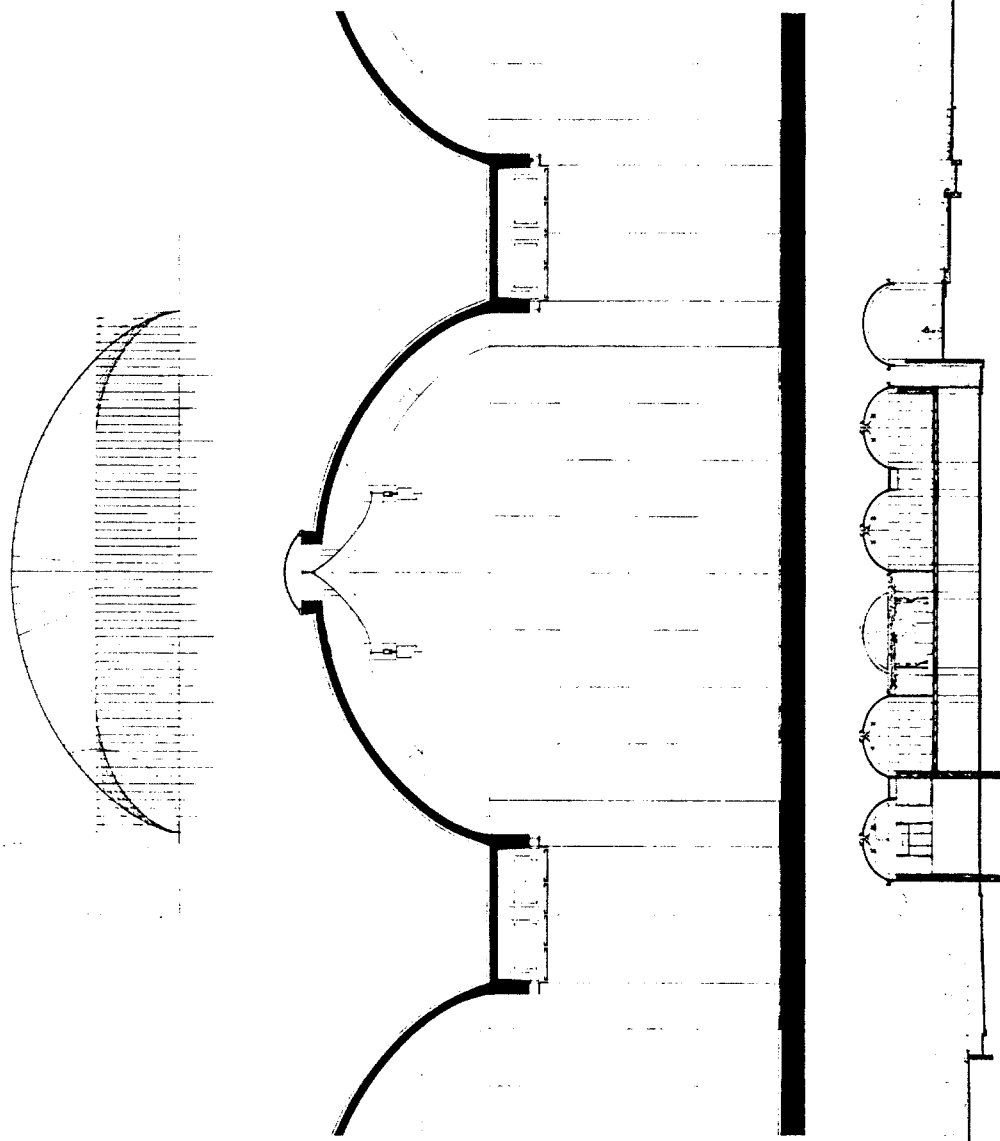
Kimbell  
Art  
Museum  
Fort Worth, Texas

This museum has a very formal and elegant appearance. It is in a park like setting in Fort Worth Texas. The Museum has a classical quality about it. The exhibition spaces function as interior streets and are repeated as often as necessary. Louis Kahn, the architect, felt art created in daylight should be viewed in daylight. Two types of natural light are used, silver light from above, and a green light from the side court yards. The major problems in this climate were to eliminate the glare and heat build-up. The vaulted ceiling gives the interior spaces a very formal and classical appearance. Yet the lighting makes the museum a very warm place to be. The detailing in this museum is superb, even down to the handrails.

# Kimbell

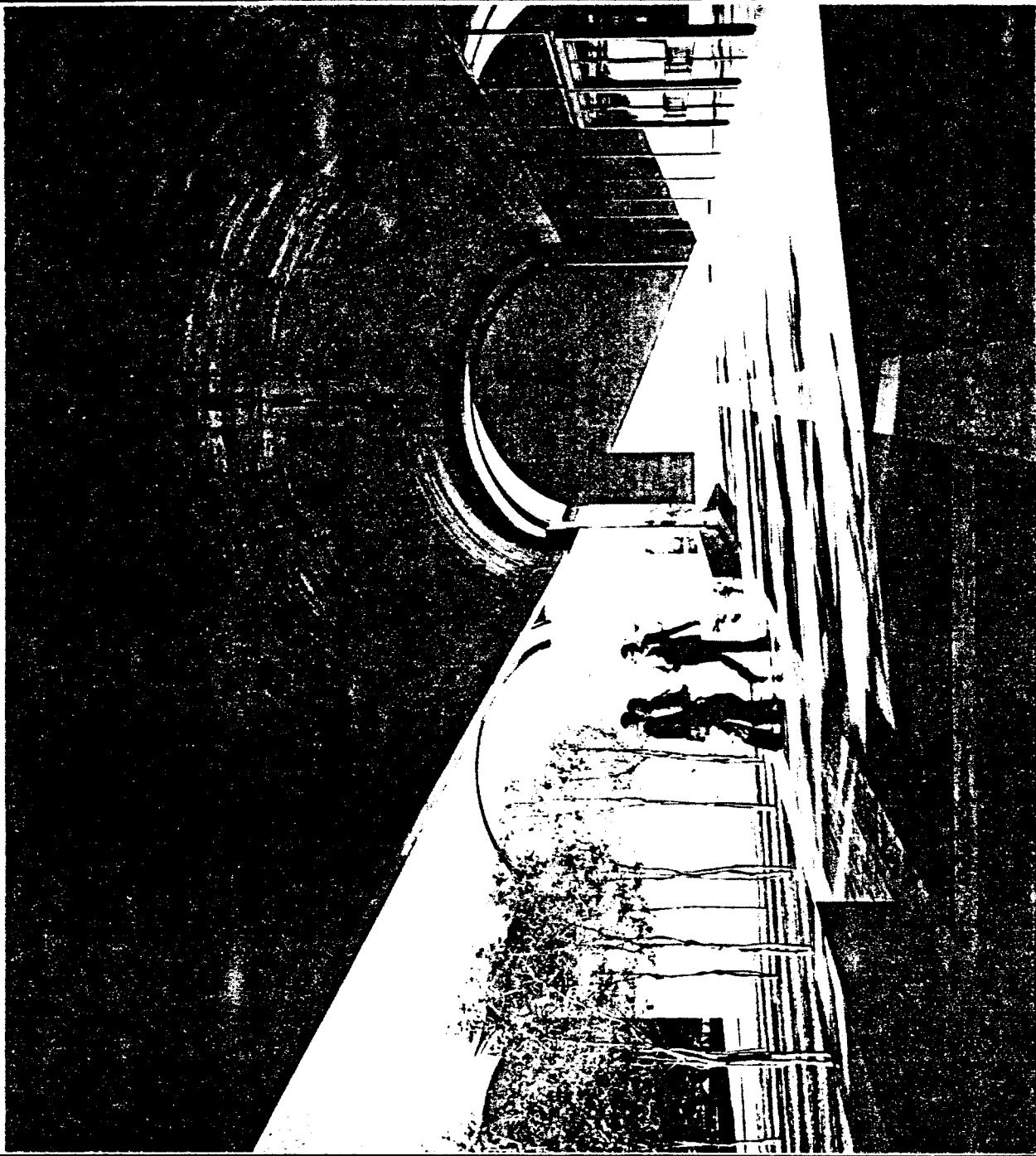


Kimbell

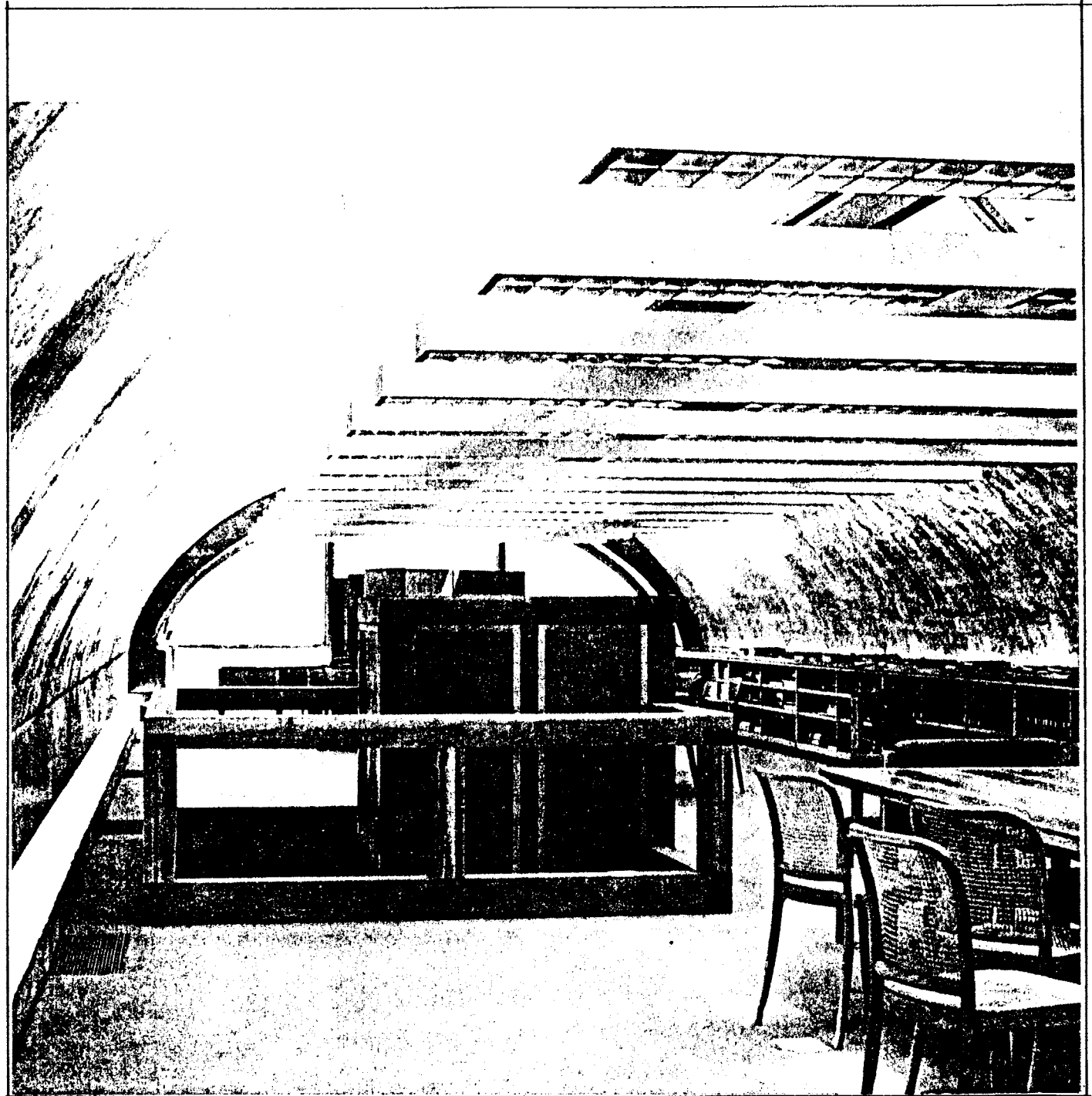




Kimbell



Kimbell



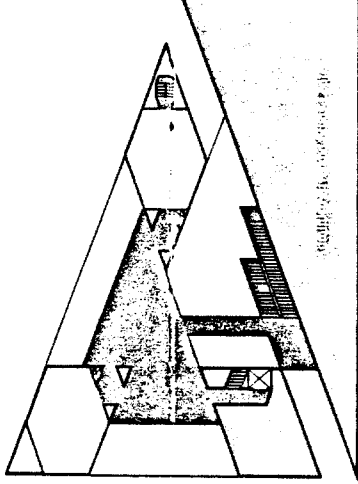
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East Wing  
National  
Gallery  
Of Art  
Washington, D.C.

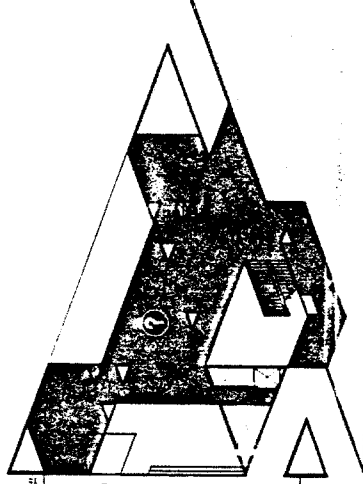
Shaped in part by its site, I.M. Pei and Partner's East Wing of the National Gallery of Art is a trapezoid comprised of two interlocking triangles. One of them is one of the world's best known museum spaces and one of the most discussed works of Architecture in the 1970's. The 11 galleries of varying sizes and shapes are connected by a large soaring space capped with a cluster of tetrahedral skylights. In terms of viewing artwork, and circulation routes the museum has been described as being "rich in alternatives for the visitor". The second triangle houses the Center for advanced study in the Visual Arts. Like the museum side, it is organized around a 70 foot high central court, in this case surrounded on two sides by offices, reading rooms, and book stacks. The building as a whole is a strong visual statement and is sensitively related to its immediate environment in monumental Washington. Thus making the newest monument on the Mall an excepted and refreshing addition.

# East Wing

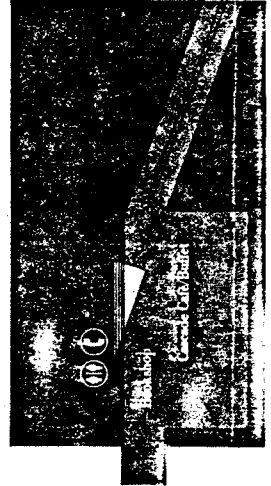
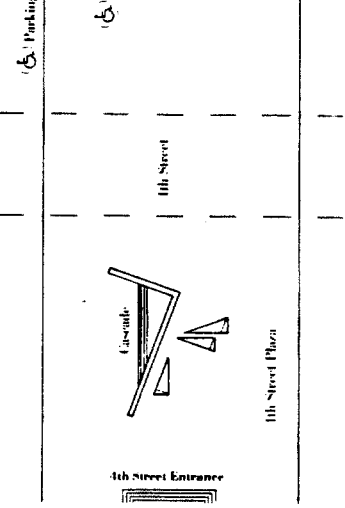
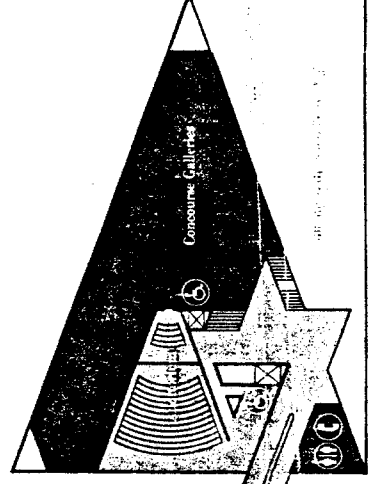
Mezzanine



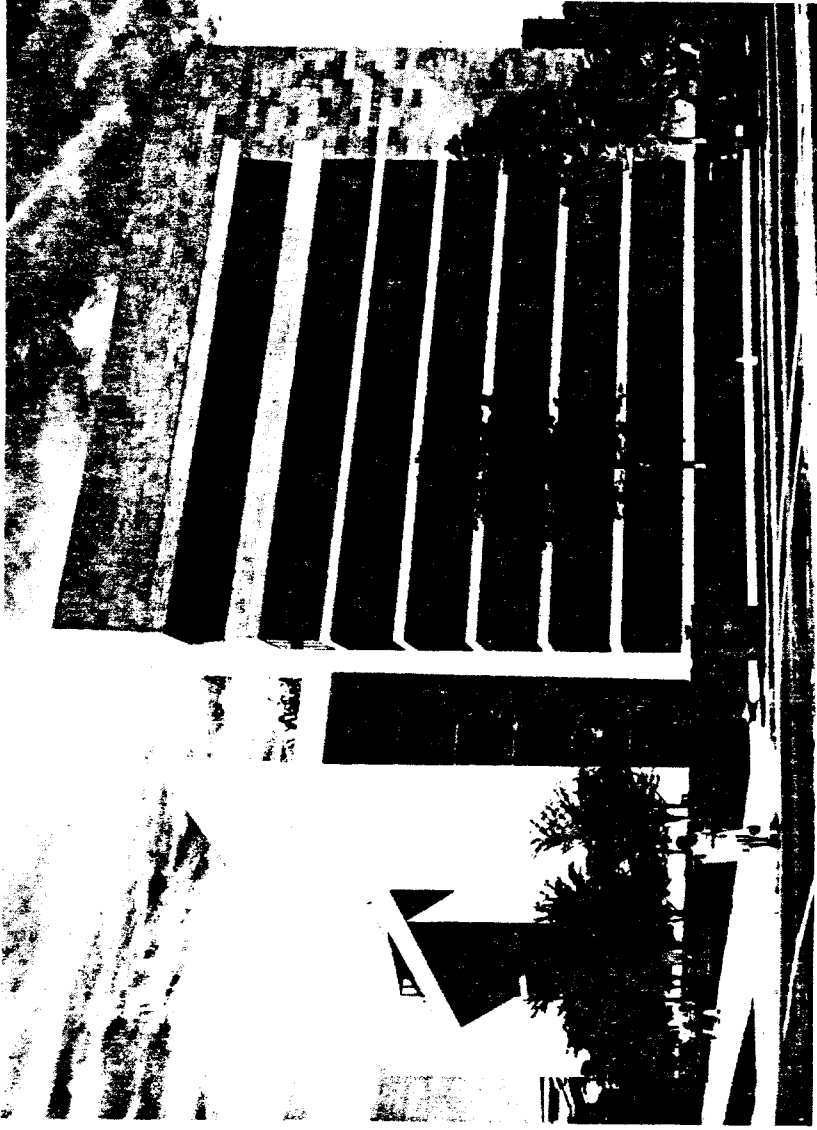
Ground Level



Concourse Level

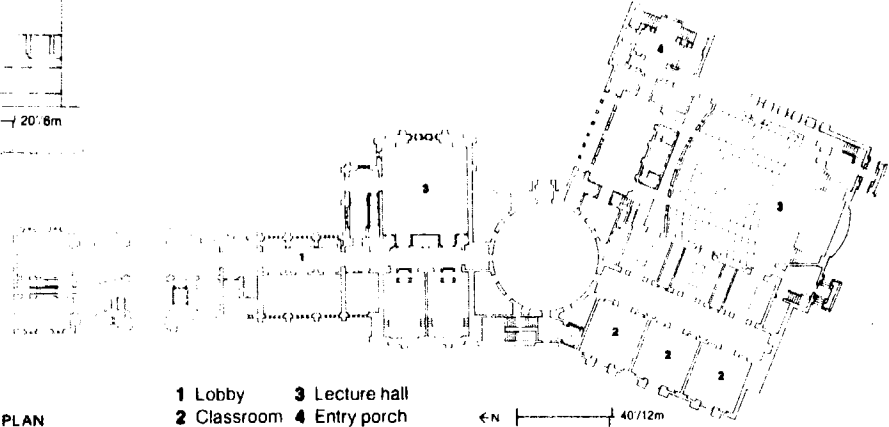
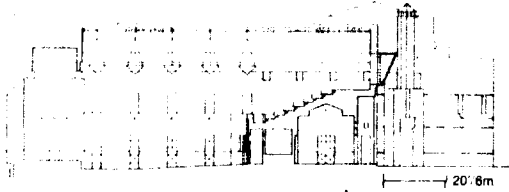
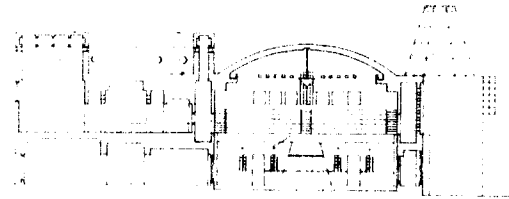


East  
Wing



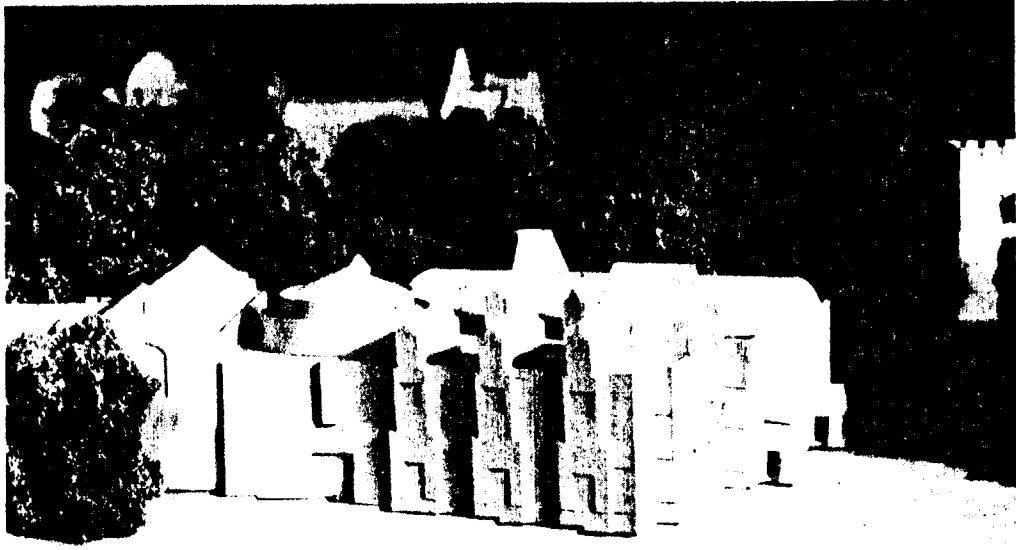
# Selected Projects

Vassar College Art Department and Museum  
Poughkeepsie N.Y.  
(Michael Graves)

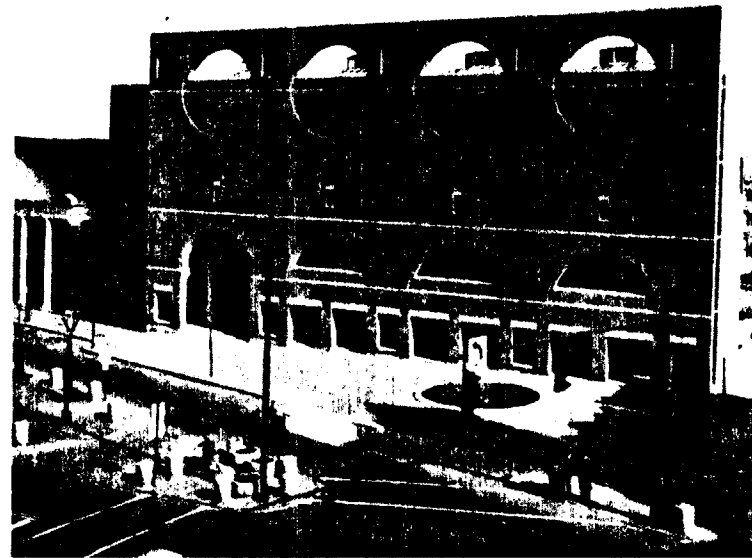


FIRST FLOOR PLAN

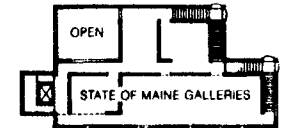
- 1 Lobby
- 2 Classroom
- 3 Lecture hall
- 4 Entry porch



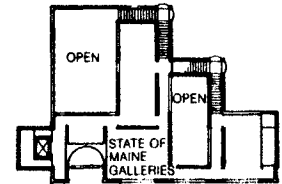
Museum of Art  
Portland, Maine  
(I.M. Pei)



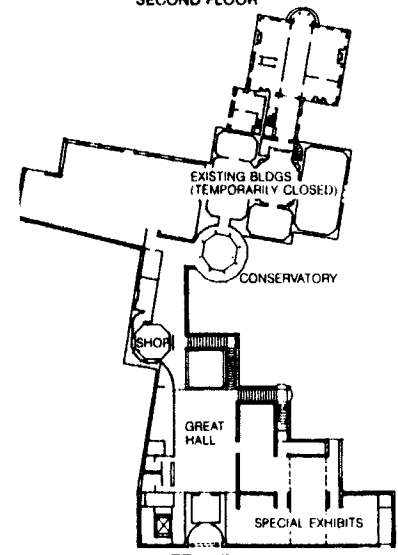
MEZZANINE



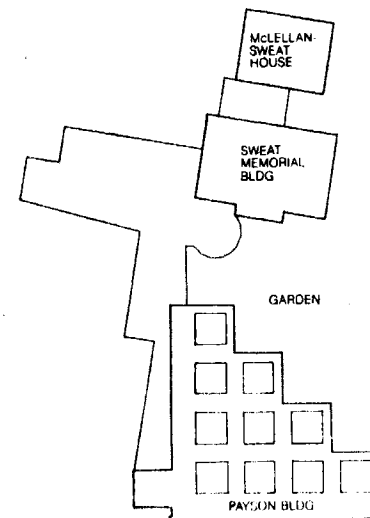
THIRD FLOOR



SECOND FLOOR



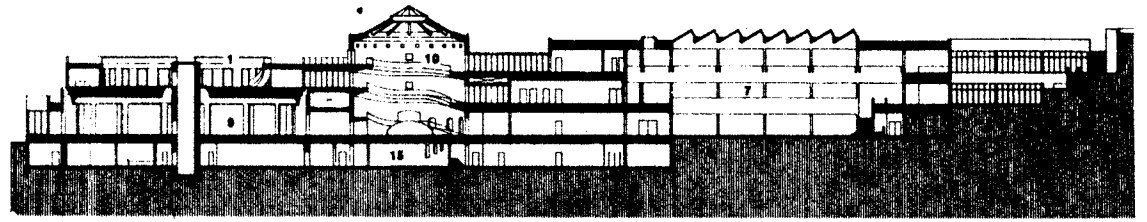
GROUND FLOOR



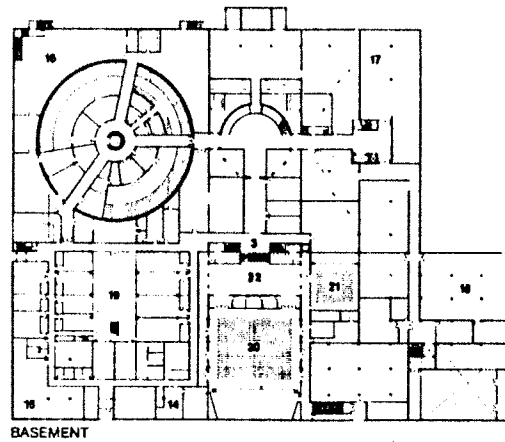
ROOF PLAN



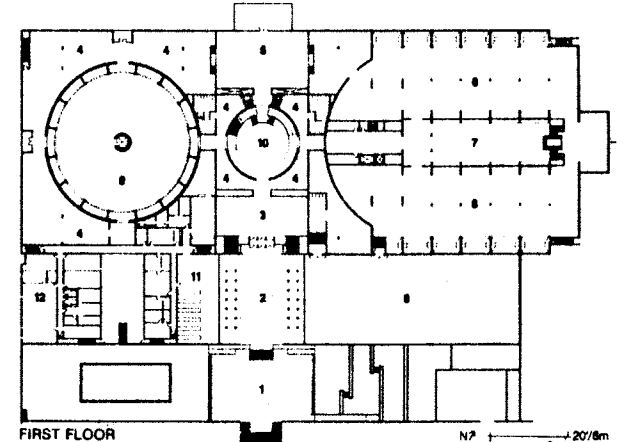
Museum of Modern Art  
Korea  
(Tai Soo Kim)



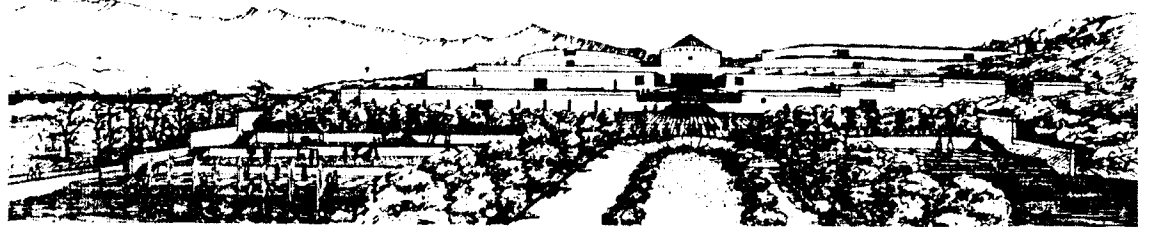
- |                           |                         |                 |
|---------------------------|-------------------------|-----------------|
| 1 Sculpture court         | 9 Great hall            | 17 Mechanical   |
| 2 Entrance court          | 10 Circulation tower    | 18 Loading area |
| 3 Lobby                   | 11 Library              | 19 Courtyard    |
| 4 Gallery                 | 12 Administration       | 20 Auditorium   |
| 5 Cafeteria               | 13 Permanent collection | 21 Lecture room |
| 6 Temporary exhibits      | 14 Educational area     | 22 Public area  |
| 7 Painting gallery atrium | 15 Curator's area       |                 |
| 8 Rental gallery          | 16 Storage              |                 |



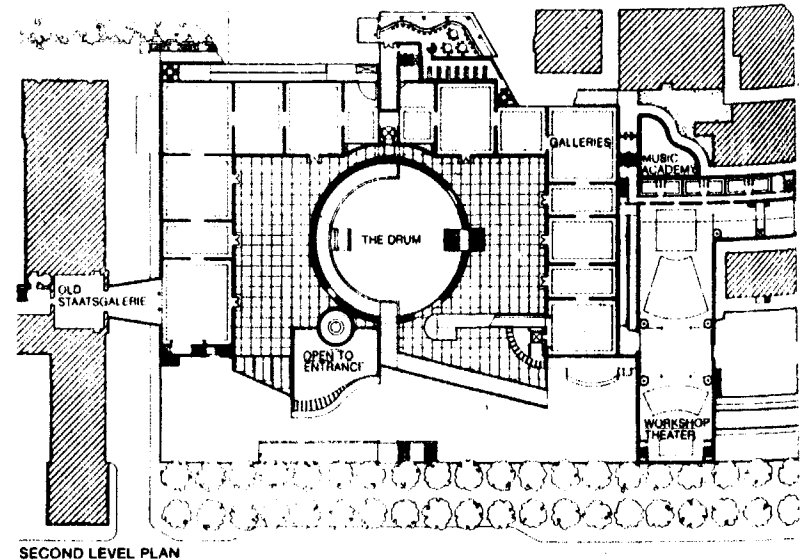
BASEMENT



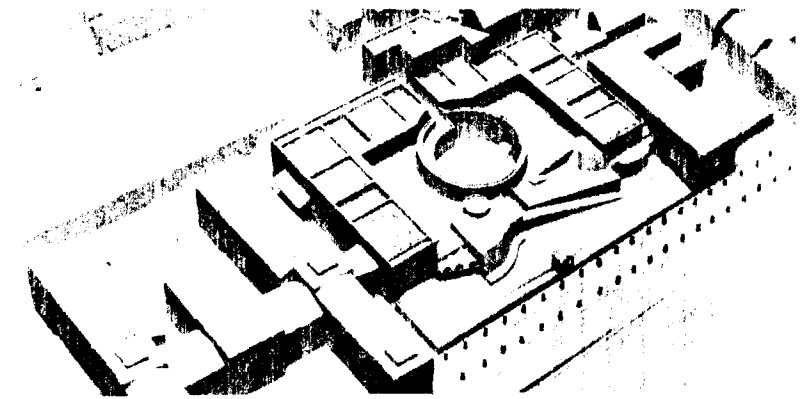
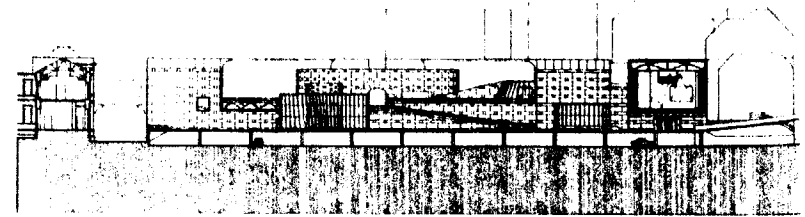
FIRST FLOOR



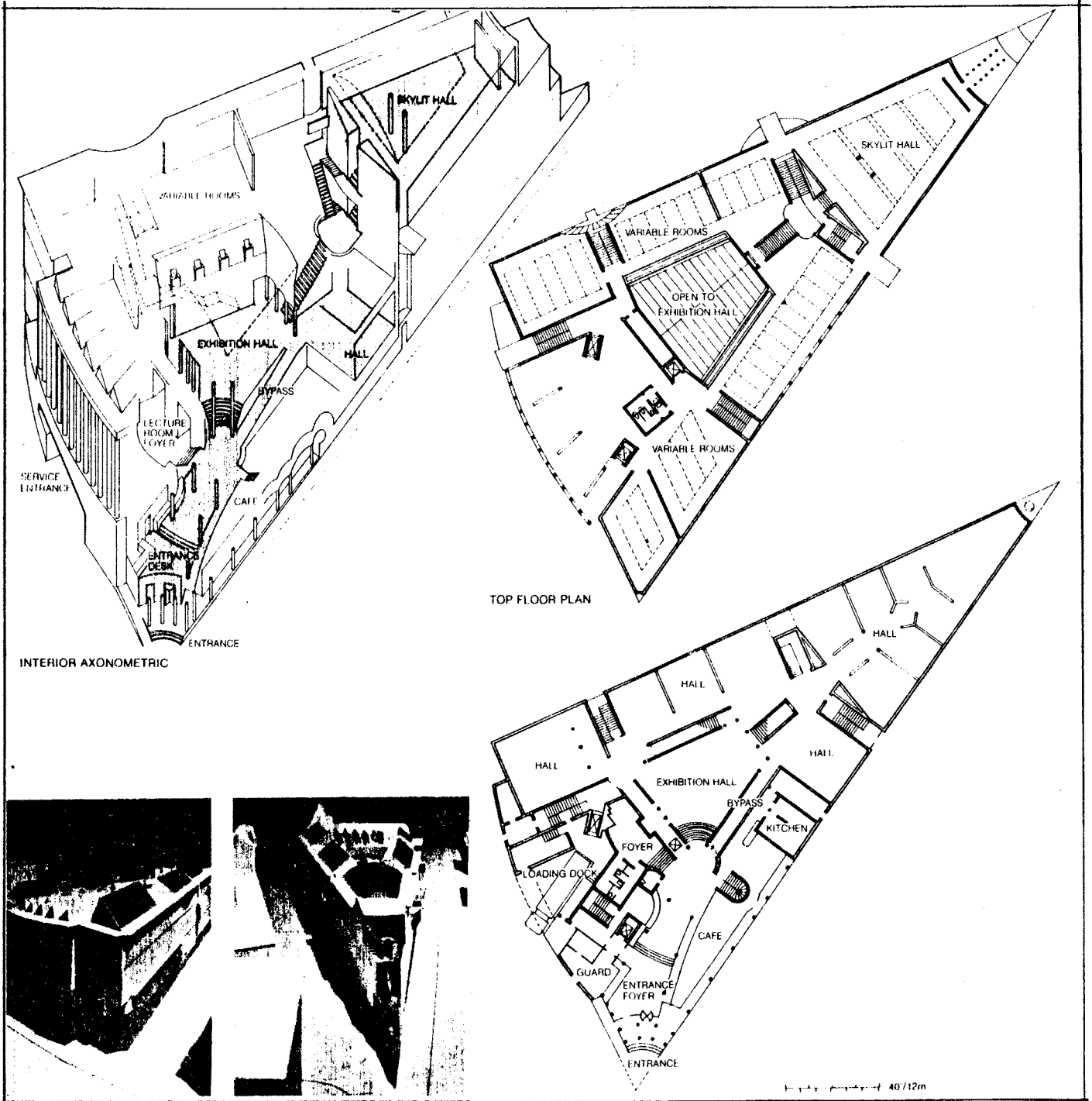
National Museum  
Stuttgart, West Germany  
(James Stirling)



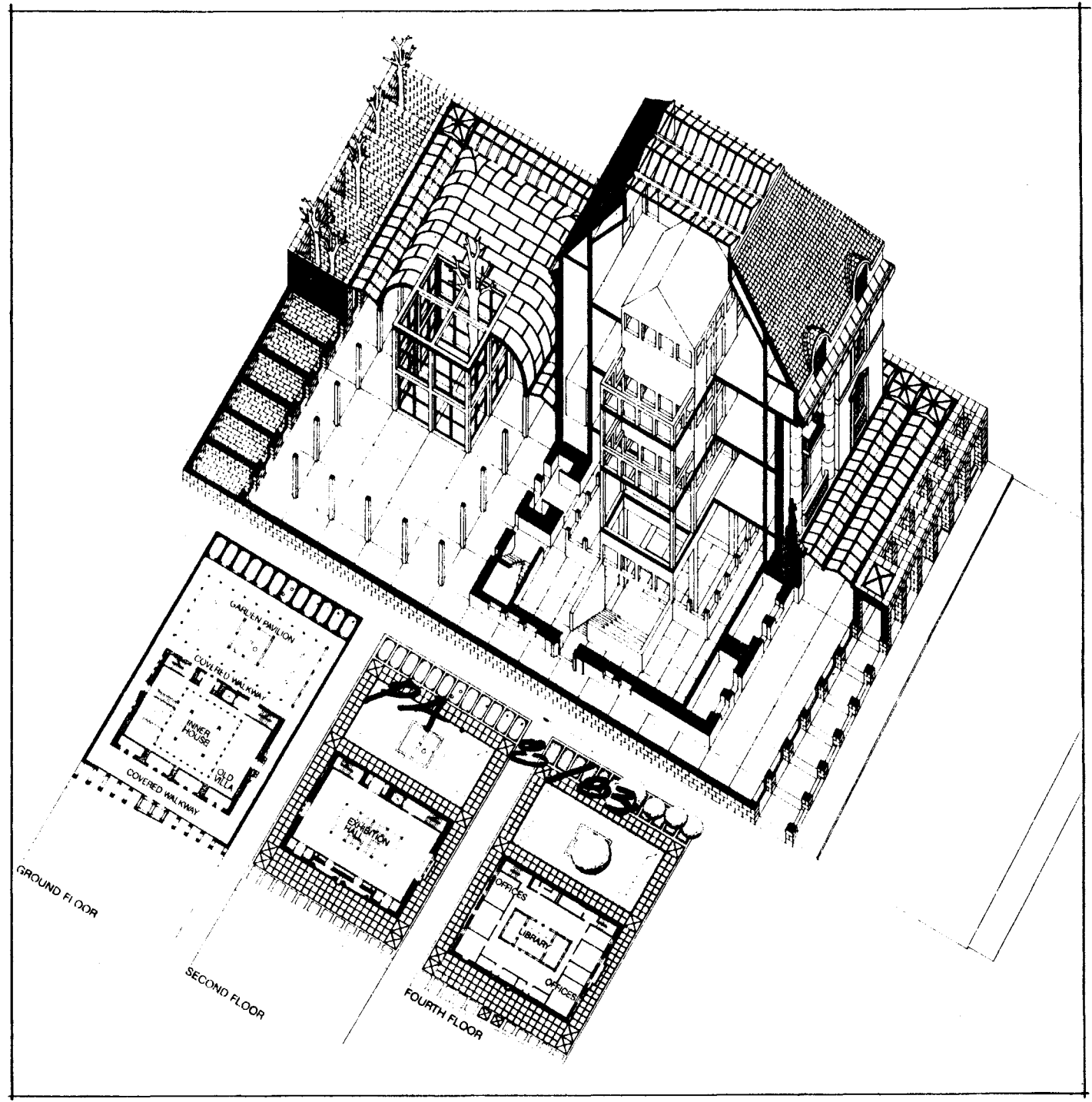
SECOND LEVEL PLAN



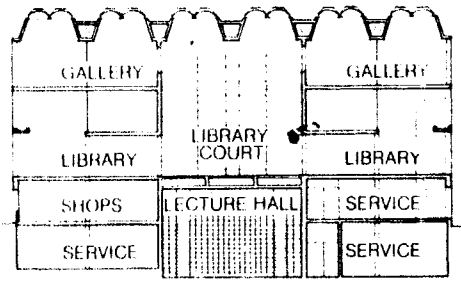
Museum of Modern Art  
Frankfurt, West Germany  
(Hans Hollien)



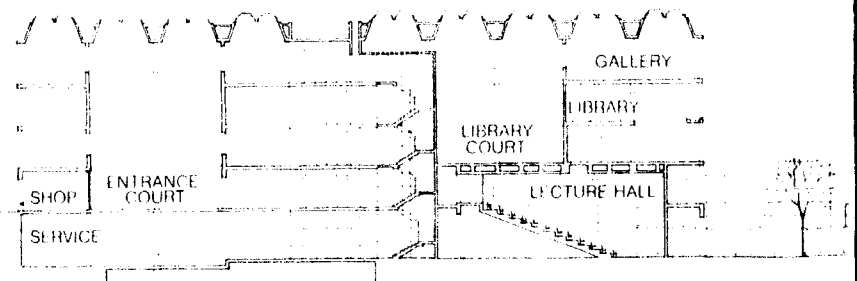
Architectural Museum  
Frankfurt, West Germany  
(O.M. Ungers)



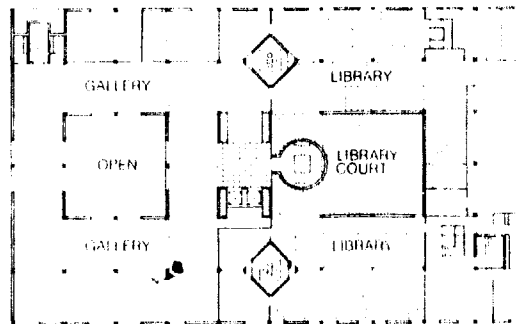
Yale Center for British Art  
 New Haven  
 (Louis Kahn)



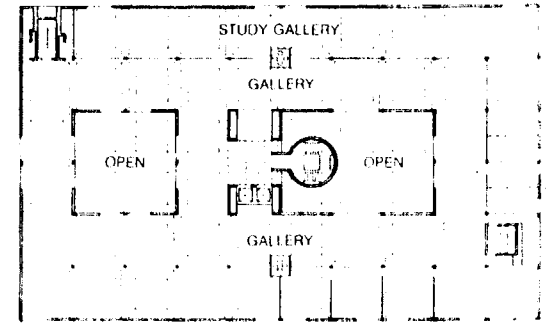
SECTION A



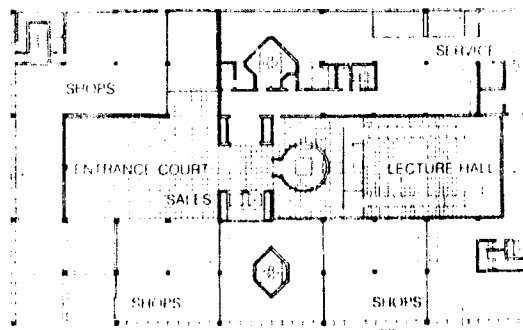
SECTION B



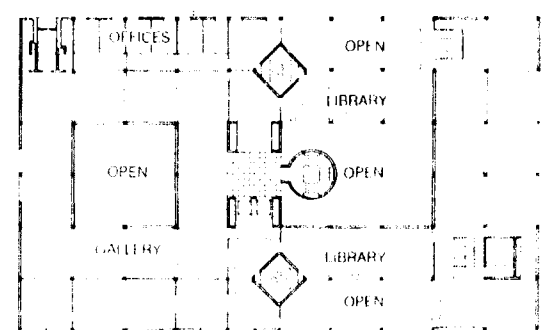
SECOND FLOOR



FOURTH FLOOR

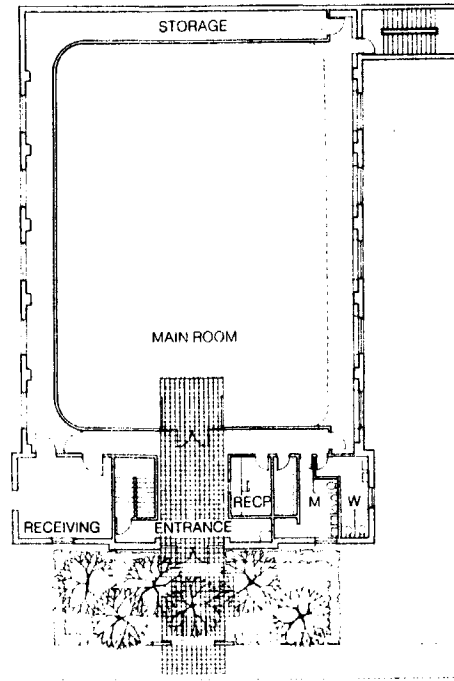


FIRST FLOOR PLAN

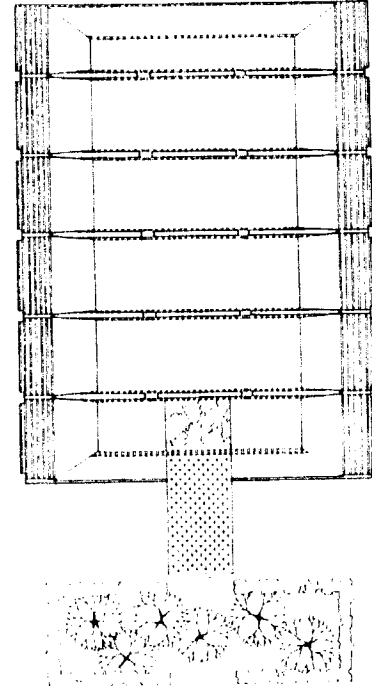


THIRD FLOOR

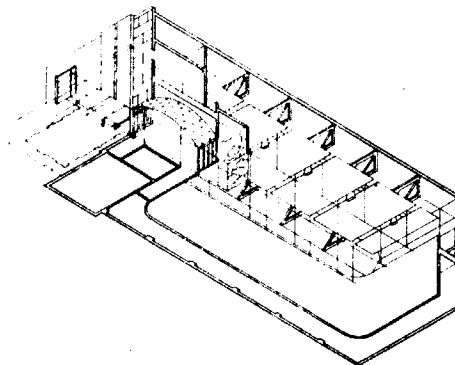
Southern Alleghenies  
Museum of Art  
Loretto, Pa  
(Roger Ferri)



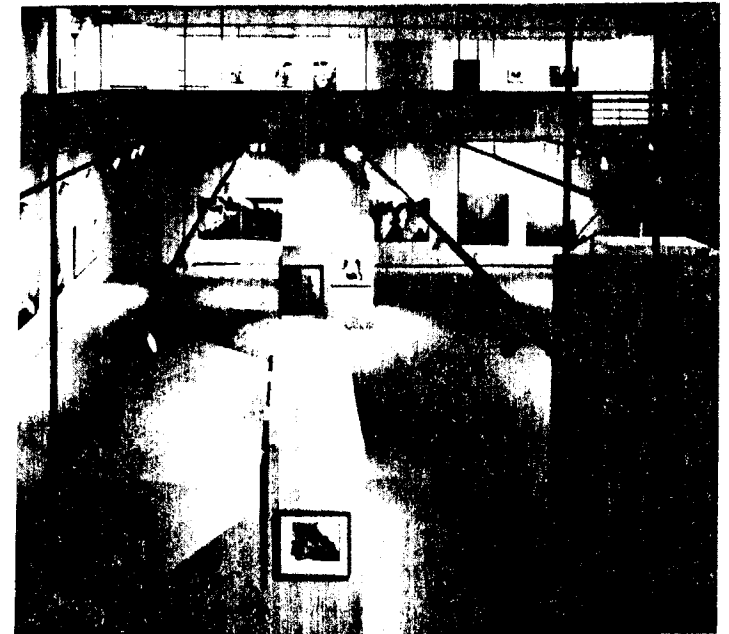
FIRST FLOOR PLAN 0 5 10 N →



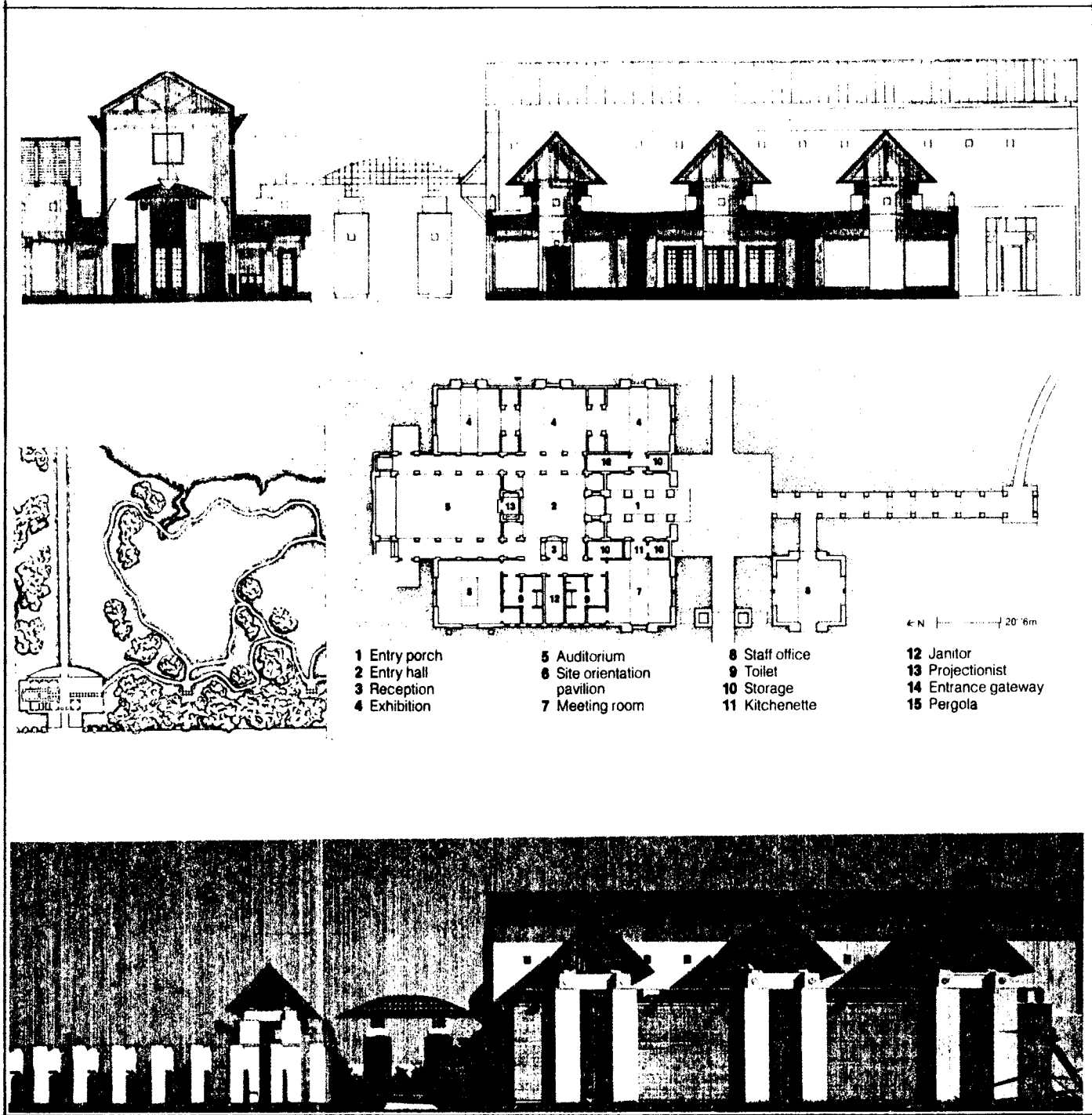
REFLECTED CEILING PLAN



ISOMETRIC SECTION



Environmental Education  
Center , New Jersey  
(Michael Graves)



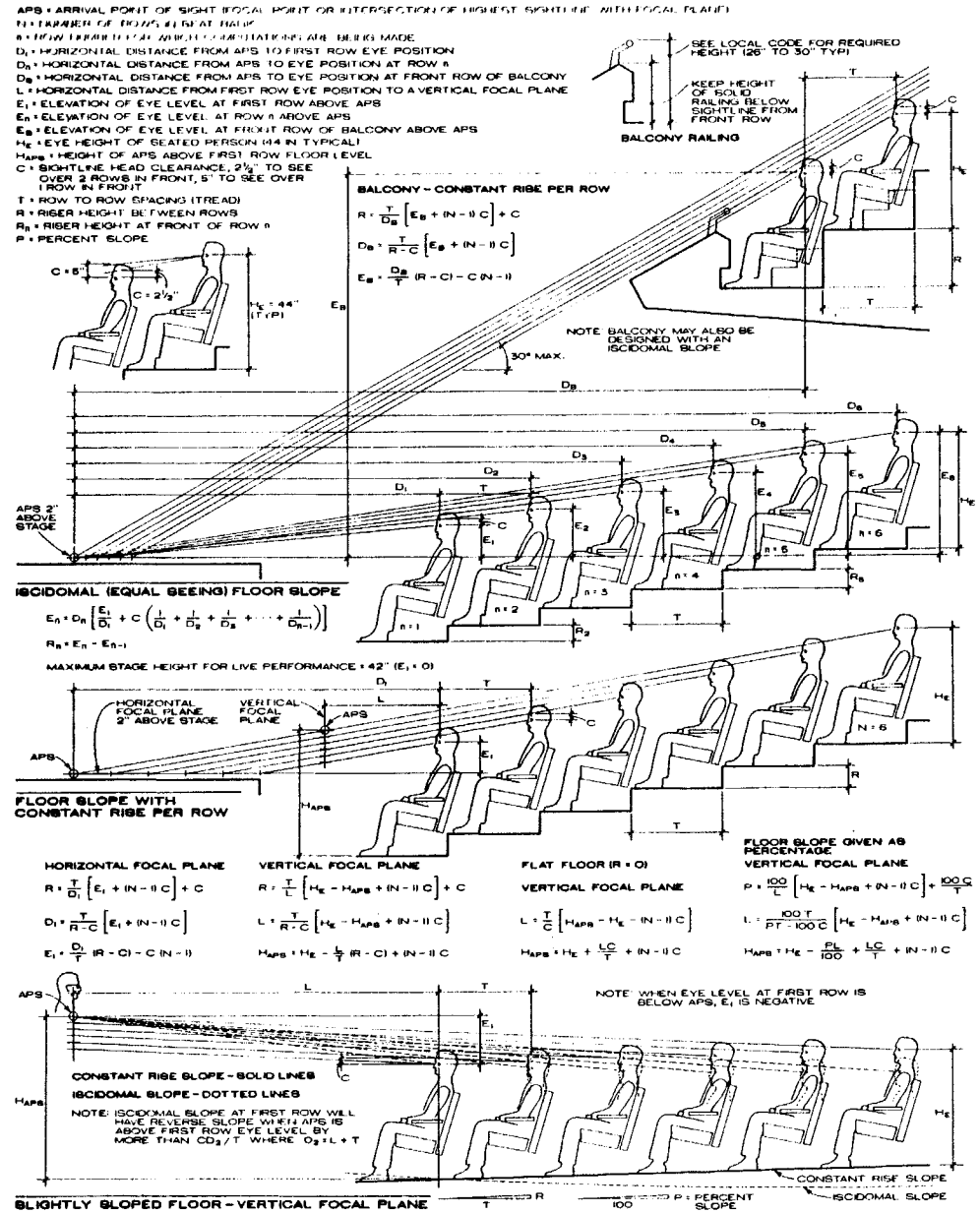
TECHNICAL  
DATA



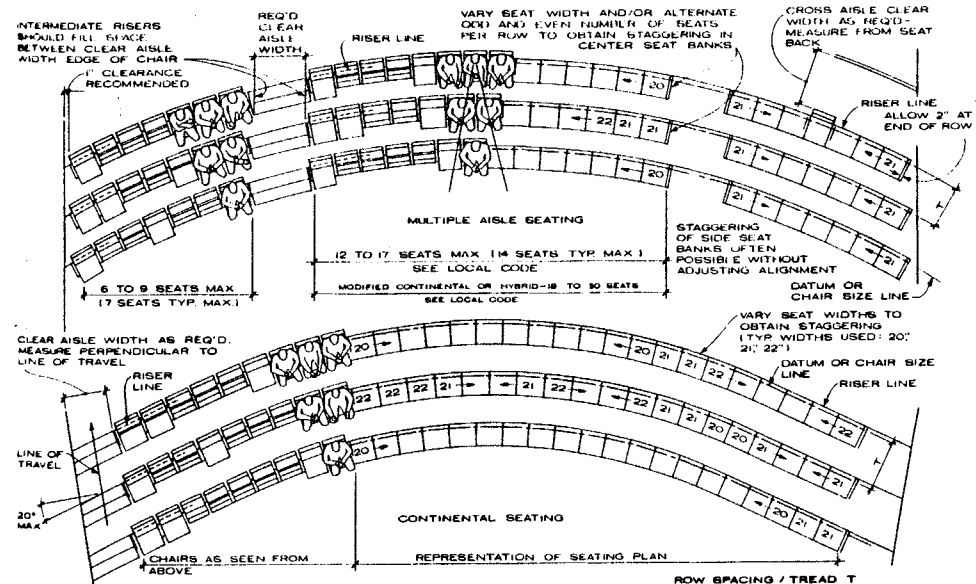


# TECHNICAL DATA

# Auditorium Design



# Auditorium Design



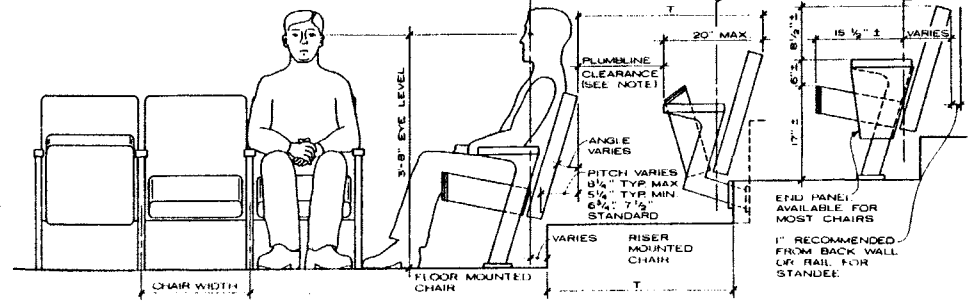
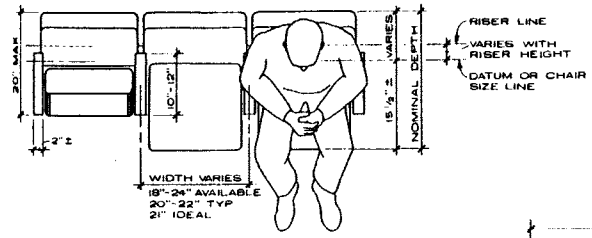
**CHAIR STANDARDS:** Cast iron, steel, riser mounted and floor mounted. Also pedestal mounting using continuous beam support or cantilevered standards. Folding tablet arms usually available.

**CHAIR ARMS:** Upholstered fabric, wood, plastic, metal.

**CHAIR BACKS:** Plastic, molded plywood, rolled stamped metal, upholstered front, rear. Higher backs and bottom extension for scuff protection also available.

**CHAIR SEATS:** Upholstered, plywood, plastic, metal pan, coil or serpentine springs, polyurethane foam.

**ROW SPACING / TREAD T**  
**LEGAL CRITERIA:** See local code for required minimum spacing. Codes typically stipulate a minimum clear plumbline distance measured between the unoccupied chair and the rear of the back of the chair in front.  
 32" - 33": typical minimum for multiple aisle seating  
 34" - 37": typical minimum for modified continental seating  
 38" - 42": typical minimum for continental seating  
**COMFORT FOR THE SEATED PERSON:**  
 32": knees will touch chair back; uncomfortable  
 34": minimum spacing for comfort  
 36": ideal spacing for maximum comfort  
 38" and up: audience cohesiveness may suffer  
**EASE OF PASSAGE IN FRONT OF SEATED PERSONS:**  
 32" - 34": seated person must rise to allow passage  
 36" - 38": some seated persons will rise  
 40" and up: passage in front of seated persons possible  
**SAFETY:** Excessive plumbline distance may entice exiting persons to squeeze ahead and cause jam.  
**EFFICIENCY:** Choice of minimum spacing satisfying criteria above reduces maximum distance to stage.



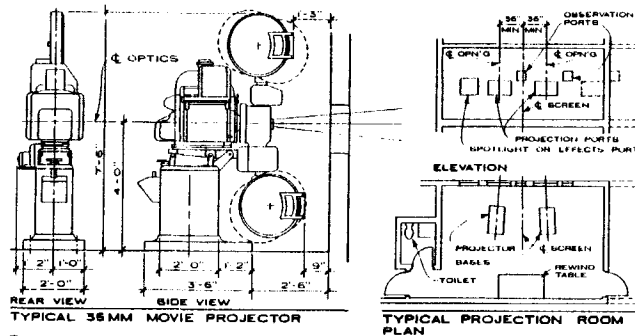
# Auditorium Design

## PROJECTION ROOM DETAILS

- DIMENSIONS:** 14 ft deep by 21 ft wide minimum for two projectors. Add 5 ft width for each additional piece of projection apparatus. Ceiling height should never be less than 8 ft; 9 ft is preferred.
- WALL CONSTRUCTION:** Wall separating projection room and auditorium should be made of brick, concrete, or concrete block to minimize sound transmission.
- FLOOR CONSTRUCTION:** Provide for a live load of 200 psf minimum. Recommend 4 in.

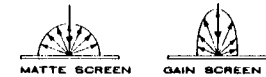
reinforced concrete slab, 4 in. tamped cinder fill (to accommodate concealed conduit), and 2 in. topping slab.

- FLOOR FINISH:** Recommend heavy battleship linoleum. A good grade of vinyl tile is also acceptable.
- PORTS:** Projection ports should be glazed with  $\frac{1}{4}$  in. optical quality or select water white glass. Observation ports may be glazed with  $\frac{1}{4}$  in. select plate glass that is free from distortion.



## SCREEN TYPES

An ideal screen would be one that would diffuse the light from the projector into the audience spaces with uniform brightness for every viewer and simultaneously reject any stray light falling on the screen, reflecting it away from the audience. Most common screen materials possess characteristics that fall short of the ideal.



### MATTE WHITE SCREEN

Uniform brightness from all viewing angles. Good resolution and color fidelity. Because much of the light reflected from a matte white screen falls outside of the viewing area, the picture will be less bright than a picture from the same source on a gain screen. Rejects less stray light than gain screens.

### GAIN SCREENS

Mechanical or chemical treatment of screen surface increases the amount of light reflected in the direction of the audience and decreases the amount reflected in other directions. Because brightness from all viewing angles is not uniform, gain screens dictate a narrower viewing area. For high gain screens, viewing area should be restricted to zone I as described on other pages. While the picture on a gain screen will be brighter than on a matte screen, resolution and color fidelity may suffer somewhat depending on the type of gain screen used. Gain screen types include: beaded, silver, pearl, and lenticular.

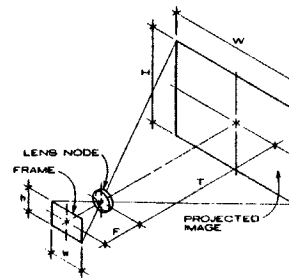
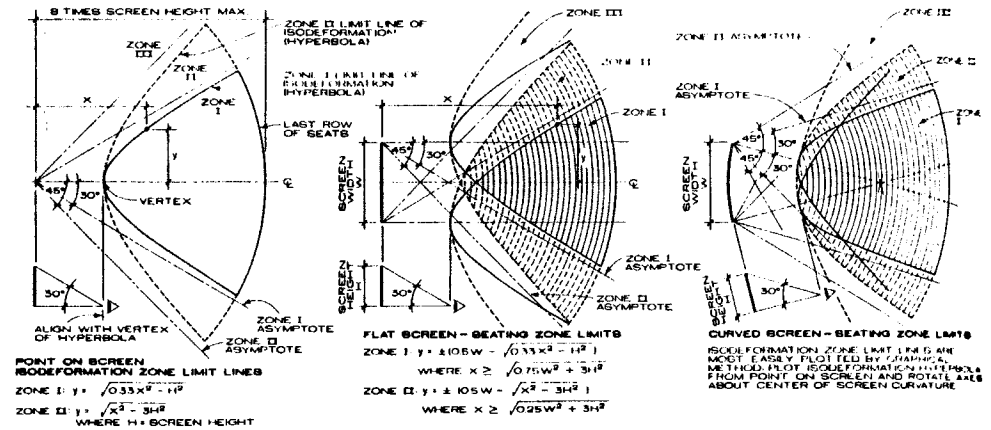
### AVAILABLE SCREEN SIZES

- Tripped screens: 30 x 40 to 72 x 80 in., bottom of screen usually 3 to 4 ft above floor (adjustable).
- Table or wall hung screens: 18 x 24 to 36 x 36 in.
- Wall or ceiling mounted, manually operated spring loaded roll up: 50 x 50 in. to 12 x 12 ft.
- Wall or ceiling mounted, electrically operated roll up: 50 x 50 in. to 20 x 20 or 12 x 24 ft. Custom sizes: up to 40 ft wide.
- Bottom roller, rope controlled: 5 ft 8 in. x 14 to 30 x 30 ft. Winch controlled: up to 40 ft wide.
- Framed screen (lace and grommet): custom made to any size. Economical for larger sizes. Frames made of 2 x 6 in. lumber or steel tubing or angle. Wood frames usually 1 ft wider than screen size. Metal frames usually 1 ft wider than screen size.
- Rear projection screens: 3 x 4 to 7 x 14 ft. Custom sizes, acrylic: up to 10 x 12 or 8 x 14 ft. Custom sizes, glass: up to 10 x 25 ft.

SEE OTHER PAGES FOR AUDITORIUM SIGHTLINES

REAR PROJECTION

# Auditorium Design



## PROJECTION FORMULAS

$$T = F(W/w) = F(H/h)$$

$$F = T(w/W) = T(h/H)$$

$$W = w(T/F)$$

$$H = h(T/F)$$

where

W = picture width  
H = picture height  
w = frame width  
h = frame height  
T = throw distance  
F = focal length

## ASPECT RATIOS AND FRAME DIMENSIONS FOR PROJECTED MEDIA

PROJECTION MEDIUM	FRAME (mm) h x w	ASPECT RATIO	FRAME (IN.)	
			h	w
8 mm motion picture	(3.28 x 4.37)	1:1.33	0.129	0.172
Super 8 motion picture	(4.01 x 5.36)	1.33	0.158	0.211
16 mm motion picture	(7.21 x 9.65)	1.34	0.284	0.380
16 mm CinemaScope	(7.21 x 9.65)	2.68	0.284	2 x 0.380
35 mm motion picture	(15.2 x 20.9)	1.375	0.600	0.825
35 mm CinemaScope	(18.2 x 42.6)	2.34	0.715	2 x 0.839
70 mm motion picture	(22.1 x 49.0)	2.21	0.868	1.913
70 mm IMAX	(51.0 x 71.0)	1.39	2.00	2.80
35 mm filmstrip	(17.0 x 22.5)	1.32	0.668	0.885
2 x 2 35 mm double frame slides	(22.9 x 34.2)	1.493	0.902	1.346
2 x 2 35 mm half frame slides	(15.9 x 22.9)	1.44	0.626	0.902
2 x 2 35 mm square slides	(22.9 x 22.9)	1.00	0.902	0.902
126 Insta-Loat slides	(12.7 x 17.0)	1.34	0.500	0.669
2 x 2 Instamatic slides	(26.5 x 26.5)	1.00	1.043	1.043
2 x 2 superslides	(38.0 x 38.0)	1.00	1.496	1.496
2 1/4 x 2 1/4 slides	(51.6 x 51.6)	1.00	2.030	2.030
2 1/4 x 2 1/4 slides	(55.5 x 55.5)	1.00	2.187	2.187
3 1/2 x 4 lantern slides	(69.9 x 76.2)	1.09	2.75	3.00
3 1/2 x 4 Polaroid slides	(61.0 x 82.8)	1.36	2.40	3.26
4 x 5 lantern slides	(88.9 x 114.3)	1.28	3.50	4.50
Overhead projector	-	1.26	7.50	9.50
Overhead projector	-	1.00	10.00	10.00
Television projector	-	1.33	-	-

# Lighting

## TERMS COMMONLY USED IN LIGHTING DESIGN

ENGLISH	SI	MEASURE OF
Candlepower	Candlepower	Intensity
Lumen	Lumen	Light flux
Footcandle (ft.c)	Lux	Density lumens/ft. <sup>2</sup> (lux/m <sup>2</sup> )
Reflectance (R)	Reflectance	$R = \frac{ft.c \text{ (reflected)}}{ft.c \text{ (incident)}}$
Transmission (T)		$T = \frac{ft.c \text{ (transmitted)}}{ft.c \text{ (incident)}}$
Footlambert (ft.L)	Candlepower/m <sup>2</sup>	Luminance $ft.L = ft.c \times R$

## SUBJECTIVE IMPRESSION APPEARS TO BE AFFECTED BY:

Visual clarity	Peripheral wall brightness Luminance in the center of the room Cool color light source and continuous spectrum output
Spaciousness	Peripheral lighting (not affected by color)
Relaxation	Nonuniform, peripheral (wall) lighting
Attention	Intensity of light and contrast Recommended contrast ratios: 2/1: subliminal differences 10/1: minimum for significant focal contrast 100/1: dominating contrast
Privacy, intimacy	Lighting of background and/or inanimate objects (centerpieces)
Gaiety, playfulness	Visual noise and "clutter" such as sparkle, random patterns
Somberness	Dimness and diffusion of light

## SEEING

Although many of the characteristics of quality seeing conditions are known, it is a difficult area to define precisely. Research continues in an effort to uncover knowledge of how people see and what kind of lighting conditions are most desirable for every situation.

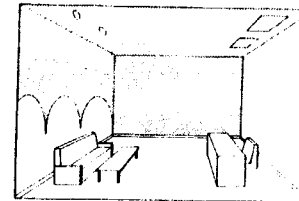
## RECOGNITION OF TASKS

The human ability to recognize detail generally varies with respect to (1) contrast between the details of a task and its immediate surround, (2) luminance (or brightness) of the task, (3) size of the task, and (4) time of viewing.

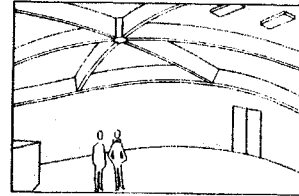
Maximum visibility is attained when the luminance contrast of details against their background is greatest (e.g., black ink on white paper). Significant savings of electric energy can occur when the task contrast is maximized because the level of illumination needed is reduced. The same opportunity occurs with task size (e.g., large size type on a typewriter saves on the need for illumination). The luminance of the task depends on the amount of incident illumination and the reflectivity of the task. A small amount of light on white paper may be as effective for seeing as a large amount of illumination on dark cloth. With increased time available for viewing, illumination levels can be reduced (e.g., when speed is not critical).

## VEILING REFLECTIONS

Substantial losses in contrast, hence in visibility and visual performance, can result when light is reflected from specular visual tasks (the task is "veiled"). This is perhaps the most significant factor in poor seeing conditions. Three factors govern these veiling reflections: (1) the nature of the task, (2) the observer's



LIGHTING CAN DEFINE A CHANGE OF MOOD BETWEEN DESK AND MORE RELAXED SEATING AREA



LUMINAIRE PATTERNS THAT CONFLICT WITH STRUCTURE CAN DESTROY HARMONY OF SPACE

## ILLUMINATION

Proper illumination depends on the establishment of design goals that define the desired environment, rather than on the equipment needed. Lighting is the most expensive tool available for setting the tone for perception of the environment. It should be thought of as a design tool and not as an "add on" to provide light, and its consideration should be fundamental to any design effort.

Light should be considered to be what we "see by" and not that which we actually see. We do not see footcandles (the measure of quantity). We see luminance as a result of reflected or direct light. (When perceived rather than measured, it is called brightness.) The footlambert is the unit of measurement of brightness.

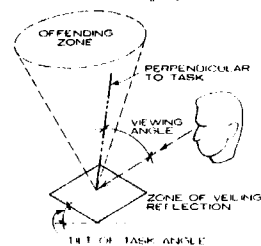
Of course, there must be enough light. (The unit of measure is the footcandle.) The quantities of illumination necessary for various visual tasks have been orientation and viewing angle, and (3) the lighting system.

## THE TASK

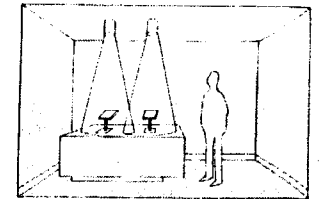
The luminance of the task (e.g., writing or printing on paper) depends on both the amount of light being reflected from it and the bright object or surface (e.g., luminaire) that may be reflected in it. Diffusing or matte papers and inks tend to reduce veiling reflections.

## THE OBSERVER

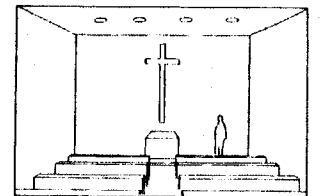
If the eye is in such a position that the rays of light from the "offending zone" are reflected toward it, veiling reflections will occur. This situation can usually be observed in a space by placing a sheet of clear acetate or some other glossy surface over the task



TASK LIGHTING



DOWNLIGHTS FOCUS ATTENTION ON OBJECT



LIGHT CAN DIRECT ATTENTION TO A SPECIFIC FOCUS POINTS. CONTRAST OF LIGHT AND DARK SURFACES

recommended by the Illuminating Engineering Society (IES) based on research. But the quantity of illumination needed on walls, floors, ceilings, and so on, for the creation of a beautiful and functional environment is very much left to the designer's logic, experience, and intuition. The proper lighting of all tasks, whether functional or esthetic, is vital to a total design, and recommended footcandle levels should be considered only as targets.

## PURPOSE

Lighting can define the intended use of a space by focusing on points of attention and subduing less important areas. It can be used to express structural concepts by silhouetting beams, arches, and columns or to emphasize unusual contours. Mechanical equipment can be made to visually recede with dark paint and the absence of light. Light can help to define space use changes through brightened ceiling areas or changes of light patterns on walls.

(such as a book or paper with writing or printing) and observing the reflections (if any). Sources of light in this offending zone should be minimized for best seeing conditions.

## LIGHTING SYSTEMS

The worst condition is a highly concentrated, bright source, above and forward, directed at the task. Paradoxically, it is also the condition under which the worker can most easily escape veiling reflections by tilting or reorienting the task so that the reflected rays do not reach the eye (e.g., as in turning the back so the light comes from the shoulder). Placement of lighting equipment and fenestrations in the general area above and forward of the task (or desk) should be avoided. When the nature of the tasks and their location are known, luminaires can be located to avoid the offending zone. When task locations are not known and flexibility is necessary, as for speculative office space, general low level ambient lighting, which tends to negate the effects of veiling reflections, and task lighting can be provided by plug-in units at the discretion of the tenant.

## EQUIVALENT SPHERE ILLUMINATION (ESI)

ESI is a unit adopted by the IES for measuring the visibility potential of a particular task at a particular location and with a specific lighting system. It is a unit of measurement just as is the meterstick. It is not a standard of quality, but a way of taking into consideration those elements by which quality is judged. ESI cannot be measured over the area of a room as simply as raw footcandles, because ESI depends on a task, a location, an orientation, and a lighting system. A task has 50 ESI when it is as visible as it would be when illuminated by 50 ft.c of illumination produced by a photometric sphere.

Benjamin H. Evans, AIA, Blacksburg, Virginia

# Lighting

## TASK AMBIENT LIGHTING

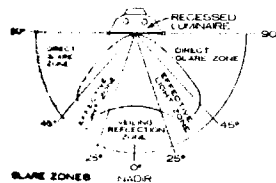
The present (T A) lighting systems have become popular because they provide higher intensity illumination on the task only and lower levels of ambient light for general circulation, thereby reducing electric energy consumption. T A systems are designed to give localized disk task lighting and, usually, to project some percentage of illumination toward the ceiling for ambient general purpose lighting. A T/A lighting system generally requires fewer watts per square foot of floor space (as little as 1.5 W/sq ft) than does the conventional ceiling lighting system (up to 4 or 5 W/sq ft) and thus can be a significant energy saver. However, the principles of good lighting still apply, and not all T/A lighting systems provide sufficient task illumination without producing excessive ceiling reflections. Luminaires should be glarefree; the light source should not be visible from the working position. Direct glare from the normal viewing position should be avoided. The design should illuminate the back panel of the work station as evenly as possible. A T/A system should not produce excessively bright spots of light on low ceiling and adjacent walls. Poor distribution of illumination on room surfaces can be visually disturbing to occupants.

## LUMINAIRE SELECTION PARAMETERS

In selecting a luminaire that will create good seeing conditions several factors should be considered:

- DIRECT GLARE** is produced by excessive luminances in the visual field that affect the visual system as the individual looks around the environment. It is usually associated with the luminaire zone from 45° to 90°. To minimize direct glare, the luminous intensity should be kept out of the 45° to 90° zone.
- VISUAL COMFORT PROBABILITY (VCP)** is the indicator used to evaluate the direct glare zone area of luminance. Luminaires are given a VCP rating, which indicates the percent of people who, if seated in the most unfavorable location, will be expected to find the luminaire acceptable from the standpoint of direct glare (excessive luminances in the visual field).
- Direct glare may not be a problem if all three of the following conditions are satisfied: (a) The VCP is 70 or more; (b) the ratio of maximum to average luminaire luminance does not exceed 5 to 1 at 45°, 64°, 66°, 75°, and 85° from nadir crosswise and lengthwise; (c) maximum luminaire luminances do not exceed:

- 2250 ft L at 45°
- 1620 ft L at 55°
- 1125 ft L at 65°
- 750 ft L at 75°
- 495 ft L at 85°

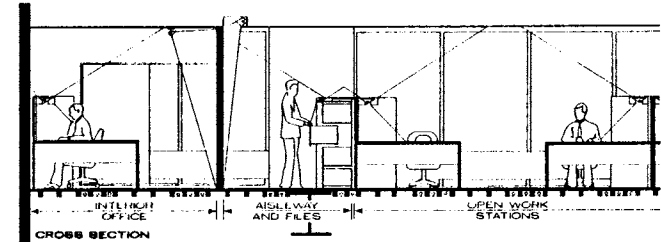


## ASHRAE STANDARD 90-75

The American Society for Heating, Refrigeration, and Air Conditioning Engineers has established a procedure for determining a "Lighting Power Budget," which has been adopted in some areas as a mechanism for determining how much electrical energy will be allowed for lighting purposes in new buildings. The lighting power budget is intended only as a mechanism for encouraging energy conservation in lighting and is not a design tool. Once the budget has been established, the designer is free to design the lighting system to achieve the best quality lighting within the budget and for the circumstances. Much can be done to conserve energy while staying within the lighting budget.

## MAINTENANCE AND DEPRECIATION

All elements of the building that affect light need to be kept clean. Luminaires, diffusers, lenses, window glass, mirrors, blinds, wall surfaces, and so on, tend to collect dust, which reduces their light controlling efficiency. In the lighting formulas below a Luminaire Dirt Depreciation (LDD) factor is used to account for collected dust and dirt. The LDD figure used will depend on the type of atmosphere in the room and the frequency of cleaning. Also, lamps depreciate with time, with their effective lumen output reduced, which is accounted for in the calculations with the application of the Lamp Lumen Depreciation (LLD) factor.



## SOME USEFUL FORMULAS FOR GENERAL LIGHTING DESIGN

$$\text{NUMBER OF LUMINAIRES} = \frac{\text{footcandles desired} \times \text{room area}}{\text{CU} \times \text{LLD} \times \text{LDD} \times \text{lamps/luminaire} \times \text{lumens/lamps}}$$

$$\text{AVERAGE FOOTCANDLES} = \frac{\text{lumens/lamp} \times \text{lamps/luminaire} \times \text{CU} \times \text{LLD} \times \text{LDD}}{\text{area of room (sq ft)}}$$

$$\text{TOTAL ILLUMINATION (W/sq ft)} = \frac{\text{footcandles desired}}{\text{overall lumens/watt} \times \text{CU} \times \text{LLD} \times \text{LDD}}$$

where CU = Coefficient of Utilization  
 LLD = Lamp Lumen Depreciation  
 LDD = Luminaire Dirt Depreciation

### NOTE

See manufacturer's photometric tables or the Lighting Handbook of the Illuminating Engineering Society for tables giving values of CU, LLD, LDD, lumens/lamps, and so on.

### TYPICAL EXAMPLES

Room size 25 x 40 ft; ceiling height 9 ft; office area 70 ft<sup>2</sup>; 2 x 4 ft recessed troffers with 4 40 W T12 lamps (3100 lm) each. From IES tables, Room Index = E and CU = 0.67 (plastic lens).

$$\text{NUMBER OF FIXTURES} = \frac{70 \times 25 \times 40}{0.67 \times 0.7 \times 4 \times 3100} = 8.4 \text{ (use 8 luminaires)}$$

$$\text{TOTAL ILLUMINATION (W/sq ft)} = \frac{8 \times 200 \text{ W/luminaire}}{25 \times 40} = 1.6 \text{ W/sq ft}$$

## IES RECOMMENDED ILLUMINATION LEVELS (ESI AT THE TASK)

5 FT.C	10 FT.C	20 FT.C	30 FT.C	50 FT.C	70 FT.C	100 FT.C	150 FT.C	200 FT.C
Rest. at bar	Restaurant	Cleaning	Classrooms	Inspection	Commercial kitchen	Garage repair	Rough drafting	Fine drafting
Tr. meeting	Parking garages	Hospital room	Waiting rooms	Rough factory assembly	General writing and reading	Office reading	Accounting	Engraving
Hotel foyer	Hotel bath	Stairways	Restrooms	Bank lobby	Dormitory desk	Sewing	Office fine work	Color printing inspection
	General residential	Hotel bedroom	Entrance foyers	Church pulpit	Handicraft	Merchandising areas	Proofreading	Critical seeing tasks
			Laundry	Checking and sorting				
			Receiving printed material					

# Lighting

## SOURCE

Daylight comes directly from the sun, from the diffuse sky and clouds, and is reflected from the ground and other surrounding objects. Direct sun penetrating into interior workspaces may cause excessive luminance contrasts. Direct sun should be controlled by proper orientation of the building, or by louvers, overhangs, shades, blinds, or other devices. Diffuse light from the sky may cause excessive luminance contrasts when viewed by eyes concentrating on an interior task. In such cases, the sky should be filtered or shielded from view or the view of the task should be oriented away from the windows. As much as half the light entering a space can be reflected from the ground.

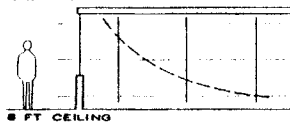
## DESIGN GUIDELINES

### DEPTH

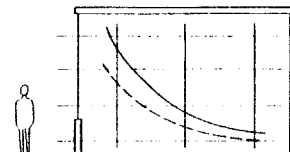
The level of illumination will be shallow in the interior than near the window. A rule of thumb is that daylighting can be effective for task illumination up to about 20 to 24 ft away from the windows, but this depends on the size and location of the windows. A window high in the fenestration wall will deliver light deeper into the interior than a low window of the same size. Venetian blinds may be used to reflect daylight against the ceiling and into more remote areas of the space while preventing the penetration of direct sunlight and view of excessively luminous areas on the exterior. The cross-sectional diagrams below show how the depth of the room affects daylight.

### FINISHES

Finishes of interior surfaces are important in the control of light and luminance ratios. Light colored surfaces, diffusely reflecting, will aid in the distribution of light and reduce luminance ratios. The diagrams below show how room surfaces affect daylight from a window. The ceiling is the most effective surface for reflecting light and should be very light in color (preferably white). The floor is one of the least significant, and it is here that the designer has the greatest opportunity for use of darker colors, such as those found in carpets, although very dark colors may cause excessive luminance differences.



8 FT CEILING



12 FT CEILING

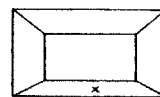
The higher and larger the window, the more light there will be in the interior. The dashed illumination curve for the 8 ft ceiling can be compared with the solid curve for the 12 ft ceiling. Window areas below the level of the work surface are not effective in providing light on the task.

WINDOW HEIGHT



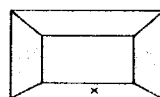
100%

All room surfaces are white, and the illumination level at point x is 100%.



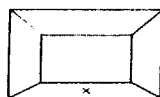
88%

With the floor painted black the illumination level is 88% of the all white room.



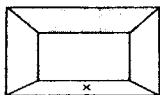
82%

With the sidewalls painted black.



50%

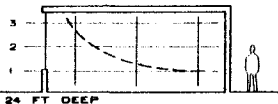
The back wall has been painted black, and the illumination level at point x is only 50% of that in the all white room.



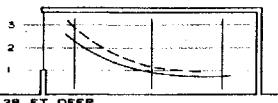
36%

With the ceiling painted black.

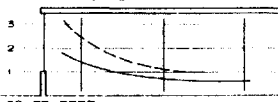
## SURFACE FINISHES



The dashed curve indicates the illumination distribution for a typical 24 ft deep room.

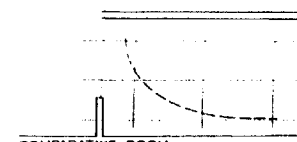


The solid curve indicates the illumination level for a 28 ft deep room and can be compared with the dashed curve from the top diagram.



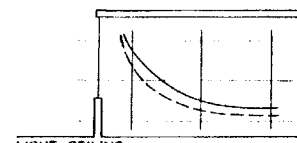
The solid curve indicates the illumination level for a 32 ft deep room and can be compared with the dashed curve from the top diagram.

ROOM DEPTH



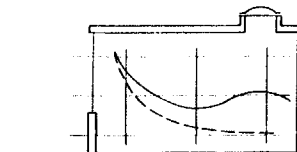
COMPARATIVE ROOM

A particular room produces a distribution of daylight as indicated by the dashed curve (repeated below).



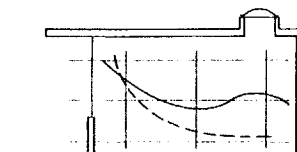
LIGHT CEILING

When the reflectivity of the ceiling is increased (painted white) the illumination level increases as indicated by the solid curve. The distribution curve flattens somewhat, since the increased ceiling reflectance increases illumination most toward the back wall.



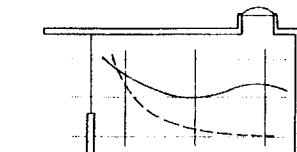
SKYLIGHT

The introduction of a skylight near the back wall increases the illumination in that area. (A clerestory, or a high window in the back wall, would produce similar results.)



OVERHANG

An overhang can be used to reduce the illumination near the windows to a greater degree than in the back of the room. Another way to do this is with horizontal louvers on the exterior of the window wall or with interior venetian blinds.



GROUND REFLECTION

Increasing the ground reflectivity (e.g., with a concrete walk) outside the window will increase the general level of interior illumination.

DAYLIGHTING METHODS



# Security

SYSTEM	FUNCTION	TIME BASE	DESCRIPTION
A. Card reader	Controlled access	Real After	An electronic system identifies pre-coded card. Per forms real time function when reporting to authority in the immediate area. The card reader system will provide after the fact reporting when used in conjunction with outside reporting authority - Police Department, etc.
B. Combination doors and locks	Controlled access	Real	Mechanical combination lock, access can only be achieved by selecting the correct push buttons in the correct numerical sequence.
C. Patrol tour system	Intrusion fire	Real and after	A system of key actuated switches in particular locations. Patrolman will visually survey the area along a predetermined route. The patrolman must activate switches along the route in a predetermined time or the system will sound alarm. The most simple system is a watch clock that indicates each location activated and inspected at a later date to determine if the patrolman completed the route. The more sophisticated system is electronic reporting to a central console each time a particular location switch is activated, allowing the security supervisor to track the patrolman through the complete route.
D. Door and window burglar alarm	Intrusion	After or real	Door switches on doors and conducting tape on windows, any interruption of continuity causes alarm. When used with outside law enforcement agency may or may not provide real time base reporting depending upon the response of the law enforcement agency.
E. Photoelectric or infrared detection system	Intrusion	Real	Photo cell receives light beam from sender. Any interruption of beam sends alarm. The system is flexible for indoor or outdoor use and can be a single set of devices or many devices reporting to a central annunciator. Infrared detection is similar except that infrared is not visible light, which may have advantages in some instances.
F. Capacitance detection system	Intrusion	Real	Balanced electronic circuit becomes unbalanced by the capacitance of an organic body in the immediate area.
G. Ultrasonic system	Intrusion (broad coverage)	Real	A transmitter emitting high frequency sound to a receiver. Intruder unbalances system and indicated alarm. A real time base system when reporting to an authority in the immediate area.
H. Microwave system	Intrusion (narrow coverage)	Real	Similar to ultrasonic except that it uses microwaves instead of high frequency sound. Microwave will travel long distances (150-200 ft). Ideal for long corridors, etc.
I. Vibration detection system	Intrusion	Real	Contact microphone system attached to particular object such as a safe. Any vibration or noise initiates alarm.
J. Closed circuit television	Visual surveillance	Real	Video camera is connected to monitors. Design considerations include lighting levels, lens selection, switcher networks, special enclosures, and ambient temperature range.
K. Audio communication and detection	Controlled access area monitoring	Real and after	A system of microphones, speakers, and amplifiers, such as intercom, public address-audio level sensing.
L. Building control system (includes any desired security system monitoring, fire alarm, and HVAC monitoring)	Monitoring system for all building functions	Real and after	Provides complete status report of all building functions by use of a minicomputer and annunciators. Allows building engineer to handle building systems and security systems from the same console. Building security systems can be procured with printout to establish record of security violations for after the fact investigation. Software programs for the computer are available from all building control system manufacturers to establish almost any degree of sophistication desired or different degrees of security for different hours of the day. The additional advantage is that one person has control of the entire system and can thus better direct such corrective action as calling the police, the fire department, or local security, as well as advise the building occupants about what action to take for protection. Depending on the software program, the building engineer can also control the security access or emergency evacuation routes in case of emergency to protect property or life.

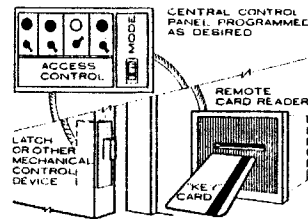
## SECURITY SYSTEMS

Security systems can only perform the functions of controlled access, intrusion alarm, personnel or intruder identification, or fire watch. Some security systems perform one function, while other systems are multifunctioning. In most cases, security systems are provided to improve the capability of a security guard system. The most effective is a trained security personnel system. Any other system is usually merely an aid and has been established as a compromise measure to limit the need for trained personnel.

The design of a security system must be based on certain factors:

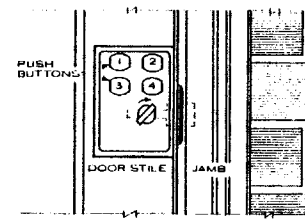
1. Type of security needed is based on the type of facility, the company's public image, location environment, personnel safety, manufacturing proprietary secret security, number of work shifts, the type of people employed, internal security requirements, need for security from external sources and in some instances even political ramifications or use of secret or classified materials that may be subject to espionage or sabotage.
2. The degree of security needed depends on numerous factors, including the location of the facility in high risk or low risk areas which could affect the degree of security needed from external sources and the need for internal security safeguards against theft, rape, and sabotage. The acceptance of the facility in the neighborhood can have a great bearing on the degree of security needed. Employment of union labor with the possibility of lockouts and strikes would also have a bearing on the degree of security.
3. A building designed with security in mind will reduce the cost of an effective security system. The building area to site ratio is also a definite factor in security. Building access, type of building construction, the proximity of local law enforcement agencies, parking access, and control of planned expansion are all prime factors to be considered.
4. The extent and degree of sophistication built into a security system is normally controlled by the cost of the security system versus expected losses. A complete system of trained security guards is expensive and, in many cases, cannot be justified therefore, other means of extending the guards capability are necessary compromises to keep the system's cost in perspective with expected losses. Cost may not always be the major factor in selecting security systems, but in most instances a compromise results in the desire for system sophistication and cost.
5. The availability of personnel to service and maintain the selected equipment should be thoroughly investigated. Companies that have several years of successful maintenance and service records and are recommended by their customers should be given the greatest consideration.
6. A prime consideration is the response of the local law enforcement agency to a security alarm. When the local law enforcement agency cannot perform adequately, other alternatives must be considered such as private investigation companies or in-house security personnel.
7. The time base of the security system that a real time or after the fact time, has a bearing. Real time is the capability of notifying the enforcement authority in charge in time to control the event. After the fact time is notification that an incident is occurring, but that, because of the time required to respond, it cannot be controlled immediately. The selection of a system must be based on the function desired. Only one type of system may be required or a combination of many systems for large installations. If desired, all systems can be connected to an off premises monitoring company or law enforcement agency.
8. If a large security system is contemplated, the local law enforcement agency and the local outside reporting agency should be consulted to determine what services they can provide. These agencies can also advise the designer about the equipment and type of system that will best fit their particular method of operation. The manufacturers of the particular equipment must also be contacted and each type of equipment should be discussed in special cases, mockups should be required to determine whether the particular equipment will in fact, perform as stated by the manufacturer and will perform the desired function.

# Security

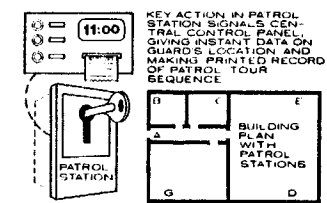


CARD READER ALLOWS SELECTED ACCESS. DIFFERENT PROGRAMS PROVIDE VARYING MODES OF ACCESSIBILITY

## ACCESS CONTROL

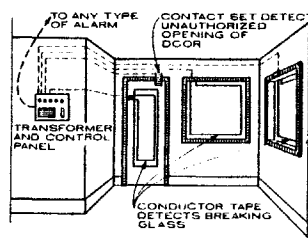


COMBINATION LOCK IS ACTIVATED BY PUNCHING IN CORRECT NUMERICAL SEQUENCE

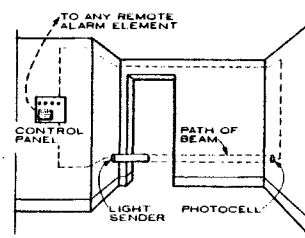


PATROL TOUR MONITORING SYSTEM ENSURES THAT HUMAN GUARDS COMPLETE REGULAR TOURS PER PROGRAM. IF SOMETHING HAPPENS TO GUARD BETWEEN STATIONS, MONITOR CAN SUMMON AID

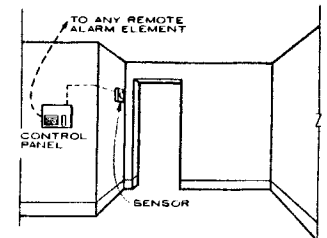
## SYSTEMATIC PATROL



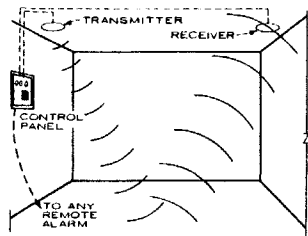
ELECTRICAL SENSORS AT WINDOWS AND DOORS PROVIDE PERIMETER SECURITY



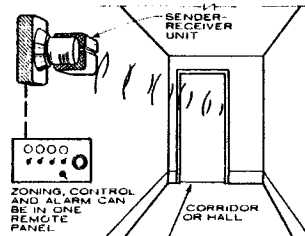
PHOTOCELL SENSOR ACTIVATES ALARM WHEN PERSON, ANIMAL, OR OBJECT INTERRUPTS LIGHT BEAM



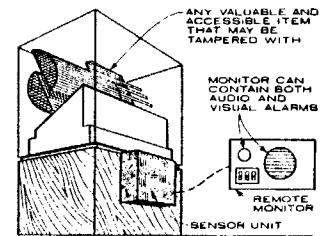
CAPACITANCE SENSOR ACTIVATES ALARM BY DETECTING NATURAL ELECTRICAL PHENOMENON OF HUMAN BODY



ULTRASONIC SENSOR DETECTS MOVING HUMAN OR OBJECTS OVER A BROAD COVERAGE AREA

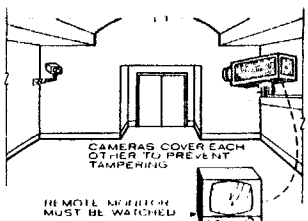


MICROWAVE SENSOR IS BEST SUITED FOR USE IN LONG, NARROW SPACES



VIBRATION DETECTOR, MOUNTED ON ITEM TO BE MONITORED, PICKS UP MINUTE VIBRATIONS AND SOUNDS CAUSED BY TAMPERING

## INTRUDER DETECTION



CLOSED CIRCUIT TELEVISION PROVIDES CONSTANT VISUAL SURVEILLANCE OF LARGE SPACES. MONITORING PERSON CAN IDENTIFY PERSONS, OBSERVE CRIMES, FIRE OUTBREAK, RUDENT INFESTATION

## GENERAL SURVEILLANCE

