

"A NATIONAL IMAGING ARTS MUSEUM"
by

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Thesis submitted to the graduate faculty of the Virginia Polytechnic
Institute and State University in partial fulfillment of the requirements for
the degree of

MASTER OF ARCHITECTURE

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April, 1990 Alexandria, Virginia

This project is dedicated to my father on the occasion of his 70th birthday

In so many ways the source of my spark

I offer thanks to the members of my thesis committee for their generosity
and their insight.

A NATIONAL IMAGING ARTS MUSEUM

In designing a National Museum for the Imaging Arts, a dual obligation is created. It is to provide an intimate place for the cherishing of manifestations of the individual, while also creating, at the scale of the nation, a symbol of the civilization . Architecture accepts this obligation through the hierarchical scaling of the referents of order, material, space, and light.

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The programmatic sources of this thesis project came from my association with the International Museum of Photography at the George Eastman House in Rochester, New York. I held an internship position there while pursuing my Master of Fine Arts degree in Photography at the Rochester Institute of Technology. The Museum holds the finest collection of still photographs, films, photographic equipment, and memorabilia in the world, and is known, to authors and researchers, as the best source of images of historic value. The Museum is housed in the mansion that was formerly the residence of George Eastman. A major contributor to the museum has always been the Eastman Kodak Company. In the middle 1980's, disagreements occurred between the Eastman Kodak Company, who saw the facility as a museum to George Eastman, and the curatorial and administrative hierarchy of the International Museum of Photography, who saw the facility as the foremost museum of photography. The Kodak Company removed its financial support. This forced the museum staff to find a new home for the museum or consider alternative careers. The Smithsonian Institution in Washington, D.C. was approached as the only cultural institution large enough to absorb a collection the size of that of IMPGH. Even the Smithsonian admitted that it would have to build a new building to adequately house the collection. Hence my decision to design a museum of photography, cinematography, video, and holography on the Washington Mall.

The program requirements that I gave myself were typical of the standard functions of a contemporary art museum. There are the required galleries and theaters, of course, but also archives and kitchens, scholar's offices and janitor's closets, hundreds of rooms, all with unique obligations. The programmatic spaces that would be housed here include galleries for display of photographs and memorabilia, theaters, a museum school with studios and darkrooms, an archive of photographs, films and videos for scholarly research, scholar's and administrative offices, gathering spaces, curatorial rooms, a restaurant, and many others ancillary to these. As this building would be one of the major institutions on the National Capital Mall, it must accommodate a great number of patrons. Circulation and access notions have been structured accordingly. I undertook a broad study of museums throughout the northeast. Much was studied, from circulation to the right proportion of rooms designed to display intimately scaled objects. This latest issue became the source for the architectural ordering notions of the Museum.

Subsequent to the defense of this thesis in August of 1987, the Eastman Kodak Company, faced with alienating the photography community, continued its funding. The International Museum of Photography has broadened its financial base, built a new building and risen as a Phoenix to claim its role as the premier photography museum.

The purpose of a building is a far greater determinant of its character than is its program. The program of a building is what it does, the purpose is why it does it. The purpose of my building is not to house photographs and films, that is its program. The purpose of a museum is to provide a place where a society defines its cultural values. It is a place where ideas, and objects that manifest those ideas, are cherished in an environment of light and reverence. A museum's purpose is to provide a place that gathers intentions and aspirations, of and about productivity, in the minds and spirits of those who visit. It is a place to pledge allegiance, not to a nation, but to a civilization. It is a place where those who have done, pass on to those who will. It is a place where those who do, come to be reminded.

The buildings adjacent to my site are all major cultural museums dedicated to the notions outlined above. They all have characteristics which enhance their ability to project the importance of the obligation given to them. Foremost, they have scale. These architectural events provide ample evidence of the considerable volume of learning that is stored within. Second, they are architecturally generous. Materials, and methods for their use, are all of a lasting and precious nature. Cut stone is the material of choice. Third, they are all positioned on urbanistically generous sites, removed from the streets, and well landscaped. The majority of the buildings have been built upon raised plinths, adding to their monumentality. Fourth, they are placed in proximity to the seat of government, a statement that the perpetuation of culture and civilization is the reasons that law exists.

This culture is becoming increasingly aware of the power of image. The photographic image, in film and in print, has done more to change the course of human events in recent years than any other development. The medium's ability to capture or imply reality is unparalleled by any other medium in both believability and speed. These notions will guarantee that a repository of the imaging arts will be a powerful cultural entity well into the future.

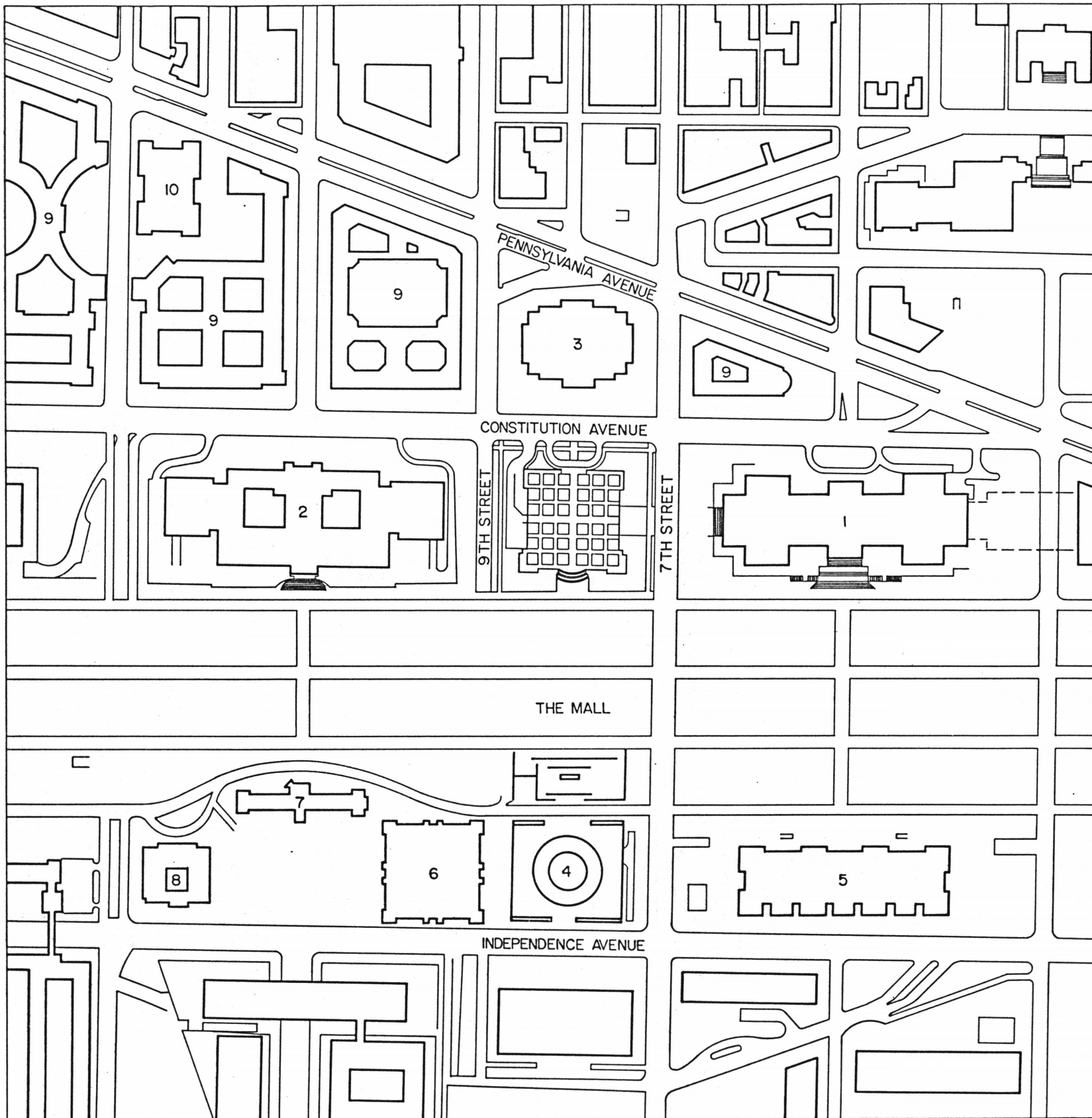
An essential obligation of a museum is to establish a comprehensible human scale to the notions of Purpose outlined on the previous page. The museum must facilitate the making of a personal rapport between the art and the patron. This rapport is necessary in order to allow the viewer to perceive the work as part of their culture. This rapport is established, in part, by providing a spatial matrix that allows the patron to have a meaningful transition from the scale of the city to the world of the individual photograph. The challenge is to give the single object in a room a place in the mind of the viewer.

The ability to position oneself in space is crucial to creating a sense of ease. Referents, giving orientation within a building, aid in this process. The architectural referents driving the design of this building are four fold. The first of these is the hierarchical layering of the scale of spaces. In this project, the scale of the Mall is brought down to the scale of a building by passing through an entry that is revealing of the scale within. The transition is then made to an atrium that explains the quadripartite nature of the building. From the stairs ringing the atrium, the transition is made to two story inner courts in each quadrant, and only then to the individual gallery.

The second referent, structure, is vital to perceiving the order of these spaces. It forms, in the patron, a reassuring sense of how the building stands. Columns are used throughout the building as totems of passage. Operating in groups, they form thresholds between spaces. The visitor uses these notions subconsciously to become familiar with the building. Two pairs of small columns mark entry into individual galleries. Large columns support and mark entrance to the large room (the atrium). Clusters of columns mark entrance to the building as a whole. The structural coffer system is set, as is the building, on a three foot module. This gives a recognizable, human dimension to the building.

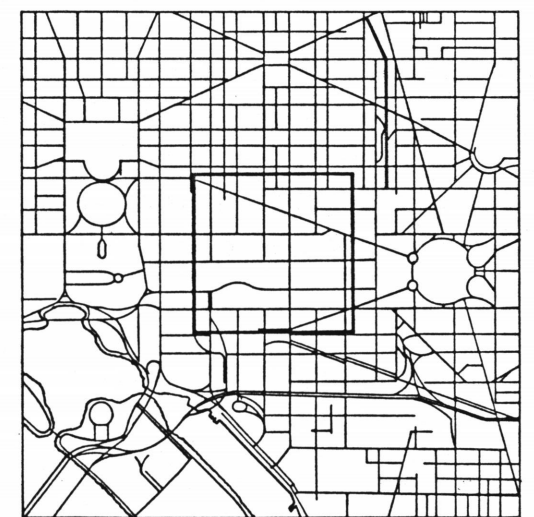
The third referent controlled in this design is material. The parts of this building, stone, wood, fabric, etc. all have recognizable materiality. There are no covered surfaces. With the exception of the concrete, which is nevertheless well articulated at a small scale, all materials have been rendered with human dimensions. The mind is capable of perceiving the building as having been "made by hand", a condition vital to empathy with a building.

The last referent, perhaps the most important, is the one modified by all of those before it, light. The presence of light is enormously important to the state of mind of a visitor. It is the link to the outside world, thereby vital to understanding position in space. Admitted with vigor into some spaces, with breathless timidity into others, natural light is always present and controlled. This is, after all, a museum dedicated to the work of light.



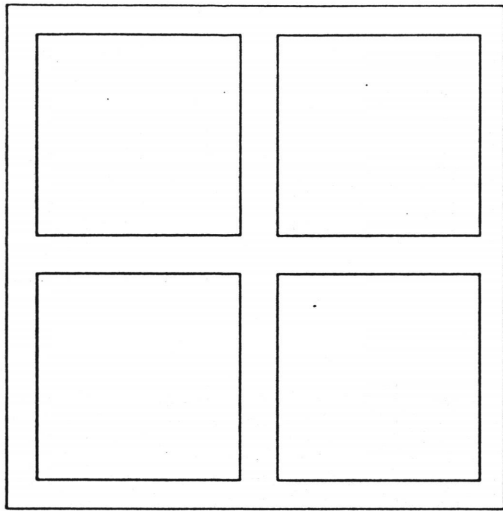
The urban order of the existing monumental buildings on the National Capital Mall is essentially correlative of a jewelry case. The buildings are isolated on generous sites allowing them to exhibit themselves individually, unencumbered by their neighbors or each other. Expressive of their cultural purpose, these monuments of and to civilization are proportioned at the scale of the city. Profound entrances, bilateral symmetry, and, revelations on the exterior of grand central spaces, are universal for all buildings fronting on the Mall. Although the preeminence of stone is evidence of a belief in permanence, honor is given to the contribution of each generation. The architectural styles are those prevalent at the time of construction.

1. NATIONAL GALLERY OF ART
2. MUSEUM OF NATURAL HISTORY
3. NATIONAL ARCHIVES
4. HIRSHHORN MUSEUM
5. NATIONAL AIR & SPACE MUSEUM
6. ARTS & INDUSTRIES MUSEUM
7. SMITHSONIAN INSTITUTION
8. FREER GALLERY OF ART
9. FEDERAL TRIANGLE OFFICES



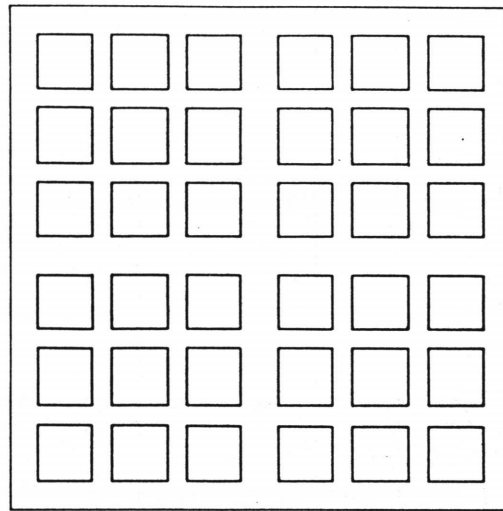
AREA PLAN





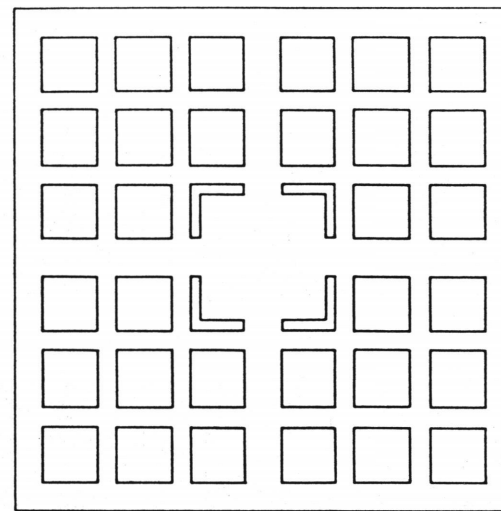
The square site, with the Mall and major buildings on the cardinal faces, dictates a cross axial ordering of the building and its division into four quadrants. All circulation originates from along these axes, although the north-south axis predominates.

On the first floor, the "ninths" along the major north-south axis are given over to the entrance lobby and circulation functions. This also provides for the first interior vistas, necessary for a patron to understand the interior scale of the building.



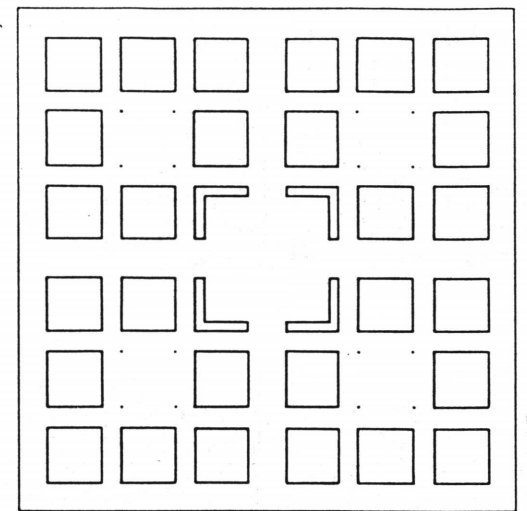
The order and hierarchy of construction materials and methods, the small scale and intimate nature of the objects on view, as well as the parameters of comfortable viewing, combine to dictate a further division of each of the four quadrants into ninths.

Service elements, housing the vertical mechanical and elevator functions, are inserted into the interstitial spaces between the "ninths". A second characteristic of these service towers is their presence as thresholds of transition into and through the building.



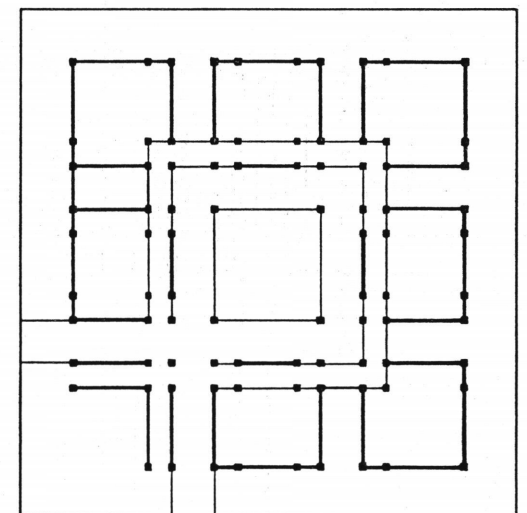
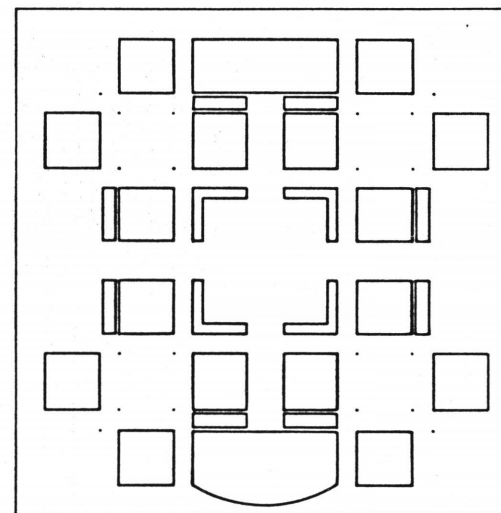
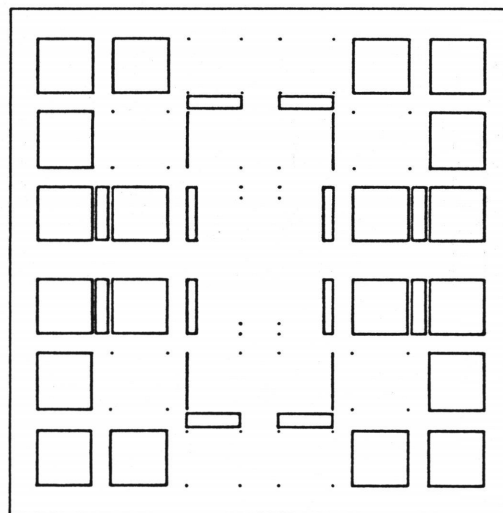
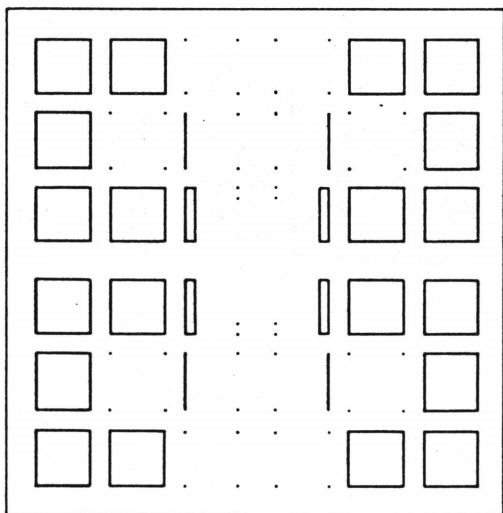
The four central "ninths" are given over to a monumental central space. This creates a five storey "room" at the scale of the city, traditional among Mall buildings. The edges of these "ninths" are dedicated to eight grand staircases that ring the atrium for ceremonial circulation and structural stiffness.

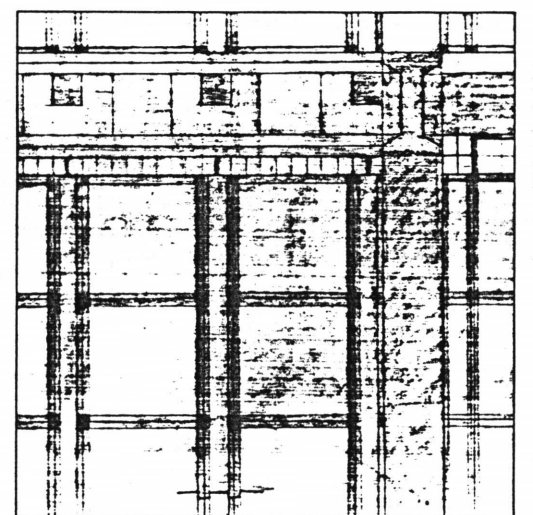
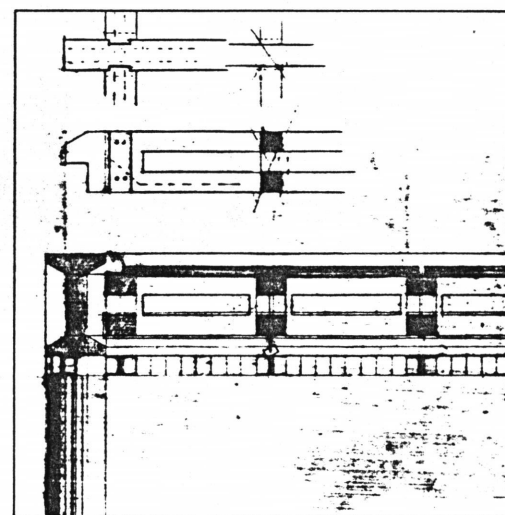
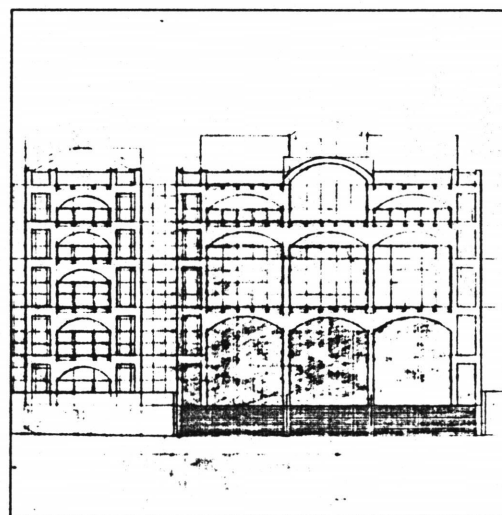
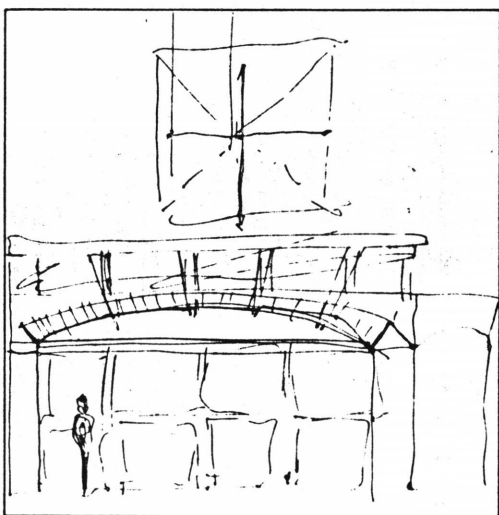
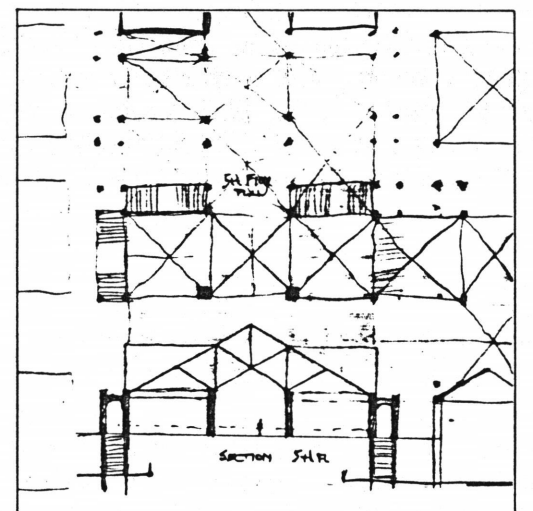
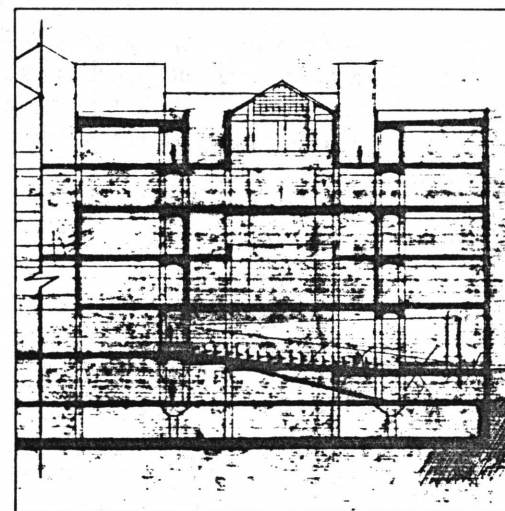
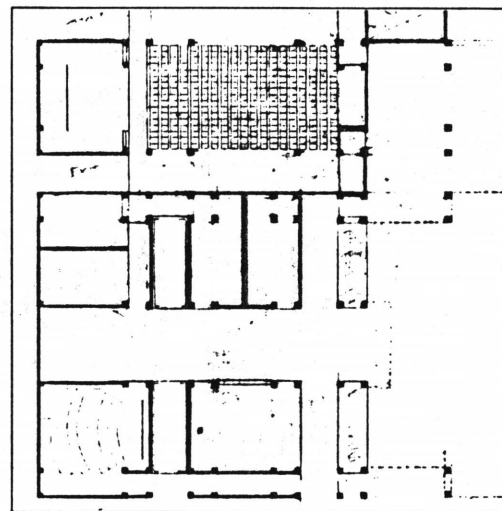
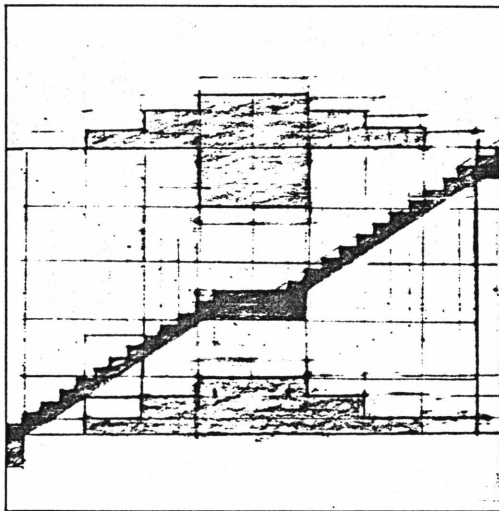
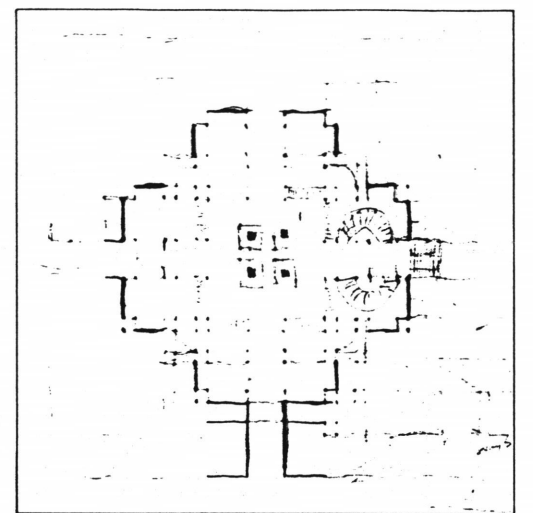
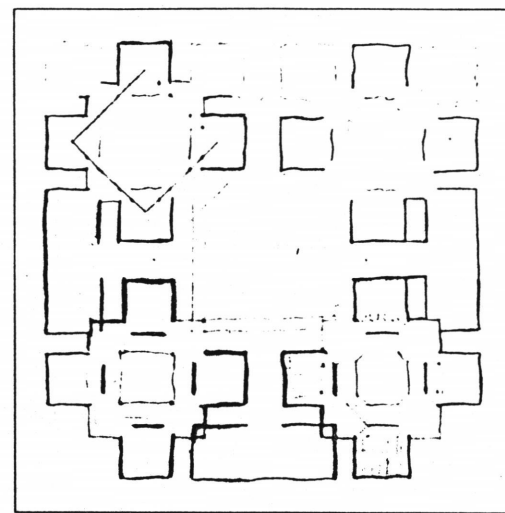
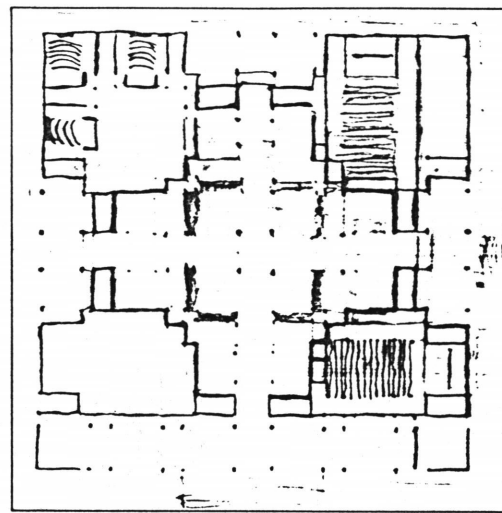
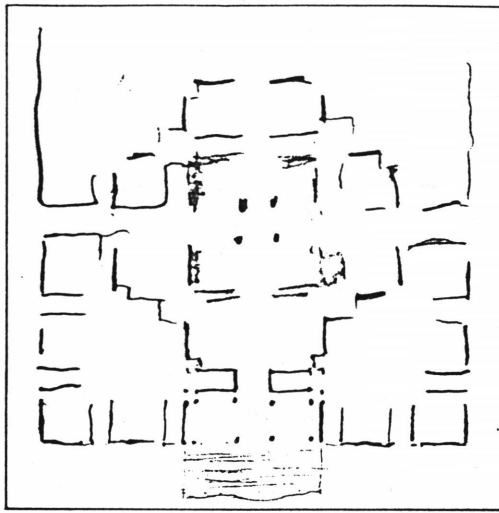
At upper floors, as grand ceremonial rooms, and on the first floor, as terraces, front and rear central "ninths" are recaptured as places with commanding views. The Mall lies to the south, and the National Archives to the north. Outer corner "ninths" drop away at upper floors to reduce mass and respect primary cornice heights.

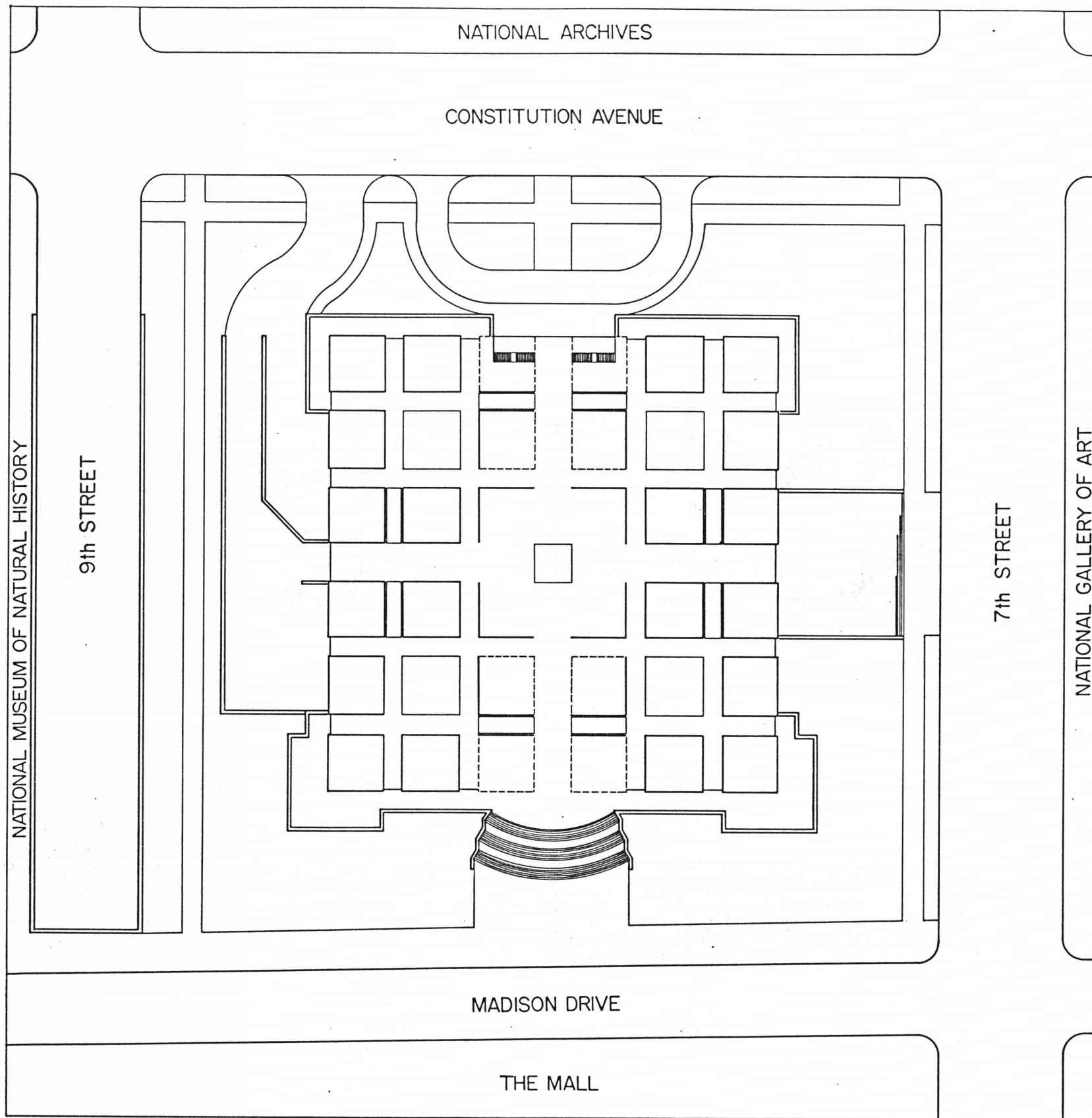


The central "ninth" of each quadrant is obligated to the ordering of space, circulation and function of each quadrant. It also operates as the transitional scale between the grand atrium and the individual gallery "ninths". This central "ninth" is frequently a two storey space.

This is an idealized quadrant floor plan showing the hierarchical layering of spaces and the circulation thereto. Intersections and room entrances are marked and honored by four columns. The served and servant spaces are clearly ordered.







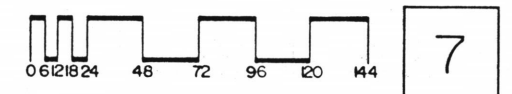
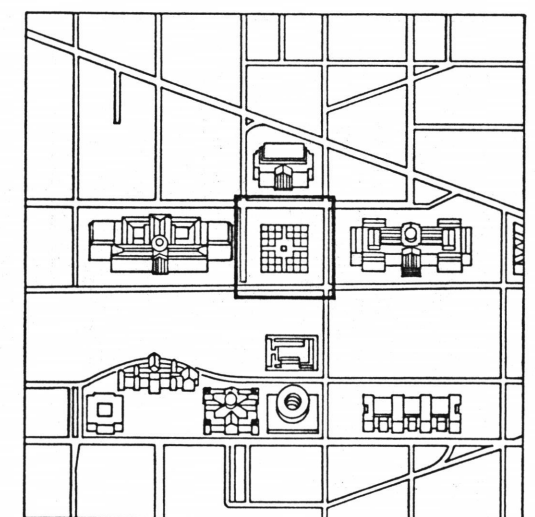
SITE PLAN

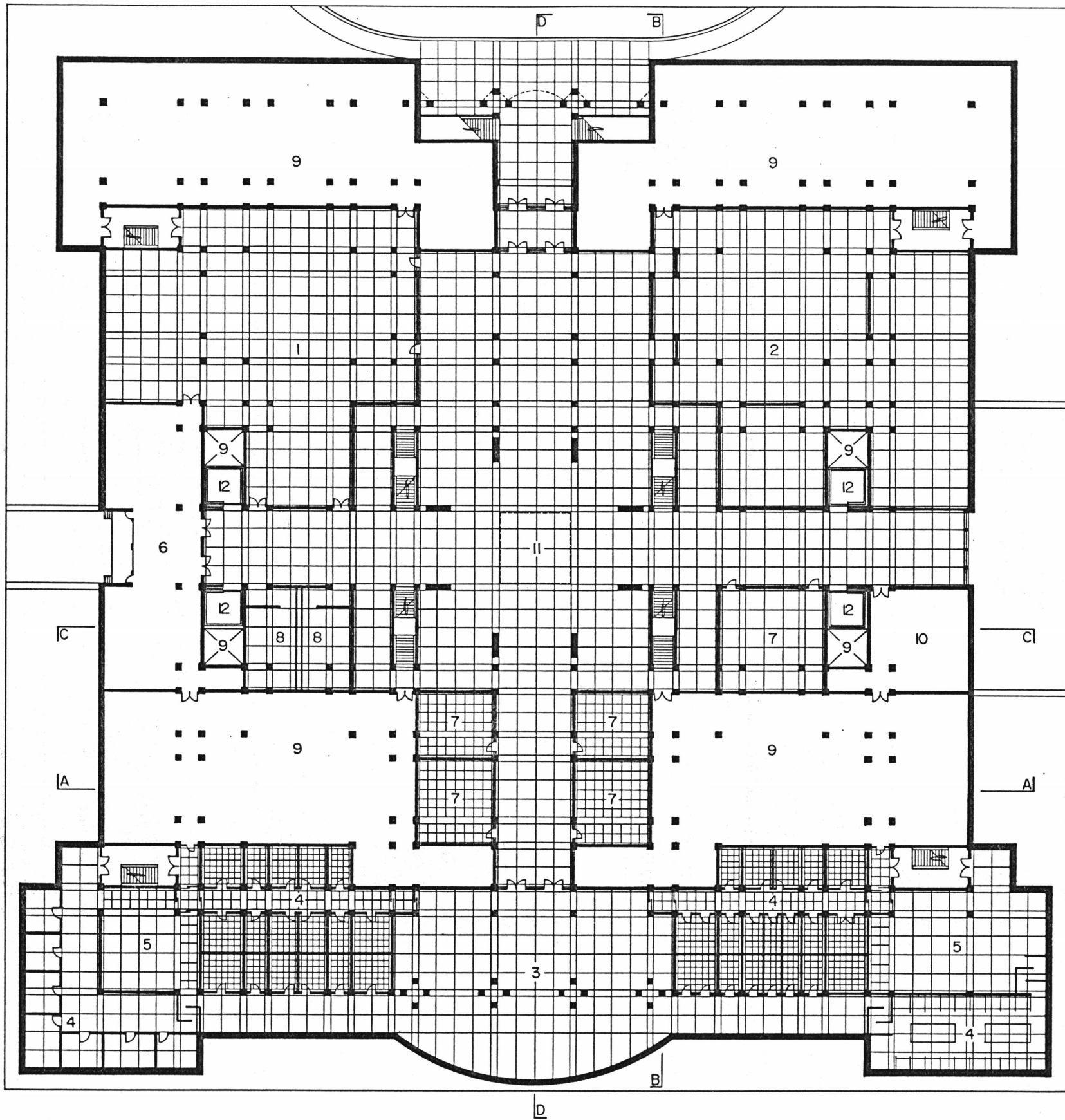
The order of the site proper is a cross axial square. Each face has minor differences in obligation. To the south, I have honored the Mall tradition, providing a monumental stair leading from the Mall to a raised main level entrance. The articulated upper floors of the building rest on a smooth, massive ground floor plinth. Atop this plinth, flanking the entrance stair, are two terraces that command views of the Mall.

The east facade addresses the National Gallery of Art west entrance with an at grade court, flanked by seat high walls.

As the construction of this museum would mask the National Archives from the Mall, significant care is taken to incorporate rooms, terraces, and balconies in the museum to replace these views. Entrance at grade, from both vehicles and pedestrian paths, brings the patron to the ground level. The Mall floor may be reached by a pair of exterior stairs.

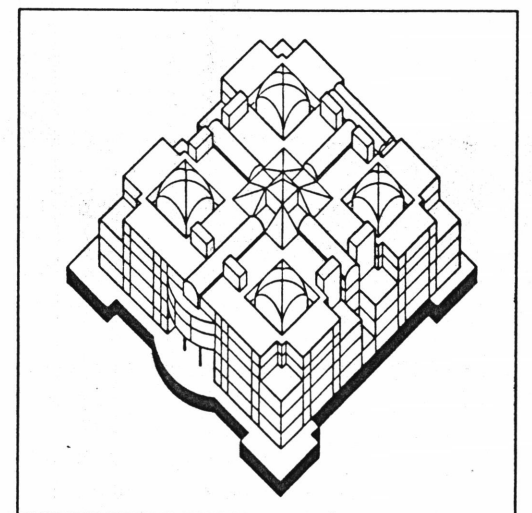
The Ninth Street Tunnel entrance creates a physical barrier to pedestrian traffic. Hence both parking and service entrances are located here.



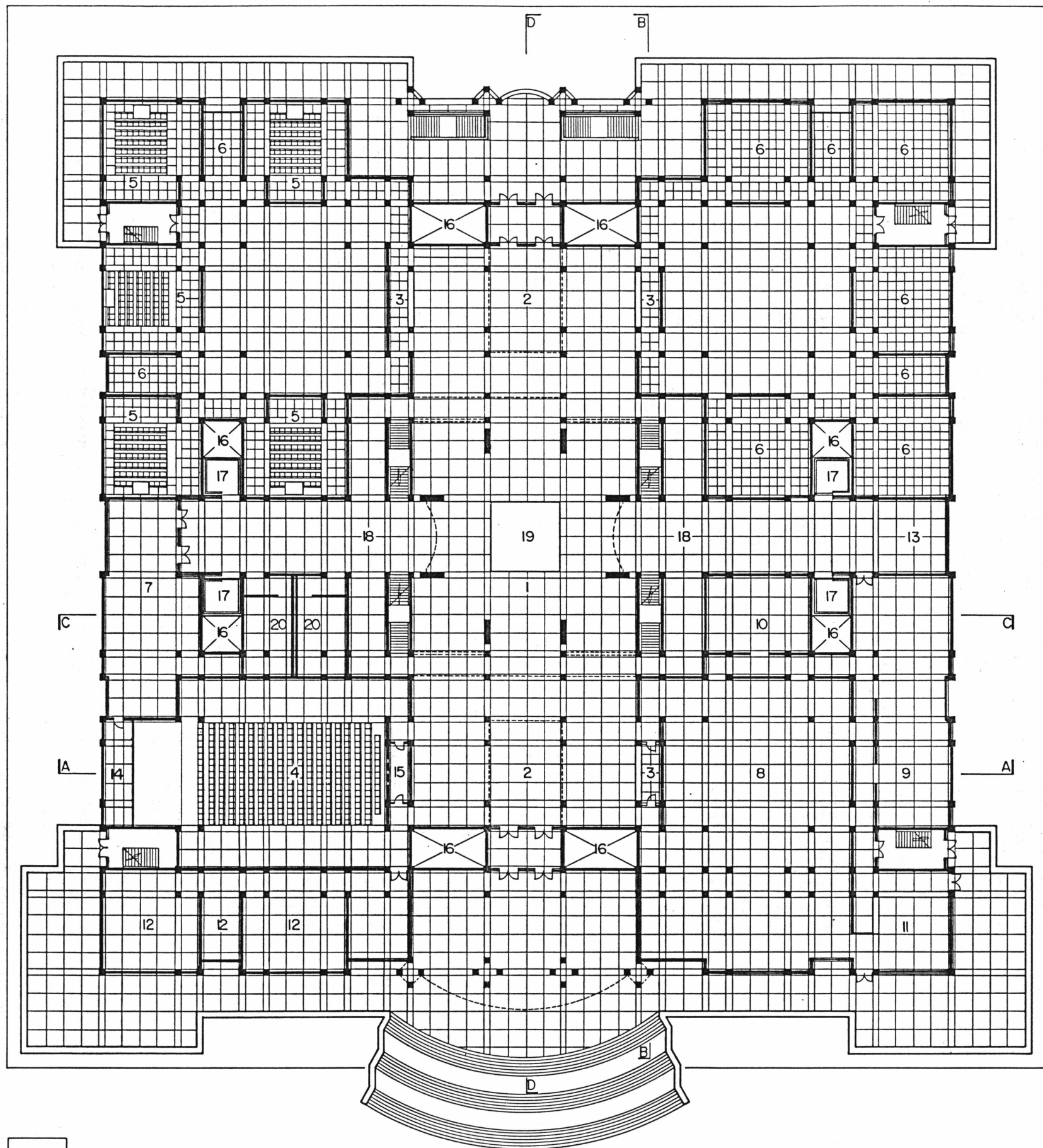


The educational component of the museum has the heart of its facilities, the Museum School, on the ground level. Studios, classrooms, and individual and instructional darkrooms provide a production component to balance the exhibition, archive, and library offerings housed above. Vehicular and pedestrian handicapped access to the building is enabled by the at grade north entrance. This entrance leads to a grand foyer that focuses on the light from the first floor oculus. This provides a visual and psychological pull to the upper floors of the museum. A delivery entrance is located to the west of the building, convenient to the exhibition preparation area.

1. EXHIBITION PREPARTION
2. MUSEUM SCHOOL
3. CRITIQUE GALLERY
4. DARKROOM
5. PRINT PREPARATION
6. SHIPPING AND RECEIVING
7. PHOTOGRAPHY STUDIO
8. RESTROOM
9. MECHANICAL EQUIPMENT
10. JANITOR/STORAGE
11. OPEN TO ABOVE



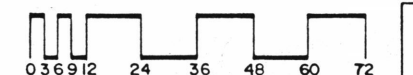
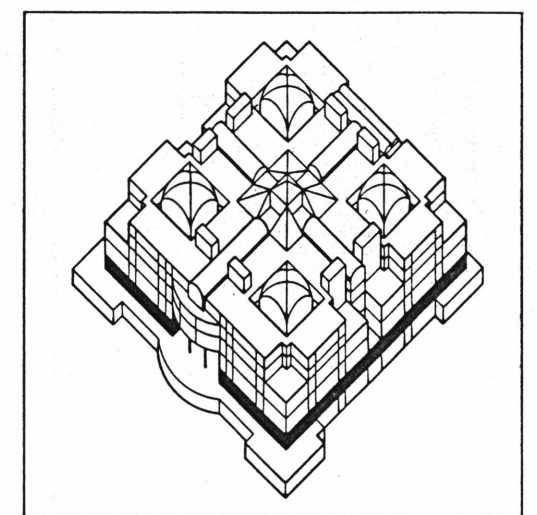
GROUND FLOOR PLAN



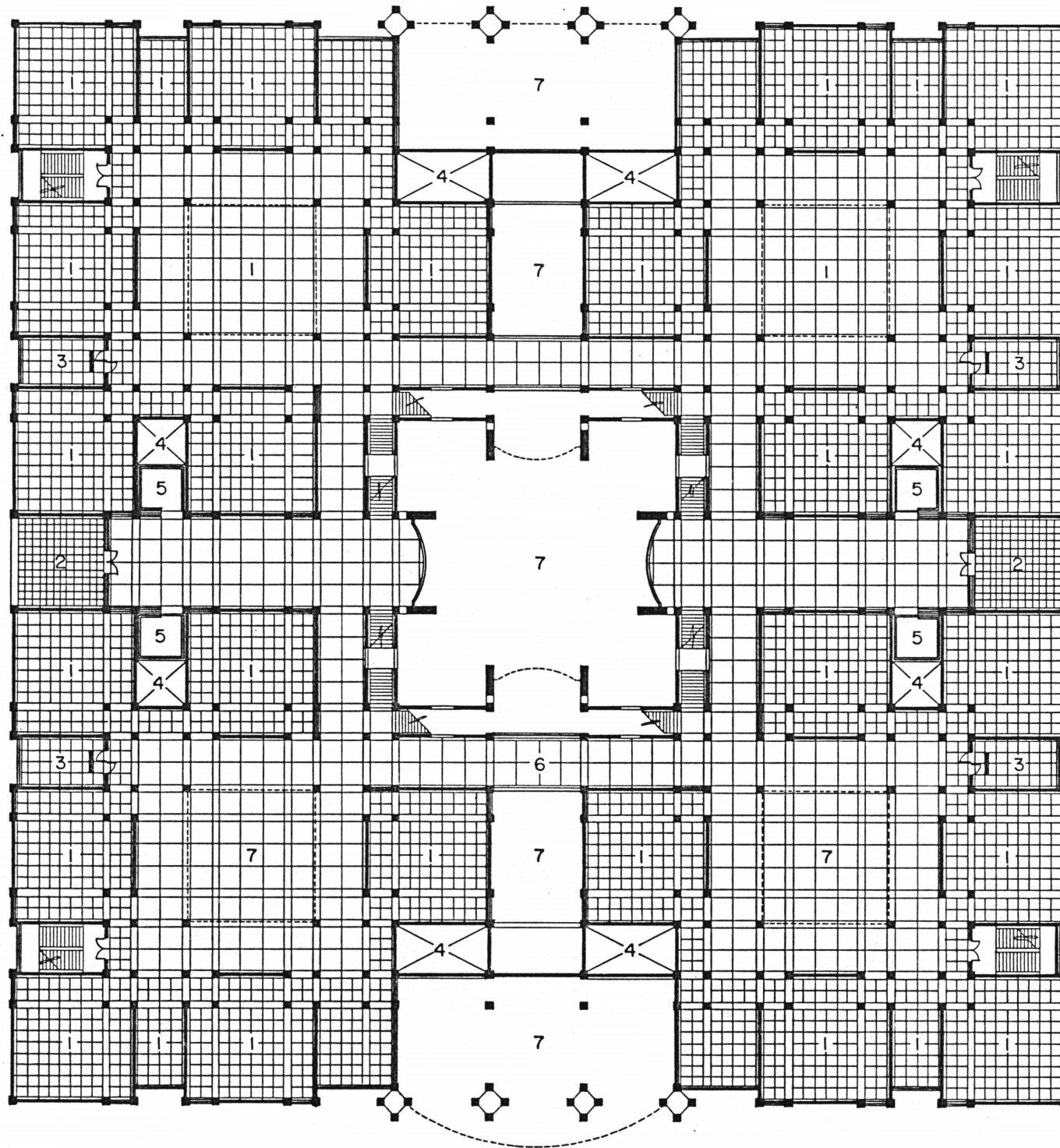
FIRST FLOOR PLAN

The first floor, at Mall level, contains the greatest variety and number of functions found in the museum. Principal spaces are located on the north-south axis. Support spaces are on the East-West axis. This level is dedicated to the high traffic, calendar events of the museum such as temporary and traveling exhibitions, films, and lectures. This floor also houses the sales areas of the museum.

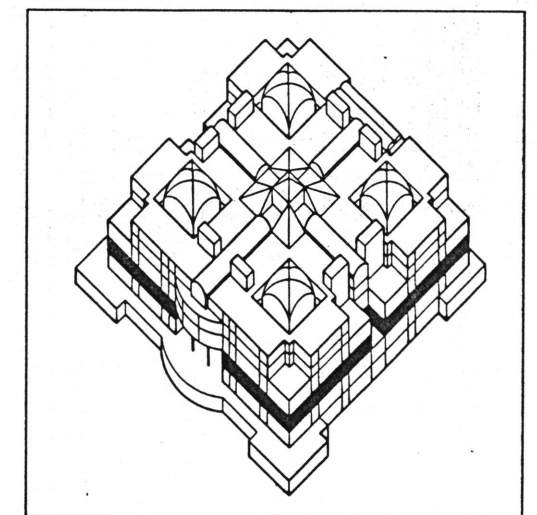
1. FIVE STOREY GRAND ATRIUM
2. ENTRANCE LOBBY
3. INFORMATION DESK
4. MAIN THEATER
5. MINOR THEATER
6. TEMPORARY EXHIBITION GALLERY
7. MUSEUM SHOP
8. RESTAURANT
9. KITCHEN
10. DISHWASH
11. CAFE SERVICE TO TERRACE
12. FILM ARCHIVE
13. COAT CHECK
14. REAR PROJECTION AND SOUND
15. PROJECTION BOOTH
16. MECHANICAL SHAFT
17. ELEVATORS
18. CIRCULATION
19. OPEN TO BELOW
20. TOILETS



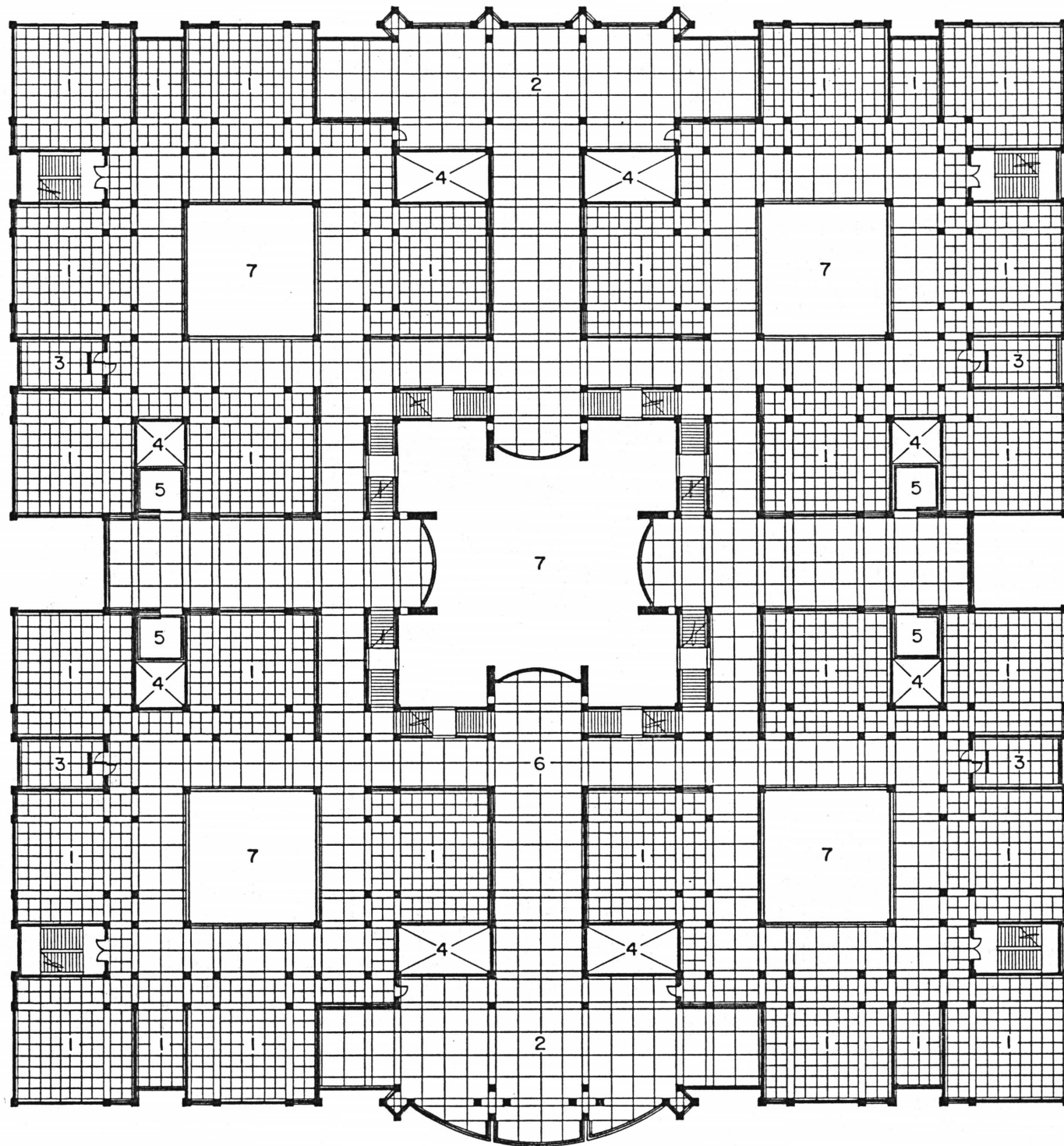
Along with the third floor, this floor holds the museum's main galleries. Both permanent and long term exhibitions will be presented here. The monumental stairs from the main floor lead to quadrant entrances which direct the viewers to the individual rooms via the two storey central "ninth". Due to the partition wall separating each of the perimeter "ninths" from the center "ninth" in each quadrant, the scale of each of these gallery rooms is quite intimate. The scale established, being of contained vistas, is more appropriate to smaller works. The two storey center is a powerful signal that the galleries continue above. The notions of the hierarchical transition of scale, from atrium to individual wall are clearly expressed in the plan.



1. EXHIBITION GALLERY
2. OUTDOOR TERRACE
3. RESTROOM
4. MECHANICAL SHAFT
5. ELEVATOR
6. CIRCULATION
7. OPEN TO ABOVE

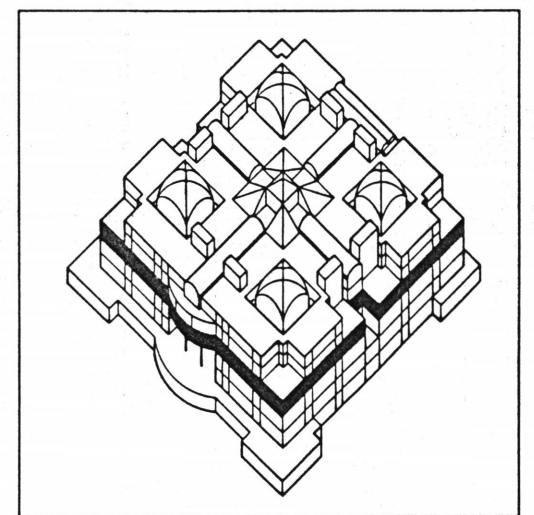


SECOND FLOOR PLAN

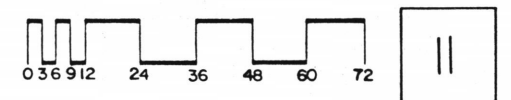


This floor continues the main gallery spaces found on the second floor. The spatial order of this floor is much more open and given to vista making. The large light well balcony, open to the second floor in each quadrant, ensures the psychological linking of the floors. Although there are light wells continuing up to the fourth floor, their restricted nature, in comparison to those here, will guarantee the fourth floor a feeling of remoteness and closure. The third floor will display larger objects, benefiting from distant viewing. Both permanent and long term installations will be found here. Note that circulation, though clearly expressed, is freer, and open to greater diagonal movement than that found on the second floor. The grand rooms overlooking the Mall (curved, as the Hirshhorn, to take in the whole vista) and the National Archives allow for both casual sight seeing and ceremonial gatherings.

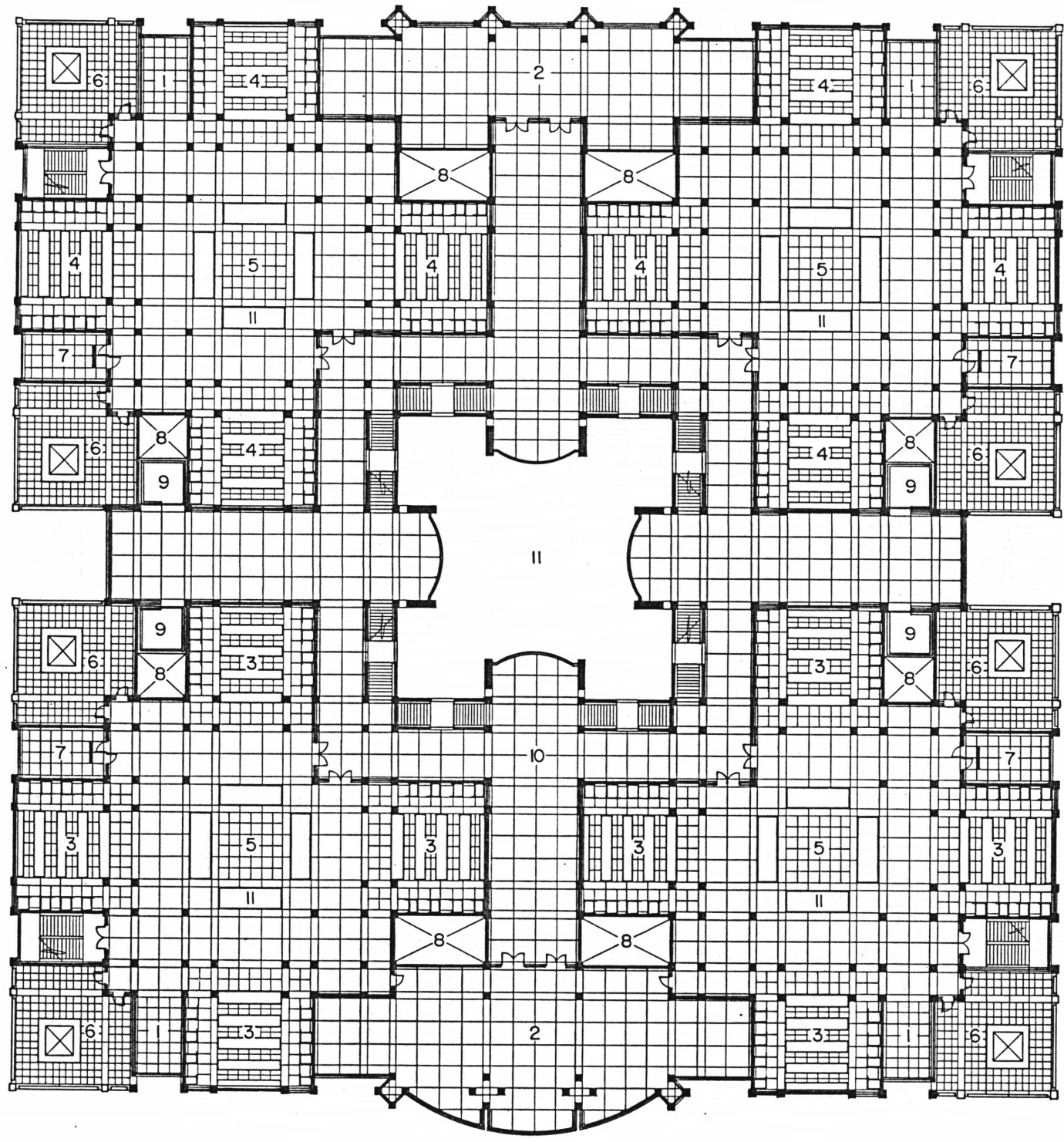
1. EXHIBITION GALLERY
2. CEREMONIAL GATHERING AND OVERLOOK ROOM
3. RESTROOM
4. MECHANICAL SHAFT
5. ELEVATOR
6. CIRCULATION
7. OPEN TO BELOW



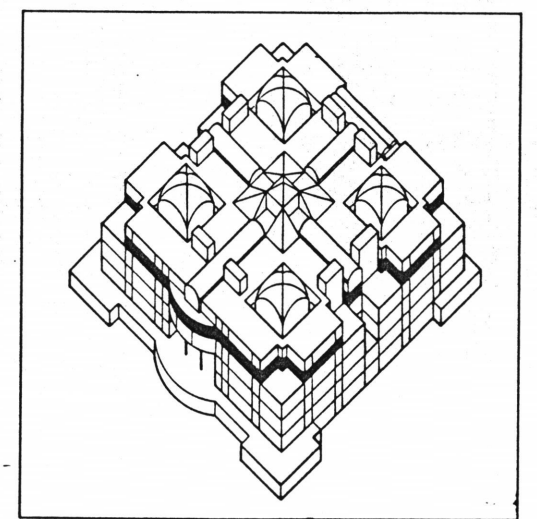
THIRD FLOOR PLAN



Of controlled access to the general public, the library archive floor is for the scholarly research and archival storage of books, manuscripts, films, videos, and original photographs. Students in the museum school, as well as visiting scholars, are given carrels in the stack area. Exterior terraces allow for relief and debate. Apertures in the center of each quadrant floor allow natural light into the lower floors from monitors two floors above.

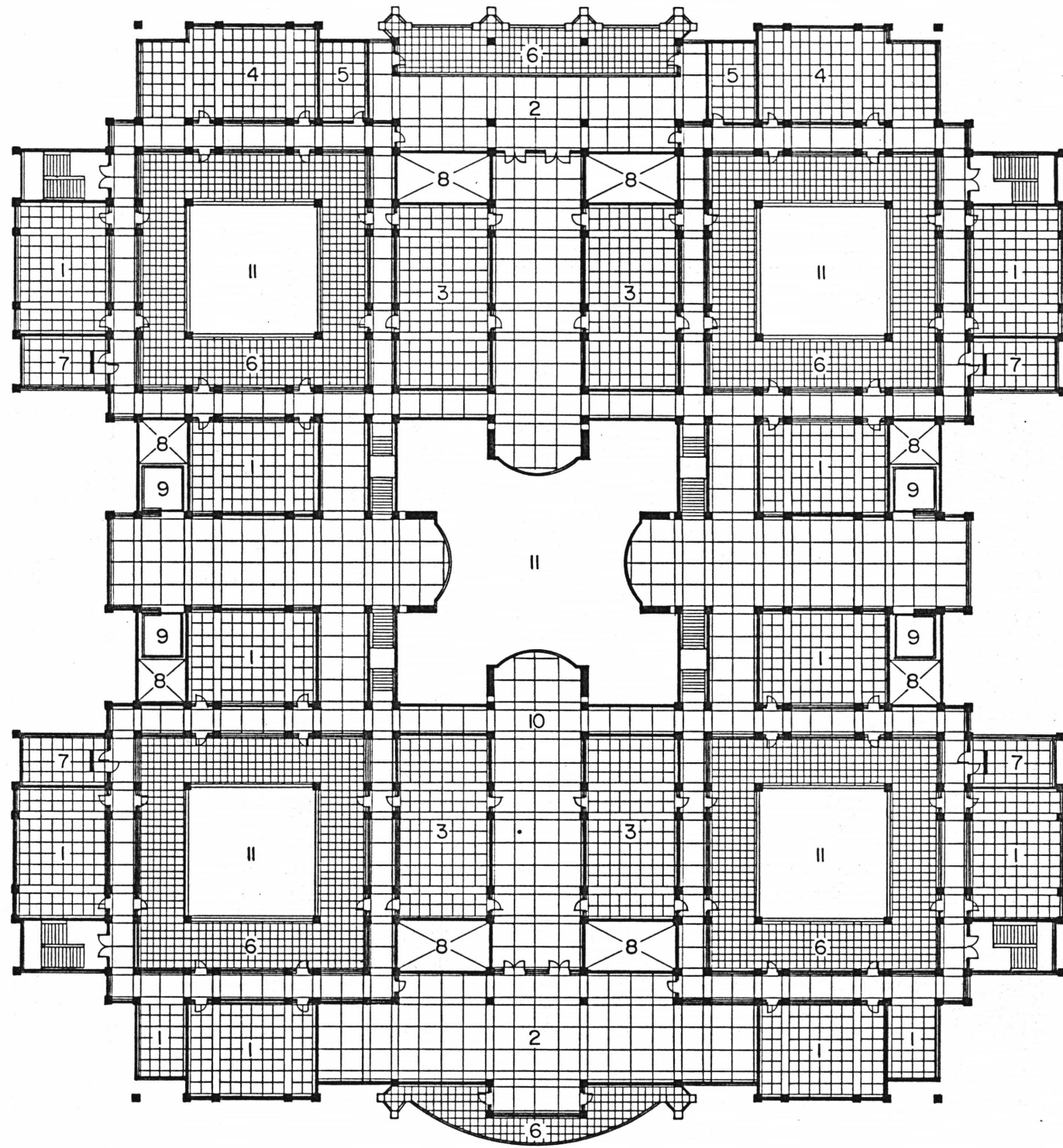


1. ARCHIVIST'S OR LIBRARIAN'S OFFICE
2. CEREMONIAL GATHERING AND OVERLOOK ROOM
3. LIBRARY STACK AND CARRELS
4. PHOTOGRAPH ARCHIVE AND CARRELS
5. READING / VIEWING AREA
6. OUTDOOR TERRACE
7. RESTROOM
8. MECHANICAL SHAFT
9. ELEVATOR
10. CIRCULATION
11. OPEN TO BELOW

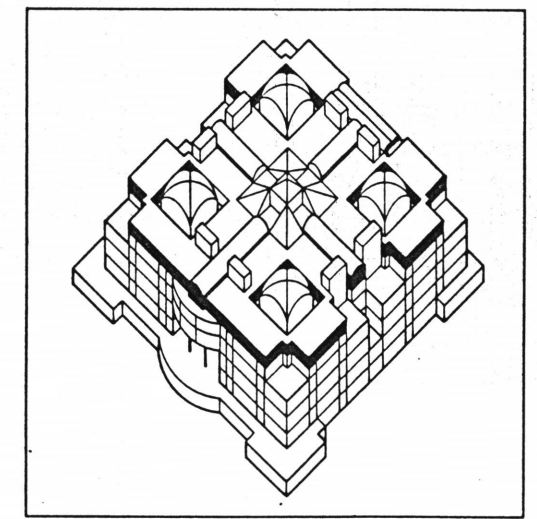


FOURTH FLOOR PLAN

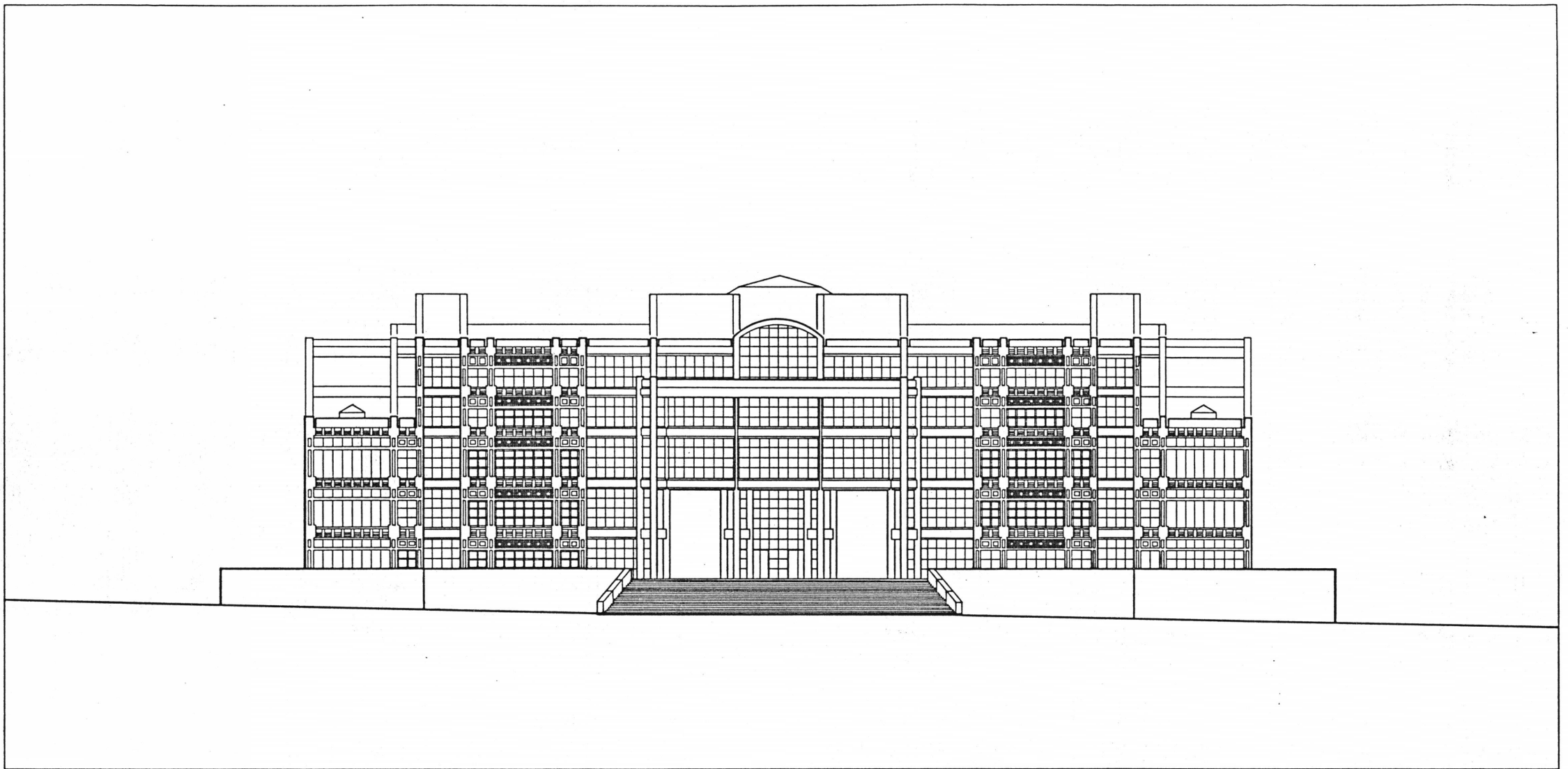
The fifth floor, closest to the sky, is the domain of the resident scholars and the museum administration. Being the most remote floor of the museum, it offers the greatest solitude. Being the most transparent and translucent, it has the greatest generosity of natural light. Ambulatories around the glass block light wells provide a protected exterior environment for contemplation and debate. There are clear expressions of circulation notions.



1. SCHOLARS' AND ADMINISTRATORS' OFFICE
2. CEREMONIAL, GATHERING AND OVERLOOK ROOM
3. MEETING AND CLASS ROOM
4. NORTH LIGHT PHOTOGRAPHY STUDIOS
5. DARKROOM
6. OUTDOOR TERRACE/AMBULATORY
7. RESTROOM
8. MECHANICAL SHAFT
9. ELEVATOR
10. CIRCULATION
11. OPEN TO BELOW



FIFTH FLOOR PLAN



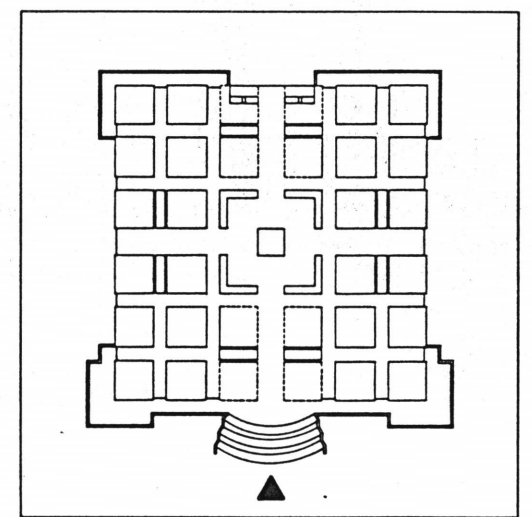
This is the primary Mall elevation of the building. Although it faces the Hirshhorn Museum and Sculpture Garden, the south facade's primary referents are its neighbors to the east and west. These are the National Gallery of Art and the National Museum of Natural History, respectively. The "cornice lines" of this building are closely related to those of the other buildings at all three levels. The outer bays of this building end at a height that equals the wings of the building to the east. The other bays are equal to the height of the main body of both adjacent buildings. The peak of the atrium, as well

as the space within, is again of similar size to the neighbors.

A monumental entrance, at the scale of the room beyond, with a columned portico atop a grand stair leading from the Mall, are all derived out of the established order of the north side of the Mall. Another aspect of the Monumental Core of Washington is the notion of a building set on a plinth that elevates the building both physically and psychologically. The separation of the sacred contents of the building from the profane of the street places the institution

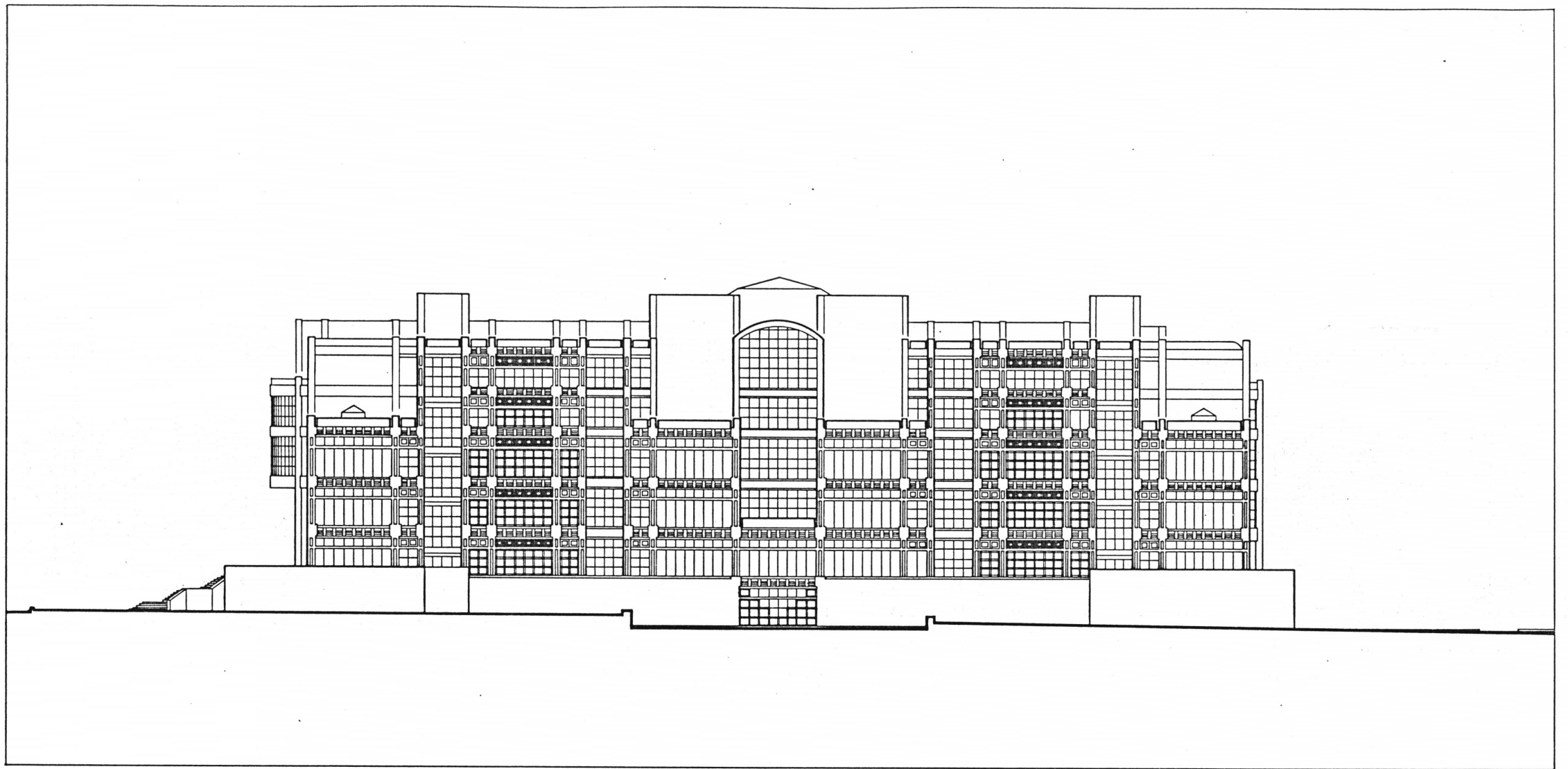
on a higher plane of being before the threshold is ever crossed into the museum. The plinth on the south face of the building has grown to accommodate the existence of a terrace from which visitors may, at all times of day, gain a commanding view of the Mall.

Above the monumental entrance to the building, on the third, fourth, and fifth floors of the building, there are gathering rooms or a balcony that again command a view of the Mall. This view is rivaled only by the magnificent one offered by the upper bay window of the Hirshhorn.



SOUTH ELEVATION



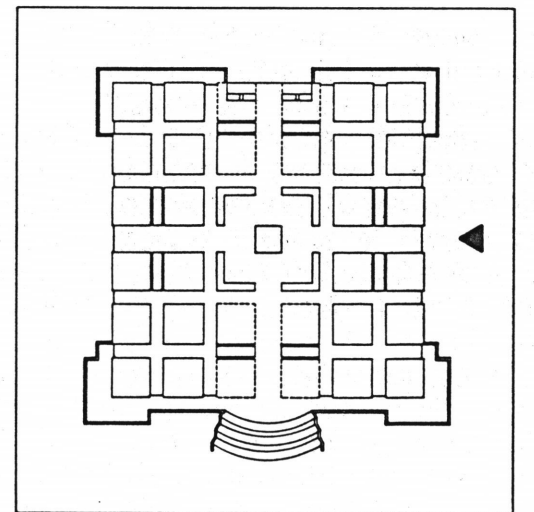


This elevation, across 7th Street from the west entrance of the National Gallery of Art, maintains all of the earlier mentioned height and set-back traditions of the existing Mall buildings. Unlike the main facades of the north and south, however, the central bays of the east facade do not house main ceremonial spaces. Instead, they have been "peeled away" to reveal hints of the multi-storeyed atrium beyond and of the vertical totems of the mechanical and elevator shafts.

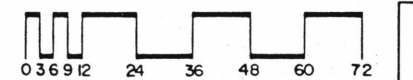
The two end bays, with their lower level balconies, allow museum patrons exterior

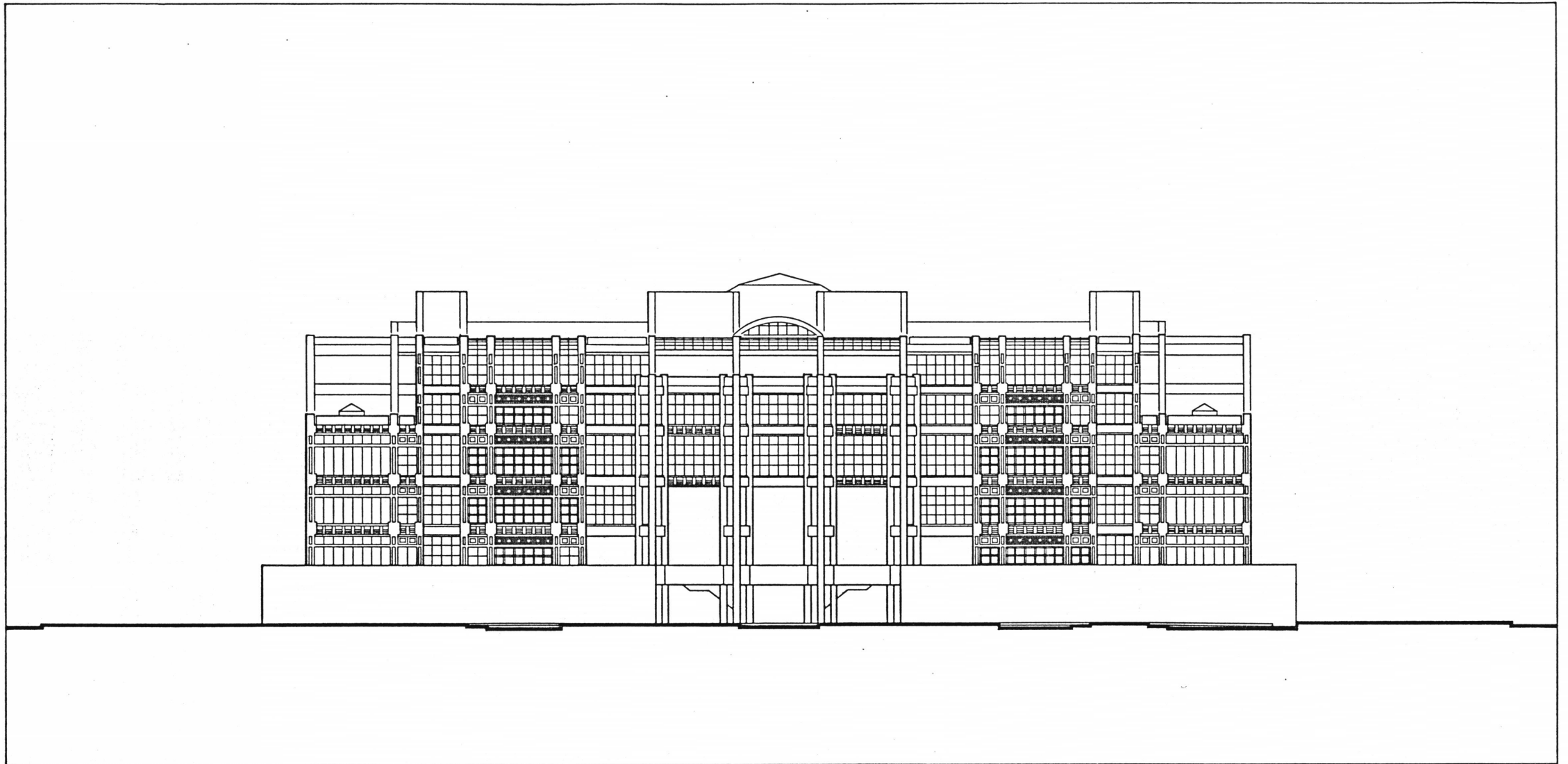
space for contemplation above the din of the street.

At grade, in the center of the facade, is a garden court. This court is paved, edged by a sitting wall, and would be an urban place of gathering, in the shadow of the western sun. Here, a break occurs in the plinth, allowing a stone and glass window to come to grade, an invitation to the passer-by to think of what may be going on within. It is a vital signal that the plinth is not monolithic.



EAST ELEVATION

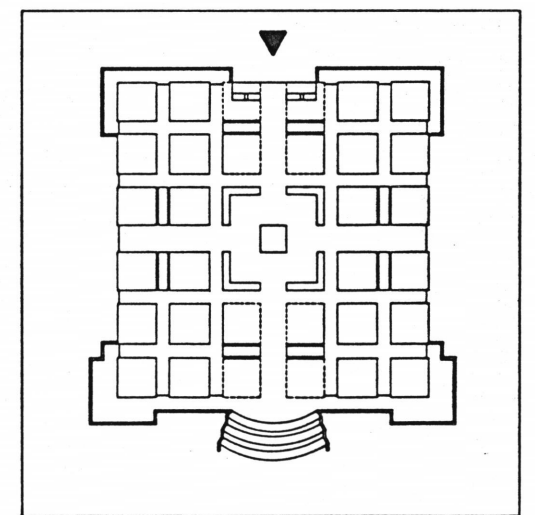




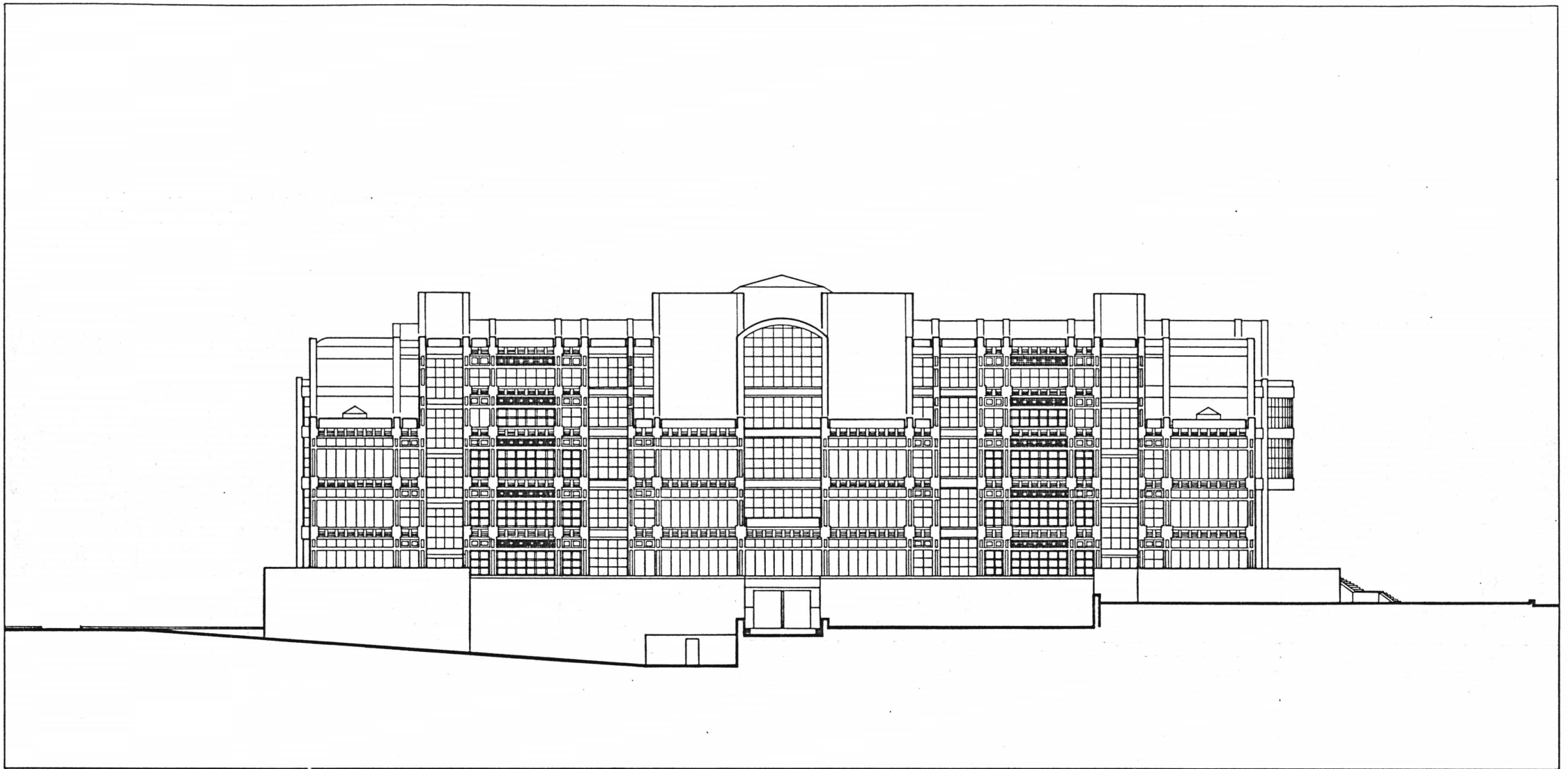
Like the previously mentioned facades, the north elevation maintains the cornice and set-back standards of the adjacent buildings. Driving design forces on this facade, however, are three fold. First, the vehicular and pedestrian entrance, being the primary handicapped access, requires an at grade entrance. This drove the design of the flanking monumental stairs, leading to the plinth terrace, for entrance at the main gallery and theater level. The northern edge of the site is logical not only for passenger drop off, but for delivery and underground parking access as well.

Second, the National Archives, repository of the great documents founding our democracy, is located directly across Constitution Avenue from the museum. This impressive structure is deserving of framing views from the museum. This generated ceremonial gathering rooms on the third, fourth, and fifth floors with glazing appropriate to the appreciation of the Archive. This structure, along with the many large and detailed classical revival Federal Triangle office buildings provides an impressive urban vista along Constitution Avenue. This drove the design of the plinth terrace and balcony.

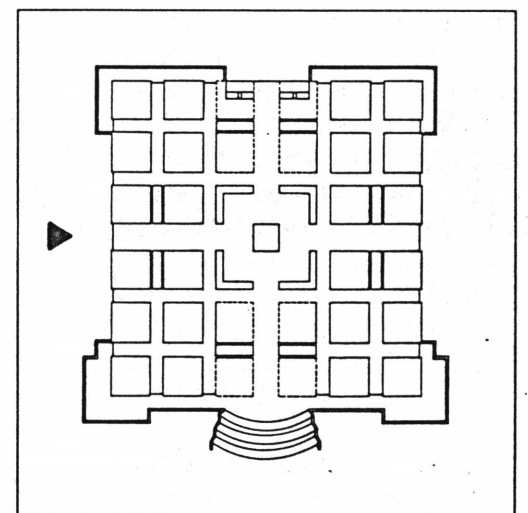
Last, north light, long admired by photographers for its ability to gently describe, but fully model, the subject of a photograph, created the opportunity for north light studios on the fifth floor of the museum.



NORTH ELEVATION

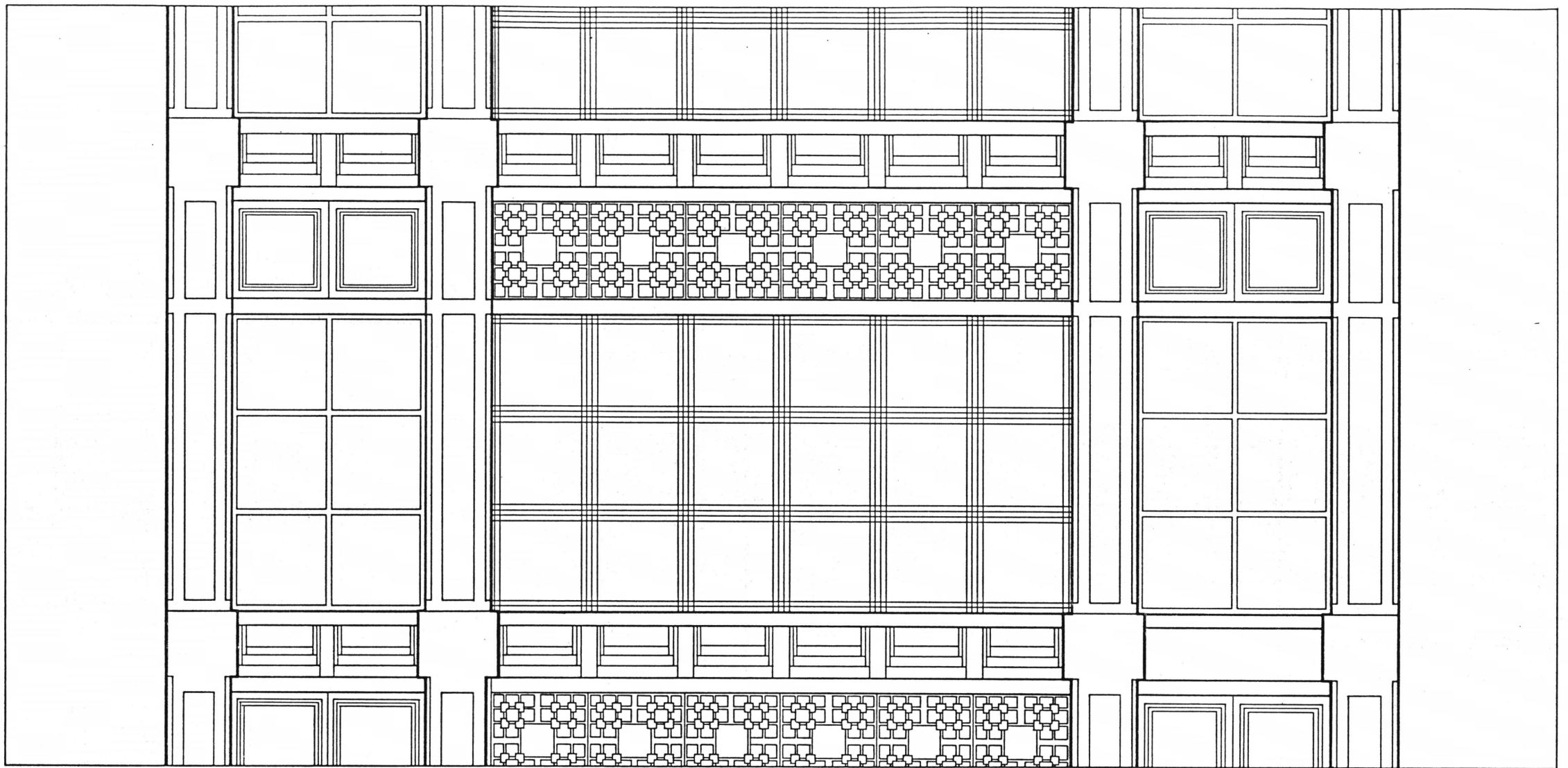


Most aspects of the west elevation are essentially those of the east elevation already discussed. The major difference is that the vehicular access to the building interior occurs in this wall. Pedestrian access and sight lines from adjacent property are very limited, when compared to the other sides of the building, because of a tunnel access on the western edge of the site. This rather abrupt and noisy urban gesture makes the west side of the building appropriate for the siting of the loading dock and the underground parking entrance.



WEST ELEVATION





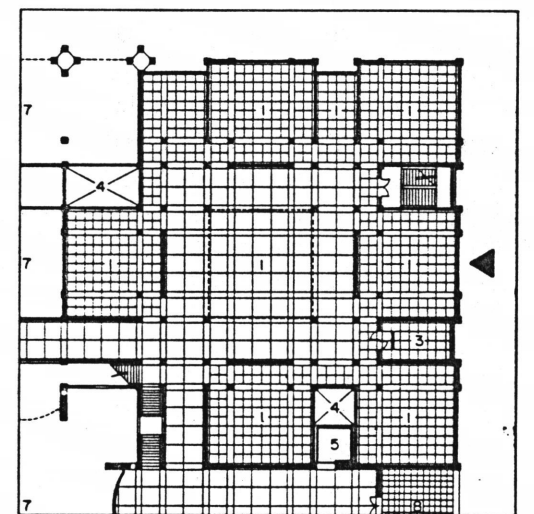
This is an exterior "close-up" elevation drawn to show the materials, methods, proportions and details of construction of a typical gallery bay. The elevation is taken with the top of the drawing at approximately four feet above a floor level, and the bottom of the drawing at four feet below the top of the floor below.

The columns are of a light, fine grade precast concrete. The aggregate is not exposed and the matrix color is a warm white chosen to harmonize with the stone colors of the National Gallery of Art,

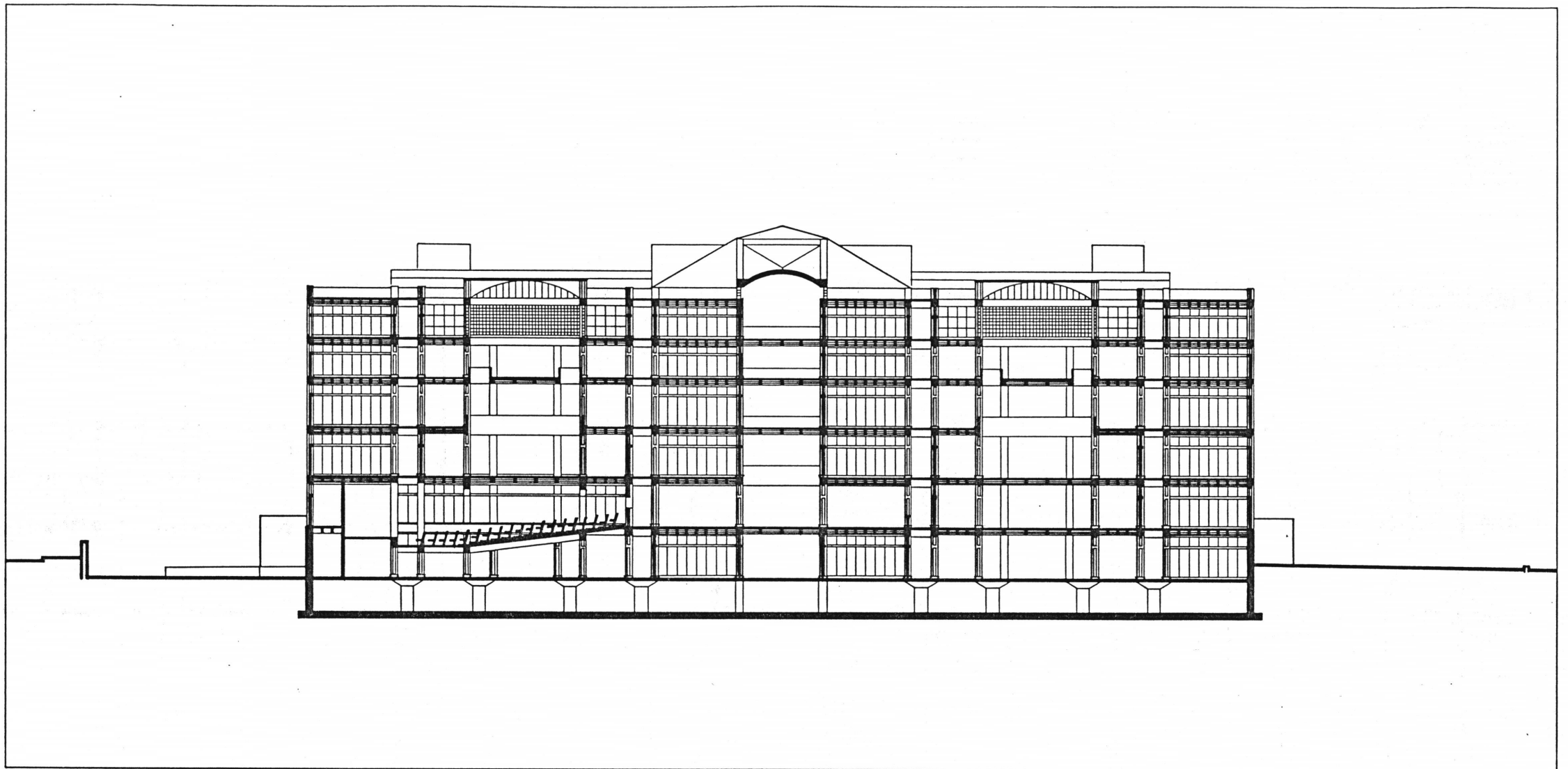
National Museum of Natural History, and the National Archives.

The decorative "frieze", shown at the edge of the slab, is a reference to the coffered ceiling beyond. Above the slab frieze, between the columns on the two side bays, are windows with stainless steel mullions. Depending on the function in the room served, these windows will be either translucent, transparent, or opaque glass. The center area of the bay is filled with 5" granite panels, in the same three foot module as the windows and floor system. The panels are flame cut with a

two inch polished edge. The stainless steel frame bearing the lateral forces is expressed between the panels. The steel frame is held by a reinforced concrete beam above the panels, that is in turn topped by a decorative screen that filters the light entering high into the space. This decorative screen is an assembly of many pieces of cut glass and steel. The form of the screen is derived from that of the idealized floor plan. The piece of glass corresponding to the room served would be differentiated by color so that the screen becomes a location map of the building.



PARTIAL ELEVATION



This section, cut east to west looking north, shows most of the primary nature of the building in its vertical ordering. We see that each quadrant of the building is three bays wide, with a double layer of circulation between the bays.

Clear also is the use of the central bay of each quadrant as the linking factor between pairs of floors. The vaulted glass block light monitors of the fifth floor, with their circumscribing exterior ambulatories, heavily impact the spatial and light quality of the fourth floor archives and library. Again, the light

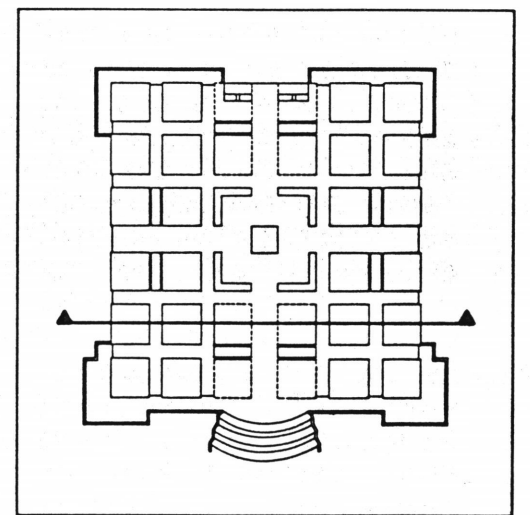
borrowed from the monitor is controlled by the fourth floor apertures. This allows the open gallery of the third floor to relate more to the second floor below than to the light above.

High ceiling areas are shown in the major north-south axis at the major entrance hall and at the top floor hall leading to the Mall overlook.

The main theater/ auditorium is shown with the structural modifications necessitated by its long spans. The coffering system used for the ceiling is

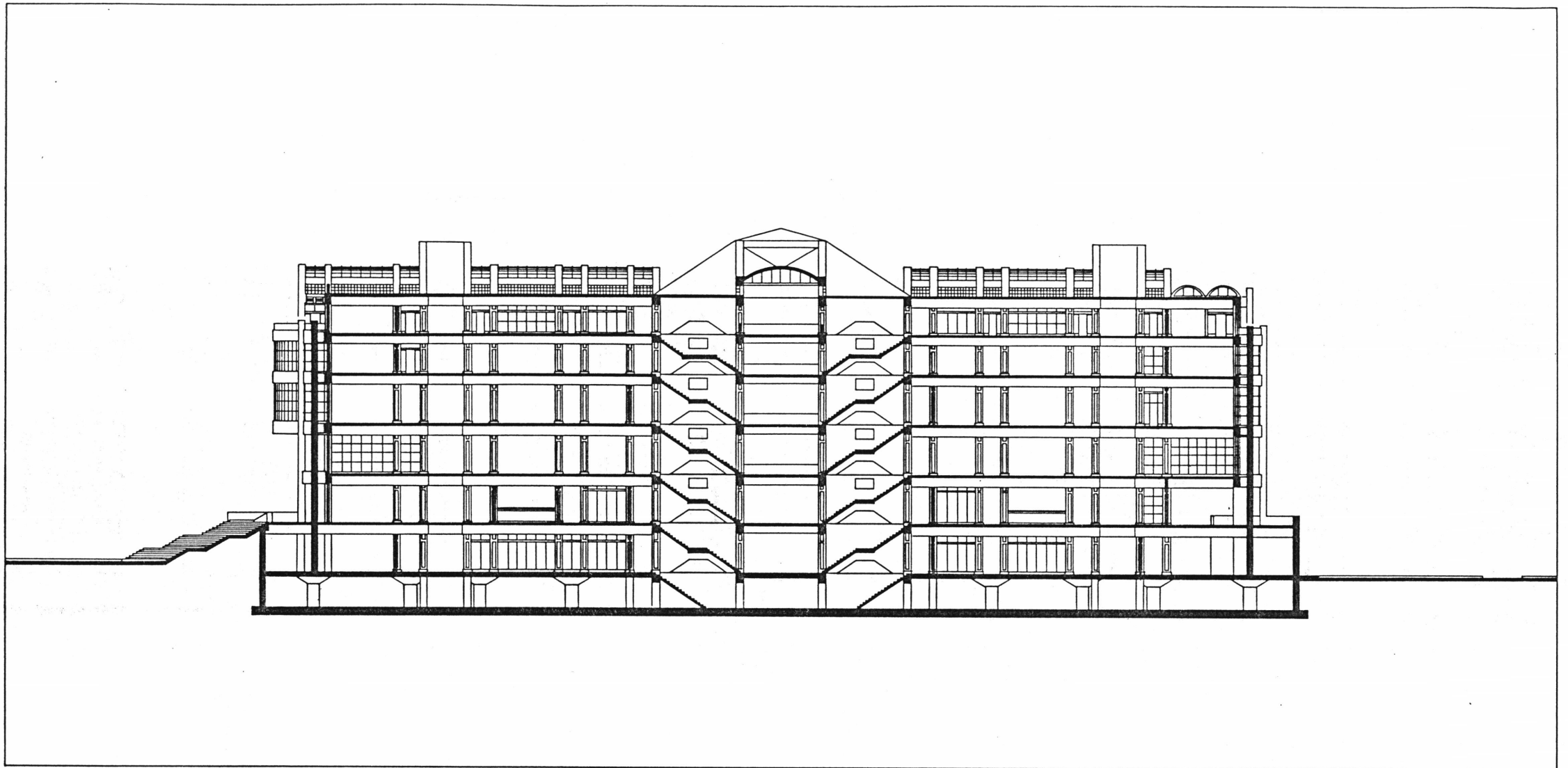
differentiated from the flat slab system that is located over areas of mechanical duct routing.

The site work relating to the loading dock and parking entrance is evident on the left. The resolution of the bundled quad columns at the parking level into a single massive column is necessitated in order to achieve an efficient parking layout.



SECTION A-A





This section, cut north to south looking west, holds the best view of the organization of the stair towers. These stairs ring the five storey atrium, just beyond the stair wall. Patrons, entering along the north-south axis, turn at the intersection with the east-west axis and arrive at the stair towers. The choice is then made to rise to one or another of the quadrants.

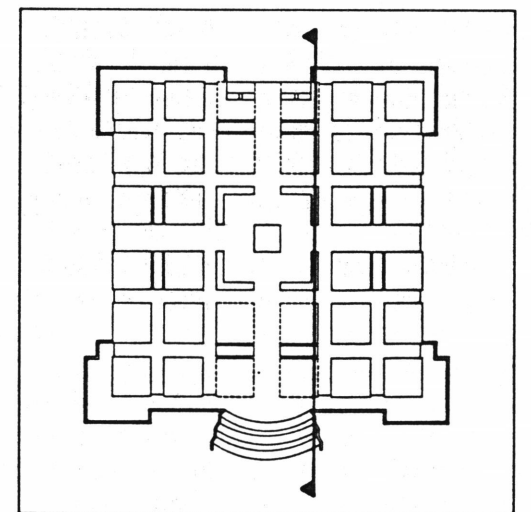
The monumental stair bringing patrons into the museum from the Mall is visible on the left. The cantilevered bow windows of the ceremonial gathering room, with

their view of the expanse of the Mall, are seen above and to the right of this stair.

The heavy vertical line, rising five floors at the right and left edges of the main mass of the building, is a section cut through one of the four columns making up a rotated bundle column. These columns hold up the cantilever and mark the monumental entrances at the front and rear of the building. The order of these columns is apparent in the plans.

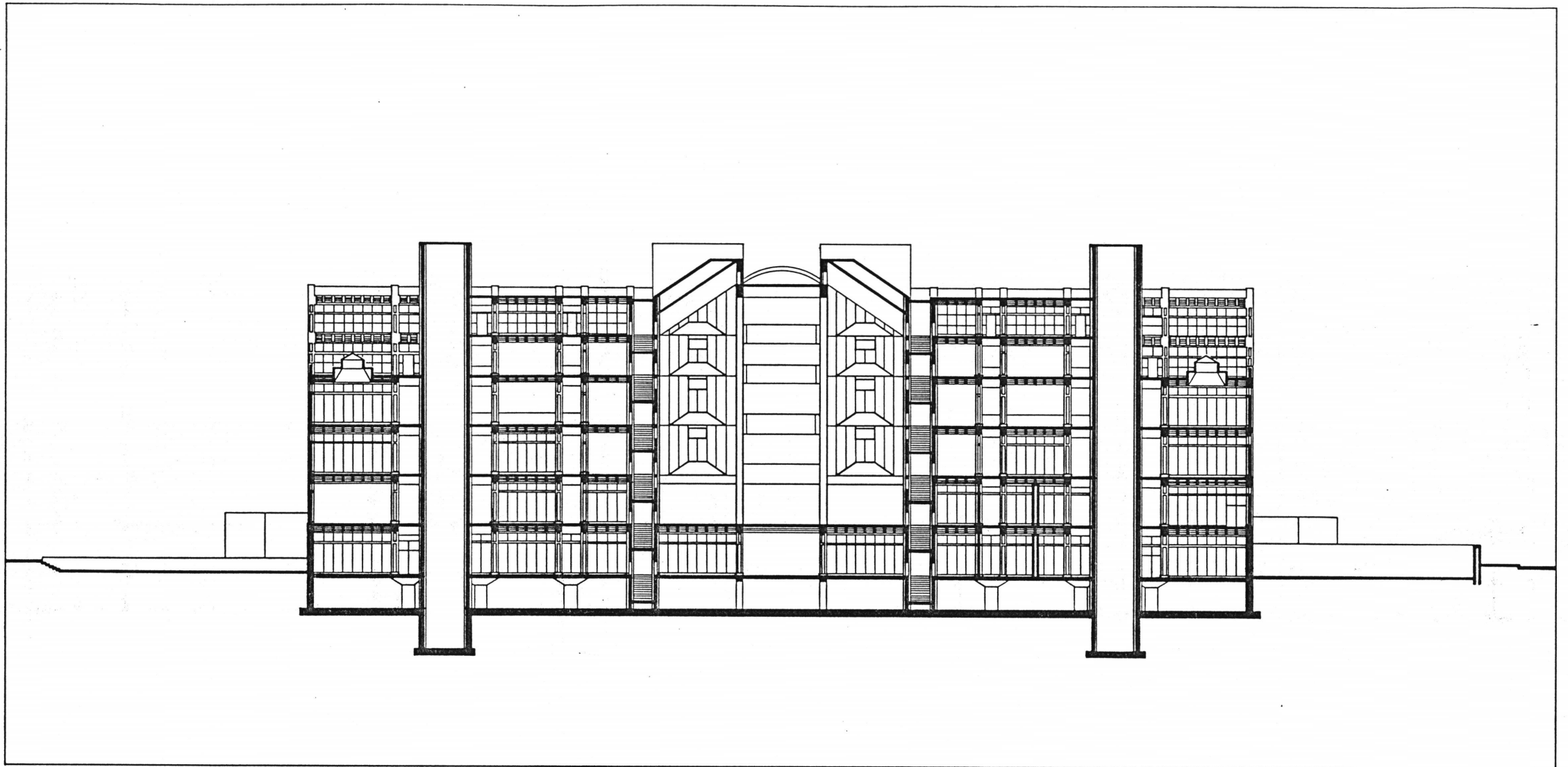
Above the left column, described above, is the entrance to the Mall observation

deck. It is the terminus of the skylit barrel vaulted hall that can be seen, in elevation, running across the page. The concrete ribs of the vault are continuations of the columns that rise through the building. Where the columns are vertical, the space between is filled with glass block. In the area of the vault itself, the infill is tinted low-E glazing with mullions.



SECTION B-B





This section is cut east-west and looking south to provide good views of the atrium interior elevations, mechanical/elevator shafts, stair towers, and the small terraces with skylights for the galleries below. The inner and outer shell of the light baffle roof system over the atrium show their relation to the stair tower walls. Angles were driven by the slope of the stairs.

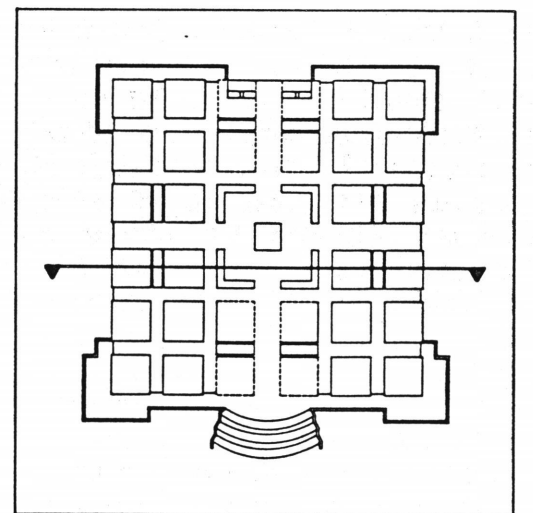
The vertical lines in stair tower walls are formwork divisions for the casting of the concrete and are derived from the three foot building module. The concrete of the

interior walls is a warm white opaque matrix, without exposed aggregate. The removal of two pair of the first floor stairs is driven by the desire to have the entrance foyers open broadly into the full width of the atrium. The stair towers are also shown in section, taken at mid-landing. Through the stair tower wall, are evident viewing windows made at the middle landings for people to see the atrium.

The mechanical/ elevator shafts are seen in their totemic height both in section and in elevation, flanking the major axes.

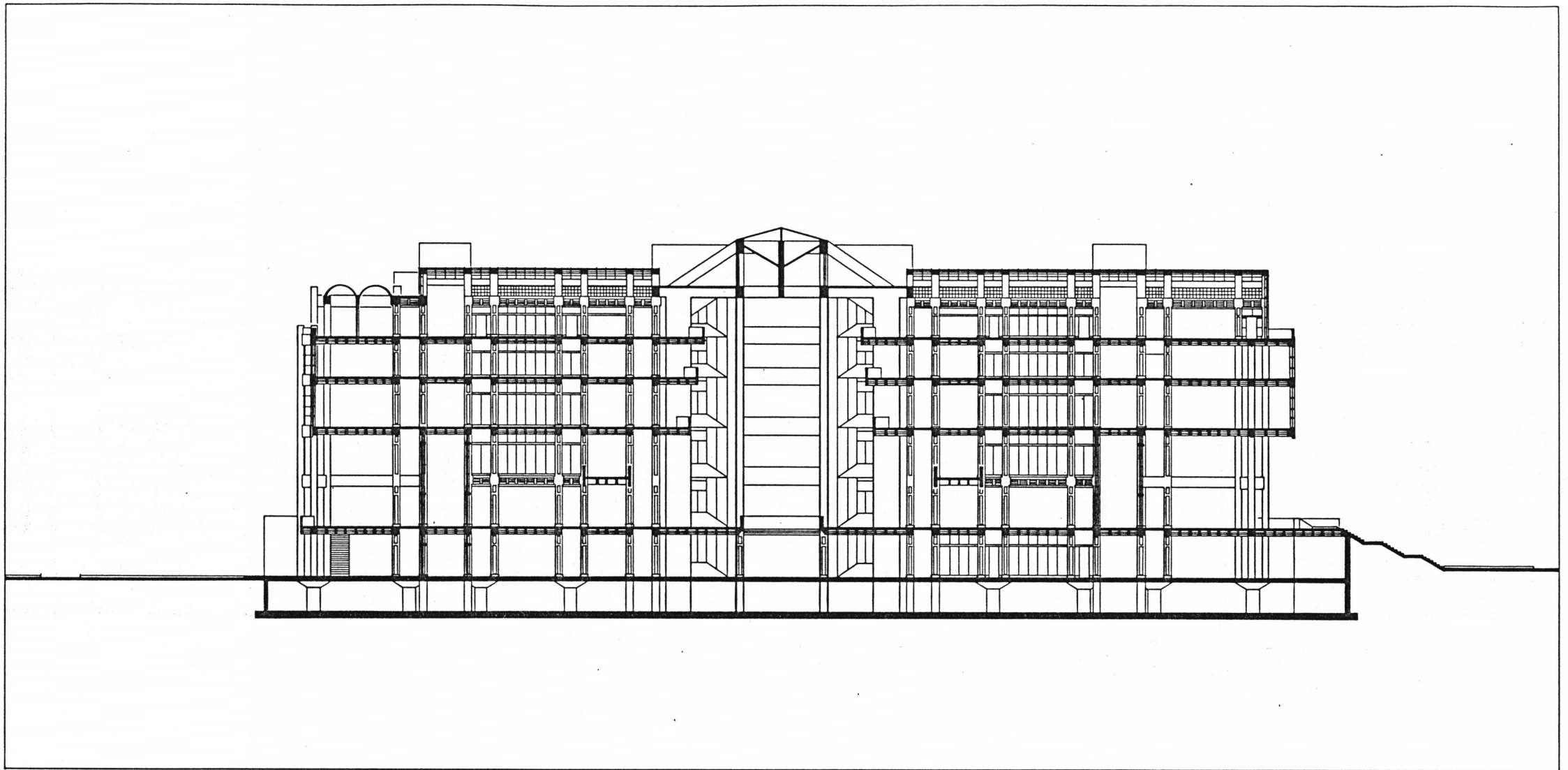
Exterior terraces are located on the fourth floor at the four quadrant corners on the east and west sides of the building. Through doors shown here in elevation, these terraces are entered from the library and archive corridors. These terraces contain skylights that not only provide light for the galleries below, but provide seating for the scholars taking respite on the terrace above.

To the west of the building we see the loading dock area and to the east, the at grade terrace, both described earlier.



SECTION C-C



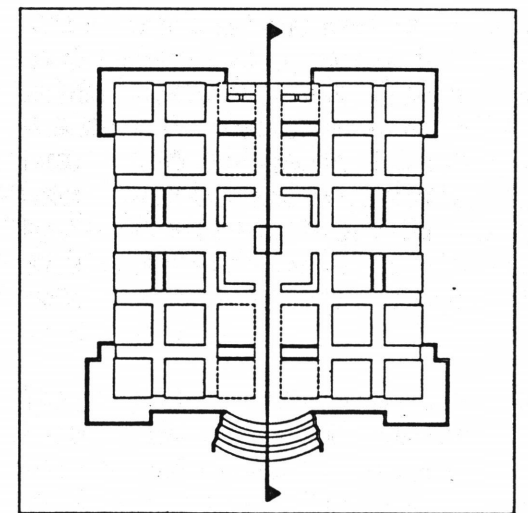


Another north-south section, this time looking east, shows a cut through the center line of the building. At center, we see the main five storey atrium with an oculus at the first floor illuminating the center of the ground floor below. Capped by a cast in place concrete light baffle that limits direct summer sun, the atrium has fourteen cantilevered balconies overlooking the space. These balconies are nested at the intersections of the major axes with the stair towers. This section shows that, as the floors rise, the cantilevers reach further into the atrium.

Also visible bridging the north-south axis, through the two storey entrance foyers, are the second floor walkways connecting the east and west halves of the building. Behind the four bundled columns marking the entrance porches, in relation to these foyers, we see two storey voids subtracted from the volume of the building. These voids provide covered entrance porticos.

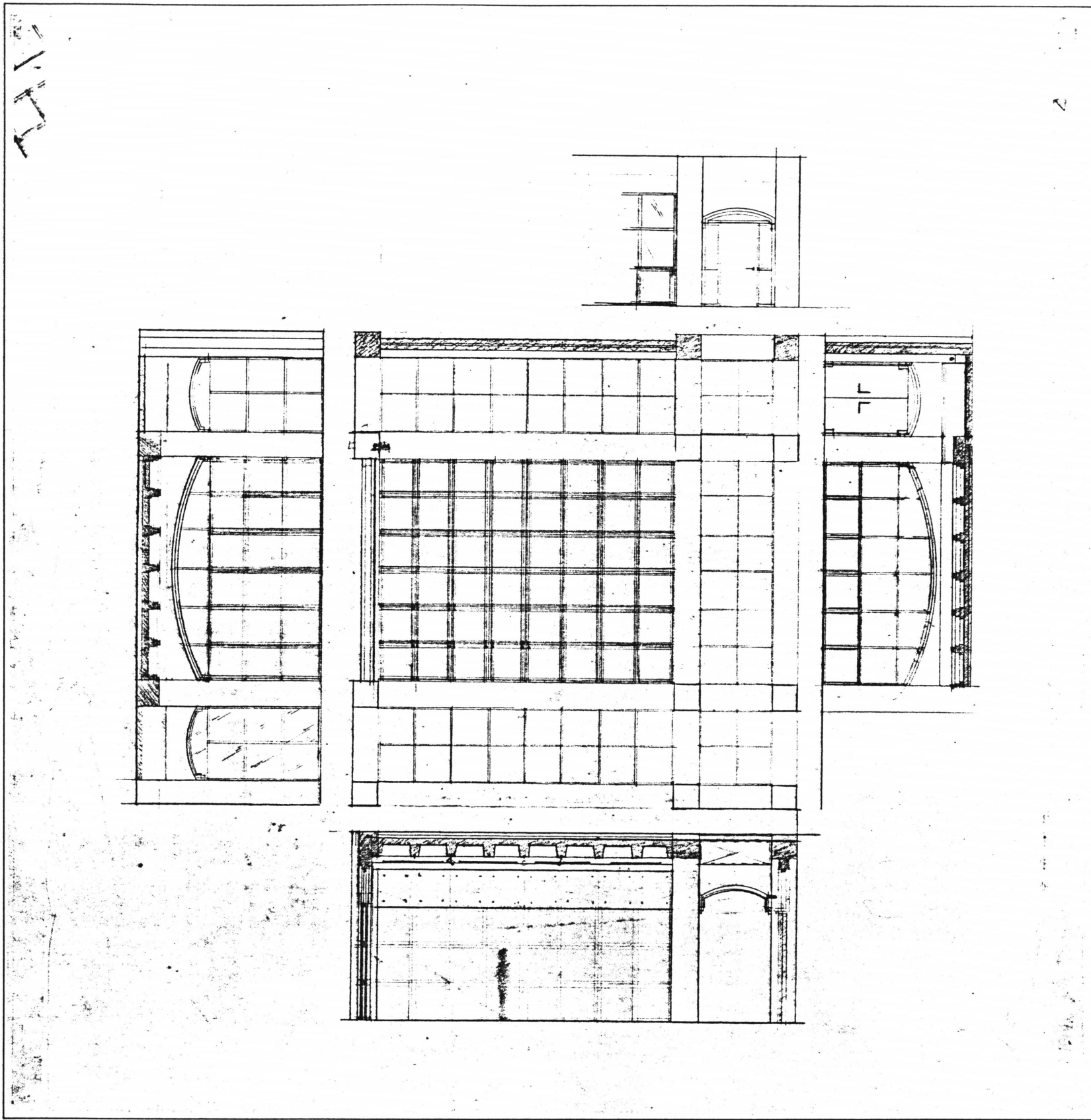
Running along the top of the drawing is the interior view of the skylit barrel vaulted hall, mentioned on the previous page. The right hand terminus is the

balcony, overlooking the Mall. The left hand terminus is the double vaulted space that commands the best view of the National Archives and the intervening Constitution Avenue. The outer vault partially covers an exterior terrace. The inner vault forms part of the roof over an interior gathering space.

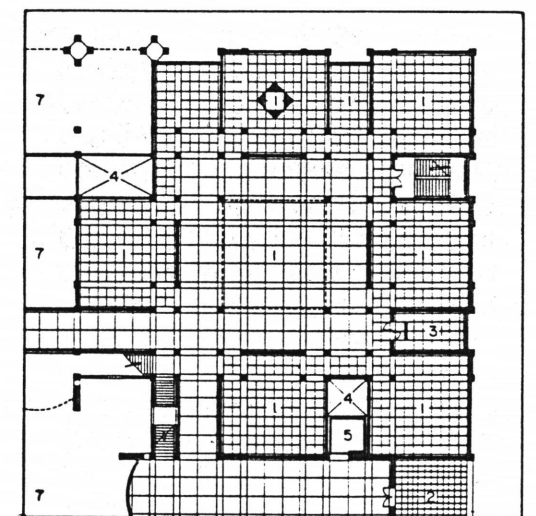


SECTION D-D

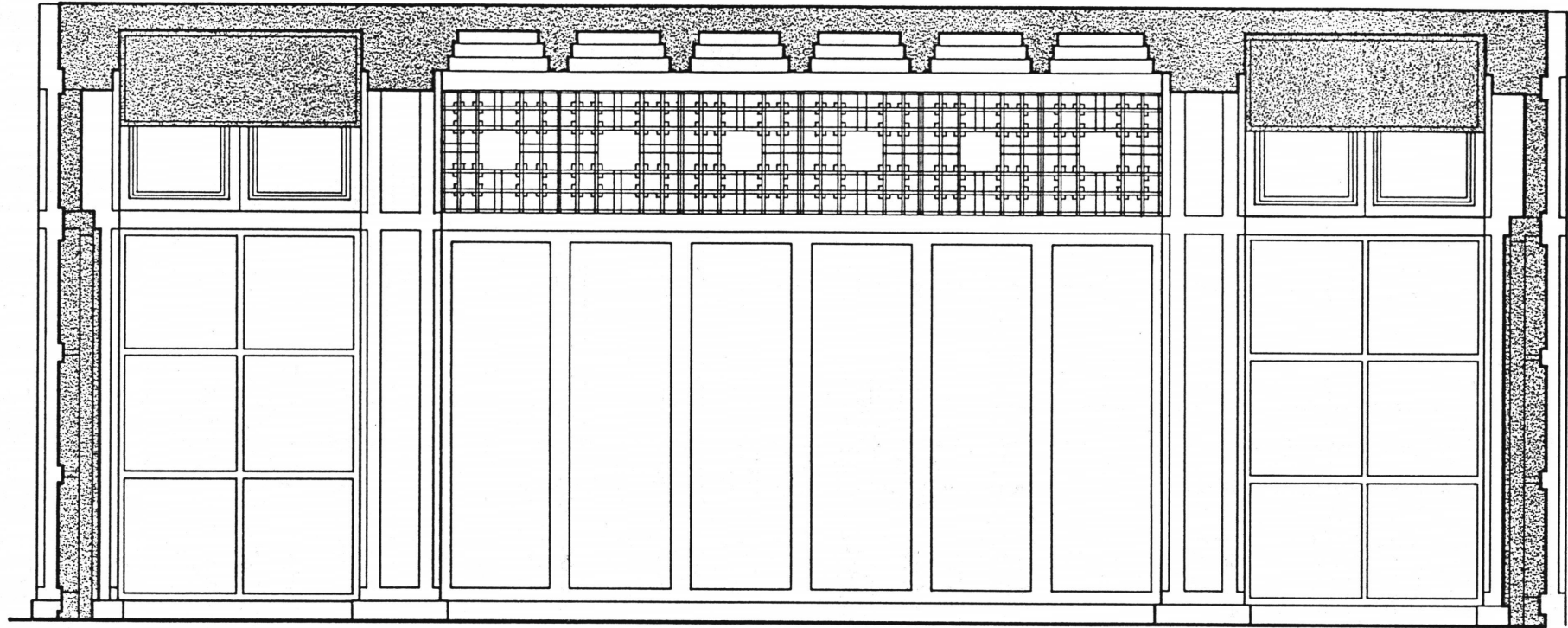




This drawing is an early design sketch "unfolding" the interior elevations and ceiling of a typical gallery. It shows the application of the ordering module to the various parts of the room, and the manipulation of the module in response to the specific obligations of the parts. It represents the design at about the 80% level.



DESIGN SKETCH - 'UNFOLDED' INTERIOR ELEVATIONS



This is a "close-up" drawing of a typical gallery interior. It shows from the top of one floor to the top of the next. It is what would be seen on the inside of the building in the area corresponding to the earlier drawing "Partial Elevation". At the far edges of the sheet we see gallery infill walls in section. For a detailed description see the following sheet.

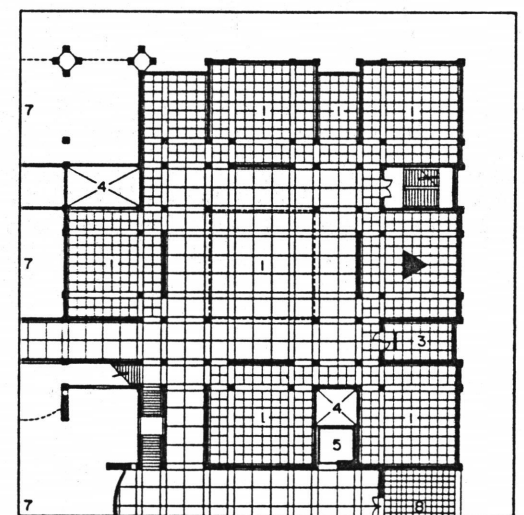
Inward from the walls, between the pairs of light colored precast concrete columns, are windows with stainless steel mullions. The glazing will be translucent, transparent, or opaque depending on the

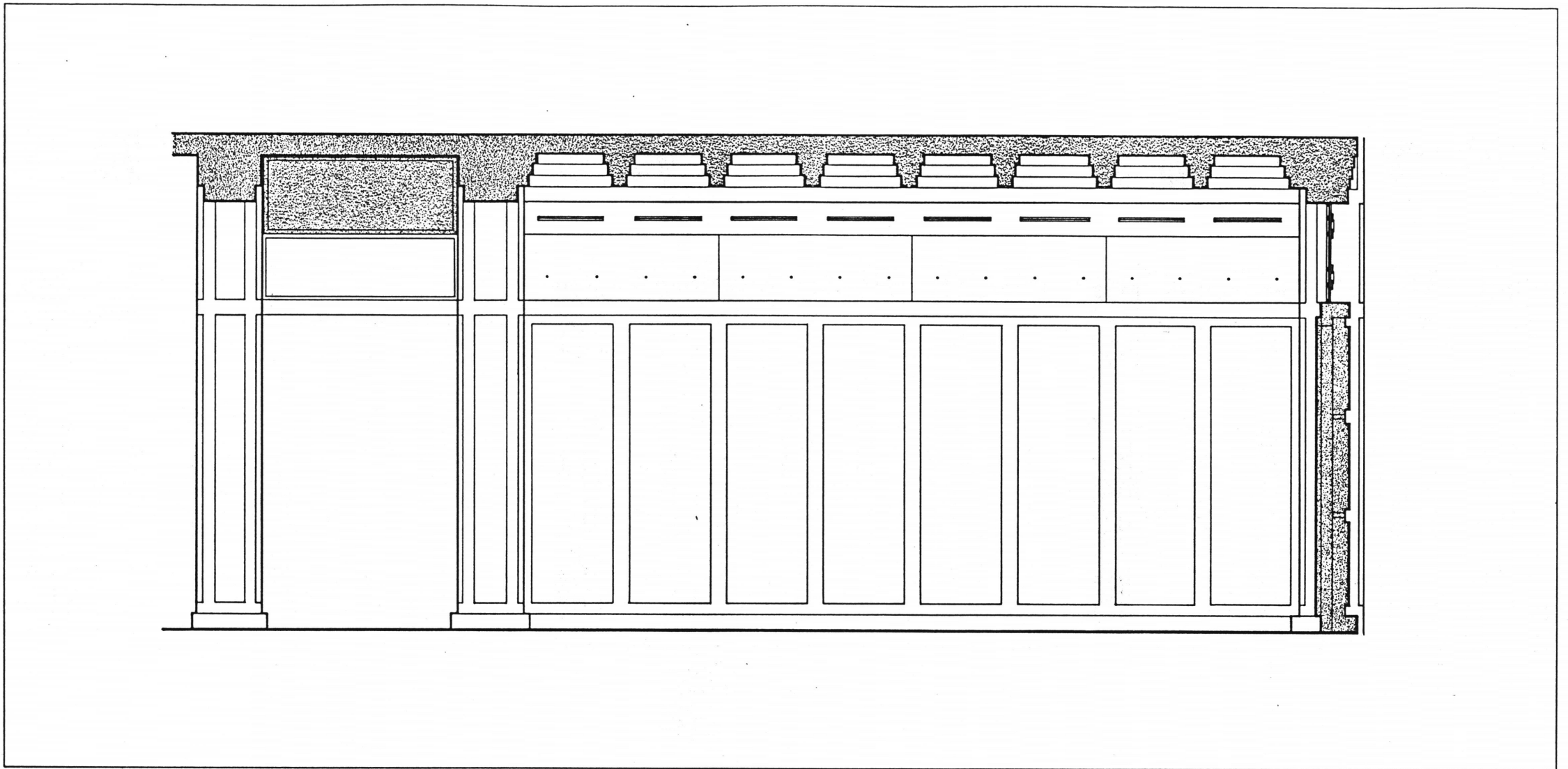
function of the room. Above these windows is a concrete beam carrying a pair of carved stone panels.

Just below the floor structure, between the columns, is located a slate toned anodized stainless steel duct chase for the mechanical system. This chase runs among the individual galleries, feeding linear diffusers visible in the following sheet.

In the central portion of the wall can be seen, just below the coffered slab, the cut glass and stainless steel screen

described in the drawing "Partial Elevation". Below this is the gallery wall covering, variously stone panels, concrete panels, wood screens, or fabric covered acoustical panels, depending on the room's use.





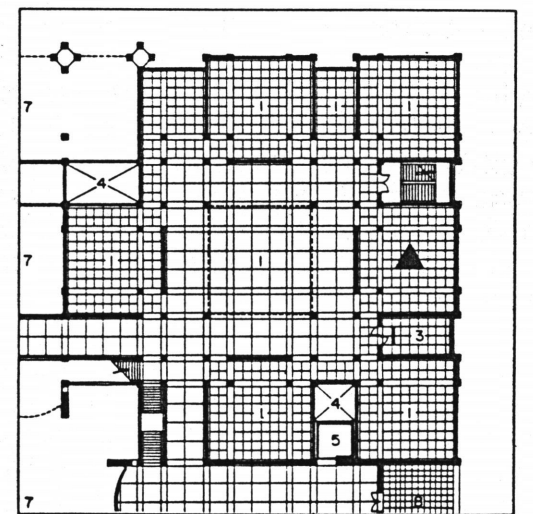
This is another close-up interior elevation. The drawing shows from the top of one finished floor to the top of the next. To the left of the drawing we have two typical interior columns. One, to the left, is free standing. The other has the interior gallery partition wall framed into its right face. Just below the floor structure, between these columns, is located the duct chase for the mechanical system. It feeds the linear diffusers that can be seen in elevation on the right side of the sheet. Below the chase is a window, above a door frame, that does not hold a door at this particular

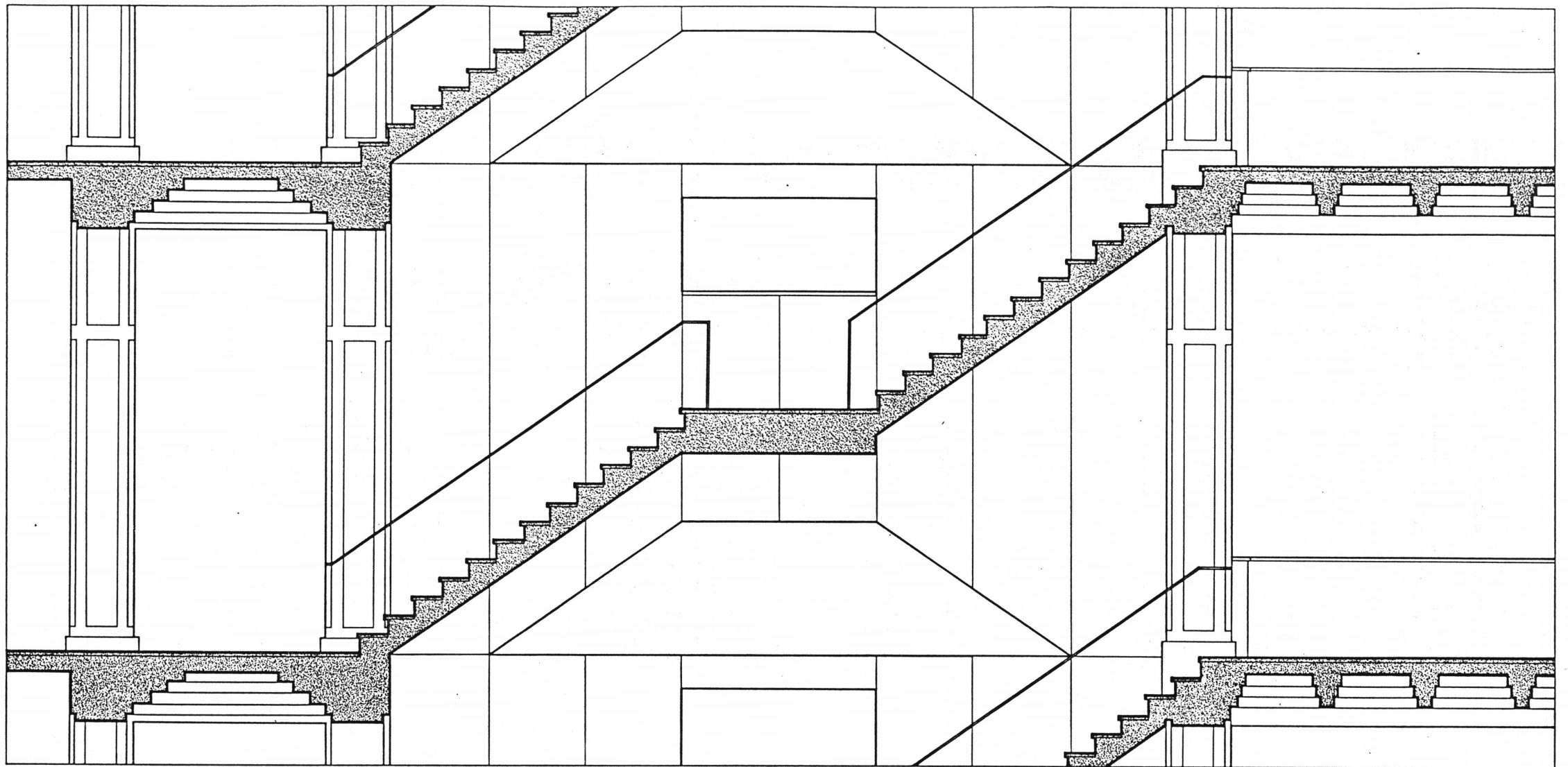
gallery.

The coffered slab, as well as being the structure of the floor, also houses the track lighting in a channel let into the bottom edge of the coffer. Demountable partitions for display and office use will also lock into channels laid out on the three foot coffer grid.

On the far wall, below the mechanical chase, is seen a band of cast in place concrete sheer wall. Below this is the gallery wall covering, described earlier.

At the right edge of the drawing is a typical exterior wall section. At top is the massive edge beam carrying the weight of the wall above. It is articulated at its outer face to reference the coffered slab. Below the beam is the glass and stainless steel screen described earlier. Further down we see the stone wall, bearing its own weight but laterally supported by a concrete beam and a steel grid. Visible too is the insulation space between inner and outer walls.





This is a section through one of the eight stair towers that rise through the building, lining the edge of the central atrium. The stair support is of precast reinforced concrete with the treads being covered with honed finish slate. This differentiates the stairway from the normal granite covered concrete floor, found elsewhere in the museum.

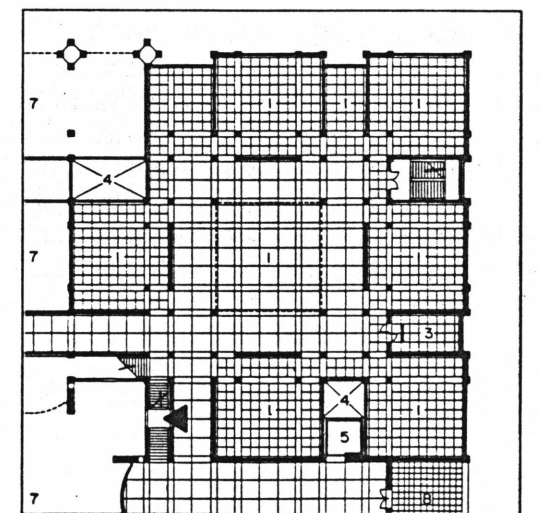
The walls of the stair tower are cast in place concrete with heavy reinforcing, in cross bracing format, to give rigidity to the core of the building. The truncated triangular openings bring light into the

stair tower while maintaining the strength of the "x" bracing of the wall. These openings are also critical to achieving the figural presence and change of scale necessary on the interior elevations of the five storey atrium. The smaller rectangular opening is at the proper height for viewing into the atrium while standing on the intermediate landing. The opening has a slate sill of the same character as the stair tread.

The stair width is six feet, allowing people to pass if others are using the viewing window. The hand rail is of brushed

stainless steel flat bar stock.

All corridors and landings not having mechanical obligations, have coffered ceilings similar to those found in the individual galleries.



STAIR TOWER PARTIAL SECTION

Crippa, Maria Antonietta. *Carlo Scarpa: Theory, Design, Projects*, Cambridge, MIT, 1985.

Guise, David. *Design and Technology in Architecture*, New York, Wiley & Sons, 1985.

Hertzberger, Herman. *Herman Hertzberger: 1959-86 Buildings and Projects*, Den Haag, Arnulf Luchinger, 1987.

Johnson, Nell E. *Light is the Theme: Louis I. Kahn and the Kimbel Art Museum*, Fort Worth, Kimbel Foundation, 1975.

Lobell, John. *Between Silence and Light: Spirit in the Architecture of Louis I. Kahn*, Boulder, Shambhala, 1979.

Norberg-Shulz, Christian. *Meaning in Western Architecture*, New York, Rizzoli, 1980.

Prown, Jules David. *The Architecture of the Yale Center for British Art*, New Haven, Yale, 1977.

Sarrinen, Eiel. *The Search for Form in Architecture*, New York, Dover Pub., 1985.

Searing, Helen. *New American Art Museums*, Los Angeles, UCLA, 1985.

The buildings having the greatest influence on my design were three by Louis I. Kahn. In order, they would be Exeter Library, the Yale Center for British Art, and the Yale Art Gallery. The Central Baheer by Herman Herzberger is of equal influence on my ideas of ordering the layering of spaces and the aggregation of smaller parts into a comprehensible whole. This building also spoke of the importance of a visible structural notion. A building that told me more about the impact of proportion on how a museum should feel is the Freer Gallery of Art in Washington.

I owe these architects thanks, not for solutions to problems, but for showing me the questions that can be asked of architecture.

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