

This exhibition has been in preparation for sixteen months. Its concepts were formulated in periodic discussions in depth between the architect, an art historian, a gallery director and a specialist in architectural presentations.

#### **CREDITS**

Assemblage of Exhibits Charles P. Adams, III, Assistant to Mr. Mowry

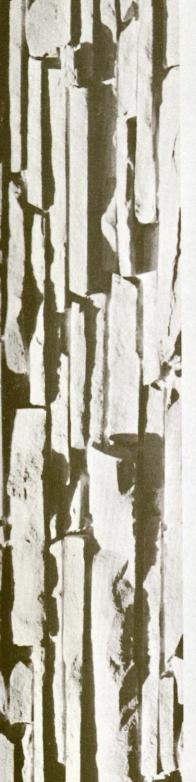
Preparation of Texts in Exhibits and Catalogue
Dr. Kenneth C. Lindsay, Chairman,
Department of Art and Art History
State University of New York at Binghamton

Installation of Exhibits

Kari Roma, Director pro tempore, University Art Gallery State University of New York at Binghamton

Layout of Catalogue
Norbert Adler, Graphics Consultant to the University

Printing of Catalogue Niles & Phipps, Binghamton, N.Y.



# ARCHITECTURAL PROCESS

An Exhibition of Works of JAMES RAYMOND MOWRY, A.I.A.

Architect of the Men's Health and Physical Education Building, State University of New York at Binghamton

University Gallery
STATE UNIVERSITY OF NEW YORK AT BINGHAMTON

June 4 to 25, 1967

## CATALOG OF EXHIBITS

#### THE GENESIS OF A PLAN

Gates Presbyterian Church, Rochester, N.Y.

- A Minister's Sermon
- B Population Study Report
- C Building Program
- D Statement of Faith by the Building Committee
- 1 The First Idea
- 2, 2A, 2B, 2C The Triangle Wins
- 3, 3A, 3B

Problems of the Triangular Form

4, 4A, 4B, 4C

Further Problems of the Triangle

5, 5A, 5B

Placement of Essential Features

- 6 Seating Arrangements
- 7, 7A, 7B Site Planning
- 8 Elevation Refined
- 9 Study of Mass
- 10 Detailed Dimension
- 11, 11A, 11B, 11C First Presentation
- 12 Committee Letter to Architect
- 13, 13A, 13B Trimming Down
- 14, 14A, 14B Second Presentation
- 15 Second Committee Letter
- 16 "Creation of the Concept"
- 17, 17A Final Trimming
- 18, 18A, 18B Final Presentation and Plans
- 19 Architect's Final Resume
- 20 Exterior Rendering

#### DESIGN CONTINUITY

St. Margaret Mary Church, Apalachin, N. Y.

- 21 Exterior (Rendering)
- 22 Cupola (Photo)
- 23 Masonry Wall and Scuppers (Photo)
- 24 Entrance Frieze (Photo)
- 25 General Interior (Photo)
- 26, 26A Studies for Stained Glass (Exterior and Interior)
- 27 Stained Glass Windows (Photo)
- 28 Site and Floor Plan
- 29 Model for Pews (Photo)
- 30 Drawings for Pews
- 31 Model of Hanging Light Fixture
- 32 Sample of Faceted Glass
- 33 Interpretation of Entrance Frieze
- 34 Set of Working Drawings

#### MASS-TEXTURE-STRUCTURE

Men's Health and Physical Education Building, State University of New York at Binghamton

- 35 Exterior Rendering (Front)
- 36 Exterior Rendering (Rear)
- 37 Floor Plans
- 38 Model of Building and Site
- 39 Model of Barrel Vault Roof System
- 40 Model of Hyperbolic Paraboloid
- 41 Set of Working Drawings (Prints)

- 42 Set of Specifications
- 43 Brick Sample
- 44 Glass Sample
- 45 Aluminum Sample

#### URBAN RENEWAL PLANNING

Site Plan Study for Proposed Retail Development Center, Binghamton, N.Y.

- 46 Title Panel
- 47 Ground Plan
- 48 Site Plan
- 49 Floor Plans
- 50 Photo of Model
- 51 Floor Plans
- 52 Sections
- 53 Renderings
- 54 Model: City of Binghamton
- 55 Model: Washington Mall
- 56 Descriptive Brochure

#### OTHER PROJECTS

Chenango Forks High School

- 57 General Rendering (Bird's eye view)
- 58 Floor and Site Plans
- 59 Model of Column

#### Horace Mann School

- 60 Floor and Site Plans
- 61 Exterior Rendering
- 62 Landscaping Plan

(Catalog continued on page 19)

### INTRODUCTION

"Architectural Process/James Raymond Mowry" is the fourth architecture exhibition presented by the Gallery Committee of State University of New York at Binghamton.

The first exhibition in 1962 presented Moore and Hutchins' working plans and sketches for several early Harpur College buildings. The American Federation of Arts travelling exhibit, "On Campus: Recent Building," was scheduled during the summer of 1965. College structures at Brandeis, Wellesley, Yale, Harvard, Hamilton, Brown and other schools were presented by means of large photographs and plans. The Edward Durell Stone designs for the State University of New York at Albany were particularly interesting to students and faculty at Harpur. Last May the works of Louis I. Kahn were the basis for an exhibit. Included were Kahn's plans for the Bryn Mawr College Dormitory and the Salk Institute.

It seemed fitting to continue the interest in the architectural genre by drawing attention to a major building now in the first phase of construction on campus, the Men's Physical Education Building, and to its architect, James Raymond Mowry of Binghamton. It also seemed appropriate to present something more than a simple pictorial display.

The present exhibit tries to show the step by step procedure from the original inspiration to the final formulation of an architectural design. It recounts for the viewer the thought process of the architect as he coordinates his ideas and those of the client, meets the stubborn facts of cost of materials and labor and yet constructs from colors, shapes, textures, spaces and masses an attractive yet functional building that fills the needs for which it was built and enhances the site on which it is located.

To exemplify this process, four design projects of Mr. Mowry have been chosen, each of which illustrates a different phase of the design process. The germination of the idea is illustrated in the presentation of the Gates Presbyterian Church. Rochester. The problems of integrating parts into a design continuity is shown in the displays of St. Margaret Mary Church. Models of the Men's Health and Physical Education Building, for State University of New York at Binghamton, together with the plans and elevations for the structure will provide insight into the coordination of structure, texture and mass. The fourth major project shown is the Site Plan Study for the retail complex in Binghamton Urban Revewal. Included will be a model of the area involved showing both existing and planned structures as they will be massed. This was chosen to give the public an idea of a special type of problem contemporary architects face.

Several of Mowry's other buildings are included in the exhibit to further illuminate his technique and show the range of his imagination.

James Raymond Mowry is a native of Broome County. He graduated from Chenango Forks High Schoolin 1944. Following two years of Navy service, he attended Triple Cities College, Washington State College, and then took his Bachelor of Arts Degree in Architecture at Rensselaer Polytechnic Institute in 1953. He received practical experience in the architectural offices of North American Aviation Co., Walter Bowen (a Binghamton architect), and William McFarland (a Binghamton engineer). In 1961 he opened his own office and became a corporate member of the American Institute of Architects. The schools, commercial buildings, churches and residences Mr. Mowry has built since that time have made an impact on the architectural life of Broome County.

# THE SPIRIT OF PLANNING

Most people know very little about the complexity of planning which lies behind the buildings they live in, use or see. Thus most buildings are taken for granted. Buildings are good if they do their basic jobs of keeping out the weather and providing space for activities.

As a consequence to this prevailing pragmatic attitude, most people do not understand what architecture means. Therefore cities and roadsides are allowed to become ugly caricatures; and most people condemn themselves to living in homes which are little more than boxes within boxes stretched out in dismal uniformity along the money-mad geometrics of housing developers or along the rectangular patterns given to them by the T-square mentalities of those who originally laid out our cities and villages. In far too many instances the cost exigencies of utilities are acknowledged as primary determinants of developing planning. When this happens the natural gifts of the site are, more often than not, mutilated beyond repair. Aesthetics, if it comes at all, creeps in the back door as an unacknowledged afterthought.

This is not to say that people are architecturally insensitive. Without knowing why, people can be made depressed by a pedestrian building: they can also have their spirits uplifted by a vital architectural surprise.

There is no single formula which, if used, will guarantee a good building. If many architects with the best of intentions produce nothing but mediocrities, some peasants in Europe have, with their rule of thumb technique, constructed architectural gems. Like all good things, a fine building is the result of a happy coincidence of multiple factors which, when properly manipulated, mutually reinforce each other.

Large scale architectural monuments are the end product of a long process wherein a continuing dialogue is conducted between artist and client. Rules are determined en route and all parties concerned should try, to the best of their abilities, to act out their roles with rapport and conscience. If conflicts arise - as they inevitably do - it is better if negatives multiply rather than subtract; for a negative multiplied by a negative yields a positive. All along, of course, this dialogue must be conducted in terms of the language of aesthetics, intentions, costs, and the capacities of expressiveness of materials.

# **GENESIS OF A PLAN**

# Gates Presbyterian Church

ROCHESTER, N.Y.

# Pre-planning by the Church Group

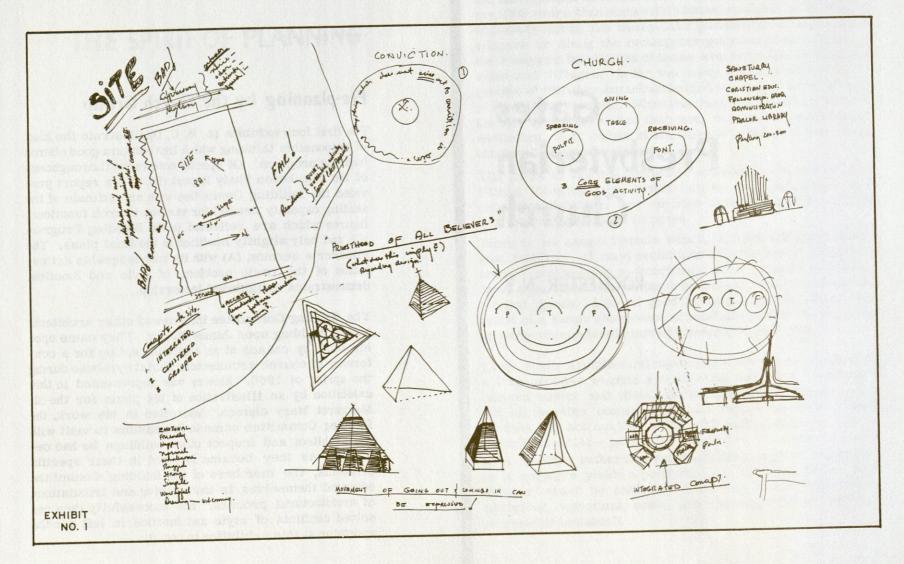
The first four exhibits (A, B, C, D) illustrate the kind of responsible thinking which lies behind a good church building program. Of special note is the thoroughness of the Population Study Report (B). This report provided the Building Committee with an estimate of the seating capacity needed for various church functions, figures which are reflected in the Building Program (C) and only slightly modified in the final plans. The minister's sermon (A) with its knowledgeable articulation of the basic problems of style and function, demonstrates enlightened leadership.

The Building Committee interviewed other architects before deciding upon James Mowry. They came upon his work by chance at an exhibition set up for a conference of church architecture held at Syracuse during the spring of 1965. Mowry was represented in this exhibition by an illustration of his plans for the St. Margaret Mary church. Interested in his work, the Building Committee came to Binghamton to visit with the architect and inspect other buildings he had designed. As they became involved in their specific problems, the members of the Building Committee educated themselves in the meaning and tribulations of architectural process. How successfully they resolved conflicts of style and function is left for the spectator at this exhibition to decide.

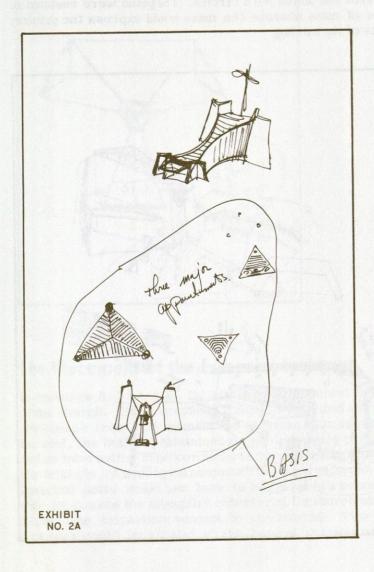
# GENESIS The First Idea: Triangle or Octagon?

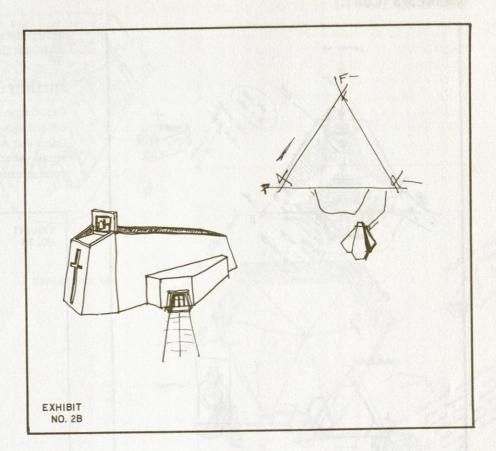
After his initial talks with the minister about the architectural expression of the church's philosophy, Mowry proposed two solutions in his first sketch sheet (1): the tripartite solution, which emphasized the substantive meaning of the church – pulpit (speaking), communion table (giving) and the font (receiving); and the octagon solution, which reflected the total functions of the whole church. In many ways this first sketch

is one of the most interesting in the exhibit for here we witness the excitement, freedom and boldness with which the architect faces his problem head on at the beginning. The site was carefully considered and lists of concepts and purposes intermixed with several unusual preliminary scribbles. An organ was sketched and various kinds of triangles were drawn (one with a cross on the top), as if the architect was playing with



basic forms as he thought out loud the purposes of the church. At the bottom of the drawing he reminded himself that "movement of going out and coming in can be expressive." Inspired by a flyer (2C) which he found on the church bulletin board, he worked with an octagon shape (2). The octagon plan or "integrated concept" - as Mowry labels it - was an



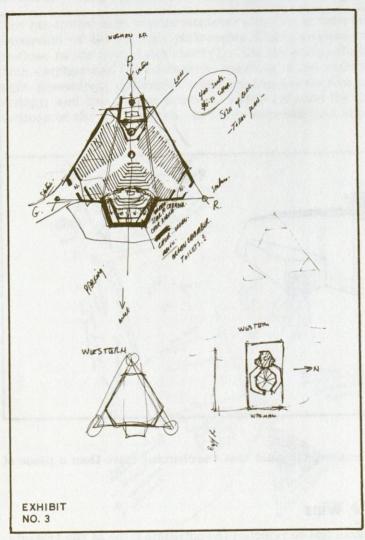


attempt to acknowledge the fact that the church is more than a place of worship.

#### The Triangle Wins

Drawing 2A shows that he rejected the octagon in favor of the triangle. This was an important and basic decision because by so doing he asserted that the church proper should represent only essential functions. All other functions would have to be relegated to side buildings. The bell from the old church was thought of in 2B, a large cross appeared on the wall and an attempt was made to visualize the concept in a three dimensional drawing. However, if the triangle were to be used, some effort would have to be made to save the wasted space created by the sharp ends of the triangle.

# GENESIS (Cont.)



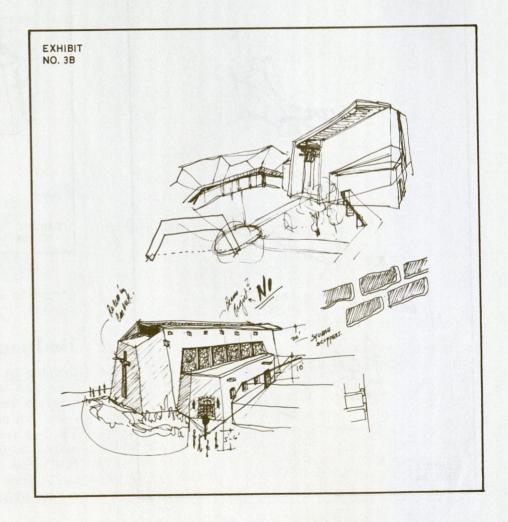
# Problems of the Triangular Form

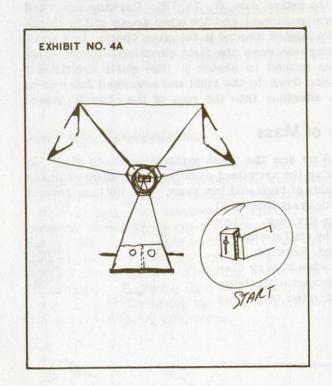
As the ends of the triangle were blunted and changed into entrances, echoes of the octagon idea reappeared momentarily (3, 3A). Thought was again given to the placement of the organ and, in 3B, a novel idea of brick work was introduced as a passing thought. Three-

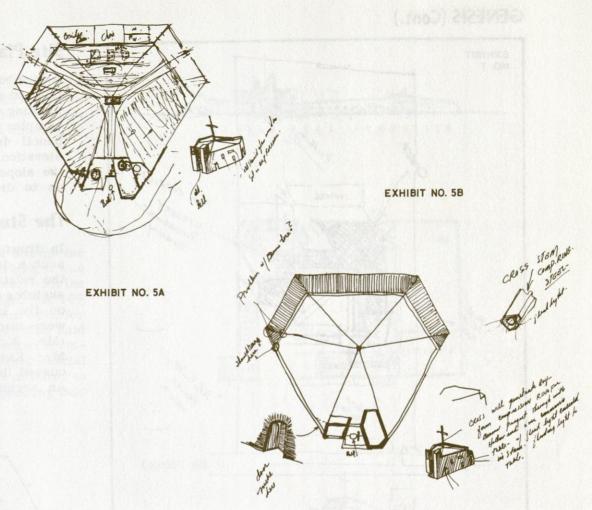
dimensional drawings showed that the exterior, at this stage, did not express the triangle.

#### Further Problems of the Triangle

Drawings 4, 4A, 4B and 4C show the architect returning to the raw essentials of the truncated triangular motif. In his explorations Mowry tried out squares and played with circles. The plans were restated as small studies of mass wherein the mass would express the primary core elements of the building.





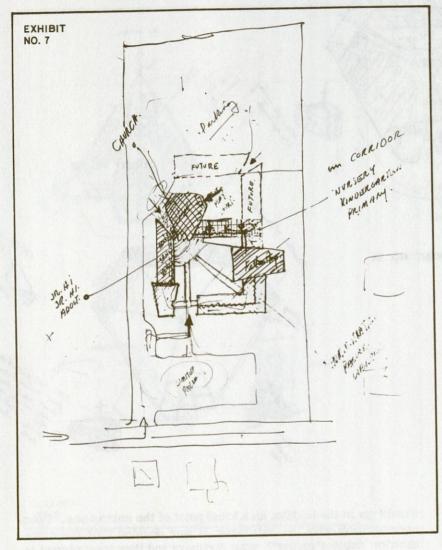


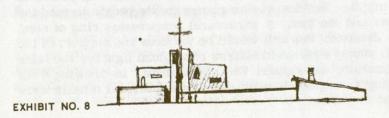
#### The Placement of the Essential Features

In drawings 5, <u>5A</u> and <u>5B</u>, the architect had realized the form of the church. The concept had finally crystallized and would not change from this moment on. A cross again appears on the roof, the bell and old stained glass windows are positioned and an interesting side door niche is drawn. Having truncated the triangle by making entrances at the three ends, the three essential units would now have to be placed in a meaningful way (of course the triangular exterior of the church still reflected the triparticle concept to the outside). Two of the elements could be situated at the base of the tower and one

would go in the middle, as a focal point of the entrances. Upon consultation with the minister it was decided that the communion table ("giving") was primary and thus was placed in the middle. Besides, it was proper for the people to face the pulpit and the font. A structural compression ring of steel was detailed: this unit would be the focus and support of the roof, supply a recessed source of artificial light for the table underneath, and support the cross above. In drawing 6 the seating arrangements were detailed and several details were added or refined.

#### GENESIS (Cont.)





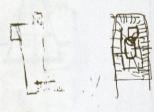
#### Site Planning

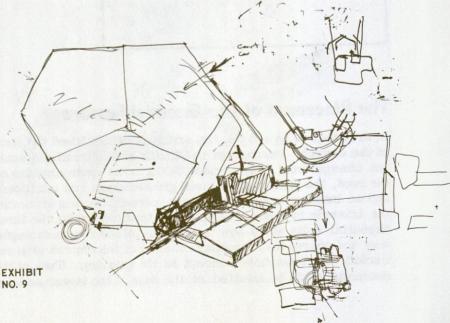
As the body of the church was now formulated, the architect focused on the entire site (7, 7A, 7B). Parking areas and planting were positioned and the other areas of the church complex were juggled around in the given space. In a small pencil drawing one sees the first elevation sketch. This elevation was refined in sketch 8. The walls are flat and the slope going down to the right was reversed later on so as to draw attention into the area of the church proper.

## The Study of Mass

In drawing <u>9</u> we see the first perspective mass study. In such a drawing the architect explored three-dimensionally the relationship of high and low parts. One notices several

sketches made by another hand on the same drawing. They were made by staff members (Mr. Richard Kendrot and Mrs. Karp) when Mowry discussed the project with them. An architect often takes his





designs to his staff members so that ideas can be tossed back and forth and so that, by talking problems out loud, ideas are challenged and given new directions. Drawing 10 shows how, at this stage, the architect made a plan with detailed dimensions in order to make space allocation more precise.

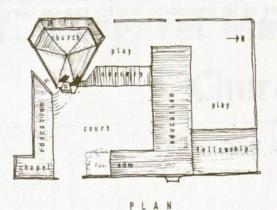
#### The First Presentation

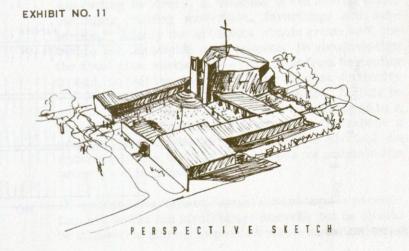
Drawings 11, 11A, 11B and 11C were now complete enough for making a presentation to the building committee. A budget was presented (11D) and the architect explained his ideas with the additional help of a blackboard. Although the budget was 50% over the committee's expectations, the meeting went well, for the architect had accommodated all that the committee said they wanted. As most lay committees do not understand architectural costs, expressed building needs often exceed financial capabilities. Realizing this, the committee wrote a letter to the architect (12) giving the budget limit and suggesting cuts and other functional alterations.

#### Trimming Down

In drawings 13, 13A and 13B we see the architect returning to his rough sketches in an attempt to adjust his plan to the newly announced limitations. He wrote in the phrases, "Anything which is not created out of conviction is sin," a quote from the minister's initial sermon - perhaps as a self-admonition to keep the integrity of his ideas during this difficult task of trimming down. Several classrooms were cut out, dotted lines show plans for future additions, and the parking lot was pulled closer to the fellowship unit. We note that the architect was reluctant to give up the niche door and the interesting passage way that leads out into the central court by means of expanding concentric lines.







# GENESIS (Cont.)

#### **Further Trimming**

Drawings 14, 14A and 14B show how the architect flipped the layout of the building units, eliminated class rooms, and yet still held on to his basic concepts. The committee was critical of the architectural sophistication of the unroofed alleyway in terms of purely functional considerations such as the piling up of snow in the winter and length of the walk from the parking lot (clearly, present day Americans do not like to walk an extra twenty feet.) The architect convinced all but one member of the committee that his idea was correct on this point.

#### The Crisis of Accommodation

The Committee's letter of Feb. 27, 1967 asked for further changes which Mowry accommodated. However, he was not inclined to respond favorably to a subsequent phone call requesting the elimination of the court concept and the alleyway, and prepared a statement, "Creation of the Concept" for the Committee (16). In the last paragraph he wrote, "It is possible that minor alterations can be made without damaging the basic theme but any major alteration of the elements could destroy the plan." The clients accepted this but then, changing their mode of operations so that the plans could only be adopted by unanimous decision, Mowry was told to put the building under one roof.

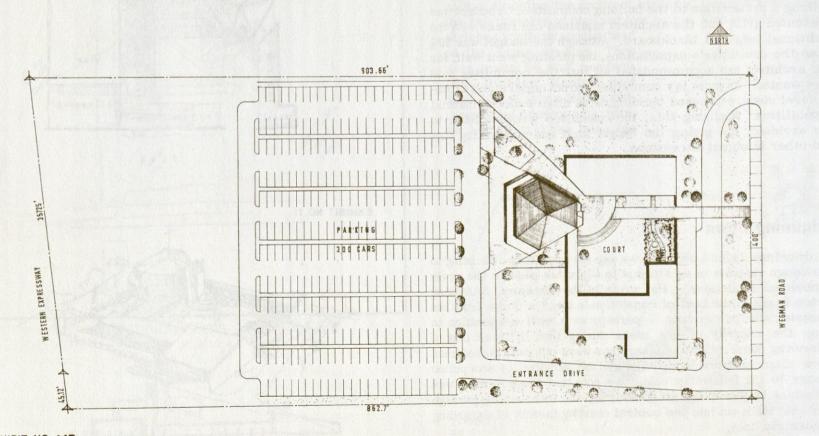


EXHIBIT NO. 14B

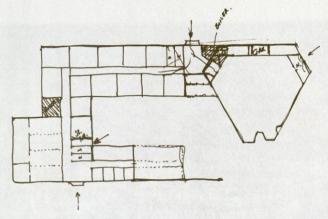
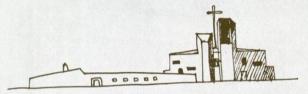


EXHIBIT NO. 17



#### **Final Presentation**

Designs 17 to 19 show how the architect went back to the drawing board and finally came up with an ultimate set of plans acceptable to himself and the entire building committee. This final plan maintains the court concept by utilizing the church to form the semi-closure of the interior open space. This plan was presented and accepted by the entire church group.

EXHIBIT NO. 17A

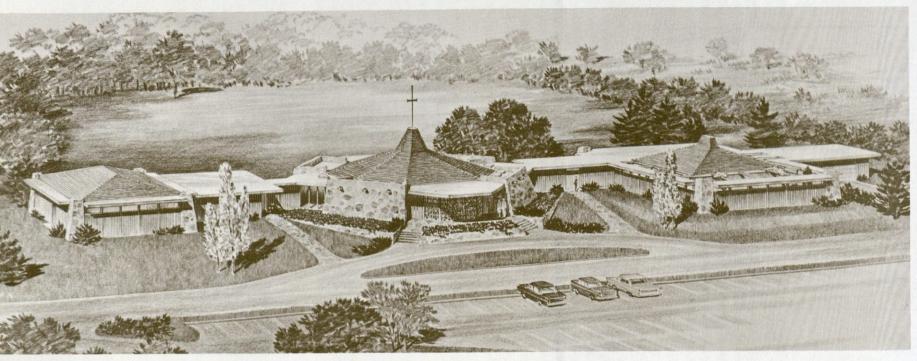
# **DESIGN CONTINUITY**

# St. Margaret Mary Church

APALACHIN, N.Y.

According to Mowry, a building is "an overall entity including building materials, furnishings and artworks." Ideally the architect should create both the inside and the outside environment. He should design the total plan, working out every facet from beginning to end, so that the ultimate concept is given continuity—a homogeneity of taste and expression. If this is done, Mowry argues, you will not be introduced to a building by an exterior which makes you expect a certain interior design flavor and be shocked on entering to see that the inside does not maintain the promise of the outside.

Of course the architect cannot always hope to execute the art works and furnishings himself: but he should be allowed to play an important role in the selection of



St. Margaret Mary Church, Apalachin, N.Y.

Rendering

EXHIBIT NO. 21

# **DESIGN CONTINUITY (Cont.)**

artists who will perceive the theme and formulate their ideas to blend into the context of the whole.

Ideally speaking again, the best results will be obtained when the spirit of Architectural Process continues down to the inside details of the building and when the artists and artisans are found who can work with an architect in the climate of mutual respect and goals examined in this exhibition.

Photo of Entrance Frieze EXHIBIT NO. 24



Cupola (Photo) EXHIBIT NO. 22



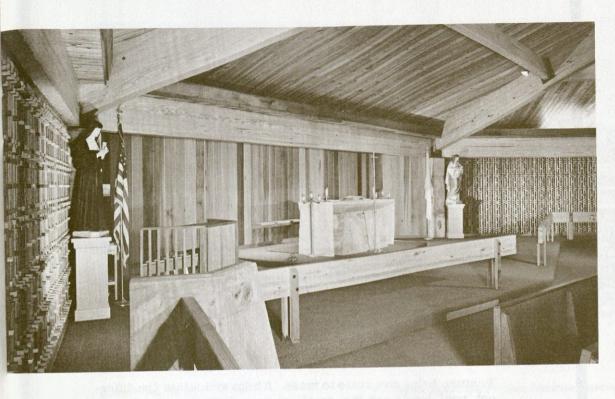


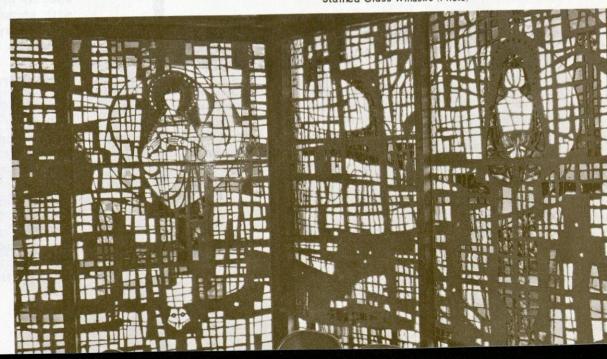
EXHIBIT NO. 25 General Interior

Masonry Wall and Scuppers (Photo)

EXHIBIT NO. 23







#### MASS / TEXTURE / STRUCTURE

# Men's Health and Physical Education Building

STATE UNIVERSITY OF NEW YORK
AT BINGHAMTON

Mass, Texture and Structure are basic design elements and are a part of the Architectural Process. Rational design evolves through realization of the aesthetic significance of structural expression, interplay of texture, and function articulated by mass.

#### Mass

A building such as this could have been constructed as one huge cube-like mass. To do so would have negated the human need for comprehensible scale, the need for allowing the parts of a building to express varied functions, and the need of the already established campus buildings to have a new building to which they could properly relate.

#### **Texture**

Texture helps give scale to mass. It helps articulate the different roof levels and the small masses abutting each other. A special brick was designed for the building which would tie in with structural features, give a loveliness of color, light and feel to large flat surfaces, and still relate to the other campus buildings.

#### Structure

Several of these brick walls float behind exposed structural features. They enclose but do not support. To express this Mowry has separated walls from roofs with continuous glass window strips and introduced for the first time on the Binghamton campus the modern technological innovation of pre-stressed concrete. This device, invented in California in the 1880's, first used by French architects during the 1920's, and thereafter highly developed in central Europe, enabled Mowry to roof an area with a maximum span of 120 feet with a roof of pure structure which has, at points, a shell thickness of only three inches. This is done by putting cables through the lower rims of the butted pseudo barrel vaults made of reinforced

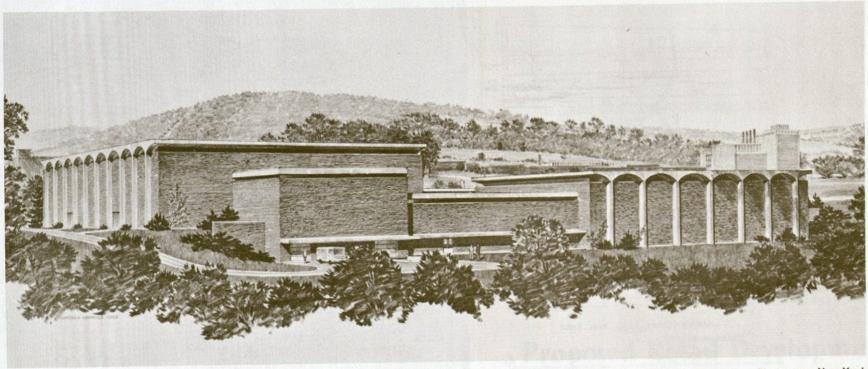


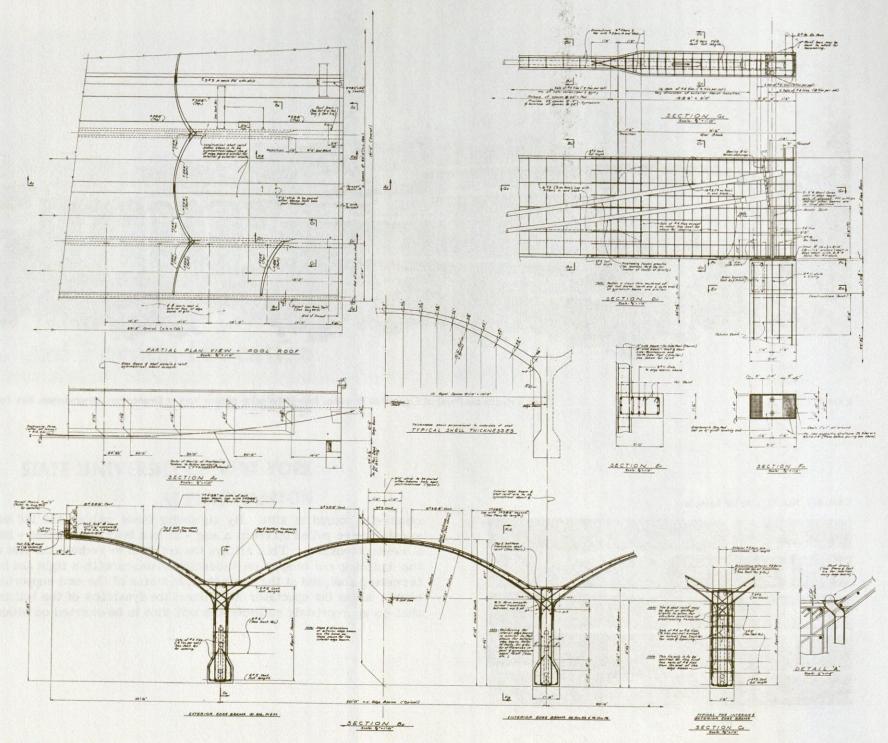
EXHIBIT NO. 36

Men's Health and Physical Education Building, State University of New York at Binghamton, Binghamton, New York

EXHIBIT NO. 43 Brick Sample



concrete poured in situ. By tightening these cables the 120 foot sections are pulled up from a sag - or load bearing position - into a neutral position. This allows the architect to reduce the cost of the building and to span an incredible distance with a light and interesting roof, and at the same time, by means of the end supporting piers, allow the spectator to witness the dynamics of the building that so appropriately reflects the activities to be carried on within.



From EXHIBIT NO. 41

Men's Health and Physical Education Building, State University of New York at Binghamton, Binghamton, New York

#### CATALOG OF EXHIBITS (Continued from page 2)

#### D'Angelo Residence

- 63, 64, 65 Exterior Photographs
- 66 Site and Floor Plans
- 67 Photo of Main Entrance

#### Robert Guy Residence

68 Rendering and Floor Plans

#### Marine-Midland Bank, Endicott, N. Y.

- 69 General Entrance, Canopy
- 70 Front and Fountain
- 71 Frieze Detail (Full Size Drawing)
- 72 Form Used to pour Concrete Frieze
- 73 Full Size Plaster Model of Frieze Poured from Actual Form

#### Marine Midland Bank, Nimmonsburg, N. Y.

- 74 Photo of Front (Close-up)
- 75 Photo of Front (Overall)

#### Ken Wilson Chevrolet Show Room

- 76 Exterior View
- 77 Construction Photo
- 78 Hyperbolic Paraboloid Roof (Model)

# Our Lady of Sorrows School 79 Exterior rendering

#### Valley Christian Reformed Church

- 80 Rendering and Floor Plans
- 81 Model of Roof
- 82 Set of Working Drawings

#### South Hills Presbyterian Church

83 Exterior Rendering

#### Zion Lutheran Church Owego, N.Y.

- 84 Exterior view overall
- 85 East view

#### Slide Presentation

- in Mezzanine
- 86 Continuous showing of eighty Color Slides of exterior and interior views of finished buildings

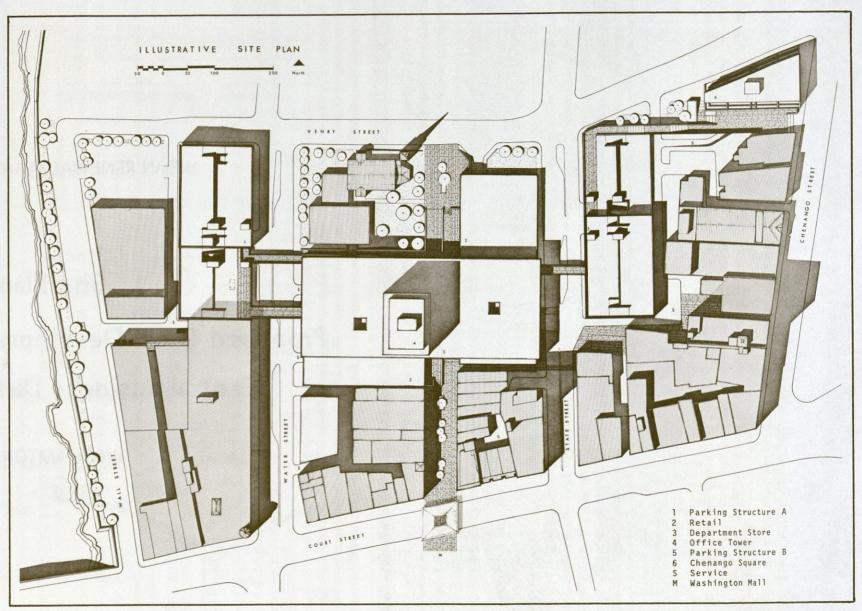
#### Pertinent Reference Materials

87 Architectural literature

#### **URBAN RENEWAL PLANNING**

# Site Plan for Proposed Retail Development Central Business District

BINGHAMTON, N.Y.



Site Plan for Proposed Retail Development, Central Business District, Binghamton, New York

EXHIBIT NO. 48

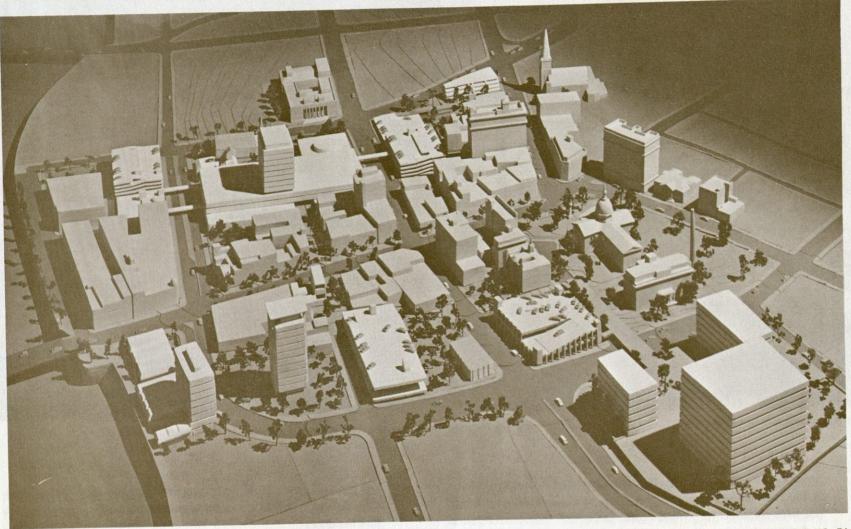


Photo of Model Looking North

EXHIBIT NO. 54



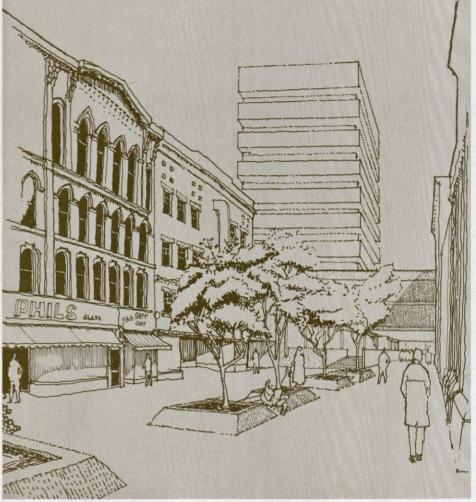


Photo of Washington Street (before) Looking North

Proposed Washington Mall (after) and Office Tower

Serious problems of space, traffic and aesthetics were resolved in the site plan study for a downtown retail development which the firm prepared for the Binghamton Urban Renewal Agency.

A major department store, the key to the entire development, required 200,000 square feet of space, where only approximately 100,000 square feet of land area existed. The space was made available by the unusual device of utilizing the airspace above and the underground space below the original area.

This solution provided architectural interest, freed the princi-

pal shopping area from vehicular traffic, while keeping parking adjacent and easy. Landscaped pedestrian ways added beauty to the concept.

In addition to the department store, land use had to be allocated for small retail shops, personal service establishments, offices, restaurants, bars and recreation facilities. Two main traffic arteries transected the site. Three rigidly fixed structures, two 500-car parking complexes and historic Christ Church further controlled the planning. Pedestrian and vehicular traffic were to



Site Plan Study for Proposed Retail Development Center, Binghamton, N.Y.

EXHIBIT NO. 50

Photo of Model Looking South

be separated. The Mowry study provided a solution that permitted existing businesses to become a part of the new development and prevent fragmentation of the downtown commercial area.

The report included a scale model of planned and existing structures and a detailed illustrated and descriptive brochure. It presented the comprehensive and flexible scheme that would give the city the type of attractive modern facilities required to revitalize the commercial area.

The multi-level plan places service and parking areas below grade. Washington Mall, the principal retail shop area is immediately over them on ground level. The major department store, with 200,000 square feet of continuous space on two floors is placed directly above the retail shops and astride Washington Mall. A nine story office tower surmounts the department store. The parking structures are linked directly and by pedestrian bridges to the site.



Zion Lutheran Church, Owego, N.Y. EXHIBIT NO. 85

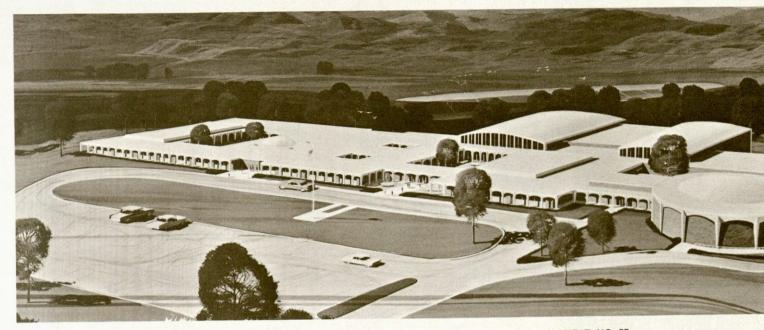


D'Angelo Residence (Photo)

EXHIBIT NO. 65







Chenango Forks Central Junior-Senior High School, Kattelville, N.Y. General Rendering

EXHIBIT NO. 57



EXHIBIT NO. 75 Marine Midland Bank Nimmonsburg, N.Y.

