ART AND MONEY
IN ARCHITECTURE

A MULTI-DENOMINATIONAL
CHURCH IN COLUMBUS,
INDIANA.

ARCHITECTURAL THESIS BY
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ABSTRACT:

ARCHITECTURE MUST INCORPORATE A BALANCE BETWEEN ARTISTIC INTERPRETATIONS AND THE BUDGETARY RESTRAINTS. WITHOUT THIS BALANCE, PROJECTS TEND TO EITHER GO WAY OVER BUDGET OR LACK THE DESIGN DEVELOPMENT NEEDED TO CREATE AN AESTHETICALLY PLEASING ATMOSPHERE.

TO EXPLORE THIS THEORY, A CHURCH BUILDING TYPE PROGRAM WAS DEVELOPED TO SERVE THE LARGE NUMBER OF VISITORS EXPERIENCED IN COLUMBUS, INDIANA. THE GOAL OF THE PROJECT WAS TO DESIGN AN AESTHETICALLY PLEASING SPACE WITHOUT SPENDING AN EXTRAVAGANT AMOUNT OF MONEY. THERE WERE MANY FACTORS INFLUENCING BOTH THE ARTISTIC AND COST RESTRICTION AREAS OF THE DESIGN. PATTERN, TEXTURE, LIGHT, CONSTRUCTION TECHNIQUES, AND MATERIALS CHOICE ARE ONLY SOME OF THE IMPORTANT FACTORS THAT STRONGLY INFLUENCED THIS PROJECT. THE IDENTIFICATION AND EXPLORATION OF THESE FACTORS WAS VERY EDUCATIONAL.

MUCH OF THE SUCCESS OF THE PROJECT CAN BE ATTRIBUTED TO PROJECT RESEARCH, STRONG CONCEPT, AND DESIGN DEVELOPMENT. THE EXPLORATION AND UNDERSTANDING OF MY OWN DESIGN PROCESS BECAME AN IMPORTANT ASPECT OF THE PROJECT. ALL OF THESE ISSUES WERE EXPLORED IN GREATER DETAIL THROUGHOUT THE TEXT.
THESIS STATEMENT / TOPIC:

ARCHITECTURE IS NOT ONLY A BUILT PRODUCT, BUT ALSO A SERVICE TO A PARTICULAR CLIENT AND TO SOCIETY. THE BUILT PRODUCT IS A SPACE AND FORM BASED ON FUNCTIONAL NEEDS AND ARTISTIC INTERPRETATIONS. THE CLIENT SERVICE INCORPORATES A VARIETY OF RESPONSIBILITIES THAT SHOULD RESULT IN A QUALITY BUILT ENVIRONMENT SATISFYING THE NEEDS, TASTES, AND BUDGET OF THE CLIENT. UNFORTUNATELY, TOO OFTEN ARCHITECTS EITHER FOCUS ON THE ARTISTIC INTERPRETATION AND GO WAY OVER BUDGET, OR FOCUS ON THE BUDGETARY RESTRICTIONS AND NEGLECT TO DESIGN BEYOND BARE NECESSITIES. EACH SIDE OF THE PROBLEM CAUSES DESIGN QUALITY TO SUFFER. PROJECTS THAT ARE OVER BUDGET HAVE TO BE REWORKED, WHICH AT THE VERY LEAST IS EXPENSIVE, AND AT WORST IS EXPENSIVE AND RESULTS IN A DESIGN THAT REVEALS THE 'CUT CORNERS' NEEDED TO GET THE COST DOWN TO AN ACCEPTABLE LEVEL. PROJECTS THAT ARE BUDGET CENTERED FROM THE BEGINNING LACK THE DESIGN DEVELOPMENT THAT IS NECESSARY FOR ANY QUALITY DESIGN. I BELIEVE LACK OF DESIGN DEVELOPMENT IN ARCHITECTURAL SERVICES IS THE CAUSE FOR SO MANY BAD DESIGNS. THE MOST EFFECTIVE APPROACH TO DESIGN; THEREFORE, MUST INCORPORATE A BALANCE BETWEEN THE ARTISTIC INTERPRETATION AND THE BUDGETARY RESTRICTIONS. THIS BALANCE BETWEEN ART AND BUDGET WAS THE FOCUS OF THIS THESIS.
DESIGN OBJECTIVES:

THE OBJECT OF THIS THESIS WAS TO DESIGN A CHURCH KEEPING IN MIND THE BALANCE BETWEEN THE ART AND THE BUDGET. THE CHURCH BUILDING TYPE WAS CHOSEN BECAUSE IT PROVIDED A PROGRAM THAT REQUIRED AT LEAST ONE PRIMARY SPACE WHILE ESTABLISHING A COMPLEXITY LEVEL THAT WAS SIMPLE ENOUGH TO ALLOW A THOROUGH DESIGN OF THE ENTIRE COMPLEX. THE CHURCH PROGRAM ALSO ALLOWS ARTISTIC INTERPRETATIONS THAT CAN GENERATE ANY FORM. THE INTENT OF THE PROJECT WAS NOT TO REINVENT RELIGIOUS EXPERIENCES, BUT ONLY TO PROVIDE AN ENVIRONMENT THAT ESTABLISHES A MOOD. NO INTERMEDIATE COST ANALYSIS WHERE MADE, BUT THE DESIGN PROCESS FOCUSED ON LOW COST CONSTRUCTION TECHNIQUES WHEREver POSSIBLE WHILE CONTINUOUSLY STRIVING FOR THE BEST POSSIBLE DESIGN AESTHETIC. LOW COST CONSTRUCTION INCLUDED UTILIZATION OF STANDARD CONSTRUCTION TECHNIQUES, STANDARD MATERIALS, AND A MINIMUM OF SPECIAL CONSTRUCTION (BUDGET). SOME SPECIAL CONSTRUCTION WAS NECESSARY TO MAXIMIZE THE DESIGN QUALITY (ART). ONCE THE DESIGN WAS COMPLETE, A FULL COST ESTIMATE WAS CONDUCTED. THE GOAL OF THE PROJECT WAS TO ACHIEVE A QUALITY DESIGN WITHIN A RESPECTABLE BUDGETARY RANGE. THE EVALUATION OF WHICH IS AT THE CONCLUSION OF THE STUDY. BECAUSE THE PROJECT WAS CONDUCTED IN A DESIGN STUDIO, THE PROJECT SUCCESS IS BASED MORE HEAVILY ON THE DESIGN OF THE CHURCH THAN THE COST ANALYSIS RESULTS. THE COST EMPHASIS IS ON TOTAL COST AND CUBIC FOOTAGE COSTS TO BE COMPARED WITH AVERAGES AND STANDARDS OF PROJECTS COMPARABLE IN SIZE AND QUALITY.
CHURCH:

DEFINITION;

MANY PEOPLE ARGUE THAT THE WORD CHURCH HAS AT LEAST TWO DIFFERENT MEANINGS. THERE ARE POSSIBLY MORE.

THE CHURCH IS A BODY OF PEOPLE GATHERED TOGETHER TO CELEBRATE COMMON OR SIMILAR BELIEF. THIS, THE MORE SPIRITUAL DEFINITION, IS THE ONE PREFERRED BY MANY CLERGY.

THE CHURCH REFERRED TO THROUGHOUT THIS TEXT REFERS TO THE MORE PHYSICAL DEFINITION. THIS CHURCH, AS A BUILDING, IS MERELY A SPACE FOR PEOPLE TO GATHER AND SHARE IN COMMON WORSHIP OR BELIEFS. THE DESIGN GOAL FOR THIS SPACE IS TO INSPIRE A MOOD THROUGH AN ARCHITECTURAL EXPRESSION OF LIGHT, VERTICALITY, VOLUME, QUIET, RESPECT, AND OTHER TERMS DERIVED FROM THE SPIRITUAL ASPECTS OF THE CHURCH.

DENOMINATION;

PROGRAMMATICALLY, THE CHURCH IS TO BE MULTI-DENOMINATIONAL PROTESTANT. MORE SPECIFIC INFORMATION CONCERNING THE DENOMINATION OF THE CHURCH IS DISCUSSED IN THE PROJECT PROGRAM TO FOLLOW.
PROGRAM FOR A MULTI-
DENOMINATIONAL CHURCH
IN COLUMBUS, INDIANA

ARCHITECTURE 451
PROGRAMMING AND THESIS
PREPERATION
FALL SEMESTER 1989
(UPDATED SPRING 1990)

THIS PROGRAM PROPOSAL WAS GENERATED
PRIOR TO THE BEGINNING OF THIS THESIS
PROJECT FOR A SEPERATE CLASS. SOME
MINOR REVISIONS WERE MADE DURING THE
THESIS PROCESS TO MAKE THE PROGRAM
COMPATABLE WITH THE ACTUAL PROJECT.
PROPOSAL:

DUE TO THE VAST NUMBER OF VISITORS DRAWN TO COLUMBUS EACH YEAR (TWICE ITS OWN POPULATION EACH YEAR IN REGISTERED GUESTS), AS WELL AS TO CONTINUE THE PRECEDENT OF COLUMBUS BEING A STRONG RELIGIOUS BASED COMMUNITY, THIS PROPOSAL IS DESIGNED TO PRESENT INFORMATION NECESSARY TO GENERATE A CHURCH TO SERVE BOTH THE VISITORS OF THIS CITY AS WELL AS THE EXISTING MEMBERS OF THE COMMUNITY. THE CHURCH WILL SERVE AS A VISUAL ENTRANCE TO THE CITY AS WELL AS A VISITOR / COMMUNITY RELIGIOUS CENTER.

PROGRAM:

THE CHURCH PROPOSED SHALL BE MULT-DENOMINATIONAL IN ORDER TO APPEAL TO THE VAST NUMBERS OF VISITORS OF DIFFERENT FAITHS AND TO THE GROWING COMMUNITY OF COLUMBUS. A MULTI DENOMINATIONAL CHURCH WAS CHOSEN TO APPEAL TO THE VISITORS, ESPECIALLY IF THEY COULD BE INFORMED OF ITS FOCUS ON VISITORS, IN ORDER TO CREATE AN ATMOSPHERE WHERE THE GUEST WOULD FEEL MORE LIKE A MEMBER OF A PARTICULAR GROUP AND LESS LIKE AN Outsider. THIS ALLOWS THE GUEST TO FOCUS HIS ATTENTION ON THE REAL REASON FOR ATTENDING CHURCH, THE WORSHIP OF GOD. ALSO, COLUMBUS IS A GROWING CITY, AND MANY FAMILIES ENJOY BEING ABLE TO GO TO CHURCH WITHOUT BEING ASSOCIATED WITH A PARTICULAR SOCIAL GROUP.
THOUGH THE CHURCH IS MULTI-DENOMINATIONAL, ITS FOCUS WILL BE ON CHRISTIAN PROTESTANT BELIEFS. THIS DECISION WAS MADE FOR MANY REASONS. FIRST, CHRISTIANITY IN ITS MANY FORMS IS THE MAJORITY THROUGHOUT THE MIDWEST. SECOND, MIXING CHRISTIAN WITH HINDU, MOSLEM OR OTHER RELIGIONS THAT ARE NOT SIMILAR WOULD BE VERY IMPRACTICAL. THIRD, PERSONAL PREFERENCE AND EXPERIENCE ALLOWS A MORE EFFICIENT DESIGN PROCESS WITH LIMITED RESEARCH. THE PROTESTANT CEREMONY, COMMON THROUGHOUT ITS DENOMINATIONS, WILL FOCUS ON THE BIRTH, DEATH, AND RESURRECTION OF CHRIST. OTHER DETAILED DENOMINATIONAL PRACTICES WILL BE LEFT UP TO THE CURRENT PASTOR AND THE PATRONS OF THE CHURCH.

THE CHURCH COMPLEX WILL SERVE A VARIETY OF FUNCTIONS FLEXIBLE WITH THE NEEDS OF THE COMMUNITY. FIRST, SUNDAY WORSHIP SERVICE FOR ALL PEOPLE WISHING TO ATTEND. AS PREVIOUSLY MENTIONED, THE SERVICE WILL BE BASED ON THE BIRTH, DEATH AND RESURRECTION OF CHRIST, AND THE CEREMONY IS TO ACCOMMODATE FUNCTIONS NEEDED OR DESIRED TO CELEBRATE THESE BELIEFS. THE SANCTUARY IS TO BE CAPABLE OF COMFORTABLY SEATING 400-500 PEOPLE. SECOND, THIS COMPLEX IS TO SERVE MULTI-DENOMINATIONAL ORGANIZATIONS AND YOUTH GROUPS. THIS WILL GIVE THE OPPORTUNITY FOR PEOPLE OF DIFFERENT CHURCH MEMBERSHIPS, BUT OF SIMILAR BASIC BELIEFS A PLACE TO GATHER, MEET, WORSHIP, OR CELEBRATE TOGETHER WITH A GREATER VARIETY OF PEOPLE, AT A GREATER VARIETY OF FUNCTIONS. THIRD, THIS COMPLEX COULD SERVE THE COMMUNITY IN OTHER WAYS SUCH AS PROVIDING A PLACE FOR CONFERENCES, SEMINARS, WEDDINGS, NURSERY / DAYCARE FACILITIES, OR EVENTS LIKE CHRISTMAS PROGRAMS, EASTER PROGRAMS, AND OTHER ACTIVITIES.
SITE / CONTEXT;

THE SITE FOR THIS CHURCH COMPLEX IS AT THE 'ENTRANCE TO THE CITY' OFF OF STATE ROAD 46 BETWEEN SECOND AND THIRD STREETS. THIS IS AN IMPORTANT SITE TO SERVE THE COMMUNITY OF COLUMBUS. THE CHOICE OF THIS SITE IS TO SERVE MANY PURPOSES. TO ESTABLISH RELIGION AS THE CITY FOCUS RATHER THAN COMMERCE; ALTHOUGH, ANOTHER PURPOSE OF THE SITE SELECTION IS TO BRING PEOPLE DOWNTOWN TO WORSHIP RATHER THAN ENCOURAGING THEM TO STAY IN THE SUBURBS, DOES BENEFIT COMMERCE. ALSO, THERE IS A PRECEDENCE OF RELIGIOUS ARCHITECTURE ESTABLISHED IN DOWNTOWN COLUMBUS THAT WOULD BE CONTINUED, SUPPORTING THIS RELIGIOUS BASED COMMUNITY. IN SUCH A COMMUNITY, NOTHING BETTER FITS IN THE SITE OF THE CITY'S "FRONT DOOR" THAN A CHURCH.

THE CONTEXT OF THE SITE IS ALSO VERY IMPORTANT. MANY ARCHITECTURAL AND CIVIC MONUMENTS ARE WITHIN WALKING DISTANCE OF THIS SITE, AND MANY OTHER CHURCH SPIRES ARE WITHIN VIEW. THE SITE PLAN THAT FOLLOWS THE CONTEXT ANALYSIS HELPS TO IDENTIFY THE SITE AND ITS CONTEXT. THESE SURROUNDING INFLUENCES MUST BE TAKEN INTO CONSIDERATION WHEN DESIGNING THIS COMPLEX FOR THIS COMMUNITY. ALONG WITH CONSIDERATIONS FOR CONTEXT, CONSIDERATIONS FOR THE HEAVY TRAFFIC IS A MAJOR CONCERN FOR A PROJECT ASSOCIATED WITH A MORE QUIET ATMOSPHERE REQUIRED.

SUMMARY;

THIS RELIGIOUS COMPLEX IS TO OPEN THE FRONT DOOR OF COLUMBUS TO ITS MANY VISITORS AS WELL AS TO ITS COMMUNITY. THE COMPLEX HAS MANY SPACIAL REQUIREMENTS TO FULFILL THE MANY FUNCTIONAL NEEDS WHICH INCLUDE A SANCTUARY, A FELLOWSHIP HALL, OFFICES AND CONFERENCE ROOMS, AND NECESSARY SUPPORT SPACES. A MORE DETAILED LIST OF SPACIAL REQUIREMENTS FOLLOWS.
SPACIAL REQUIREMENTS;

PRELIMINARY SPACE REQUIREMENTS WERE USED TO ORGANIZE THE COMPLEX IN AN EFFICIENT, AESTHETIC MANOR. SPECIFIC SQUARE FOOTAGES WERE NOT GIVEN UNTIL FURTHER RESEARCH WAS COMPLETED. IT WAS ASSUMED THAT THE SPACE ALLOWED TO EACH TASK WOULD BE SUFFICIENT FOR COMFORTABLE PERFORMANCE OF THAT TASK WITHOUT BEING EXTRAVAGANT. THE LIST OF REQUIRED SPACES THAT FOLLOWS WAS A STARTING POINT AND WAS ADDED TO OR DELETED FROM AS DETERMINED NECESSARY DURING THE DEVELOPMENT OF THE PROCESS.

* SANCTUARY:
  
  400-500 PEOPLE; INCLUDE COMMUNION TABLE, BAPTISMAL, PULPIT. CHOIR TO BE INCLUDED WITH GENERAL SEATING.

* NARTHEX:
  
  AN ENTRANCE, GATHERING, TRANSITION SPACE.

* SUPPORT:
  
  - PASTOR'S OFFICE; INCLUDE SOME BUILT-IN FURNISHINGS.
  - YOUTH DIRECTOR'S OFFICE; SIMILAR FURNISHINGS
  - SECRETARIAL SPACE; INCLUDE OFFICE SUPPORT LIKE COPIER, FILES, COFFEE, ETC.
  - CONFERENCE; ONE SMALL, ONE LARGE, COMBINABLE FOR FLEXIBLE GROUP SIZES.
  - LIBRARY
  - STORAGE / SUPPORT
  - OTHER
* **FELLOWSHIP HALL:**
  FOR MORE INFORMAL GATHERINGS OR YOUTH ACTIVITIES.
  INCLUDE KITCHEN, STORAGE, AND OTHER SUPPORT SPACES.

* **MECHANICAL / SERVICE:**
  BUILDING MAINTENANCE AND UPKEEP AS WELL AS HVAC.

* **PARKING / PLAZA:**
  COMPLEX ENTRANCE AND SEQUENCE OF EVENTS LEADING TO
  SANCTUARY. ALSO, PUBLIC TRANSPORTATION AND WALKING
  ENTRANCES TO BE CONSIDERED.

* **SUMMARY: 3 PART PROGRAM**
  - SANCTUARY - WORSHIP
  - SUPPORT - ADMINISTRATION, CONFERENCE, LIBRARY,
    OTHER
  - FELLOWSHIP HALL - INFORMAL GATHERINGS
CONTEXT ANALYSIS:

PHYSICAL;

The site as described in the program is at the entrance to the city. Traffic is at times heavy entering from State Road 46. This is an area of transition from highway to city streets when entering the city and from city streets to highway when leaving. At the time of this project, a new bridge to bring traffic into the city was being proposed. As a part of my project, I proposed a location for the new bridge adjacent to the existing bridge that would enter incoming traffic on Second Street to the south of my site. The existing bridge would then be used for traffic leaving the city on Third Street to the north of the site.

Micro scale influences on the site include the courthouse, the newspaper building, the senior citizen center, the river, the commons or mall, the city hall, the jail, 'downtown', parking, and others. Within view of the site are towers from First Christian Church, the courthouse, and St. Peter's Church. Because of the diversity in Columbus architecture, contextual building materials vary greatly and include most common materials. Brick, steel, glass, limestone, and wood are common. The photographs that follow show some of the character of the immediate site context.
CONTEXT ANALYSIS:

EMOTIONAL;

FOR ME THE VISITOR, COLUMBUS HAS A MAGIC THAT IS HARD TO DESCRIBE. THE CITY IS AN ARCHITECTURAL GOLDMINE WITH ENDLESS VARIETY AND POSSIBILITIES TO BE DISCOVERED. SOME OF THIS MAGIC IS EXPERIENCED SEVERAL MILES FROM THE CITY AS TOWERS AND SPIRES BECOME VISIBLE FROM I-70 BEFORE ONE EVEN ENTERS THE CITY. ONCE IN THE CITY, ITS CLEANLINESS IS NOTICED VERY QUICKLY. UPON FURTHER EXPLORATION AND INTERACTION, THE FRIENDLINESS OF THE PEOPLE IS THE NEXT STRONG IMPRESSION. THE PEOPLE OF COLUMBUS LOVE TO SHARE THEIR WEALTH OF ARCHITECTURE AND CULTURE WITH THEIR VISITORS AND WELCOME VISITORS INTO THEIR BUILDINGS AND COMMUNITY. COLUMBUS HAS A STRONG RELIGIOUS BASE THAT IS EVIDENT THROUGH THE COLLECTION OF CHURCHES BOTH DOWNTOWN AND AT ITS PERIMETER. ALSO UNIQUE IN COLUMBUS IS THE LARGE NUMBER OF VISITORS IT EXPERIENCES EACH YEAR. REGISTERED GUESTS ALONE ACCOUNT FOR DOUBLE THE CITY'S POPULATION. THERE IS MUCH MORE TO COLUMBUS' MAGIC THAT CAN NOT BE EXPRESSED, BUT HAS TO BE EXPERIENCED.
RESEARCH STATEMENT:

PRIOR TO ANY DETAILED DESIGN, RESEARCH ON CHURCH ARCHITECTURE AND THE COMPONENTS BELIEVED TO BE THE MOST IMPORTANT FOR A SUCCESSFUL CHURCH DESIGN WERE RESEARCHED. DIFFERENT TYPES OF RESEARCH WERE CONDUCTED FOR DIFFERENT AREAS OF THE DESIGN, RANGING FROM PRINTED MATERIAL TO GRAPHIC ANALYSIS AND TOURS OF EXISTING CHURCHES. THE EXTENT OF THE RESEARCH WAS INTENDED TO HELP GENERATE A SUCCESSFUL CONCEPT THAT COULD BE DEVELOPED AS THE DESIGN PROGRESSED. THE MAJOR AREAS RESEARCHED WERE LIGHT, ACOUSTICS, FORM / FUNCTION, AND GENERAL REQUIREMENTS. LIGHT, ACOUSTICS, AND GENERAL REQUIREMENTS WERE RESEARCHED THROUGH BOOKS DEALING WITH EACH OF THE SPECIFIC TOPICS. THE RESULTS OF THAT RESEARCH HELPED DETERMINE BASIC SQUARE FOOTAGES REQUIRED, SUPPORT SPACES NEEDED, PROPORTIONS NEEDED FOR PARTICULAR ACOUSTICS, AND PRACTICAL USE OF NATURAL AND ARTIFICIAL LIGHT. FORM AND FUNCTION WERE RESEARCHED THROUGH THE ANALYSIS OF PRECEDENTS OF CHURCH ARCHITECTURE IN COLUMBUS. MORE DETAILED INFORMATION ON THE PRECEDENTS ANALYSIS IS INCLUDED IN THE NEXT SECTION OF THIS BOOK. ANOTHER TYPE OF RESEARCH INCLUDED TOURS OF THE COLUMBUS CHURCHES THAT WERE ANALYZED. THIS EXPERIENTIAL RESEARCH WAS INVALUABLE IN UNDERSTANDING SCALE, PROPORTION, DETAIL, LIGHT, FUNCTION, AND MANY OTHER ASPECTS OF CHURCH DESIGN NOT UNDERSTOOD IN TEXT RESEARCH. ESPECIALLY INFORMATIVE WAS A PERSONAL TOUR OF ELIEL SAARINEN'S FIRST CHRISTIAN CHURCH. THIS PERSONAL TOUR ALLOWED ME TO EXPERIENCE ALL ASPECTS OF THE COMPLEX FROM SANCTUARY TO MECHANICAL ROOM. THE OTHER TOURS WERE MORE CASUAL BUT STILL VERY INFORMATIVE. I BELIEVE THAT THE EXTENT OF THE RESEARCH HELPED ME GET INTO A DESIGN QUICKLY, ALLOWING MORE TIME FOR DESIGN DEVELOPMENT.
IMAGERY:

IMAGERY - THE HEART OF THE ART OF ARCHITECTURE. MANY FACTORS INFLUENCE THE DECISION ON A PARTICULAR IMAGE FOR A PARTICULAR PROGRAM. SOME OF THESE FACTORS ARE PERSONAL AND CAN BE CHOSEN FOR THAT REASON ALONE. MANY FACTORS FOR THE DECISION ARE PREDETERMINED BY CODES, CLIENTS, CONTEXT, COMMITTEES, AND OTHER INFLUENCES. THE STARTING POINT FOR DECIDING ON AND IMAGE FOR THIS PROJECT WAS WITH THE COMBINATION OF INFORMATION LEARNED THROUGH THE PROGRAM AND THE ANALYSIS OF PRECEDENTS OF CHURCH ARCHITECTURE IN COLUMBUS.


CONTEXT - THE CONTEXT OF THE SITE, BEING IN COLUMBUS, ALLOWED ONE MAJOR IMAGE DECISION. DUE TO THE EXTENT OF OBJECT ARCHITECTURE IN THE CITY, APPROACHING THIS PROJECT AS OBJECT ARCHITECTURE SEEMED APPROPRIATE. OBJECT ARCHITECTURE ALSO WORKS WELL WITH THE DESIRED NON-TRADITIONAL IMAGE.

PERSONAL PREFERENCE - MANY OF THE PERSONAL PREFERENCE DECISIONS WERE MADE FURTHER IN THE DESIGN PROCESS. ONE OF THE DECISIONS MADE EARLIER WAS THE CHOICE OF MATERIALS. THE USE OF MASONRY (BRICK) WAS CHOSEN FOR ITS SCALE, TEXTURE, AND USE THROUGHOUT THE CONTEXT. TO COMPLIMENT THE MASONRY, THE DECISION WAS MADE TO EXPRESS A CONCRETE STRUCTURAL SYSTEM. THE CONCRETE IS THEN AN ACCENT MATERIAL OF THE MASONRY. VISUALLY, THE CHURCH IS TO WELCOME PEOPLE TO COLUMBUS AND TO ITS OWN COMPLEX.

THESE BASIC IMAGERY DECISIONS HELPED START THE DESIGN PROCESS. THE ARTICULATION AND DEVELOPMENT OF THIS IMAGERY HAPPENED THROUGHOUT THE DESIGN PROCESS.
PRECEDEENTS:

AS MENTIONED EARLIER, SEVERAL CHURCHES IN COLUMBUS WERE
ANALYSED AS PART OF THE PROJECT RESEARCH. THEY INCLUDED;
FIRST CHRISTIAN CHURCH BY ELIEL SAARINEN, NORTH CHRISTIAN
CHURCH BY EERO SAARINEN, FIRST BAPTIST CHURCH BY HARRY
WEES, AND ST. PETER'S CHURCH BY GUNNAR BIRKERTS. THESE
CHURCHES WERE CHOSEN BECAUSE THEY REPRESENT CHURCH
ARCHITECTURE EXAMPLES FROM DIFFERENT TIME PERIODS AND
WITH DIFFERENT DESIGN APPROACHES. THE SCOPE OF THE
RESEARCH WAS LIMITED TO COLUMBUS TO MAINTAIN A
CONSISTENCY THROUGHOUT THE PROJECT. ALL FOUR OF THE
CHURCHES ARE INSPIRING. EACH DESIGN IS VERY SUCCESSFUL IN
ESTABLISHING THE MOOD NECESSARY FOR WORSHIP, EVEN THOUGH
EACH DESIGNER APPROACHED THE PROBLEM DIFFERENTLY. I WAS
ESPECIALLY INTERESTED IN THE EFFECTS OF NATURAL LIGHT THAT
EACH OF THE DIFFERENT SOLUTIONS ACHIEVED. THESE FOUR
CHURCHES ALONE ESTABLISHED QUITE A STANDARD NECESSARY TO
MEET IN ORDER TO HAVE A SUCCESSFUL PROJECT. THE FOLLOWING
ANALYSIS ARE CONCEPTUAL AND WERE USED TO HELP GENERATE A
STARTING POINT FOR MY DESIGN. BASIC INFORMATION GATHERED
FROM EACH BUILDING WAS TYPE / FUNCTION, PLAN SHAPE, THIRD
DIMENSIONAL VOLUME AND TOWER ELEMENT, COMPLEX
ARRANGEMENT, BUILDING MATERIALS, AND OTHER INFORMATION
IMPORTANT TO THAT PARTICULAR DESIGN. THE DIAGRAMS FOR
EACH CHURCH SHOW THE CONCEPTUAL PLAN (SANCTUARY) ABOVE
WITH THE CONCEPTUAL ELEVATION BELOW.
FIRST CHRISTIAN CHURCH:
- TYPE: AXIS, ASYMMETRICAL
- SHAPE: RECTANGLE (SANCTUARY)
- VOLUME: RECTANGULAR WITH RECTANGULAR TOWER
- MATERIALS: BRICK AND LIMESTONE
- COMPLEX: COMPOSITION OF RECTANGULAR FORMS
- OTHER: MAJOR ARCHITECTURAL LANDMARK AND INFLUENCE

NORTH CHRISTIAN CHURCH:
- TYPE: CENTRALIZED
- SHAPE: HEXAGON
- VOLUME: HEXAGON RISES TO SINGLE SPIRE
- MATERIALS: STEEL AND COPPER, GLASS, SLATE ROOFING
- COMPLEX: SINGLE FORM
- OTHER: LANDSCAPE ARCHITECTURE MAJOR ASPECT OF DESIGN
           OTHER ENTRY TO THE CITY
FIRST BAPTIST CHURCH;

- TYPE: AXIS, ASYMMETRICAL
- SHAPE: RECTILINEAR OVAL
- VOLUME: ELONGATED TRIANGLE, TRIANGULAR WALL EXTENSION AS ONLY VERTICAL ELEMENT
- MATERIALS: BRICK WALLS, SLATE ROOF
- COMPLEX: SANCTUARY AND CHAPEL AT 90 DEGREES TO EACH OTHER REST OF COMPLEX INFILL BETWEEN
- OTHER: MODERN INTERPRETATION OF TRADITIONAL GOTHIC ROOF FORM DOMINATES

ST. PETER'S CHURCH;

- TYPE: CENTRALIZED WITH END ALTER FOCUS
- SHAPE: CIRCULAR, ASYMMETRICAL
- VOLUME: CYLINDRICAL WITH SPIRE ATTACHED TO TOP
- MATERIALS: BRICK AND CONCRETE, STEEL SPIRE
- COMPLEX: ADDITION TO EXISTING, ATTACHED VIA CIRCULATION ADMINISTRATIVE WING
- OTHER: MOST RECENT
REMAINING FORM:

AFTER ANALYZING THE EXISTING CHURCHES AND DECIDING ON A DESIRED IMAGE, THE PROCESS OF CHOOSING A SHAPE / FORM TO START WITH BECAME A VERY EASY DECISION. FIRST, AS DESCRIBED IN THE IMAGERY SECTION, A CENTRALIZED PLAN WAS DESIRED. SECOND, THE SQUARE WAS THE ONLY BASIC SHAPE YET TO BE EXPLORED IN CHURCH ARCHITECTURE IN COLUMBUS. THE SQUARE TURNED CUBE IN VOLUME HAD NOT BEEN USED EITHER; THEREFORE, THE DECISION TO START WITH THE SQUARE / CUBE WAS EASILY MADE, ESTABLISHED BY BOTH THE PRECEDENTS AND THE DESIRED IMAGERY / FUNCTION. AS FOR THE VERTICAL ELEMENT, BECAUSE IT WAS TO BE AN INTEGRATED PART OF THE COMPOSITION AND NOT A HAT ON A BUILDING, I STARTED WITH A TOWER. THEN THE TOWER WAS MADE THREE DIMENSIONAL, TURNING IT INTO A WALL. THIS WALL AND CUBE COMPOSITION BECAME THE BASIC PART FOR THE COMPLEX. DEVELOPMENT OF THE WALL AND CUBE IS DISCUSSED FURTHER IN THE PROCESS AND DESIGN DESCRIPTION SECTIONS. AFTER CHOOSING THE SQUARE, THE DECISION WAS MADE TO STAY WITH THAT PARTICULAR FORM THROUGHOUT THE PROJECT IN ORDER TO SEE HOW SUCCESSFUL A PROJECT I COULD DEVELOP WITH SUCH A DESIGN LIMITATION ESTABLISHED IN THE BEGINNING. DESIGN LIMITATIONS ARE COMMON IN THE PROFESSION OF ARCHITECTURE WHETHER THEY ARE DETERMINED BY CODES, SITE, OWNER PREFERENCES, OR OTHER FACTORS; THEREFORE, DECIDING TO LIVE WITH THIS ONE ADDED AN ENJOYABLE CHALLENGE TO THE PROJECT. IT ALSO ALLOWED ME TO DEVELOP A PARTICULAR CONCEPT THROUGHOUT THE PROJECT WITHOUT HAVING TO WORRY ABOUT THOUSANDS OF OTHER DESIGN POSSIBILITIES. FURTHERMORE, AN EMPHASIS ON THE PRIMARY SHAPES AND FORMS SEEMS TO BE POPULAR IN ARCHITECTURAL PRACTICE TODAY. THIS PROJECT ALLOWED ME TO EXPLORE SOME POSSIBILITIES OF THIS BASIC ELEMENT.
THE SQUARE HAS ANOTHER ADVANTAGE, ESPECIALLY WHEN DEALING WITH THE BALANCE BETWEEN ART AND BUDGET. THAT ADVANTAGE IS THE RELATIVELY LOW COST WHEN CONSTRUCTING IN RECTILINEAR UNITS FOR BOTH STRUCTURAL SYSTEMS AND OTHER BUILDING MATERIALS (BUDGET). THE ARTICULATION OF THE BASIC FORM OF THE SQUARE DEMONSTRATES THE ART.
PROCESS:

THROUGHOUT MOST OF THE PROJECT, A SERIES OF CHARRETTE WERE CONDUCTED TO DEVELOP AS MUCH OF THE PROJECT AS POSSIBLE AT THE BEGINNING OF THE PROCESS. THE GOAL WAS TO DEVELOP ALL ASPECTS OF THE PROJECT AT THE SAME RATE. THIS PROCESS ALLOWS ONE DRAWING TO HELP ANSWER QUESTIONS DISCOVERED ON ANOTHER, WHILE HOPEFULLY ASSURING A CONSISTANT DESIGN THROUGHOUT.

PROJECT DEVELOPMENT


I THINK THAT THE MORE CIRCULAR, CHARRETTE STYLE DESIGN PROCESS ALLOWED ME TO THINK MORE OPEN MINDED ABOUT THE ENTIRE PROJECT AND HELPED ACHIEVE A MORE THOROUGH DEVELOPMENT THROUGHOUT.
DESIGN DESCRIPTION:

AS DISCUSSED EARLIER, THE GOAL OF THE PROJECT WAS TO DESIGN A STRUCTURE THAT MET THE FUNCTIONAL NEEDS OF THE PROGRAM WHILE PROVIDING AN AESTHETICALLY PLEASING ENVIRONMENT TO PERFORM THOSE NEEDS. THERE ARE MANY WAYS IN WHICH THIS PROJECT TRIES TO ACCOMPLISH THIS GOAL AND THE GOAL OF THE THESIS TOPIC.

THERE WERE FOUR SPECIFIC WAYS IN WHICH THE ISSUE OF THE BUDGET WAS DEALT. FIRST, A LIMITED PALATE OF MATERIALS WAS USED. SECOND, THE MATERIALS CHOSEN ARE COMMON IN THE CONSTRUCTION INDUSTRY. THIRD, COMMON CONSTRUCTION TECHNIQUES WERE USED. FOURTH, SPECIAL CONSTRUCTION WAS LIMITED TO VERY SPECIAL ELEMENTS AND AVOIDED WHenever POSSIBLE.

DESCRIPTION


SITE PLAN - IN MORE DETAIL, THE SITE PLAN SHOWS AN EMPHASIS ON THE THEME OF THE SQUARE ESTABLISHED BY THE CHURCH COMPLEX. THE TREE PATTERN WAS CARRIED OVER FROM EXISTING PATTERNS ACROSS THE STREET ESTABLISHING 'WALLED' STREETS AS VEHICULAR ENTRANCE AND EXIT FOR THE CITY. A MIXTURE OF SITE MATERIALS WOULD BE USED TO PLACE EMPHASIS ON NECESSARY ELEMENTS. CONCEPTUALLY A MASONRY MATERIAL WOULD BE USED FOR THE MAIN AXES (ASYMMETRICAL) OF THE PARK. THIS MATERIAL WOULD BE CARRIED THROUGH THE ATRIUM TO THE CHURCH COURTYARD AND TO THE MAIN ENTRANCE. THE FAR WEST SIDE OF THE SITE INCLUDES A PASSENGER SIDE DROP-OFF WITH LIMITED PARKING FOR THE PASTOR, EMPLOYEES, HANDICAPPED, OR TEMPORARY PARKING NEEDS. MOST EVENT PARKING WOULD BE IN A LOT JUST SOUTH OF THE SITE ADJACENT TO THE SENIOR CITIZENS CENTER. SERVICE ACCESS AND PARKING ARE ALSO PROVIDED FOR THE FELLOWSHIP HALL.
FLOOR PLAN - THE CHURCH COMPLEX IS BASED ON A COMPOSITION OF SQUARES. THE FIRST IS THE SANCTUARY. A SQUARE PLAN UTILIZES THE CENTRALIZED CHARACTER DETERMINED NECESSARY BY THE PROGRAM AND DESIRED IMAGE. THE ALTER IS AT THE NORTH END AND RECEIVES AMPLE LIGHT FROM SOUTHERN EXPOSURE GLASS BLOCK CLEARSTORY PANELS ABOVE. SHADOWS FROM EXPOSED STRUCTURE GIVE A DYNAMIC TEXTURE TO THE SPACE. A BAPTISTRY IS IN THE SPACE BETWEEN THE SANCTUARY CUBE AND THE TOWER WALL. THIS SPACE IS FILLED WITH LIGHT FROM ABOVE VIA CLEARSTORY IN THE TOWER WALL ABOVE THE SANCTUARY. DUE TO THE MULTI-DENOMINATIONAL PROGRAM OF THE CHURCH, A FLEXIBLE SEATING SYSTEM WOULD BE USEFUL TO ACCOMMODATE DIFFERENT CEREMONIAL NEEDS. IDEALLY, A SYSTEM OF Pews THAT COULD BE ANCHORED INTO A FLOOR GRID SYSTEM AND REARRANGED WHEN NECESSARY WOULD BE ESTABLISHED. THIS SYSTEM WOULD PROBABLY BE EXPENSIVE; THEREFORE, IT WOULD EITHER BE THE ONLY SPECIAL CONSTRUCTION FOR THE PROJECT, OR IT WOULD HAVE TO BE SOMETHING THAT IS IMPLEMENTED EITHER AS AN ADD ALTERNATE OR DONE BY THE OWNER AT A LATER DATE. I FEEL THAT THE SEATING MUST BE FIXED TO THE FLOOR AND NOT ALLOWED TO MOVE FREELY TO CREATE AN ATMOSPHERE THAT IS NEAT AND ORDERLY. THESE CHARACTERISTICS ARE IMPORTANT IN ESTABLISHING A RESPECTFUL MOOD DESIRABLE FOR WORSHIP.

ENTRY INTO THE SANCTUARY Follows A SEQUENCE OF EVENTS. FIRST, PEOPLE ENTER THE TOWER WALL AND TURN NINETY DEGREES. AT THIS POINT THEY ARE ONLY COVERED, NOT ENCLOSED. SECOND, THEY ENTER INTO THE NARTHEx WHICH SERVES AS A GATHERING, TRANSITION SPACE. NOW THERE IS TOTAL ENCLOSURE TIGHTENING UPON THE PARTICIPANT. SUPPORT SPACES SUCH A TOILETS AND COAT RACKS ARE TO THE NORTH OF THIS SPACE. THIRD, THERE ARE TWO ENTRANCES INTO THE SANCTUARY. THESE ENTRY SPACES ARE VERY CONSTRCTIVE WITH NO WINDOWS AND VERY LOW CEILINGS. FINALLY, THE SANCTUARY EXPANDS UP AND OUT, GIVING A VERY SPACIOUS FEELING.
ACCESS TO THE REST OF THE COMPLEX IS THROUGH THE TOWER WALL CIRCULATION CORRIDOR. THIS CORRIDOR CONSISTS OF A GLASS WALL ON THE COURTYARD SIDE AND EITHER A MASONRY WALL TO THE EXTERIOR OF THE SITE OR ACCESS TO THE ADMINISTRATIVE SPACES. THESE ADMINISTRATIVE SPACES ARE ARRANGED ALONG THE EAST SIDE OF THE COMPLEX IN A GROUP OF THREE SQUARES. THESE SPACES RECEIVE NATURAL LIGHT FROM THEIR OWN EXTERIOR WINDOWS OR FROM LIGHT COMING THROUGH THE WALL AND THE INTERIOR WINDOWS. INCLUDED IN THESE SUPPORT SPACES ARE OFFICES, TOILETS, CONFERENCE ROOMS, A BREAK ROOM, STORAGE, AND A LIBRARY.

AT THE END OF THE CIRCULATION CORRIDOR IS AN ATRIUM. THIS ATRIUM SERVES AS A CONNECTION TO THE FELLOWSHIP HALL AS WELL AS A SECONDARY CIRCULATION SPACE. THE ATRIUM IS POSITIONED ON THE MAIN AXIS OF THE PARK AND IS INTENDED TO BE OPEN TO PARK USERS AS ACCESS TO THE CHURCH COURTYARD. THE FLOOR MATERIAL WOULD BE THE SAME AS THAT OF THE PARK AXIS TO REINFORCE THE INTENDED CIRCULATION OF PARK TO COURTYARD. THE ATRIUM HAS CLEARSTORY PANELS TO FILL THE SPACE WITH NATURAL LIGHT.

THE FELLOWSHIP HALL IS A LARGE OPEN SPACE FOR MORE INFORMAL GATHERINGS OR RECEPTIONS. IT OPENS ONTO THE COURTYARD TO GIVE IT MORE FLEXIBILITY. SUPPORT SPACES FOR THE FELLOWSHIP HALL INCLUDE A KITCHEN, TOILETS, AND A MECHANICAL ROOM. THIS MECHANICAL ROOM SERVICES THE FELLOWSHIP HALL, THE ATRIUM, AND THE ADMINISTRATIVE SPACES. AGAIN, NATURAL LIGHT ENTERS THE FELLOWSHIP HALL FROM CLEARSTORY PANELS. TO THE EAST OF THE FELLOWSHIP HALL IS A VEHICULAR ACCESS AND SERVICE AREA.
SECOND FLOOR PLAN - THERE ARE ONLY TWO SPACES WITHIN THE COMPLEX ON A SECOND LEVEL. THERE IS A RETREAT AREA ABOVE THE FELLOWSHIP HALL SUPPORT SPACES. THIS AREA COULD BE USED FOR YOUTH ACTIVITIES OR OTHER INFORMAL SOCIAL GATHERINGS. THE OTHER SECOND LEVEL SPACE IS LOCATED ABOVE THE NARTHEx AND IS USED AS A MECHANICAL AND STORAGE SPACE. THIS MECHANICAL ROOM WOULD SERVICE THE SANCTUARY, NARTHEx AND THEIR SUPPORT. THE STORAGE AREA WOULD SERVICE LARGE SCALE STORAGE NEEDS SUCH AS HOLIDAY DECORATIONS OR OTHER SANCTUARY FURNISHINGS.


SECTION / PERSPECTIVE - THIS DRAWING SHOWS THE BASIC CONSTRUCTION IN MORE DETAIL AS WELL AS THE SPACIAL QUALITIES OF THE CIRCULATION SPACE. THE SANCTUARY CAN BE SEEN IN THE BACKGROUND. ALSO NOTEWORTHY IS THE MECHANICAL SUPPLY THROUGH THE BASE AT THE WINDOW WALL.
4 SANCTUARY/TOWER FROM SOUTHWEST
5 CONCEPTUAL TRUSSES IN SANCTUARY
6 VIEW FROM NORTHEAST
CONCLUSION:


COST ANALYSIS - TO OBTAIN AN ACCURATE SCHEMATIC COST ESTIMATE, THE PROJECT WAS GIVEN TO ARCHITECT J. ROBERT TAYLOR, PROFESSOR OF ARCHITECTURE. PROF. TAYLOR USED HIS ESTIMATING EXPERIENCE AND MEANS COST DATA TO ARRIVE AT A FIGURE OF $5.60 PER CUBIC FOOT. THIS FIGURE, I WAS TOLD, WAS VERY SUCCESSFUL CONCERNING THE GOALS OF THIS THESIS ON THE ISSUE OF BALANCING ART AND BUDGET. USING THE $5.60 IN A QUANTITY TAKE-OFF, THE COST OF THE COMPLEX COMES IN AT 6.5 MILLION DOLLARS. THAT INCLUDES FOUR PERCENT OF THE ORIGINAL COST FOR FURNISHINGS. SITE COSTS ARE ESTIMATED AT TWO DOLLARS A SQUARE FOOT.

CREDITS:

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J. ROBERT TAYLOR; GUIDENCE
DESIGN REVIEW
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