

AN ART MUSEUM FOR THE STATE OF NORTH CAROLINA AND PARTIAL
DEVELOPMENT OF STATE GOVERNMENT.

A thesis submitted in partial fulfillment for the requirements
for the degree of Bachelor of Architecture at North Carolina
State College of the University of North Carolina at Raleigh.

May, 1964

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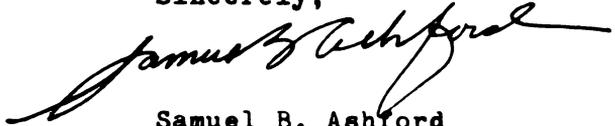
2334 Glascock Street
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May 26, 1964

Dean Henry L. Kamphoefner
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Dear Dean Kamphoefner:

In partial fulfillment of the requirements for the Degree of Bachelor of Architecture, I hereby submit my fifth year thesis titled: AN ART MUSEUM FOR THE STATE OF NORTH CAROLINA AND PARTIAL DEVELOPMENT OF STATE GOVERNMENT.

Sincerely,

A handwritten signature in black ink, appearing to read "Samuel B. Ashford", written in a cursive style with a long, sweeping underline.

Samuel B. Ashford

ABSTRACT

THESIS PROGRAM

AN ART MUSEUM FOR THE STATE OF NORTH CAROLINA AND PARTIAL
DEVELOPMENT OF STATE GOVERNMENT.

Samuel Briggs Ashford

Submitted to the Department of Architecture in May, 1964 in
partial fulfillment of the requirements for the Degree of
Bachelor of Architecture.

The purpose of this thesis is (1) to study the relationships
of the existing buildings to each other within the governmental
complex and the problems of further development and to propose
a plan of unity and scale for future development, and (2) to
examine the needs of the State Art Museum and to propose a solu-
tion to accommodate its demands in a building within a cultural
complex named Heritage Square.

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BACKGROUND ON HERITAGE SQUARE AND THE STATE CAPITAL PLANNING COMMISSION.

When the City of Raleigh was laid out in 1792 as the State Capital, five squares were set aside for public purposes, titles being retained by the State. On Union Square was erected the State House, which was replaced by the Capitol in 1840. Two more of the five squares became state building sites in the 19th century, and the other two remain public parks.

The State House and later the Capitol were the only significant state governmental buildings in Raleigh for nearly 90 years. In 1888 the present Labor Building was completed.

From these beginnings in the 1880's developed the practice of constructing state office buildings on sites fronting on or near Union Square and the Capitol, and more recently on nearby Caswell Square, one of the blocks reserved by the State in the original plan of the city.

With the enactment of the Commission on Reorganization of State Government, the need for an evaluation of present conditions and for the establishment of a direction for the future was recognized.

In its fifth and sixth reports to the Governor in 1960, the Commission set forth its findings and recommendations. An important observation was published: "The traditional approach of North Carolina State government to meeting the space needs of its administrative agencies has been to acquire land and erect one building at a time as the requirements of one or more agencies reached the critical stage. The chief disadvantages of this approach (which is in part attributed to lack of money) are that it does not permit sufficient attention to the anticipation of future growth of state agencies and their housing requirements, and that it does not permit maximum benefits to be obtained from the physical grouping of agencies according to function."

The Commission recommended: 1. That the General Assembly provide for the establishment of a center, to be called "Heritage Square," wherein suitable buildings for the State Library, the Department of Archives and History, the Museum of Art, and the Museum of Natural History would be placed; 2. That the General Assembly create the Heritage Square Commission and that this Commission prepare a plan for the center and implement that plan. These recommendations were enacted into law in May, 1961.

The Commission on the Reorganization of State Government recommended further: 1. The establishment of a State Capital Planning Commission with the duty of formulating and recommending to the Governor and the General Assembly of 1963 a long-range capital improvement policy and program for state administrative agencies in Raleigh. These recommendations were enacted into law in May, 1961.

BACKGROUND ON BUILDINGS OF HISTORICAL AND ARCHITECTURAL SIGNIFICANCE IN THE CAPITOL SQUARE AREA

North Carolina State Capitol

Year Built - 1840

Situated on axis with the four original major streets of the City, it is the focal point of downtown Raleigh and State Government. The Capitol is regarded as one of the finest Greek Revival Buildings in the United States. At present it houses the offices of Governor, Secretary of State, and State Treasurer.

Legislative Building

Built in 1962 to house the Chambers and offices of the General Assembly which had outgrown its facilities in the State Capitol. The building is, as is the Capitol, a structure of great individuality, and is a striking departure from the Neoclassic design of other state buildings. The Legislative Building is located one block north of the Capitol and is on axis with it.

Governor's Mansion

Built in 1889 as a residence for the Governor to replace an earlier structure which stood on the present site of Memorial Auditorium. The Mansion is located in Burke Square one block east of the Legislative Building and faces west. The red brick and wood structure is an example of Victorian style architecture.

Christ Church

Built in 1853 of rusticated stone masonry, this building is an excellent example of Gothic Revival Church architecture of the period. It was designed by Richard Upjohn, Architect of Trinity Church, New York. Christ Church is one of four churches around Capitol Square.

Christ Church Rectory

The oldest brick building in Raleigh, 1818, it originally housed the first State Bank. It is a classic revival structure with twin porticos facing east and west. It was acquired for a Rectory in 1873.

Richard Haywood House

Built in 1854, it is a red brick structure with a Doric columned single story porch. It is the best remaining example of its period in Raleigh and is located on the Northwest corner of Edenton and Blount streets.

BACKGROUND ON THE NORTH CAROLINA STATE ART MUSEUM

Art activities in North Carolina were relatively modest until 1926 when The Art Society was founded. The Museum had its true beginning with donations from various patrons around 1930. After World War II the Legislature voted the Society an appropriation for maintenance of the gallery.

The first bill for money to purchase a large historical collection of paintings was presented to the Legislature in 1947. After many sessions of the Legislature, final approval for the purchase of art was granted and North Carolina became the first state to house a state-initiated collection.

The Museum located its new collections in the Old Highway Building, an early reinforced concrete structure originally intended for warehouse use. The building is inadequate to house the Museum's present collection and to display future collections without adversely affecting the arrangement of galleries. Storage facilities and accessibility are prime disadvantages for the present location. Future plans include the expansion of the collection and the filling in of gaps. With the Art Museum of North Carolina still in the embryo stage, it is evident that a new building will have to be designed and built that will serve the interest of the public and the State.

ACCOMMODATION: GOVERNMENTAL COMPLEX

<u>A. Executive and Administrative</u>	<u>Area Req. Sq. Ft.</u>
Governor	20,232
Department of Administration	171,000
Secretary of State	16,600
State Auditor	22,400
State Treasurer	15,500
Civil Defense Agency	36,000
State Personnel Department	17,800
Merit System Council	<u>5,620</u>
	304,152
<u>B. Law and Justice</u>	
Supreme Court	62,500
Courts Administration	31,200
Attorney General	25,000
State Bar	
State Bureau of Investigation	<u>46,800</u>
	165,500
<u>C. Finance</u>	
Department of Revenue	286,000
Department of Tax Research	<u>8,185</u>
	294,185
<u>D. Education</u>	
Department of Higher Education	300,000
Controller's office - State Board of Education	85,500
State Board of Higher Education	<u>7,000</u>
	392,500
<u>E. Health</u>	
State Board of Health	300,000
Department of Mental Health	52,500
Medical Care Commission	<u>8,500</u>
	361,000
<u>F. Resource Development</u>	
Department of Conservation and Development	165,000
Department of Water Resources	25,000
Wildlife Resources Commission	66,800
N. C. Recreation Commission	21,600
State Ports Authority	<u>1,000</u>
	279,400

G.	<u>Agriculture</u>	
	Department of Agriculture	271,500
	N. C. Milk Commission	<u>3,125</u>
		274,625
H.	<u>Highways</u>	
	State Highway Commission	544,000
	U. S. Bureau of Public Roads	<u>na.</u>
		544,000
I.	<u>Employment Security</u>	
	Employment Security Commission of N. C.	130,000
J.	<u>General Offices</u>	
	State Board of Elections	6,800
	Local Government Commission	6,750
	Utilities Commission	30,700
	State Board of Alcoholic Control	22,100
	Insurance Department	41,400
	Industrial Commission	24,350
	Department of Labor	46,200
	Commission for the Blind	31,250
	Rural Electrical Administration	4,880
	Retirement System	53,000
	Banking Department	9,350
	Burial Association Commission	1,750
	Veterans' Commission	<u>3,750</u>
		281,280
K.	<u>Welfare</u>	
	Department of Public Welfare	128,700
	State Board of Juvenile Correction	<u>12,800</u>
		141,500
L.	<u>Cafeteria</u>	5,000
	Information Services	<u>5,000</u>
		10,000
M.	<u>Cultural and Historical</u>	
	State Library	140,000
	Department of Archives and History including State Records Center	220,000
	Museum of Art	250,000
	Museum of Natural History	<u>125,000</u>
		735,000

N. General Services

Building Services and Maintenance
State Motor Pool

93,000
na.

O. Parking

7,000 cars

The requirements to accommodate a new Museum of Art for the State of North Carolina have been established in part by a program as issued by Mr. Brian Shawcroft, spring 1962. The requirements issued at that time represented Museum needs to the year 1980 and were recently reviewed by the Museum Curator and are considered essentially to remain unchanged for the 1980 accommodation. Detailed requirements have not been finalized and authorities have not selected a site. I chose to develop the site and the Museum to the year 2000. An increase of 66% satisfies approximate needs.

The requirements for the accommodation of the State Art Museum to house its estimated collections and acquisitions to the year 2000 are as follows.

A. Public Spaces

1. Air conditioned gallery space with all spaces of sufficient size to accommodate the largest work. Not less than two-thirds having wall surfaces at least 12 feet high

Permanent exhibition space	64,000
Temporary exhibition space	32,000

- | | |
|--|--------------|
| 2. Auditorium (250-300 seats, lobby lounge coat room, toilet) | 8,000 |
| 3. Coffee Shop, kitchen, lounges | 2,000 |
| 4. Prints and Drawings including offices, storage, workrooms, and display | 6,400 |
| 5. Sales room for books, prints, etc. | 2,400 |
| 6. Loan gallery | 2,400 |
| 7. Entrance area - including foyer lobby, information, toilets, lounge, coat rooms | 8,000 |
| 8. Orientation rooms | <u>1,500</u> |
| | 126,700 |

B. Storage and Maintenance

1. Loading dock, including control, receiving and shipping, temporary storage, toilets, freight elevators	8,000
2. Main shop with adjacent materials storage and paint shop	8,000
3. Storage for works of art:	15,000
(a) painting storage	4,000
(b) decorative arts	3,000
(c) fabrics	2,000
(d) sculpture, furniture, etc.	4,000
(e) viewing rooms	2,000
4. Crates	2,400
5. Electrical apparatus	2,000
6. Dead storage	12,800
7. Janitorial supplies and locker rooms	1,300
8. Guard room, lockers, and toilets	1,300
9. Dining, non-professional staff	800
10. Building Superintendent, secretary, & conference	2,500
11. Additional storage	8,000
12. Mechanical	<u>20,000</u>
	82,100

C. Administrative Area

1. Offices	18,400
(a) Director, secretaries, and conference rooms	1,600
(b) Curatorial offices, secretaries & conference	1,600
(c) Accessions & Registrar	1,300
(d) Business & Finance	1,300
(e) Educational assistant	1,300
(f) Programming & State services, including travel exhibits, assistants & design	1,300

(g) Publications	2,000
(h) Public relations	1,000
(i) Secretarial Pool	1,000
(j) Mail room	2,000
(k) Records & film storage	4,000
2. Art Reference Library, workrooms, stacks, and reading rooms	8,000
3. Staff lounge and toilets	1,000
4. Board Room	800
5. Lounge for members of Art Society	2,000
6. Photographers studio, dark room, X-ray and examination	2,400
7. Restorer	<u>1,600</u>
	<u>34,200</u>
	<u><u>243,000</u></u>
Total Square feet	

A. The Site

With the completion of the new Legislative Building, a strong axis was established between two State facilities, the other building being the State Capitol. The Legislative Building, because it is on axis with the Capitol, creates the strong visual relationship that has replaced the relationship of immediate propinquity. Other state buildings that occupy sites of visual connection with the Capitol do so only in that they are situated around Capitol Square. Now there is a penetration into what will become a governmental complex of greater magnitude. In terms of additional building facilities the governmental complex will increase in size approximately three times. While there are some 4,000 state employees working in the immediate area at present, by 2000 A.D. there are expected to be approximately 12,000 workers. This figure represents an increase of 66% and a working force larger than the total population of State College.

1. To indicate through a master plan a proposal for the future development of State Government to the year 2000.
2. To preserve and enhance the strong axis from the Capitol to the Legislative Building and to create a pedestrian mall between the two buildings and to allow executive vehicular access.
3. To provide pedestrian walkways throughout the area that will offer easy access to all buildings without interference from vehicular traffic.
4. To create a series of open spaces of significant form and scale in a manner that the spaces and structures mutually enhance one another and create a dignified unified complex which in turn enhances the City and the State.

5. To provide ample parking within the area that will satisfy the needs of staff and visitors.
6. To develop the Art Museum site in harmony with the adjoining area contributing to the unity of the complex but constituting an individuality which recognizes the character and scale of existing buildings and landscape elements.

B. The Art Museum

1. To design a State Art Museum which will accommodate present collections and future acquisitions to the year 2000.
2. To design a building which incorporates a system of expansion as an integral part of the design for Museum needs to the year 2000.
3. To design a structure which allows the visitor to proceed through the Museum on a tour path or to visit specific galleries of his choice.
4. To establish an orientation that would allow for freedom of movement to the various galleries with a minimum use of floor plan directory.
5. To provide for the changing of exhibits so as not to inconvenience the public.
6. To design spaces of heights to provide for the largest of paintings and these spaces to use controlled artificial lighting in the permanent galleries and to use daylight as a supplement to artificial lighting. Sculpture courts (interior) to use daylight augmented with artificial light.
7. To design the building so that the auditorium and members' suite may be used when the rest of the Museum is closed.

SOLUTION TO THE PROBLEM

Site Solution Including Governmental Complex

With the reorganization of State Government, the majority of new buildings will be built on property located nearer the Legislative Building than the Capitol. With this relocation a likely one, the following proposals are offered:

A. Executive and Administrative

1. The Governor's office together with the offices of Secretary of State, State Treasurer, and State Auditor be relocated in a new addition to the Legislative Building. The Governor and Secretary of State would have all their offices in the addition while the State Treasurer and State Auditor would have additional space of 5,000 sq. ft. each in the New Administrative Building. This arrangement allows for dining, lobby, and conference facilities on the third floor.

2. Department of Administration, Civil Defense Agency, State Personnel and Merit System Council are housed in a new office tower near the Legislative Building.

B. Law and Justice

The Supreme Court, Courts Administration, Attorney General, State Bureau of Investigation, are housed in a new Justice Building with entrance on McDowell Street.

C. Finance

Located to the north of the office tower complex, these buildings house the Departments of Revenue, Tax Research, and Controller - State Board of Education.

D. Education

Located north of the Legislative Building, the Education Building houses the Department of Public Instruction, Department of community Colleges, and State Board of Higher Education.

E. Health

Will maintain offices in Caswell Square on McDowell Street and enlarge its facilities by locating additional requirements in the old Education Building. In this grouping will be the State Board of Health, Department of Mental Health, and the Medical Care Commission.

F. Resource Development

Is located in a tower west of the Legislative Building. This building accommodates the Department of Conservation and Development, Department of Water Resources, Recreation Commission and the State Ports Authority.

The Wildlife Commission is located in the office tower adjacent to Conservation and Development.

G. Agriculture

The Department of Agriculture and the N. C. Milk Commission are located in the remodeled Agriculture Building on Edenton Street.

H. Highways

With the relocation of the State Art Museum and Motor Pool, there is an addition to the present Highway Building which, with Highway Executive offices occupying the old Justice Building, satisfies the square footage requirements and places the administrative offices across the street.

I. Employment Security

Is located in the office tower complex.

J. General Office Building

Located in a tower in the office complex, this structure houses the following:

State Board of Elections
Local Government Commissions
Utilities Commission
State Board of Alcoholic Control
Insurance Department
Industrial Commission

Department of Labor
Commission for the Blind
Rural Electrical Administration
Retirement System
Veteran's Commission
Burial Commission

K. Welfare

To be relocated in the old Revenue Building and will house the Department of Public Welfare and the State Board of Juvenile Correction.

L. A cafeteria is located adjacent to the new Justice Building. Information Services and Banking are also located here.

M. Cultural and Historical

This complex is closely grouped in lower buildings which are in near proximity to Christ Church, the Governor's Mansion, Capitol, and existing State Buildings. There is an orientation center for the gallery-goer and tourist. The orientation building would have large lobby space, snack bar facilities, and rest areas. Since there are large groups of school children who visit the Capitol (over 100,000) each year, and who arrive by bus, parking for buses is provided adjacent to the cultural area and the visitor is pedestrian from this parking or the underground parking facility. In the small auditorium, slides and recorded lectures give the visitor an idea of what he will see and the route he will take. Each museum has its own orientation rooms for a more detailed account of individual activity.

The Historical-Cultural Complex comprises Orientation, Library, Natural History, Archives and History, and the Art Museum. The old Library would be sold to the City of Raleigh for its library expansion.

N. General Services

Building Services and Maintenance, State Motor Pool, and State Records Center are located in the parking deck north of the Legislative Building.

O. Parking

Parking decks are provided to the north and west of the State House where the topography is more suitable, and underground in the museum complex where existing basements will be used for future parking. This arrangement allows parking decks to be built which are at low level and which offer a series of entrances for the State employee and the visitor on the perimeter of the complex. It also provides for a dispersal of traffic at peak hours.

P. Helicopter Port

This facility which occupies the roof of the northwest parking decks will allow for easy access by air to and from the center of State Government.

With government agencies expanding and a need for the preservation and enhancement of open space and because the geometry of the existing buildings under consideration demand open space, the government complex occupies land to the north of the Legislative Building. This expansion north suggests that the railroad be relocated to cross the Downtown Boulevard north of Peace Street and also that industry will be relocated. A new boulevard will approach the government complex on the existing rail bed with easy access to parking. Seventeen additional acres to the north of Lane Street must be acquired for this proposal. The State now has 36 acres representing 1.62 million sq. ft. of building space at 450,000 SQFT/ACRE. The total 53 acres would accommodate 4.67 million sq. ft. or 880,000 SQFT/ACRE.

The continuity of space around the Legislative Building respects the geometry and creates a setting which recognizes the Legislative Building as a climax to the major axis of Raleigh and the governmental complex. The skyline remains low at the Capitol, Residential, and Cultural Areas, and rises to the high office towers northwest of the Legislative Building. This new complex creates an architectural statement for State Government within the Capital City while maintaining the dominance of the Capitol - Legislative Axis within the space.

THE ART MUSEUM

The Art Museum must be a repository for the collection, preservation, and display of art. It must function in itself to accomplish this and it must also embody its educational responsibility - that of being a fitting habitation as a reservoir for study which allows the "student" to appreciate at their value the works which are studied.

An Art Museum has been designed as an educational institution that welcomes not only the controlled group (school children) but all groups and individuals.

The primary entrance is through a sculpture court on the west front while the majority of school groups would arrive by the east entrance

To curtail cross-traffic, double stairs continue through the main lobby with a small balcony on the second level opening off the central space and a sculpture court on the third floor opening off the central space. A coffee shop is on the second level.

The gallery spaces are arranged within quad-columned bays which allow movable partitions to be located according to space requirements and for additions to be made to a collection without complete removal of a gallery space to another location, and to close off galleries when needed.

The structure is of prefabricated, post-tensioned concrete with double girders and double floors. The double girders serve as duct space, the housing of air intakes and exhaust and maintenance passageways. The double floor creates a working floor for artificial lighting and for supplemental daylight on the outer walls of the upper floor. Vertical circulation is by elevators through the core of the quad-column. The walls of the entire structure are non-loadbearing. The external walls are brick and metal stud. Internal partitions are movable sandwich panels of varying materials.

Primary heating will be delivered from a central plant through ducts to the second floor where it will be distributed by girder ducts for terminal reheat. Precooling equipment will be located in the girders of the upper floor and then cool air distributed through ducts for terminal control.

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