

A MUSEUM OF PHOTOGRAPHY IN THE
WEST END HISTORIC DISTRICT OF DOWNTOWN DALLAS

by

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Submitted in partial fulfillment of the requirements
for the degree Master of Architecture
University of Texas at Arlington

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TABLE OF CONTENTS

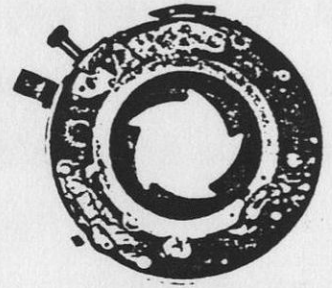
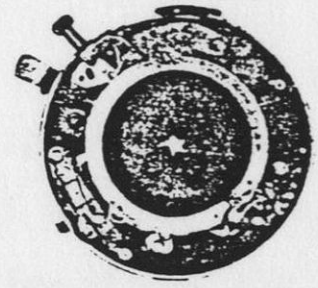
Abstract	1
Goals	2
Site Analysis	5
Districts	6
District Analysis	8
District Plan	10
Zoning	11
Land Use	12
Topography	13
Figure/Ground	14
Ground/Figure	15
Physical Structure	16
Site	17
Case Studies	18
Die Altes Museum	19
Yale Center for British Art	21
Deutsche Architekturmuseum	23
Menil Collection	25
Program	27
Spatial Requirements	28
Diagrams	31
Spatial Characteristics	35
Conclusion	38
Site Plan	40
Conceptual Diagrams	41
Plans	42
Sections and Elevations	44
Typical Bay	46
Axonometric	47
Bibliography	48

ABSTRACT

This thesis substitute project is a museum of photography for the West End Historical District in downtown Dallas, Texas. The museum is to house a permanent collection of photographs, films, and related artifacts including photographic equipment. The primary emphasis of the holdings is urban, architectural, and landscape photography prior to 1915. Other categories of the permanent collection include urban and architectural photography after 1915, photography between the wars, photography after 1945, and a selective film collection. A gallery for temporary and traveling exhibitions complements the gallery for the permanent collection. A theater for film screenings, orientation film screenings, and lectures is a major aspect of the museum. A small library for professionals and scholars and various service areas complete the program. The museum is approximately 29,250 square feet in area.

The client for this project is assumed to be a private, non-profit foundation which owns the permanent collection and engages traveling exhibitions.

The site is approximately 15,000 square feet. It is bounded by Market Street, Munger Street, Lamar Street, and Corbin Street. It is an infill site that has a Z-shaped plan. It is currently used for surface parking.



GOALS

GOALS

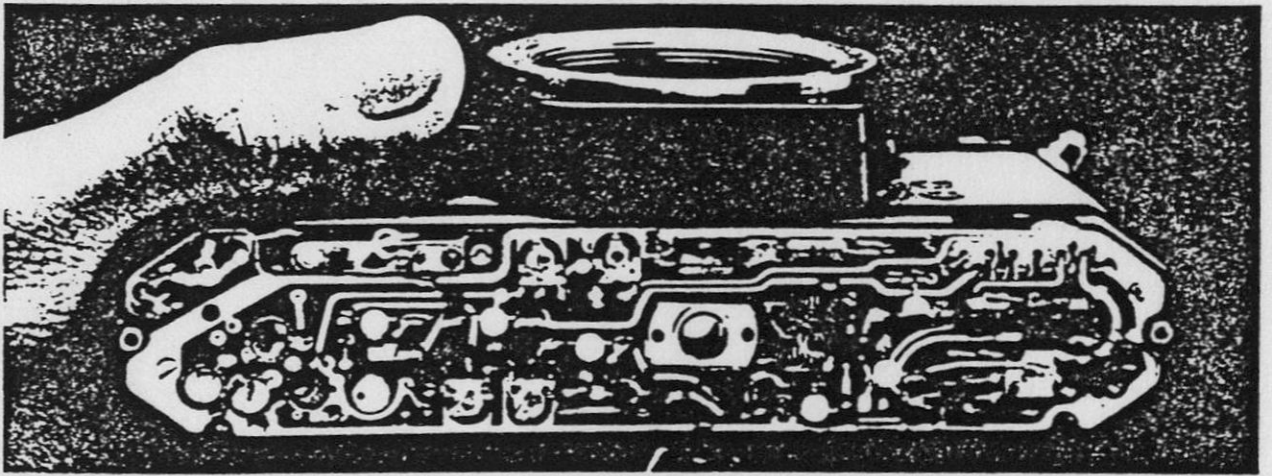
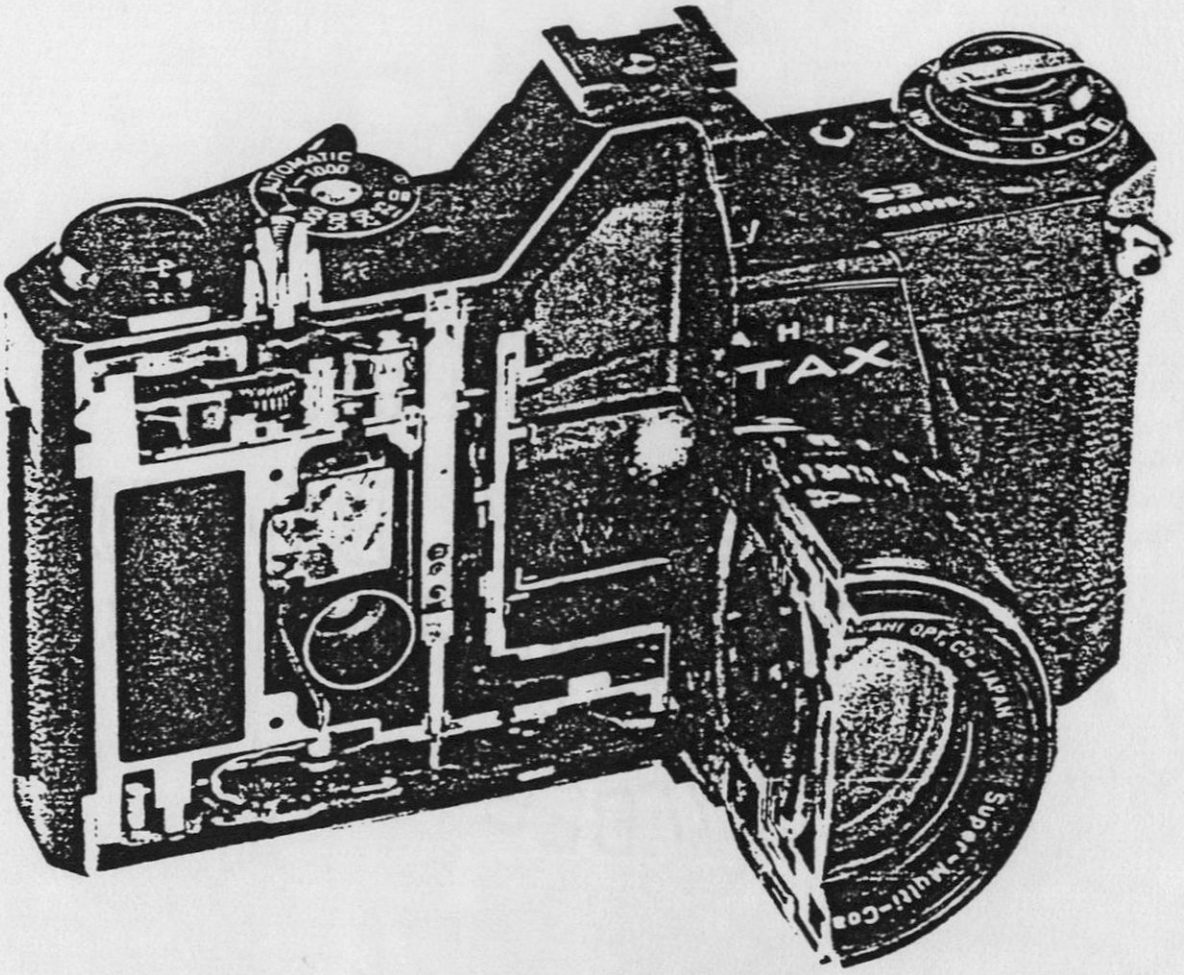
The goals of this project are to design a museum that emphasizes the perceptual and experiential aspects of viewing photographs and films and that responds to the urban context of the West End Historical District.

The museum experience will emphasize a progression through a variety of spaces designed to emphasize the viewing of two-dimensional images and contrasting this experience with three-dimensional real space. An inquiry into the nature of photography is an on-going concern that will be reflected in the building.

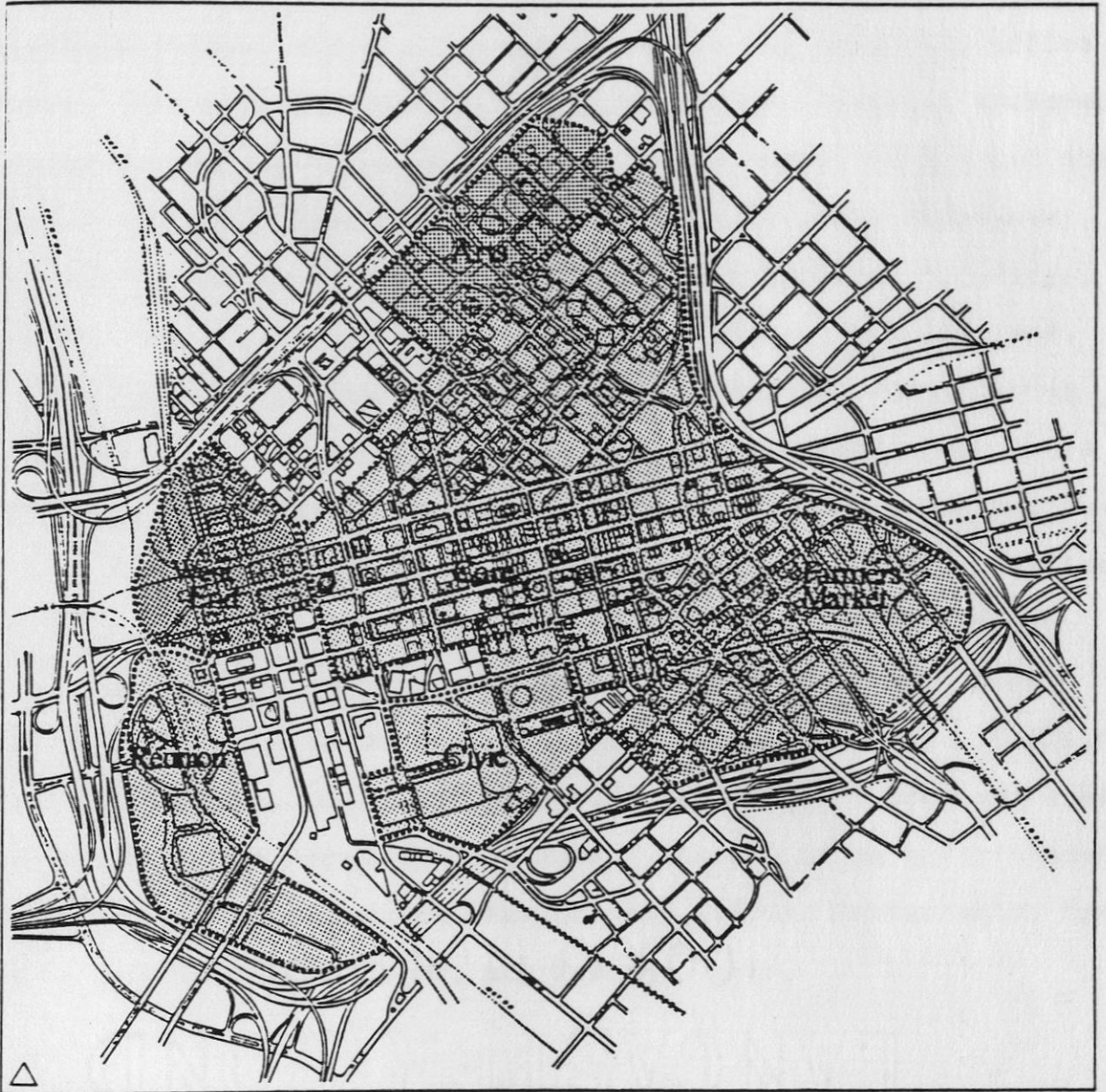
The urban issues to be addressed include the nature of a new infill structure in an historic context with design restrictions, including facade materials and treatments. The site is located at an important intersection at the north end of Market Street, directly south of the plaza at the West End Marketplace. The area is now in a fragmented state primarily because of the open land of the site that is now being used for surface parking. The position of the site in the transitional zone between the two downtown grids suggests a major response to this grid shift as part of the design solution.

Following are the possible ways of exploring these problems:

- using a modern building inside a traditional facade
- using a dynamic circulation route
- designing display mechanisms as an integral part of the problem
- investigating ways of using natural and artificial light
- using a major figural space within a field
- using an interior division that reflects the urban macrocosm
- inserting a building within a building
- designing a progression from solid to transparent
- exploring the possibilities of functional zoning



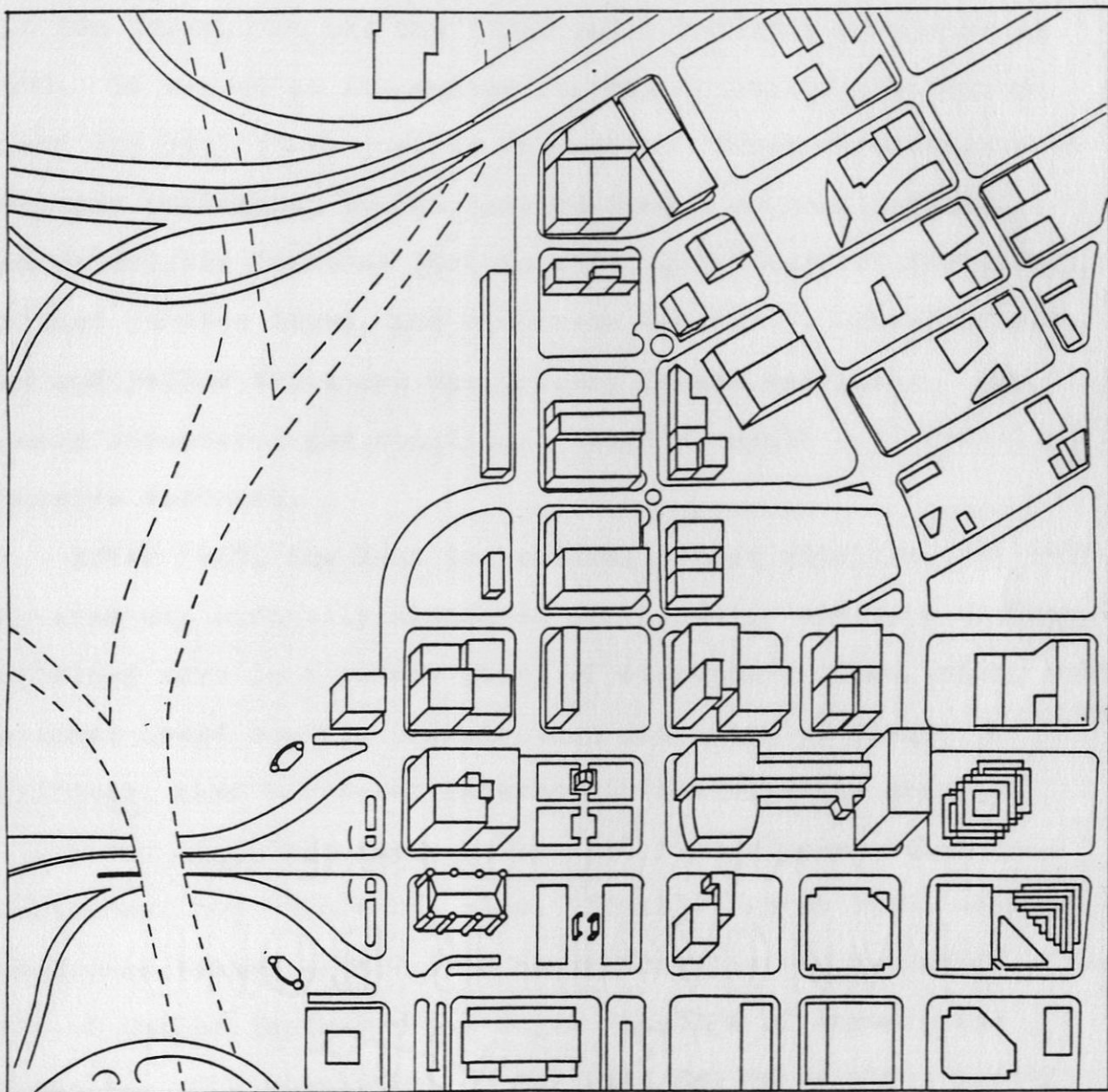
SITE ANALYSIS



DISTRICTS

The West End Historic District is one of six downtown districts that the Dallas Urban Planning Department has categorized since 1970. The districts have been classified by their physical and perceptual characteristics. The Core exhibits high-rise office buildings,

department stores, shops and restaurants serving primarily office workers. The Arts District is a planned special district anchored by major art institutions such as the Dallas Museum of Art and the Morton H. Meyerson Symphony Center. It is a proposed mixed-use area that is currently home to churches, institutional buildings, and high-rise office buildings, along with its art institutions. The West End is characterized by low-rise brick buildings dating from the turn of the century. Formerly used as warehouses, these buildings are undergoing renovation as offices, shops, and restaurants. Downtown housing is considered a strong possibility in the West End. The Civic area consists of major municipal buildings and landscaped open spaces. The Farmers Market has large open sheds where produce is sold directly to the public. Other buildings in the area are wholesale and warehouse facilities. Downtown housing is also being considered in this area. Reunion is an entertainment district consisting of Union Station, now housing restaurants, Hyatt Reunion Hotel, Reunion Arena, and Reunion Tower.



DISTRICT ANALYSIS

The history of the West End Historic District begins with the cabin of John Neely Bryan, the founder of Dallas. Within a quarter of a century, the West End became a thriving center of warehouses supporting the city's mercantile operations. The

Old Red Courthouse was the first major building completed in 1890. It served as the anchor for the buildings constructed along the rail lines just to the north. These warehouses were strongly influenced by the Chicago School of Architecture. Characteristic features include wide, multipaned windows, well defined cornice lines, and elaborate decorative embellishment. Red and yellow brick are the primary facade materials. The blocky structures and consistent heights result in a visually cohesive district.

After 1945, the West End gradually lost vitality. By 1970, the area was virtually abandoned of its daily activity and many buildings were in a severe state of disrepair. Then, along with a national trend towards preservation and adaptive re-use of old buildings, came a renewed interest in the historic area.

A few buildings began to be used for purposes other than warehouses, but change was slow. Finally, about 1980, several developers became involved in renovating the old buildings. The City of Dallas implemented a major facelift of streets and sidewalks. The completion of the West End Marketplace in 1985 created another anchor for the district at its far north end. Today the area is home to many restaurants and shops. Downtown housing is being considered for a site in and adjacent to the historic district. The area is clearly experiencing a rebirth as an exciting entertainment and possibly residential area.



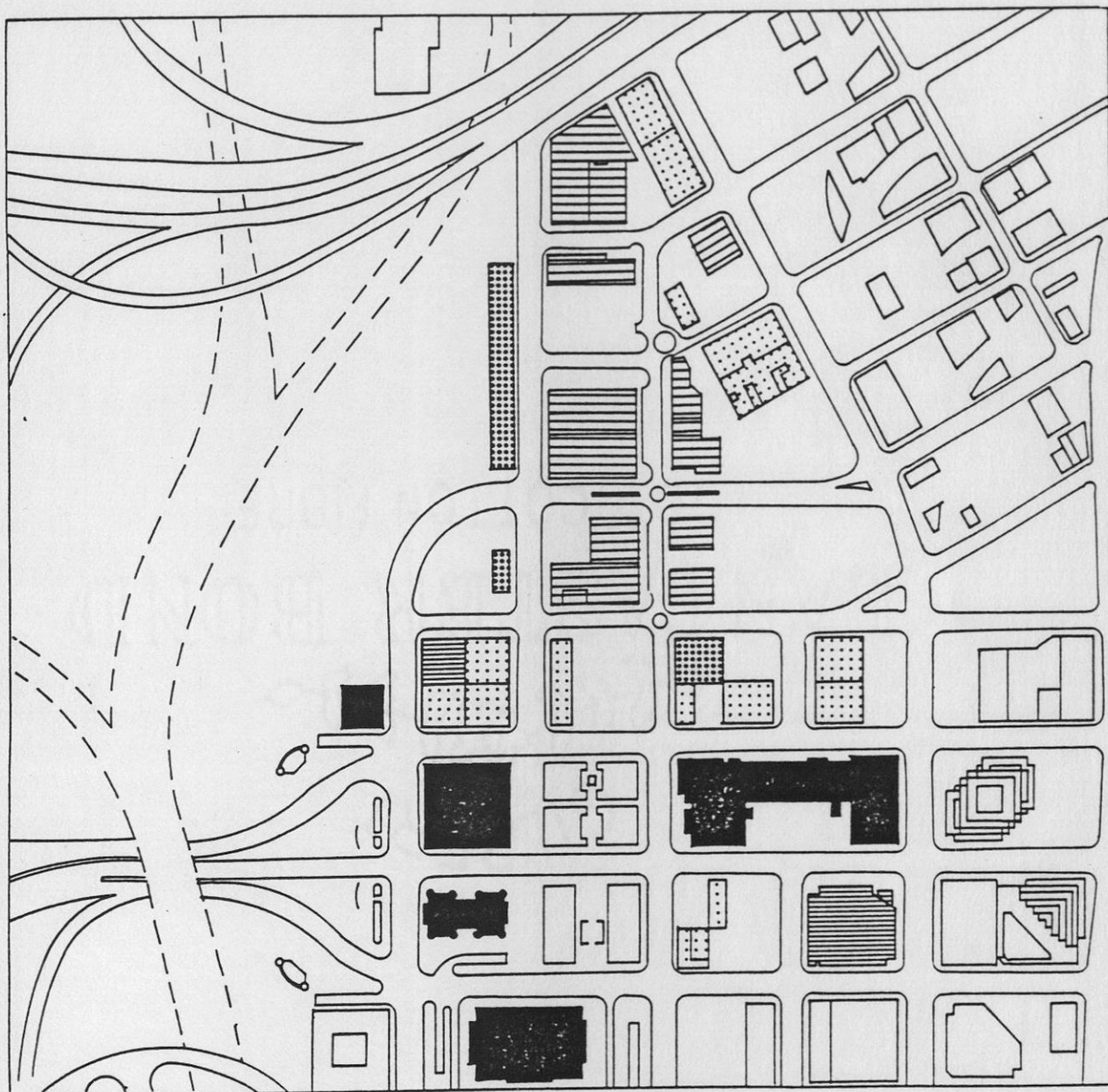
DISTRICT PLAN

- | | |
|-------------------------|-----------------------------|
| 1. The Brewery | 14. Market St. Bar & Grill |
| 2. West End Marketplace | 15. West End Cabaret |
| 3. Coca Cola Building | 16. Texas Moline Building |
| 4. Oilwell Suplly | 17. 208 N. Market |
| 5. Spaghetti Warehouse | 18. Interstate Trinity |
| 6. City Sewing Building | 19. Pacific West |
| 7. Tolbert's | 20. Purse Building |
| 8. Market Freight | 21. 501 Elm Place |
| 9. Market-Ross Place | 22. 501 Elm Place |
| 10. Big "D" Building | 23. 501 Elm Place |
| 11. Old City Jail | 24. County Records Building |
| 12. Landmark Center | 25. John F. Kennedy Plaza |
| 13. 311 Market Street | 26. Old Red Courthouse |








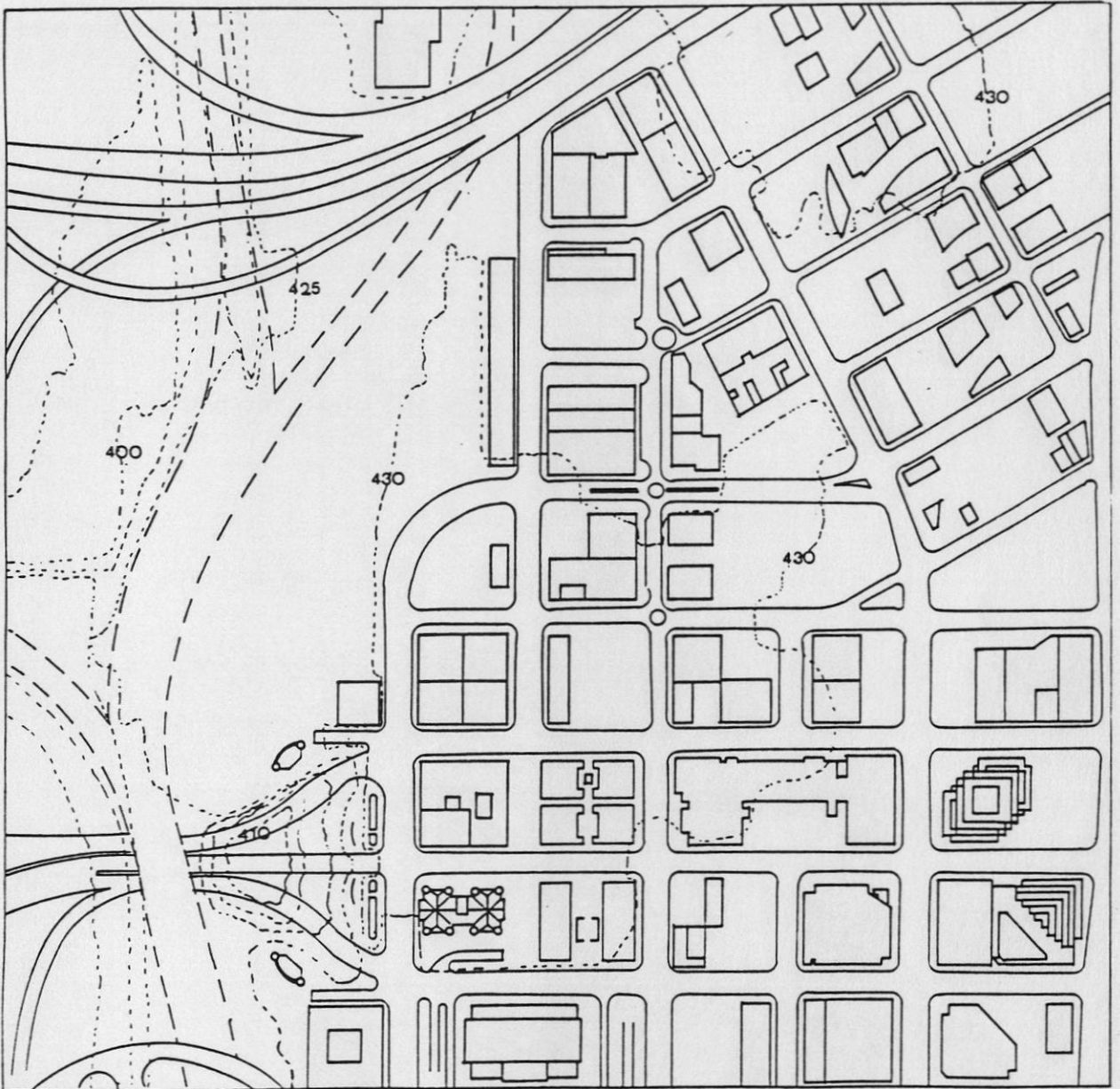
ZONING

The West End carries the zoning designation CA-1 H/2. The CA-1 (Central Area District) zone is found within CBD boundaries and can carry designations of S.P. (Special Purpose), C.P. (Core pedestrian), or H (Historic). The proposed museum is compatible with the existing zoning.



LAND USE

-  RETAIL/RESTAURANT/ENTERTAINMENT
-  OFFICE
-  INSTITUTIONAL
-  WAREHOUSE/INDUSTRIAL
-  ABOVE GROUND PARKING STRUCTURE



TOPOGRAPHY

The topography of the West End is relatively flat, with the exception of the Main Street entry to downtown where there is an approximate thirty foot rise in elevation.

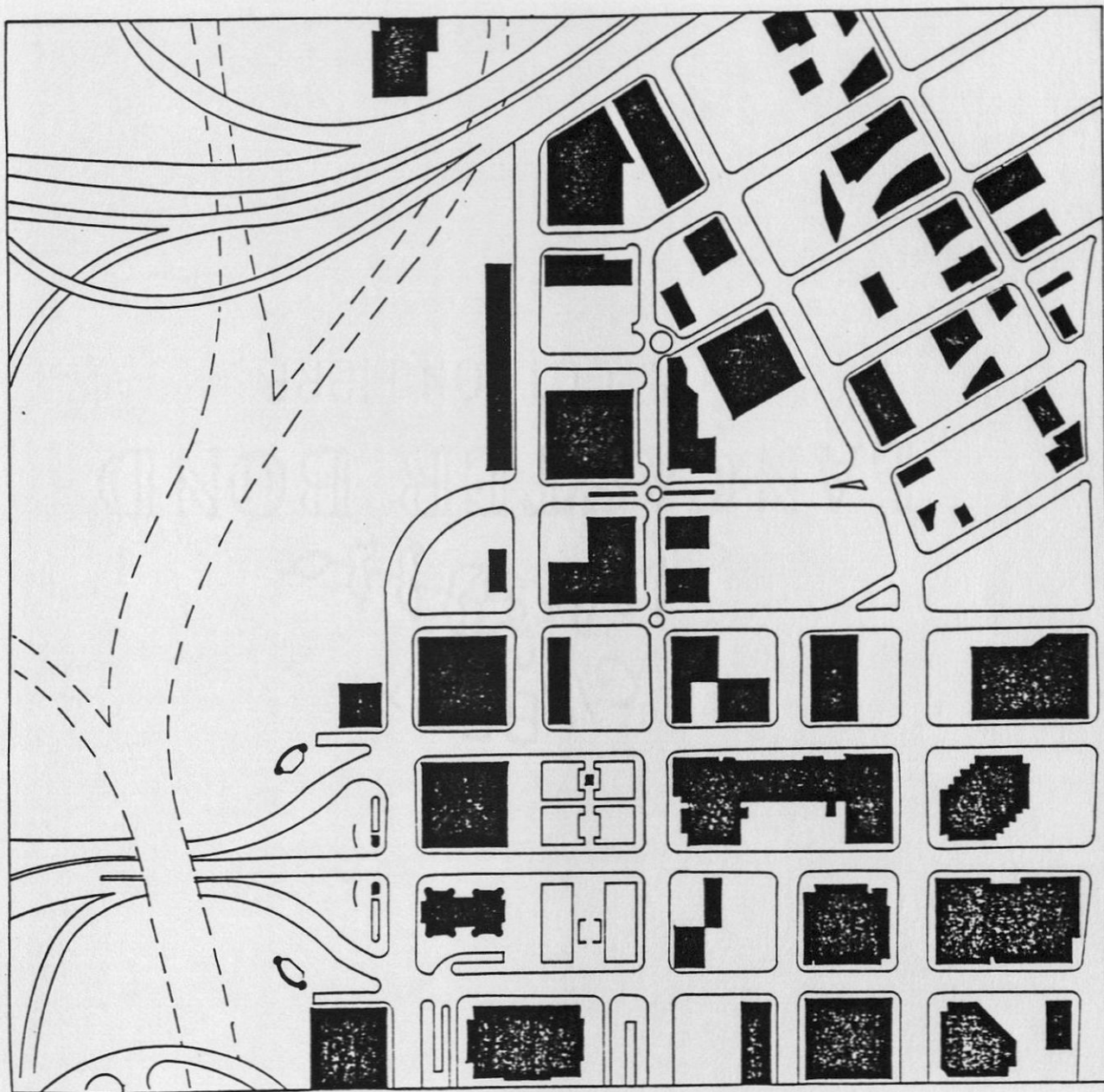
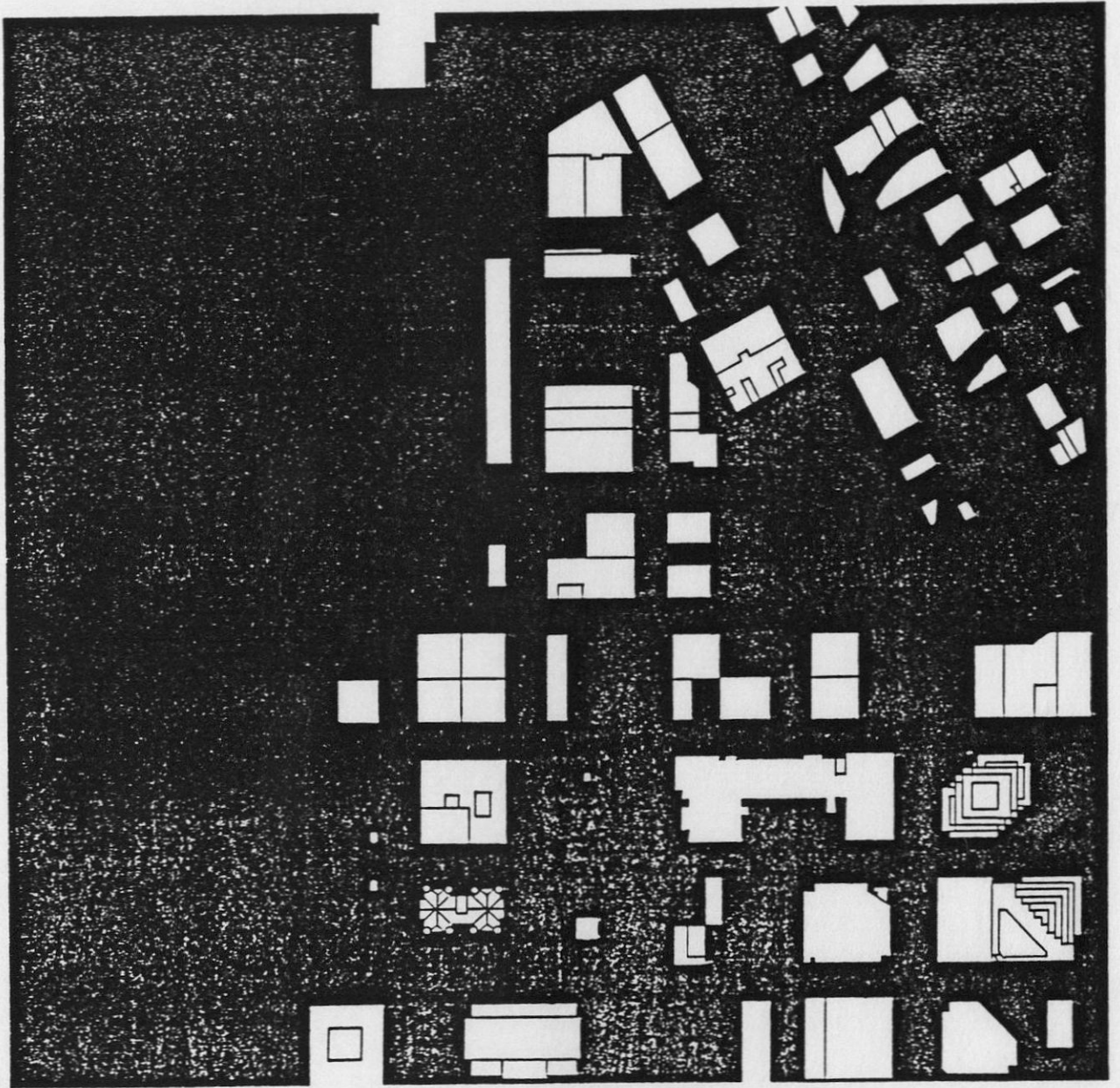
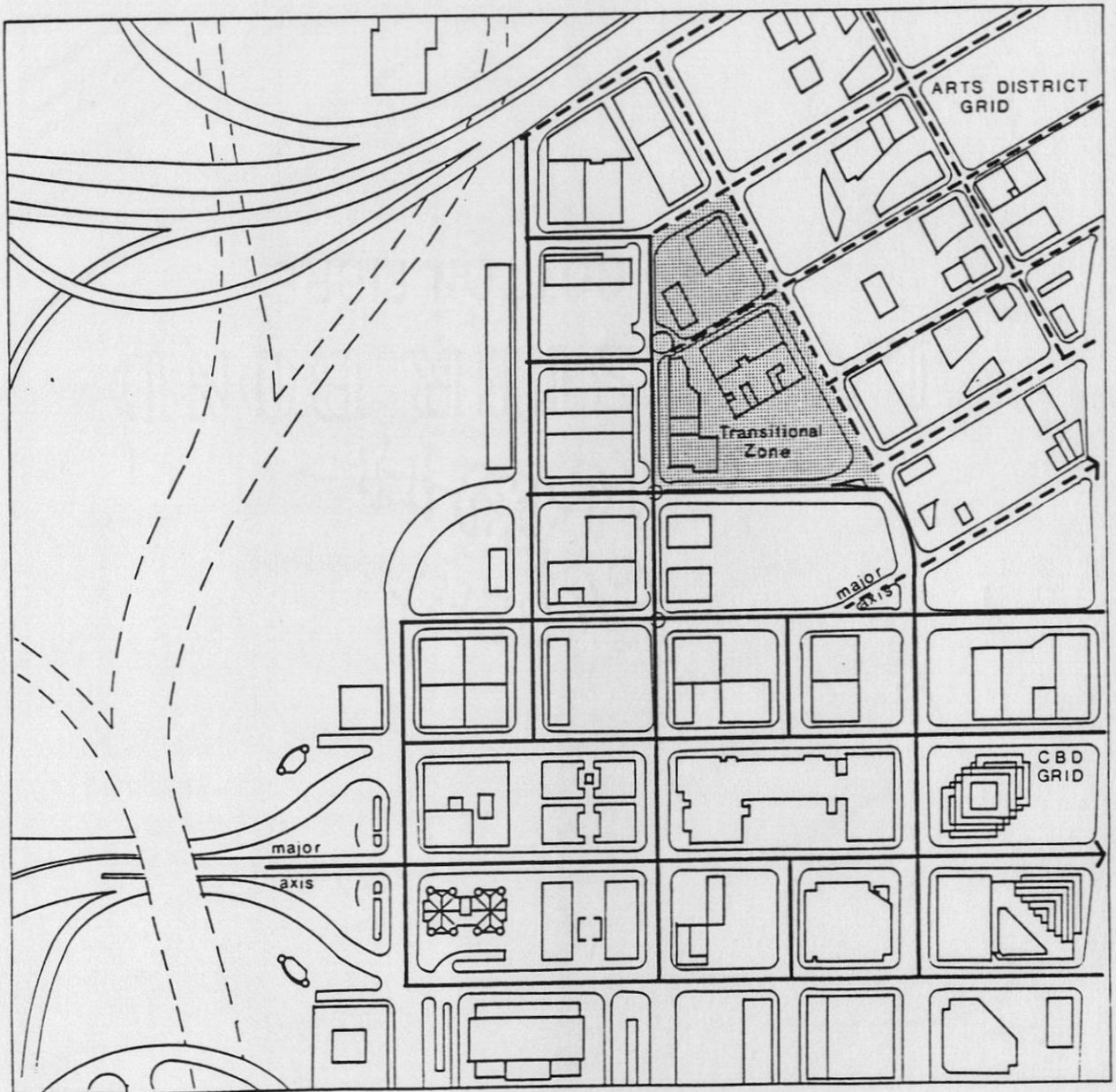


FIGURE / GROUND

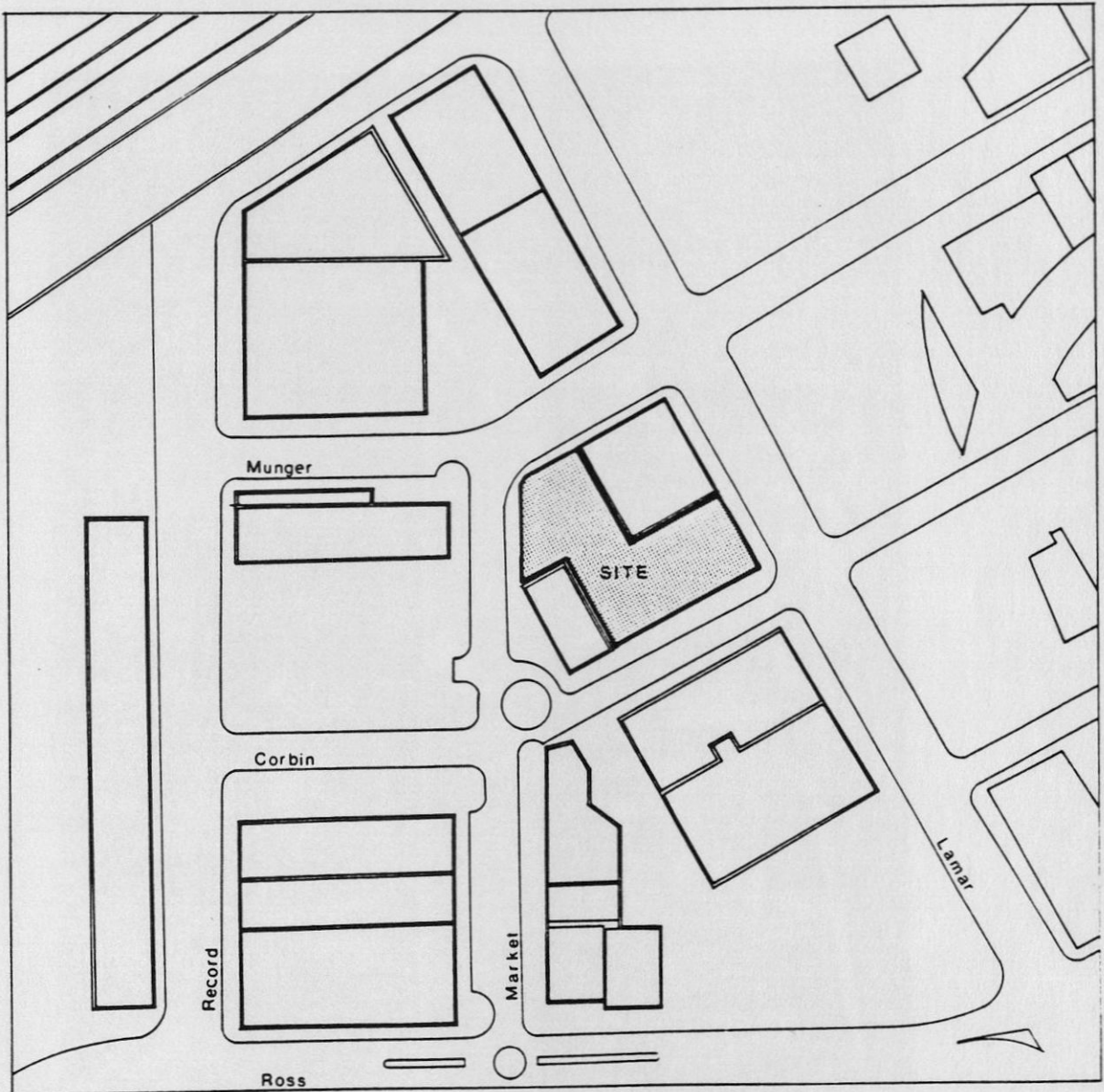


GROUND/FIGURE



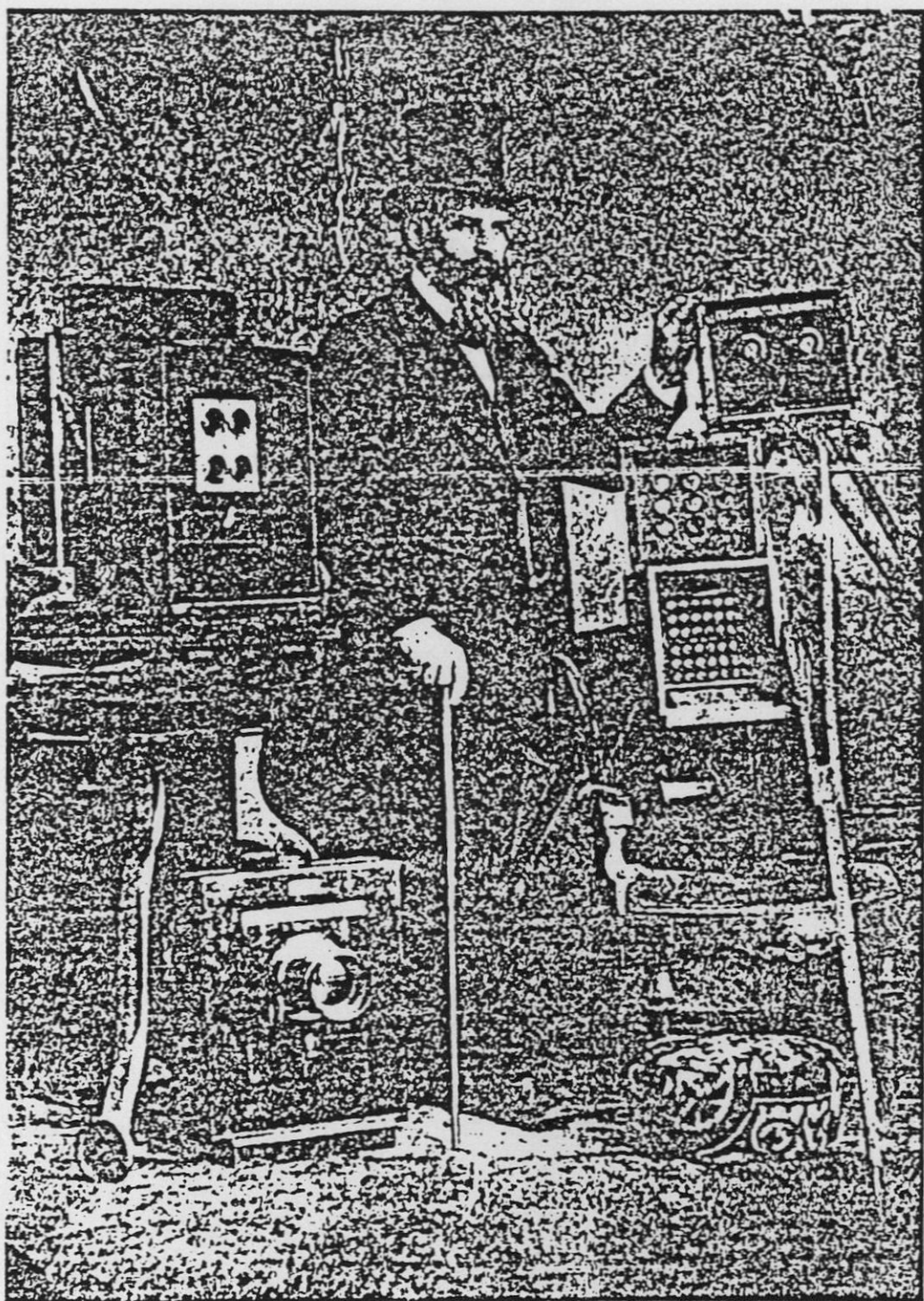
PHYSICAL STRUCTURE

The physical structure of the West End consists of two different grids, the CBD grid and the Arts District grid, and a transitional zone where the two collide. The major axes are, respectively, Main Street and Ross Avenue.

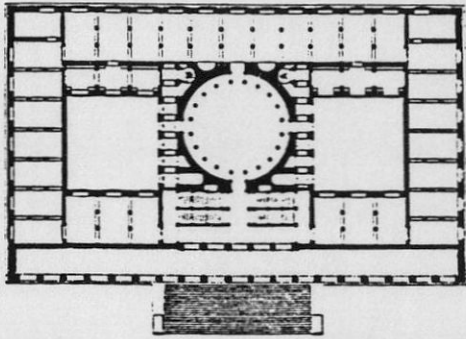


SITE

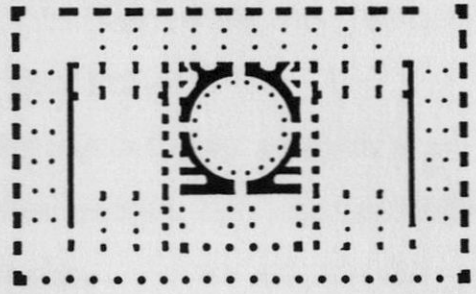
The site selected is bordered by Munger Street, Lamar Street, Corbin Street, and Market Street. It is an infill site, selected for its important position at the northern intersection of the West End, its relationship to the plaza of the West End Marketplace, its location in the transitional zone between the two city grids, and its challenging Z-shaped configuration.



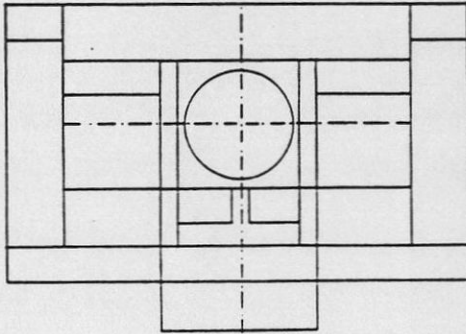
CASE STUDIES



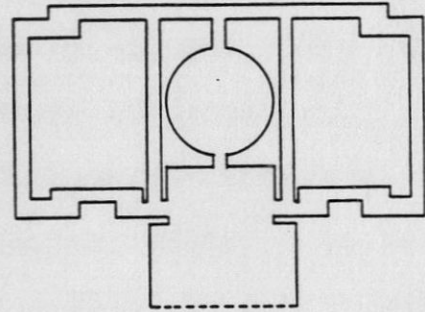
Plan



Structure



Organization



Circulation

Die Altes Museum
Berlin, Germany

Karl Frederick Shinkel
1836¹

Die Altes Museum is an ideal classical building designed by Germany's foremost nineteenth-century architect. It is a monumental free-standing building fronted by a large platz.

¹ Plan reproduced from Kirk Train, "Thirty Museum Plans", Perspecta, vol. 16 (1980), Cambridge, Mass.: MIT Press, 1982, p. 138.

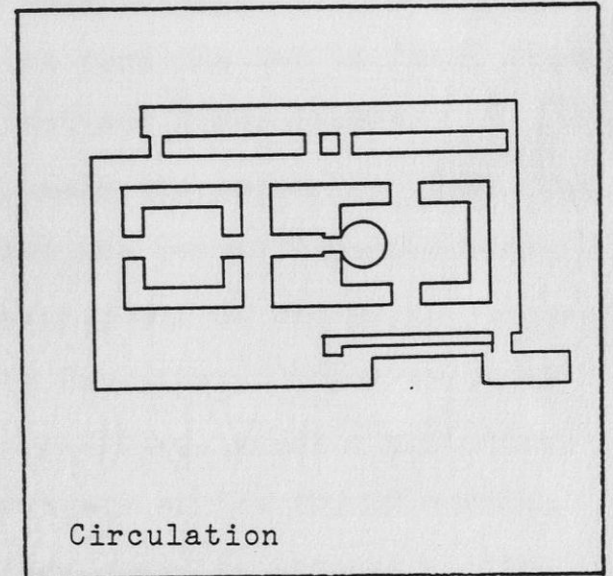
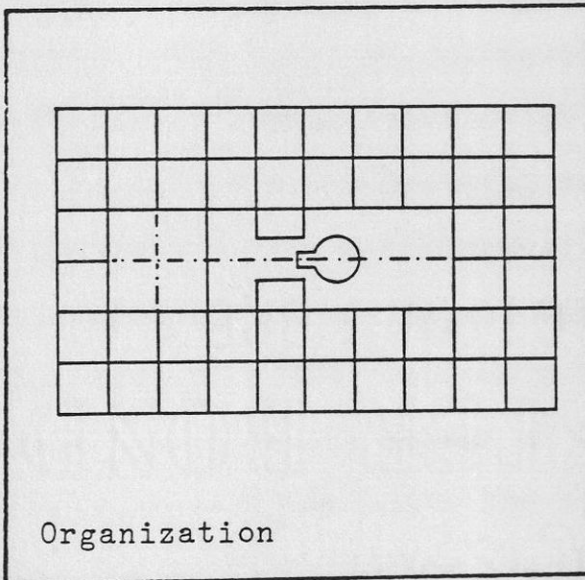
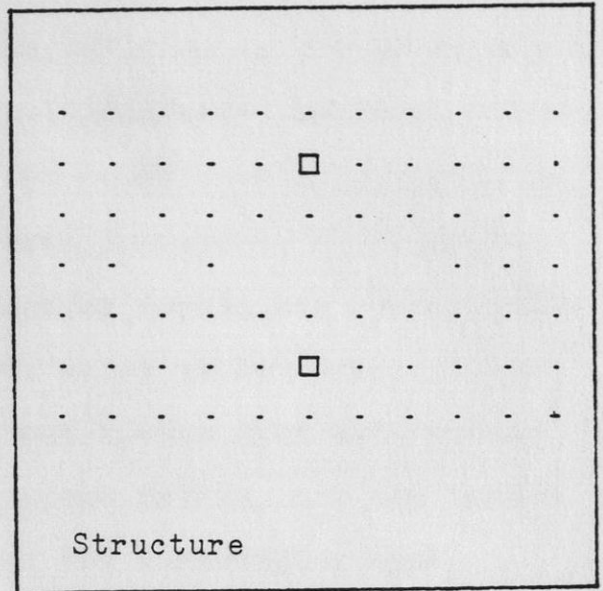
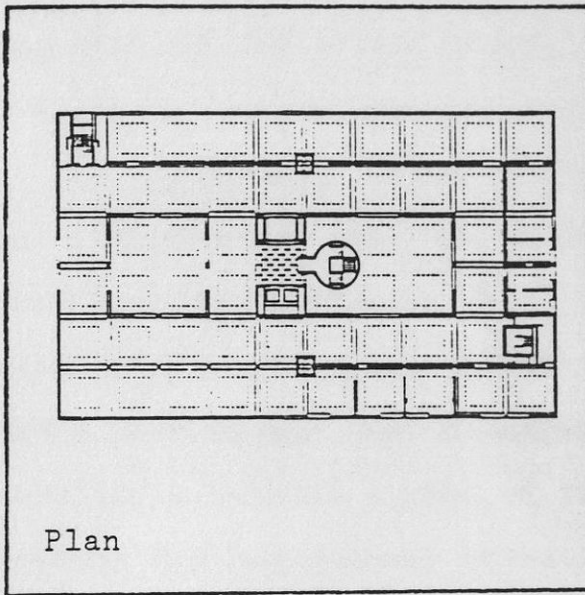
Antiquities were displayed on the ground floor, with paintings in the galleries on the second floor. The building was daylit by a wall of windows on one side of each gallery.

The center of the building is a circle within a square in plan. This Pantheon-like rotunda is surrounded by long galleries, wrapping the center and the two courtyards. It is an ideal arrangement that exhibits a major axis and a minor cross-axis. Functional requirements cause the cross-axis to be off the center of the two courtyards flanking the center section.

The side and rear walls of the museum are loadbearing. The front of the museum has a structural colonnade that is monumental in scale. Interior spaces are supported by columns. The rotunda is supported by a massive loadbearing stone construction.

The circulation of the building is primarily enfilade, conceptually if not actually. Since columns, rather than walls, are the interior support, the effect is similar to a nave and side aisle arrangement. The major path from the entry continues into the rotunda. At the corners of the building, the circulation route is squeezed into tight doorways, making a rather awkward transition.

Possible applications of this analysis are the use of a major figural space within a field of columns, and the circulation route as in enfilade rooms.



Yale Center for British Art
New Haven, Connecticut

Louis Kahn
1977²

The Yale Center for British Art is located in an urban town grid on the campus of Yale University. It houses the university's collection of British Art on three floors and provides retail

² Plan reproduced from David Spiker and Kirk Train, "The Yale Center for British Art", Perspecta, vol. 16 (1980), p. 56.

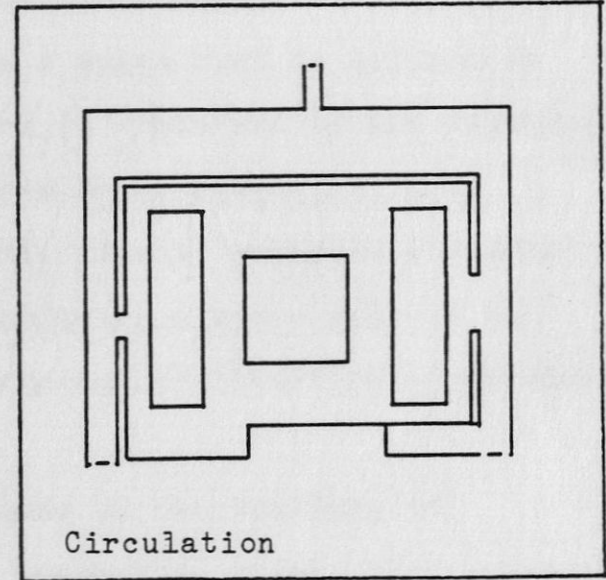
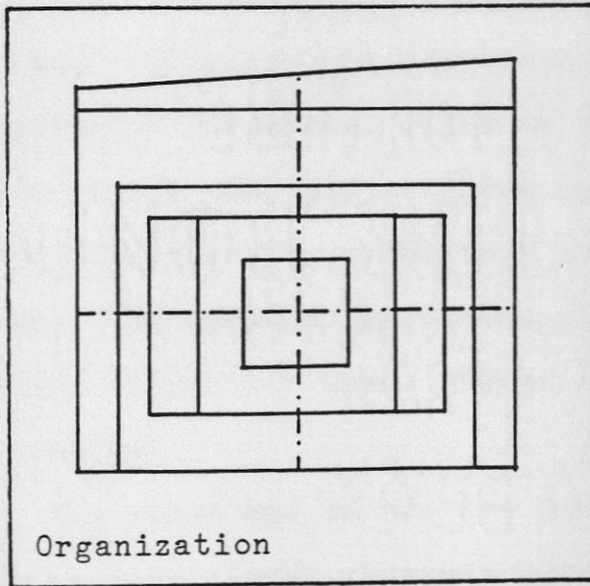
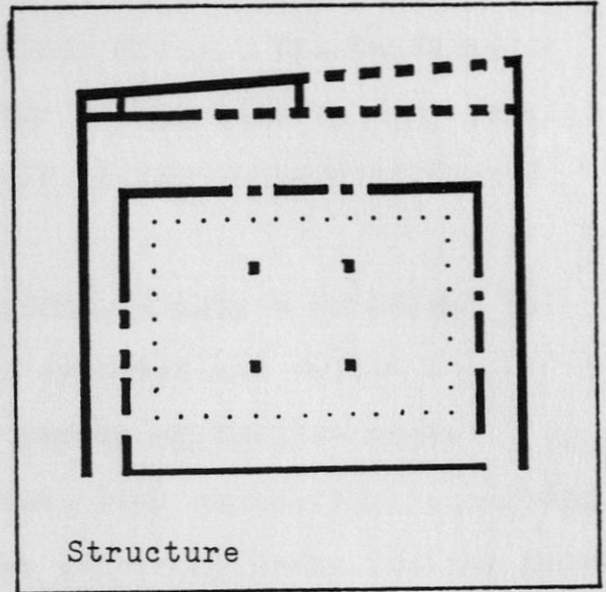
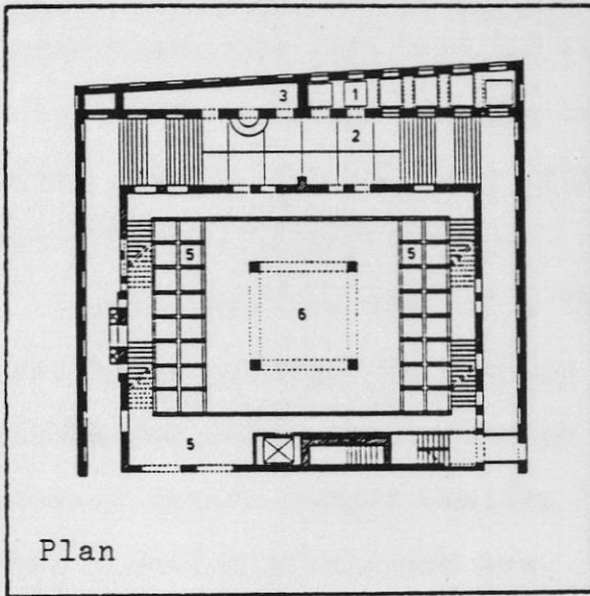
along part of the ground floor. The building is lit by artificial light and by limited windows and skylights above vertical volumes.

The building is organized by the repetition of square structural bays. Columns are left out of several locations, creating two varied vertical volumes. These interior courts are conceptually linked to the open green spaces that exist in the heart of New Haven's nine square grid downtown, two blocks from the museum. The building becomes a part of the urban fabric, and its facade maintains the predominant setback of the surrounding area.

The structure of the building is a three-dimensional grid in concrete, with sections subtracted to form the two vertical voids. The facade is highly articulated steel and glass panels.

The entry to the building is simply the corner bay left open. The effect sounds non-monumental, but the actual experience is very strong due to the almost magnetic power of the major vertical void, which is viewed obliquely from the entry. Major vertical circulation is in the center of the building, where a sculptural stair tower protrudes into the open space of the second vertical void. Circulation through the gallery space is ordered by the repetitive structural grid.

Possible applications of this analysis are the use of an interior division reflecting the urban macrocosm, and the use of a figural vertical circulation system.



The Deutsche Architekturmuseum
Frankfurt, West Germany

O. M. Ungers
1985³

The Deutsche Architekturmuseum is located in a turn-of-the-century villa in Frankfurt. The museum is one of seven that have been built, renovated, or refurbished since 1980 on the

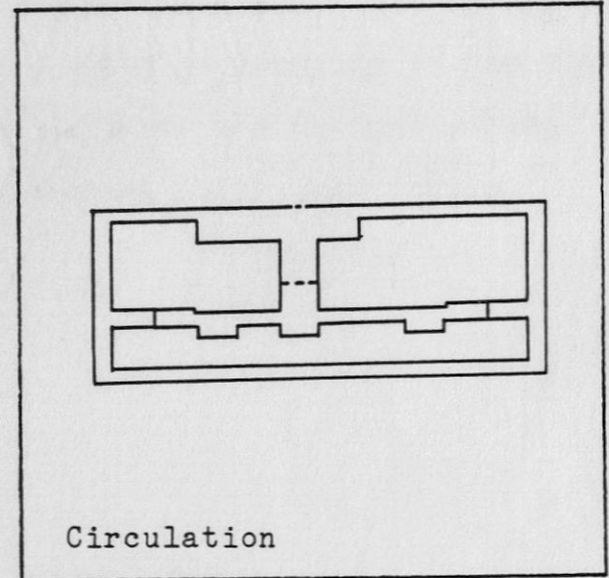
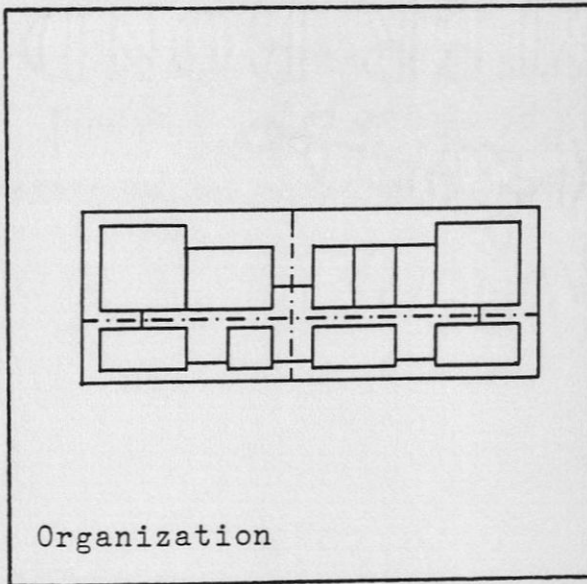
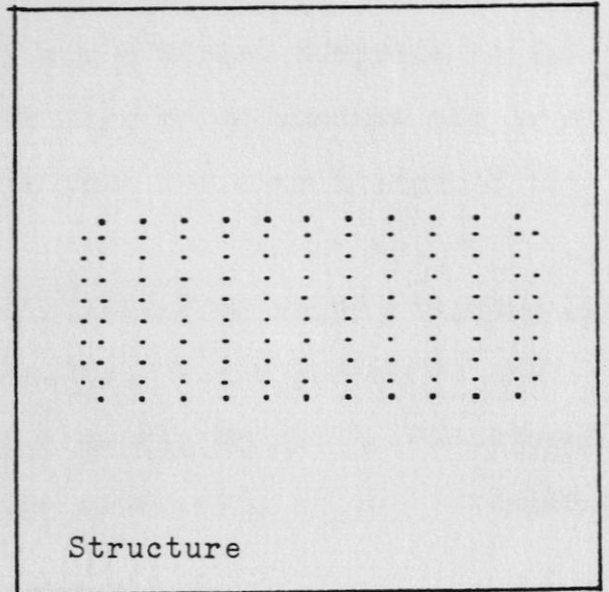
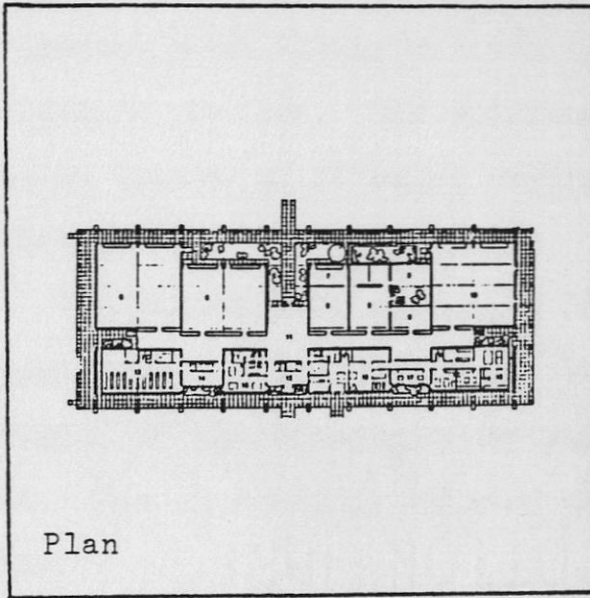
³ Plan reproduced from O. M. Ungers, Architecture as Theme, (New York: Rizzoli), 1982, p. 64.

Schaumainkai, the left bank of the Main River. The building is lit by a large skylight in the center section and by many large windows both in the existing wall and in the newly-constructed walls.

Ungers uses the idea of a "building within a building" to organize the museum. This theme is expanded and varied so that the resulting spaces become a series of boxlike rooms contained within larger boxlike rooms, with circulation occurring at the junction of old and new. The innermost space and the focus of the building is the "Filigranraum," bounded by a filigree grating. This room is contained in a space that is defined by a reticular structure, which in turn is contained by the existing walls of the old villa. These layers of architecture, from almost ephemeral to completely solid, clearly articulate Ungers' theme. The spatial experience of entering a space only to be outside of another space causes a conceptual inversion of outside and inside.

The structure of the new portions of the building is a three-dimensional skeletal grid, presumably steel, that is based on a cube and its breakdown into regular dimensions. This skeletal grid is inserted, and bursts forth from, the load-bearing walls of the old villa. The new structure is separated from the old walls.

Possible applications of this analysis are the idea of a building within a building, and the use of progressive layers of walls, from mesh-like to solid.



The Menil Collection
Houston, Texas

Renzo Piano
1987⁴

The Menil Collection is a free-standing building located in a suburban neighborhood. The museum holds the varied collection of Dominique de Menil and her late husband. The modest scale and

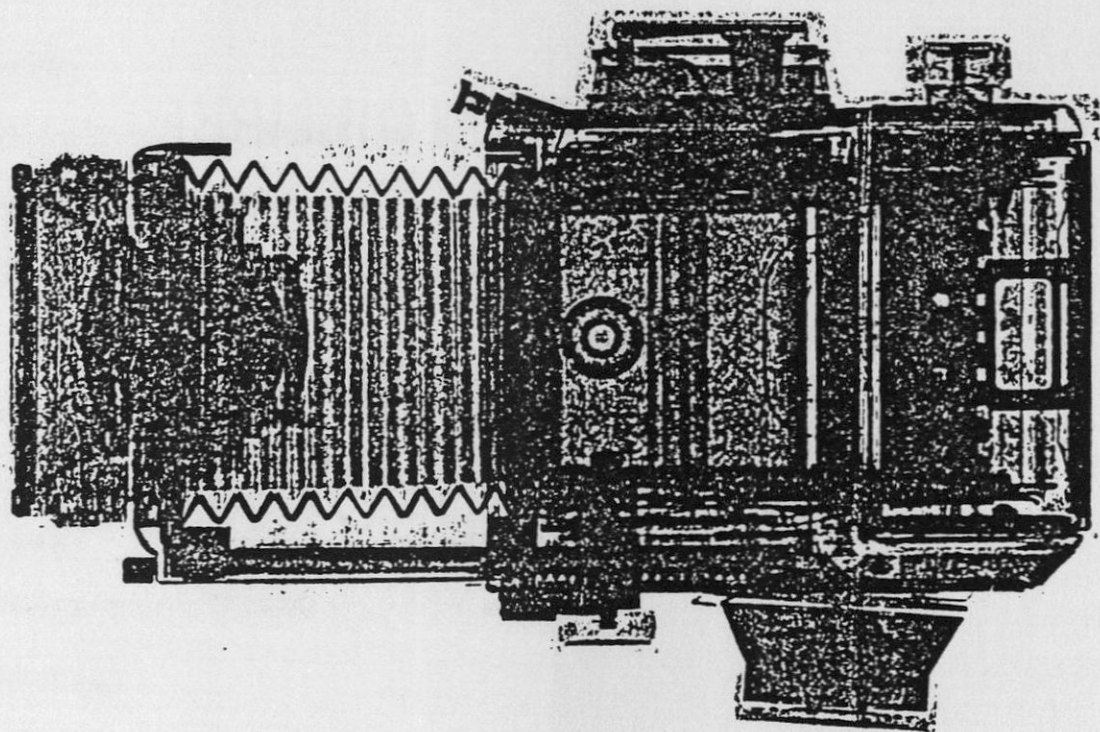
⁴ Plan reproduced from Peter C. Papademetriou, "The Responsive Box", Progressive Architecture, May 1987, p. 92.

horizontal wood siding painted gray are a direct response to the building's context. The building is lighted by windows and by a complex system of screened skylights that serve as a sign of the building.

The building is organized by a circulation spine dividing the spaces into public and private functions. Piano refers to the metaphor of the urban grid by using a 40 ft. by 20 ft. structural grid. The entrance is located on the cross-axis to the circulation spine.

The regular bays of the steel structure are a dominant feature of the design. There is no variation from the spacing at any point.

Possible applications of this analysis are the use of the metaphor of the urban grid, and the strong functional zoning.



PROGRAM

PROGRAM

Spatial Requirements:

Lobby

Lobby	500
Ticketing/Information Area	150
Coat Check Room	150
Public Restrooms (2@150)	<u>300</u>
	1,100

Theater

Theater (150 persons @15)	2,250
Stage	300
Projection Booth	250
Storage	<u>100</u>
	2,900

Museum Shop

Sales	400
Office	100
Storage	<u>100</u>
	600

Exhibition Areas

Permanent Exhibition Gallery	6,000
Temporary Exhibition Gallery	4,000
Circulation	<u>2,500</u>
	12,500

Roof Garden

Open Area (temporary seating for 150 persons)	2,250
Enclosed lobby	400
Projection Booth	150
Screen	50
Camera Obscura	<u>150</u>
	3,000

Administration

Secretarial/Reception	<u>350</u>
Director's Office	<u>200</u>
Curator's Office	200
Conference Room	400
Storage	<u>100</u>
	1,250

Staff Rooms

Conservation and Restoration	300
Fabrication (access to service elevator)	400
Darkroom	200
Office for two workers	250
Storage Room	200
Staff Lounge	250
Staff Restrooms (2@50)	<u>100</u>
	1,700

Library

Stacks	100
Circulation	200
Reading Room	150
Librarian's Office	<u>150</u>
	600

Collection Storage

Vertical Files	200
Horizontal Files	100
Circulation	150
Artifact Room	350
Film Storage Room	150
Assistant Curator's Office	<u>150</u>
	1,100

Receiving

Loading Dock	750
Storage	<u>500</u>
	1,250

Mechanical

Mechanical	2,600
Custodial	<u>650</u>
	3,250

Total

 29,250 s.f.

Lobby

Theater

Shop

Roof Garden

Admin.

Staff

Lib.

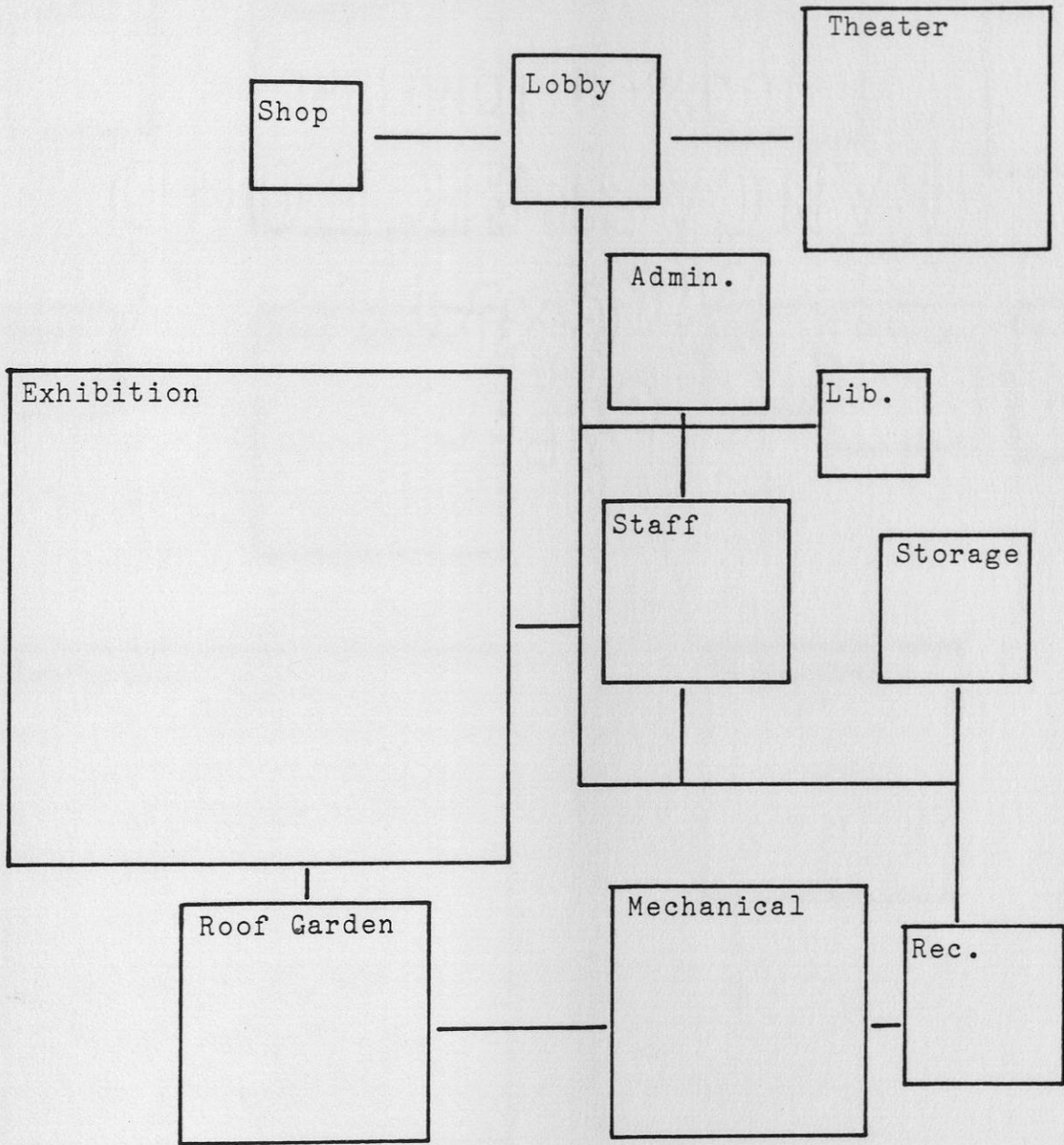
Storage

Exhibition

Rec.

Mechanical

RELATIVE SIZES



SPATIAL RELATIONSHIPS

Lobby

Theater

Admin.

Staff

Shop

Roof Garden

Lib.

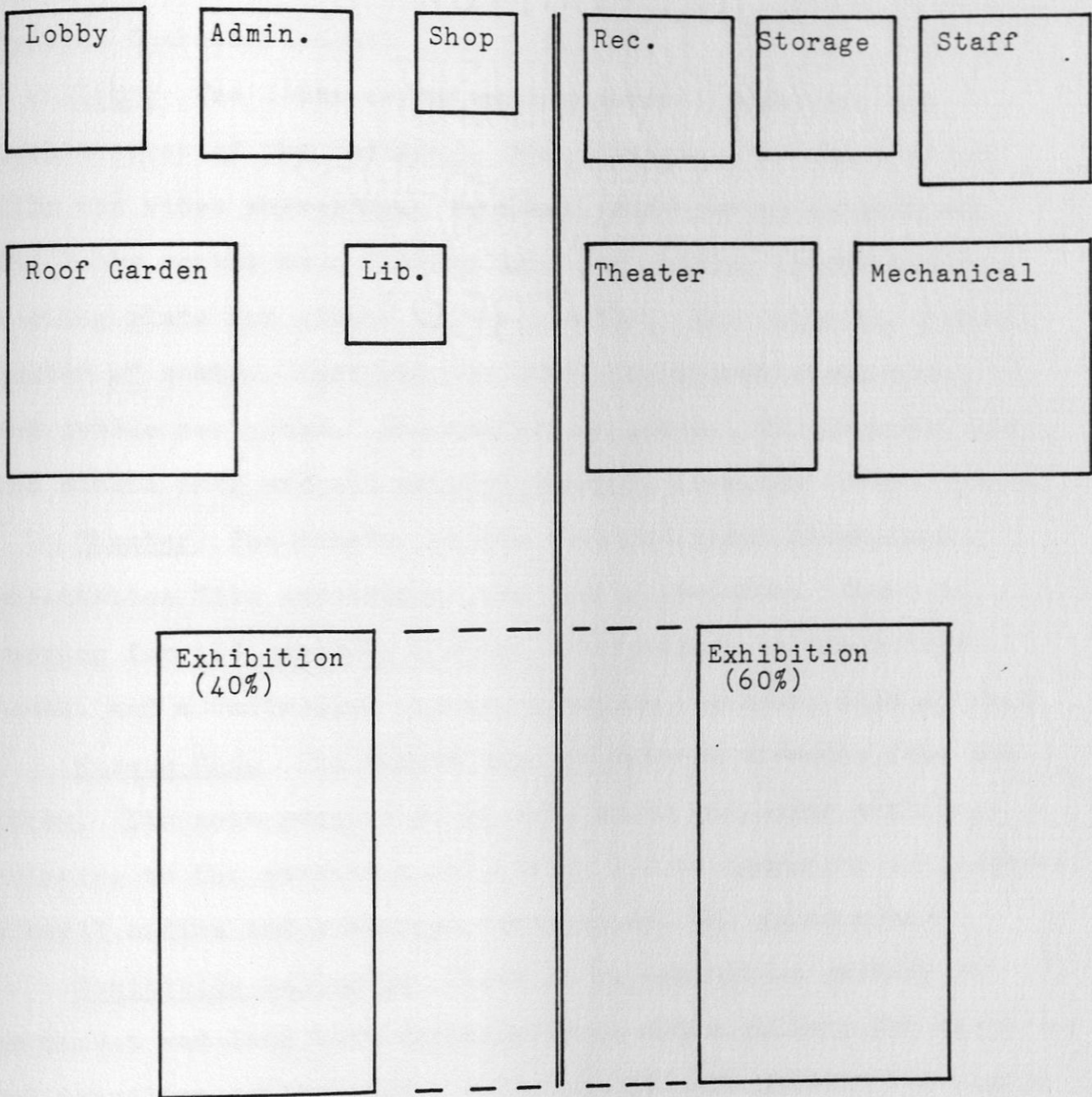
Storage

Rec..

Exhibition

Mechanical

PUBLIC / PRIVATE



NATURAL LIGHT / ARTIFICIAL LIGHT

Spatial Characteristics:

Lobby The lobby serves as the control point for the public areas of the building. Here tickets are sold both for film and video screenings, lectures, and special exhibitions. The lobby serves as a holding area for waiting crowds and a meeting place for groups led by a guide. The lobby has a small number of seats. Just off the lobby are a coat check room and public restrooms. The exhibition spaces, the theater, and the museum shop are all entered directly from the lobby.

Theater The theater is for film and video screenings, orientation film screenings, and public lectures. There is seating for 150 persons, a stage for speakers, a projection booth, and a controlled storage room for temporary film storage.

Museum Shop The museum shop is entered directly from the lobby. Its main purpose is to sell books and other articles relating to the permanent collection and to temporary exhibitions. A small office and a storage room support the sales area.

Exhibition Galleries There is an exhibition gallery for permanent and long term installations, and a gallery for temporary and traveling exhibitions. A portion of each gallery has highly controlled, flexible, natural light. The remainder is lit solely by artificial light for conservation purposes. Display mechanisms are designed in both flexible and fixed units. The permanent collection consists of approximately 40% urban and architectural photography before 1915, 20% landscape photography

before 1915, 10% urban and architectural photography after 1915, 10% modernist photography, 10% photography after 1945, and 10% miscellaneous. Part of the permanent exhibition is a display of the history of the camera, from the camera obscura to the contemporary still camera and the contemporary video camera. The galleries emphasize the experiential aspects of viewing photography, with manipulations of light and path, inducing a realization of the two-dimensional nature of photographic images.

Roof Garden The roof garden is accessible from the primary circulation system. It is designed as a continuation of the exhibition galleries. It contains a large open area to accommodate temporary seating for 150 persons. A screen and a projection booth allow for outdoor nighttime film and video screenings. A small enclosed lobby serves as a transition to the outdoor space, and as a waiting area in case of sudden inclement weather. A separate camera obscura is strategically placed for unique views of the surrounding area and the Dallas skyline.

Administration The administration group includes a secretarial/reception area with a waiting area, a conference room, a storage room, and private offices for the director and the curator.

Staff Rooms A room for conservation and restoration and a fabricating room are provided. In addition, a fully-equipped darkroom allows for reproduction of photographs. Two staff members share a large office. These rooms, plus a storage room,

are precisely controlled for light, temperature, and relative humidity. A separate lounge with adjacent restrooms is provided for the use of the entire museum staff. A private staff entrance connects to the receiving area.

Library The library contains approximately 5,000 volumes in open stacks that are available to scholars and professionals. A small reading room adjoins. The librarian has a semi-private office that also acts as a control point.

Collection Storage The collection storage rooms have precise controls to regulate light, temperature, and relative humidity. Photographs up to 16" by 20" are stored in stainless steel vertical files. Photographs and other flat items and all framed items are stored in stainless steel horizontal map files. Artifacts other than photographs and framed items are stored in a separate room. Original films are stored in a separate room. All storage rooms have a floor level at least 6" higher than the exterior ground level to avoid flooding problems. The assistant curator oversees the storage rooms from a private office.

Receiving The receiving area can accommodate a step van. It has a small loading dock and a separate room for temporary storage.

Mechanical Mechanical spaces are in several locations, with a larger central room. The mechanical system is carefully monitored due to the delicate nature of photographic materials. Custodial spaces are unobtrusively located.

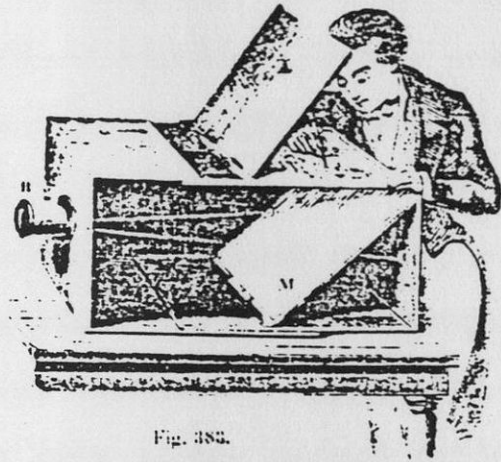
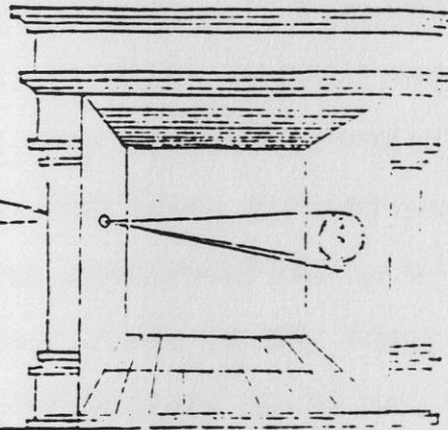


Fig. 383.

*Solis ecliquium Anno Christ
1544. Die 24. Januarij
Louanij*



CONCLUSION

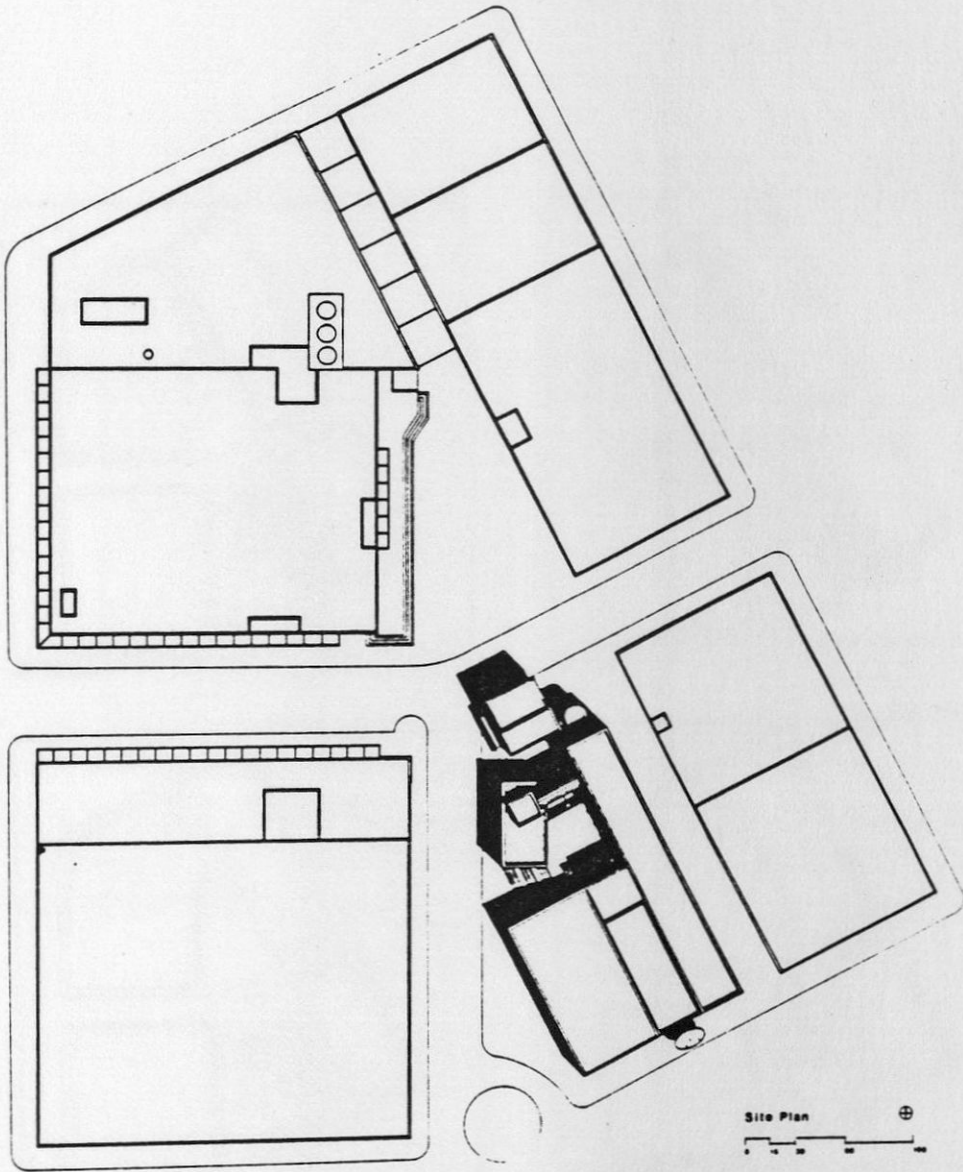
CONCLUSION

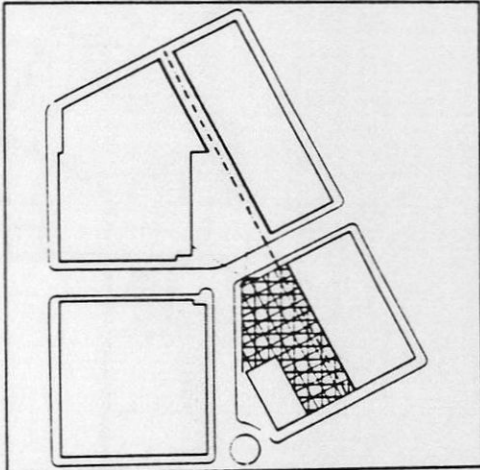
After beginning the design process, I decided to use only a portion of the chosen site, leaving the remainder for a future building site. This reduced the available square footage by about one-third, resulting in approximately 10,000 square feet of buildable area.

An early decision to continue and extend Dallas Alley, presently connecting the Marketplace plaza and a parking area beneath Woodall Rodgers Freeway, caused a programmatic addition of lease space along the alley side of the museum building, on the ground level. Other programmatic changes were reducing the museum shop to a counter in the lobby, eliminating the coat check room, and combining the camera obscura and the theater.

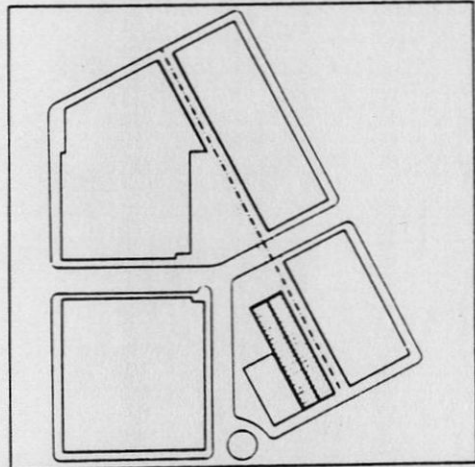
After the initial design decision to continue Dallas Alley, two long bars of structural bays, based on typical warehouse construction, were placed on the site. Then a portion of one bar was rotated to respond to the CBD grid, evident on Market Street. The space remaining after this rotation is a lobby on the ground floor, with a public outdoor plaza on the second floor. This space is reached by the second gallery level and by a monumental stair on Market Street.

Finally, the large camera obscura cum theater was placed at the front of the site, having as its focus the plaza. On its axis is a projection screen at the second floor outdoor space, and a satellite dish at the south end of the building for receiving transmissions of images.

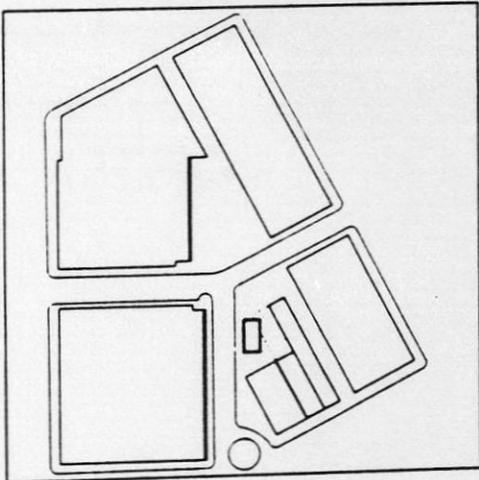




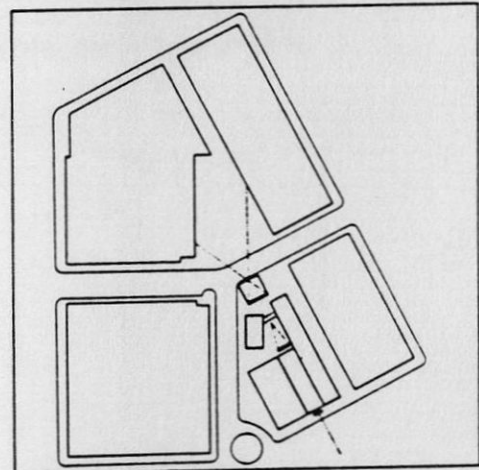
SITE CONDITIONS



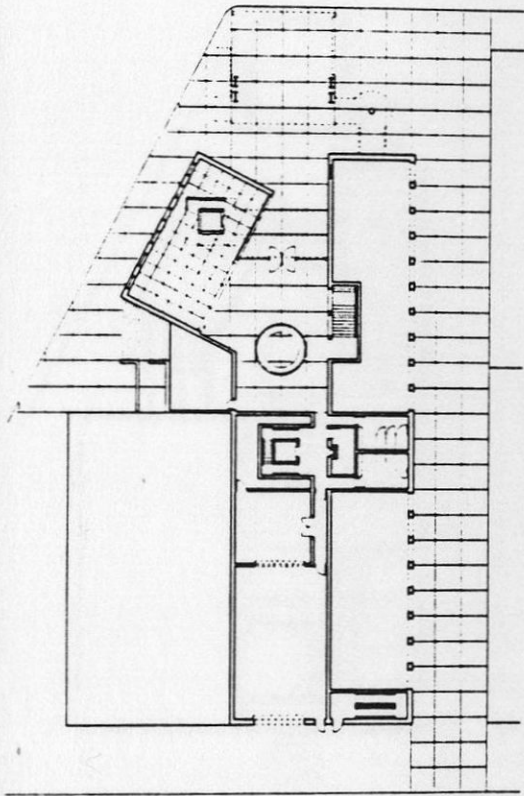
STRUCTURAL SITE



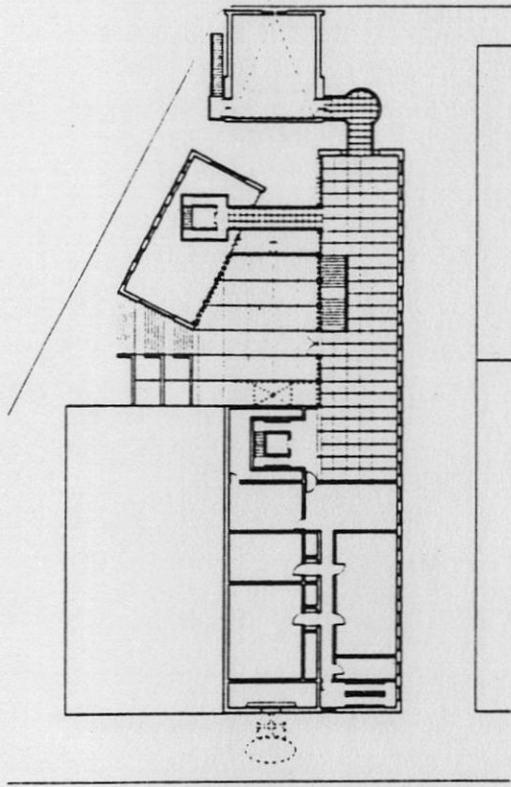
ROTATION



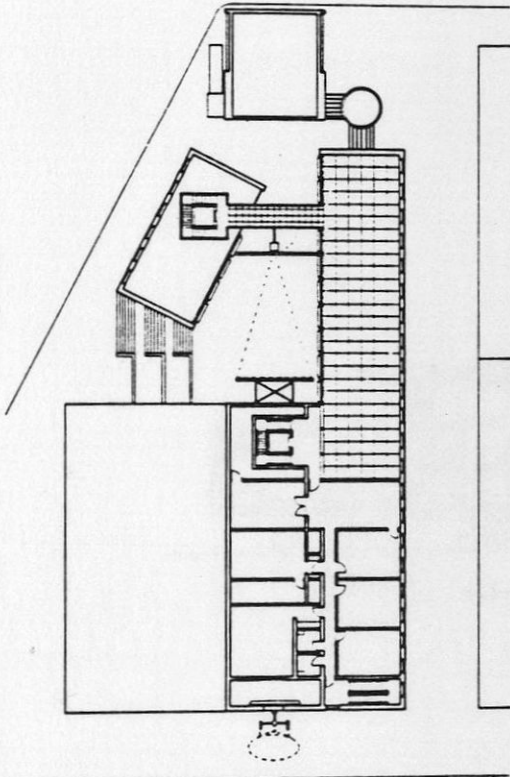
PRODUCTION PLACES



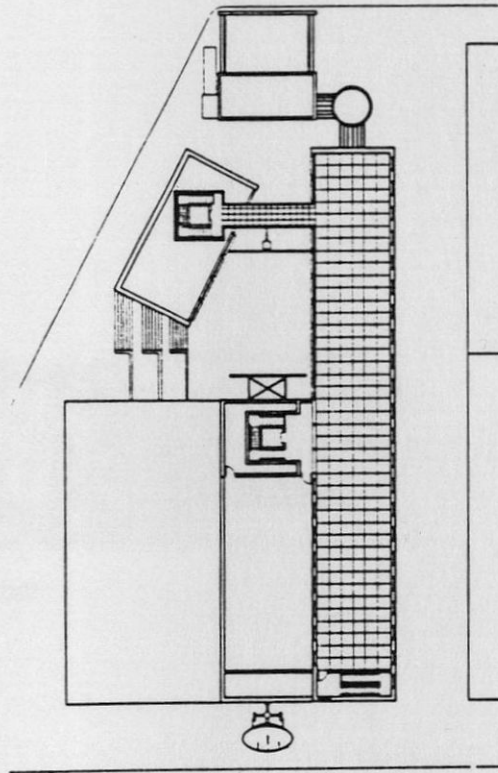
Ground Floor Plan



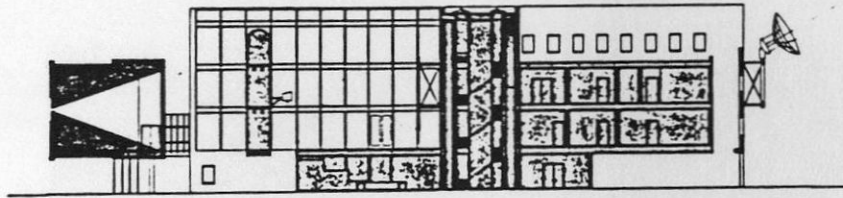
Second Floor Plan



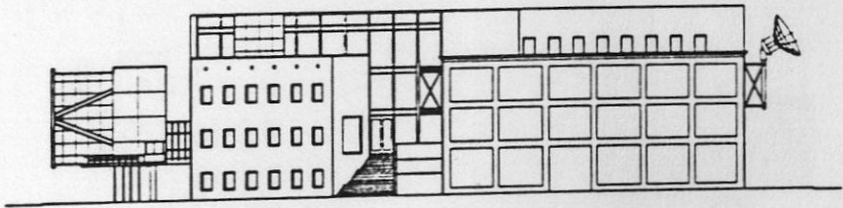
Third Floor Plan



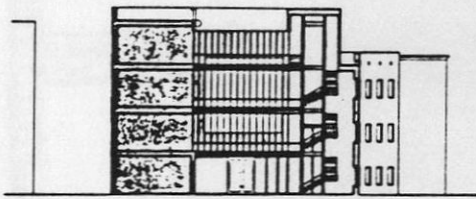
Fourth Floor Plan



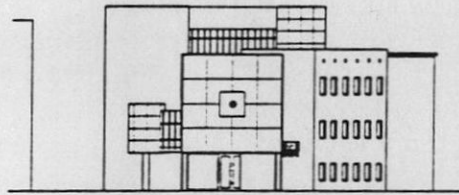
Longitudinal Section



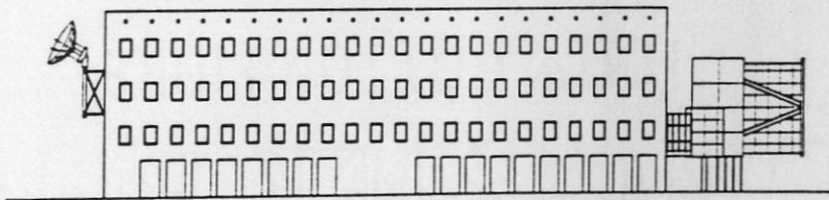
Market Street Elevation



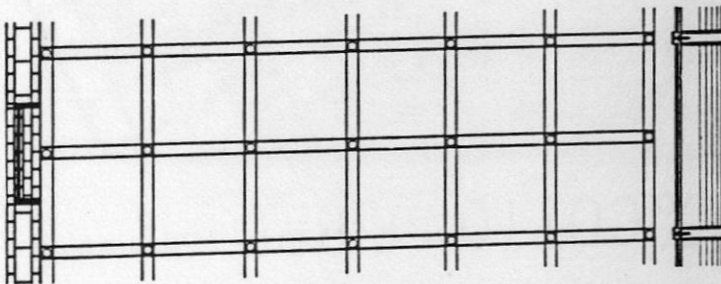
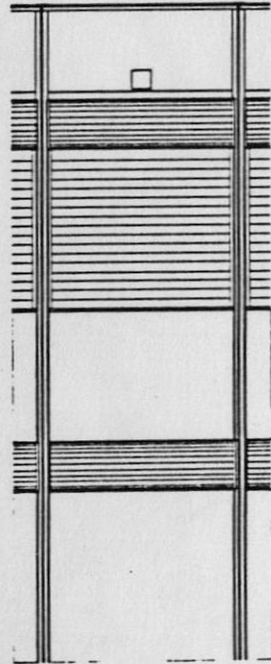
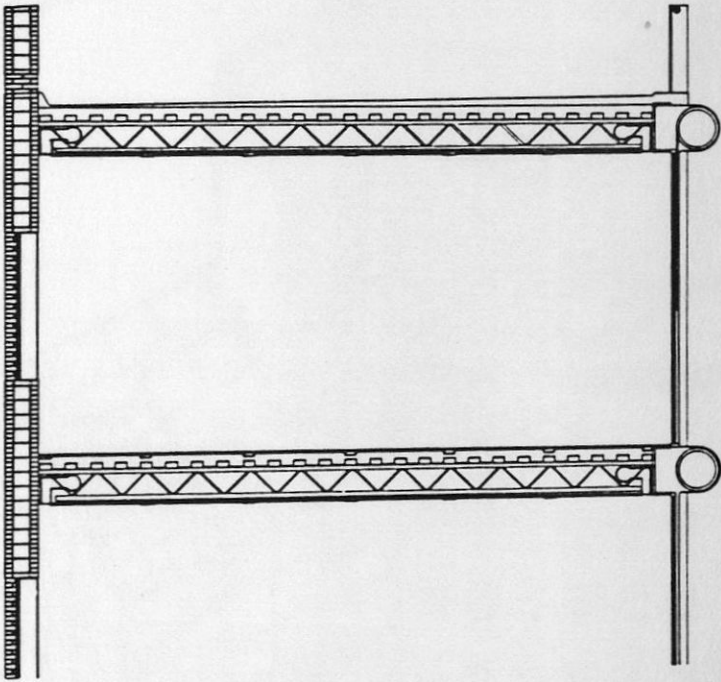
Cross Section



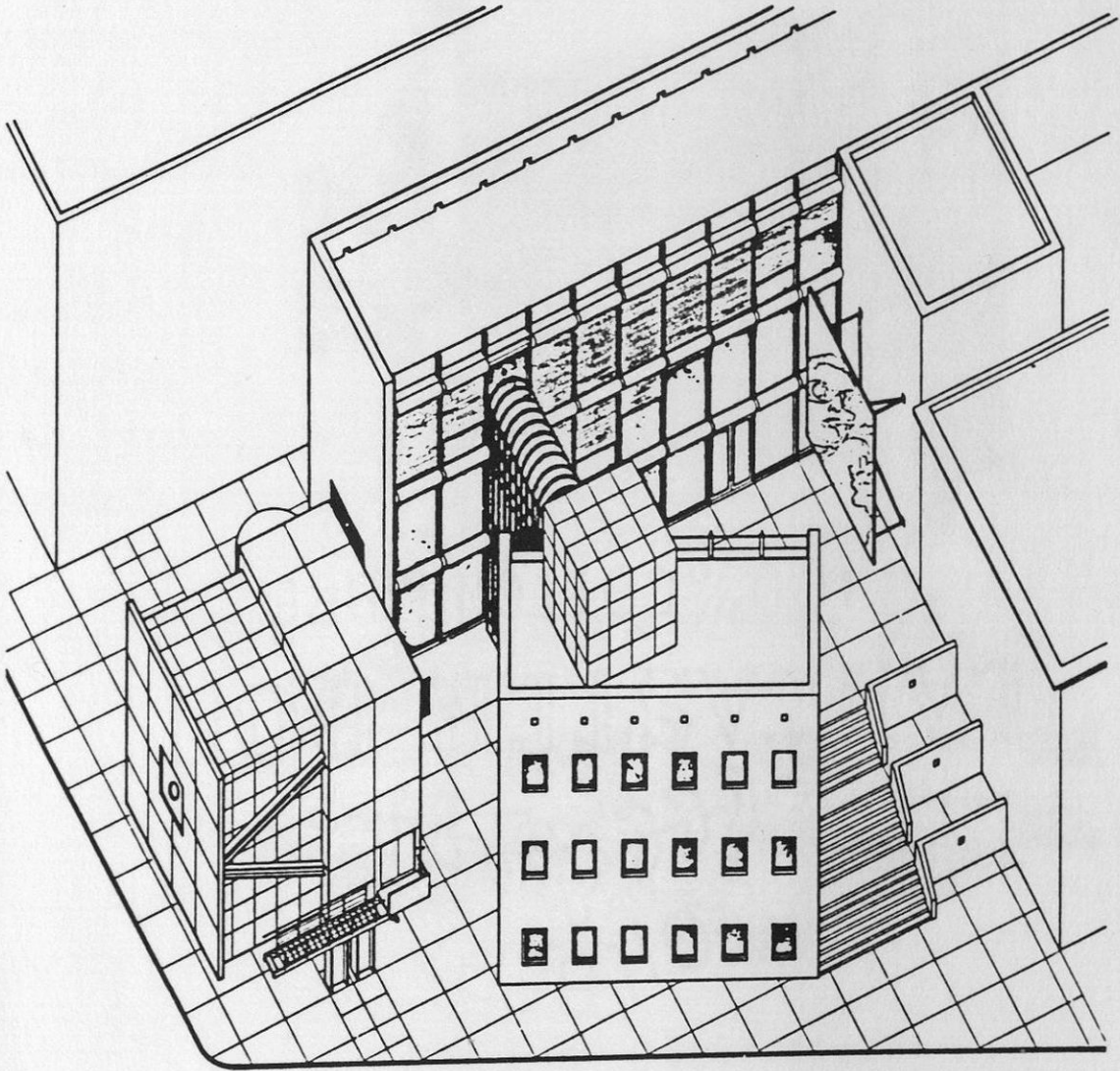
Market Place Elevation

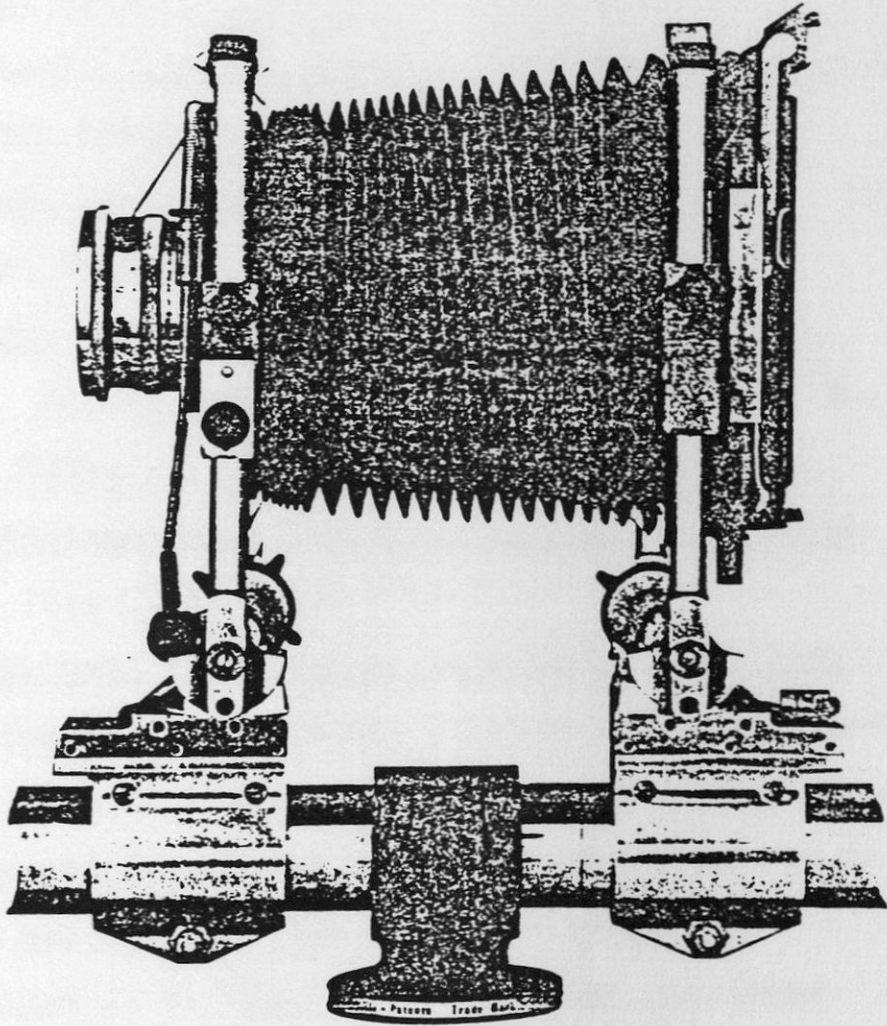


Dallas Alley Elevation



Typical Bay
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