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Manuscript Submission: The editor is pleased to review manuscripts for possible publication. Any subject material relevant to art and architecture is welcome. Text should be double spaced on 8-1/2 by 11 paper. Manuscripts and photos will not be returned unless specifically requested and a return envelope with sufficient postage is included. Good visual material is emphasized.

WELCOME!

to the 1986 IFRAA National Conference

> Berkeley Marina Marriott Berkeley, California October 11-15, 1986

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Cover Photo: Mission San Jose by John Wright, Castro Valley, California. The story of the mission's restoration begins on page 9.

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Notes and Comments

Join Us at IFRAA-86!

Like Canada's EXPO, California's IFRAA 86 is a winner before the gates have opened. Credit the location, a harbor resort on San Francisco Bay; the subject, diversity and focus in religious art and architecture; and the conference program, which boasts renowned speakers, critics and panelists together with exciting seminars. Credit also the captivating tour program and the dynamic team of volunteers who put it all together.

This year's national conference actually began last June with the judging of the University of California and the California College of Arts and Crafts IFRAA 86 Student Award Program. The winning student projects will be displayed with 45 professional art and architecture projects selected for excellence from more than 200 entries from across the nation. Berkeley's Judah Magnes Museum will host our conference at a grand opening of this awards display on October 14, 1986.

But don't be confused. The conference officially begins on Sunday evening, October 12th, when hosts Jane and John Dillenberger introduce award-winning author, lecturer and historian Spiro Kostof to deliver our keynote address. Monday and Tuesday's speakers will include Professor Theodore Gill and architecture critic Allen Temko.

To fully experience the conference and the Bay Area, plan to come early and, of course, stay late. Our first optional tour will explore famed Napa Valley wineries and experience California's finest wines and cuisine. Leaving the Marriott Inn at 10:00 a.m. on Saturday, October 11, Reverend Barbara Fitterer will lead a day's tour, which includes a personalized visit to T.V.'s Falcon Crest mansion and dinner at Sterling Winery. Sunday's tours will be self directed to outstanding Bay Area sites and experiences. On Monday afternoon, you may choose to tour San Francisco's Japanese section or significant religious structures, ending with an organ concert at acoustically renowned Grace Cathedral. Then join our special dinner cruise of San Francisco Bay, which will return us to the Marriott Inn's harbor.

The conference planning team may have stretched a point when Professor Donald Bruggink selected a tour of the Japanese Islands as our final event. Or perhaps Don knows the meaning of the term "Greater Bay Area" better than most. In any event, there has always been an acknowledged relationship between San Francisco and her sister cities to the Far West. Don recognized this relationship and provided the final graphic statement of the IFRAA 86 theme—cultural diversity/religious focus.

I hope you have arranged to join us in our Interfaith Forum on Religion, Art and Architecture. Like EXPO 86, it is an event whose time has come. If you miss it you will have missed a lot, but more importantly we will have missed you. I look forward to our meeting in October.



If you need information or want to register, phone me at (415) 548-3069 or write IFRAA, 901 Grayson Street, Berkeley, CA 94710.— Frank L. Mighetto, AIA, IFRAA Conference Coordinator

Houston Regional Conference a Success

The Houston Chapter of the AIA is to be congratulated on creating a Liturgical Architectural Committee, the first of its kind that we have heard about. This committee joined with IFRAA's South Central Regional committee May 2nd and presented a oneday seminar on the church building process. "For the benefit of all participants in this process," their invitation stated, "the various roles will be clarified and guidelines provided on how congregations may best organize for the planning and implementation of a building program. The ultimate goal is to encourage sound economic solutions to church needs, as well as quality design in architecture and the allied arts for the liturgy."

Lectures, panel discussions, and workshops with leaders from Houston. New York and Phoenix spoke to an appreciative audience drawn from all fields. Special thanks should go to Win Center and Bill Merriman.

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chairman Hugh Newell Jacobsen, Washington, D.C., Remmert Huygens, Boston, Mass., and Gerald Allison, Newport Beach, Calif. The citation read: "The simple appropriate logic of the plan is celebrated by the folded planes of the roofs. The versatile and creative use of shingles allows the simple dignity of this small chapel to speak in a language of respect and fulfillment."



This program is sponsored by the Red Cedar & Handsplit Shake Bureau to honor architects who demonstrate design excellence and significant functional or aesthetic uses of its product.

A Growing Sense of Crisis

A recent meeting of the Boston American Guild of Organists was attended not only by 140 organists but by the clergy they work with, and the floor was opened to discussion after prepared remarks by invited participants. Both groups lamented that this field is not attracting music students the way it used to because of economic realities. A student realizes that it doesn't make economic sense to pay \$14,000 a year for tuition with the expectation of landing a \$5,000-a-year job. Sixty-eight percent of small churches have no regular professional organist as a result of this shortage.

The clergy spoke of the precedence of liturgical needs over purely musical considerations, of the need for time to get used to new music, of the wish for a common vision between organists and pastors. The organists, in turn, spoke of the need for financial commitment to a developing music program, and to organ maintenance, and of the frustration a musician feels when asked to adopt a more folksy approach. It was evident that the clergy and organists are both caught up in problems that directly reflect those of a beleaguered church in the midst of a secular society.

Making Synagogues Accessible for the Handicapped

The United Synagogues of America recently adopted a resolution at a Biennial Convention calling upon affiliated congregations to make their physical premises barrier-free and all facilities accessible to all people irrespective of their abilities. Con-

gregation Ohav Shalom of Albany, N.Y., was recently honored for its exemplary efforts. Cognizant of the need to accommodate the infirm elderly, the synagogue was originally designed on one level and a wheelchair is always kept available. The rabbi's High Holy Day sermons are translated into sign language for the benefit of the hearing impaired (as are other sermons, if requested, throughout the year). The congregation was additionally sensitized when a congregant sought to resume attendance following the loss of a leg only to discover obstacles in parking, the use of the rest room and seating in the sanctuary. Her determination initiated an investigation to ascertain what further changes might be made.

A special committee surveyed the synagogue, consulted state and federal guidelines and developed a proposal. Among the alterations were wider parking spaces, curb ramps and handrails, straightening of pavement irregularities, and inside replacement of rugs. Within the sanctuary, a pew row was removed to create extra leg room and a hassock given for those needing to elevate their legs. Extra wheelchair spaces are made available so that handicapped do not have to sit in the aisles. Restroom doors were widened and new accessories installed. Services are now partially conducted on the floor level. Members are assisted in acquiring large print and braille siddurim, humashim and haggadot. For the hearing impaired, small FM receivers fitted with inconspicuous earpieces are provided. While the congregation sponsored most of these physical changes, other members such as physicians, architects, craftspeople and experts in hearing disorders volunteered their services. Congratulations to all!

AIA Awards Honor Two Churches

The Cathedral of St. John the Divine, New York City, was cited as an extraordinary building undertaking since the cornerstone was laid in 1892 (under the original architects, Heins & La Farge, and later Ralph Adam Cram) and continues today under the leadership of the Very Rev. James Parks Morton to become when it is finished "the largest Gothic cathedral in Christendom '

Battell Chapel, Yale University, New Haven, Connecticut, was hailed as a masterful restoration of a magnificent chapel, originally built in 1876 and now restored by Herbert S. Newman Associates, New Haven. Through careful research, painstaking



1985 Norman

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Battell Chapel. Herbert S. Newman Associates, AIA, P.C.

craftsmanship, and unobtrusive modernization, the chapel takes its proper place again as one of the great architectural resources of its historic campus.

Rambusch adds 86 years of experience, sensitivity, understanding and art to honor a new Cathedral.



Viggo Bech Rambusch, Chairman and President of Rambusch ...working closely with the rector of the Cathedral and the architect. helped to create a fitting environment for the new Diocese of Palm Beach, Florida. The consecration of St. Ignatius Loyola and its elevation to a Cathedral, represents a significant high point in Rambusch's three generation association with the Church. The Rambusch art and craft studios designed and fabricated with stained and etched glass, wood, metal, stone and fabric...to fulfill liturgical needs...with skill, sensitivity and a historic understanding.



St. Ignatius Loyola Cathedral, Palm Beach Gardens, Florida; Most Reverend Thomas V. Daily, Bishop of Palm Beach; Reverend J. Frank Flynn, Rector. Harold Seckinger, A.I.A., Architect; Mario Locsin, Senior Designer/Rambusch;

Stained glass/metal/wood/lighting/liturgical furnishings Consultation/planning/design/fabrication/installation

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Notes & Comments Continued from page 2

In Memoriam



A tradition that started in 1940 of attending IFRAA conferences has been broken with Harold E. Wagoner's death. His support and vision for the organization began with the Church Architectural Guild of America, later the Guild for Religious Architecture, and now merged as the Interfaith Forum on Religion, Art and Architecture. They all received

Harold's total support as a member, an officer, and a counselor. I recall how much enrichment he brought to all of us

As we weigh our loss, each of us, one by one, could tell of the many occasions when we discussed not only architecture but philosophy, psychology, biofeedback, travel, and endless anecdotes, including folk tales with Harold. Each of us may have a different memory, but I hope each will turn any tears to smiles as we recall how much Harold's vitality added to the measure of our lives and to this organization through his leadership and participation.

This note then is only a feeble attempt to provide some recognition of his contribution. Harold would always listen; agree if he could-or disagree; offer advice only if requested; congratulate or commiserate; illustrate his point with example, and all of this with his ingratiating smile. His faith in his fellow man was unfailing.

One of my first memories is from a conference held in the '50s at the Chicago Robie House. Harold was in charge of the entire conference and he selected an 18 year old to set up the architectural exhibit. When Harold arrived, walked into the exhibition area, saw all of the boards in place and well illuminated, he broke out in a smile and said that this was the beginning for an auspicious conference for an auspicious organization. His enthusiasm, his excitement and the hope of that moment continued without end. If only each of us could exhibit that same quality in our lives.

The part that each of us has played in furthering the goals and purposes of IFRAA has been made more meaningful because of the sense of mission that the leadership of Harold Wagoner has instilled in us. Certainly we shall miss him, but we will not be without him. Each of us can offer a prayer of thanks that our lives are enriched by his life and by the work of his hands in churches across the breadth of this land. -Henry Jung, AIA

First Graduate Program in Architecture and Design Criticism

The Parsons School of Design in New York, in cooperation with the Graduate Faculty of the New School for Social Research, will initiate this one-year program in September. It is intended not only to train new critics but to bridge the gap between academic critical theory and commercial journalism.

Architectural Honor Awards to Church and Seminary

The Preservation League of New York State has awarded a tiny Gothic 88-year-old landmark Universalist Church and Union Theological Seminary with recognition in its 1986 Architectural

Heritage Year. They were chosen among 14 other recipients in the four categories of advocacy, craftsmanship, education and scholarship. S.O.U.L. (Save Our Universalist Landmark) is a newly formed organization to help the small congregation on Central Park West to resist development and real estate pressures and, with community participation, to launch a massive funding campaign to preserve its building as both a religious and community center.

The interior of the church boasts an altar by Tiffany, relief sculpture by St. Gaudens and European stained glass windows. It is the sole survivor in NYC of seven Universalist churches. Union Theological Seminary began a workstudy program two years ago to train clergy students and seminary employees in building maintenance and preservation skills to restore various architectural elements of its complex. It is an exemplary stewardship program that includes restoration of the early The Fourth Universalist Church, New 20th century wooden win- York City.



dows and doors, iron gates, bronze ornaments, and leaded glass. We feel that accolades are due to both of these religious institutions.

Alaska State Museum Donates Icons

Eight life-sized icons originally commissioned for the museum were recently donated to the St. Herman's parish, which is located on the northern terminus of the state ferry system. After driving 650 miles of the Alaskan highway to receive the icons, Father Michael and Mr. William Lucas accompanied them on the return trip through the 7,000-foot Chilkat Pass in a January blizzard

The new icons in brilliant colors and gold leaf constitute a portable icon screen similar to those used by 19th century Orthodox missionaries. In design, manufacture, portability, shipment and use, the icons are uniquely Alaskan and at their dedication were received with special joy for their great beauty.

A Dialogue with France

In 1942, a group of five French architects including Le Corbusier created a design and architectural magazine, Techniques and Architecture, which they hoped would reach an international audience. Besides major French projects, it deals with European and Asian work as well. It was recently awarded the Gold Medal for architectural magazines at the International Architects' Congress in Madrid. In order to insure its economic and cultural expansion, it will now provide an English text to help stimulate discussion of its articles. Recent correspondence with Faith and Form suggests an exchange of magazines with a hope that this will also mean an exchange of ideas.

Award for Veterans' Chapel, Exeter, Rhode Island The Robinson Green Beretta Corporation, a Providence-based firm, has won a first award for its design of a chapel in a veterans' cemetery. Winners were selected by a jury consisting of Continued on page 6

A MARRIAGE ORDAINED IN HEAVEN.



hen the right architect and the right organ builder get together, it's pure magic. Such is the example of the Rodgers Organ installed in the Recital Hall of the famous Navio Shopping Center, Osaka, Japan.

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The architect and the organ builder can make beautiful music together.

AIA Chapter Newsletter

We are grateful to Ann Carper, editor of the AIA Bulletin for a paragraph about IFRAA and Faith & Form. She mentioned that we would appreciate being in touch with AIA chapters and receiving their newsletters. So far we have received copies from the Houston, Western Michigan, Northern Virginia and Boston chapters. We hope to report on their activities that are relevant to our interests. The Northern Virginia chapter is compiling a list of its members who have participated in or are interested in architectural programs for children. It has several slide shows available for use with various grade levels and hopes to expand its work in this area.

Architect of Many Churches Wins Pritzker Prize



Gottfried Boehm, the son of Dominikus Boehm, one of Europe's most respected architects of Roman Catholic ecclesiastical buildings, practices in Cologne, Germany, and is himself the architect of many churches. He has been selected as the winner of the 1985 Pritzker Prize by an international jury. Mr. Boehm is married to an architect, and three of their four sons are architects. He has taught at the University of

Pennsylvania and at the Massachusetts Institute of Technology where he will be in residence next year. In his teaching he warns against "the exaggerations of the historicizing movement, and mindless imitation of earlier eras," insisting on spiritually enriching human values that express one's own time in one's work.

One Thousand Innovative Churches Rise in Poland

Not since the days of flying buttresses and ribbed vaults has church architecture been in the vanguard it is today. This was noted in a recent article in the *New York Times* which told of Poles raised in the monotonous environment of the Post War, now stopping to admire these many new churches with swallow tail copper roofs, exposed brick and intimate small spaces. Many churches were destroyed in World War II, and in the 1950s new ones were not allowed to be built. Though building permits increased in the '70s, it was not until the upheaval surrounding the Solidarity movement six years ago that authorizations for new churches began to increase.

Today, officials say there is more church building in Poland than in all the rest of Europe. "We have not recovered from all those years when no churches were built," said M. Pienkowski, an architect who heads a committee reviewing plans for construction in the Warsaw diocese. "We have to retrain architects and free them from habits and restraints acquired elsewhere. We have to realize that we are not in competition with civil architecture. We do not have to build high like the skyscraper to achieve awe. It is more important to create an atmosphere of spirituality and intimacy, and we have had to find sculptors and artisans again to help us."

ARC: The Society for the Arts, Religion and Contemporary Culture

This society, which is celebrating its twenty-fifth year, is an association of men and women who have committed themselves to an interdisciplinary approach to the work of their own profesLeter B. Koch is committed solely to restoration of stained glass windows. We have extensive experience in the restoration of windows by Louis Comfort Tiffany and others. References and completed project listings are available. We have served clients throughout the nation and cordially invite inquiries.



Ascension window, First United Methodist Church, Lewistown, Pennsylvania, Tiffany Studios, New York, 1905, 16 x 25 feet. Off-site restoration of window, including cleaning, glass matching, reproducing lead extru-

sions, restoration of wood mullions and re-design of the steel support structure. <u>Photographs: entire window, top; detail of angel,</u>

lower right; Christ figure, lower left.



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Notes & Comments Continued from page 7

sions and to the broader issues and problems of contemporary society. Its Spring Meeting in New York City centered on contemporary visual art and its relationship to religion. Artists from both the West and East Coasts discussed their return to religious iconography. Cleve Gray, an abstract painter, discussed a series of his paintings that grew out of a visit to the old lewish cemetery in Prague.

A panel composed of Elaine de Kooning, painter, John Cook, Yale Divinity School, and Kenneth Reichlev, former associate pastor of St. Peter's Lutheran Church, discussed the triptych by Willem de Kooning intended for St. Peter's. There is a difference of opinion in the congregation, the Worship Committee, and the Arts Committee on the acquisition of the work. Does it enhance the worship experience or because of its own strength detract from it? John Dillenberger gave the annual Paul Tillich lecture, The



Visual Arts: The Legacy of Paul Tillich, celebrating the 100th year of Tillich's birth. ARC is composed of elected Fellows and a general membership. For information concerning meetings and membership, contact Robin Pearse, Studio on the Canal, Princeton, NJ 08540.

New Jewish Chapel at West Point



A Jewish chapel has just been completed at West Point with Max Abramovitz, acclaimed for the United Nations and Lincoln Center, as architect. With him to receive a U.S. Award for Design Excellence was Rabbi Marc Abramovitz, rabbi of the chapel and the first Jewish military chaplain ever assigned to West Point, and Stanley Fafinski, U.S. Army Corps of Engineers. The chapel is faced with rough hewn granite, providing a

powerful, monumental presence while also in keeping with the traditional military Gothic architecture of West Point. Tablets made of bronze and etched with the symbols of the Twelve Tribes adorn the facade of the towering sanctuary.

The 15,000 square foot chapel was designed to serve multiple functions. Foremost, the 250-seat sanctuary provides a place of worship, but the chapel also contains a gallery-museum which will present exhibits of art and artifacts that portray Jewish participation and contributions to America. There is also a library, as well as classrooms, kitchen and administrative offices.

THE RESTORATION OF CALIFORNIA'S MISSION SAN JOSE

by Reggie and Clem Finney

Echurch in Fremont, California, was rededicated on June 11, 1985. This culminated more than a decade of organization, research and construction. Because of the complete commitment to authenticity in every detail, the ghosts of the original Indians and padres will be very comfortable in their new surroundings.

While Mission San Jose was one of the last missions to be built in the northward trek of Spanish expeditions, it was destined to be one of the most successful.

The first temporary Mission San Jose buildings, constructed of wood and thatched roofs, were erected in June 1797. Permanent buildings of the mission were soon under construction, and on April 22, 1809, a festive Mass was celebrated to mark the dedication of a permanent adobe church. A two-tiered bell tower, which eventually held four bells, dominated the northwest corner.

In the decade that followed, the mission expanded rapidly. The padres, soldiers, and Indians built living quarters, barracks, granaries, a soap factory, blacksmith and wine press facilities, and a water mill.

By the early 1830s it was, perhaps, the most successful of all the missions covering hundreds of square miles and numbering over 12,000 head of cattle, 13,000 sheep, 11,000 horses, along with expansive orchards and vegetable fields that yielded thousands of bushels each year.

Secularization of the California missions by the Mexican government in 1836 removed the mission from the adminis-

REGGIE FINNEY was the Public Relations Director for the Diocese of Oakland.

CLEM FINNEY is the Architect/Engineer Coordinator for the Diocese and the Diocesan Coordinator for the mission project.



Daguerreotype of Mission San Jose taken in 1852, probably the oldest mission photo extant. The belltower had been lowered to roof line probably due to frequent earthquakes.

tration of the padres. The mission lost most of its property, the Indians scattered, and it became just a small parish. Mass continued to be celebrated in the adobe mission church until October 21, 1868, when it was destroyed by a devastating earthquake. After the rubble was cleared away, a wooden church in Norman Gothic style was constructed over the tile floor and foundation of the old church. This church continued to serve the parish for almost a century, until 1965, when a new church was built.

In 1973, community and church leaders formed a committee to encourage restoration of Mission San Jose. Father



Original fire clay floor tiles uncovered by archaeologists.

John Williams, pastor of the parish, spearheaded the movement until his death in 1977. Father William Abeloe, noted California historian, became pastor of the mission and soon after convinced the Diocese of Oakland to commit itself to feasibility and schematic studies for the restoration project.

Preparation for the project started early in 1978 when Gilbert Sanchez of San Jose, California, was appointed as the architect and began selecting a team of noted consultants to assist in the extensive historical and archaeological research. Included in the team were historical consultant Dr. Norman Neurerburg of Santa Barbara, interior design consultant Richard Menn, curator of Carmel Mission, archaeologist Stephen Dietz and interpretive consultant Joseph Engbeck.

The commitment to authentic restoration necessitated on-site investigations and extensive historical research. These archaeological "digs" and the research took four years unearthing invaluable information about the furnishings of the mission, exact measurements and precise location of the original adobe mission chapel, sacristy, baptistry, and a portion of the quadrangle's west wing.

Original mission documents, including letters and ink drawings, were carefully studied. In 1833, Father Narcisco Duran, who supervised the early efforts, had turned the mission over to Father Gonzalez Rubio. Their inventory provided a good idea of the appearance of the inside of the chapel. "At the altar were a life-size wood figure of St. Joseph, an old tabernacle, a gilded shrine with a carving of the Immaculate Conception ... side altars with statues of Saints Francis and Bonaventure There were two small figures of Saint Anthony and framed engravings of the Stations of the Cross ... 15 Russian mirrors of different sizes with wood frames"

Shortly after taking over the mission, Father Rubio made a series of changes. "The old pulpit was removed and used to make repairs to that building ... a major remodeling of the chapel's interior included replastering and painting the walls, installing a lower ceiling which was covered with cloth and painted ... a new



Chapel south wall showing connection and foundations of portion of west wing destroyed in 1868.

wood floor and railing with turned balusters in the sanctuary ... cut glass holy water fonts on painted wooden pedestals ... and a statue of Saint Francis remodeled into Jesus the Nazarene."

The 1842 inventory, made when the mission was turned over to Father Miguel Muro by Father Rubio, is both detailed and extensive. It clearly describes the fixtures and decorations of the remodeling but also the dimension of the chapel. "This church is 45 varas long and 11 wide, with a double wall of adobe, and it has four doors, three windows with glass (that of the choir lacks muslin curtains), and a tile floor. It has a tile roof on a wooden framework and beneath that is a flat ceiling, covered with cloth and painted, and the walls are completely painted. For fear of the frequent earthquakes the tower was not carried up to its full height and, in fact, it was taken down to the level of the eaves of the church roof, and in that way there were placed in it four medium sized bells, to which one should add a little one which presently is used for the guards' bell.

"Behind the church is the sacristy which is 11 varas long and 7 wide, and it



Series of tiled steps at front of chapel uncovered by archaeologists.

has a double wall of adobe, one door (1880 inventory says two doors, one to patio), one window with glass, a wooden floor, a tile roof, a flat ceiling of boards covered with cloth, and the walls have a painted wainscoting.

"At the entrance to the church is the baptistry which is 7 varas square, with a single wall of adobe, one door, a window with glass inset in the shutters (i.e. casement windows) and with a wooden grill, a wooden floor, a flat ceiling of boards covered with cloth and the whole of the room decorated.

"There are two cemeteries, one next to the church, and the other a mile away, both with adobe walls, and the first about to fall into ruin."

In his evaluation of the mission documents, historian Neurerburg said, "The church was a living organism, constantly being changed, with furnishing added Since the church was always changing, one must accept a compromise, perhaps representing more than one period in the life of the structure."

Neurerburg's recommendation was followed that the church should "structurally follow the pre-1883 remodeling with the ochavado ceiling." Instead of the 1825 altar of Father Duran, he urged the inclusion of the reredos of mission artist Augustin Davila, who recreated the altar in 1835. "It would be appropriate that his contribution (to mission art) be recognized." Davila's altar design as described in the 1842 inventory was faithfully followed by interior consultant and artist, Richard Menn.

Concurrent with the historical documentation, archaeological and geotechnical excavations and studies were being conducted. Besides the sizable collection of bottles, goblets, bowls, and textiles, the archaeologists made a number of exciting discoveries:

• A series of tile steps at the front of the chapel.

• The foundation of the belltower, which stood at the northwest corner of the chapel.

• The remains of 5 buttresses, which stood on the north side of the chapel and sacristy.

• Wall foundations and adobe wall remnants associated with the chapel and sacristy.

• A large portion of the floor area of the chapel with floor tiles, graves, and other features *in situ*.

Of particular significance was the discovery of two tiers of hand-fired tile steps forming a large semi-circle in front of the chapel. The steps had been buried for 113 years under a concrete slab that was poured when the 1869 church was built.

Foundation studies indicated that if one used 33 inches to equal 1 vara, the dimensions given in the 1842 inventory were, in general, accurate. The southern wall was six feet thick, the north wall and apse wall were four feet, the rear sacristy wall three feet and the buttresses were twelve feet by twelve feet give or take an inch or two.

The foundation, slightly wider than the walls and buttresses, included limestone



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Hand hewing wood beams.

and sandstone cobbles varying in size from two to twenty-eight inches and "cemented" together with adobe clay. Depths ranged from three to seven feet.

While the research and studies were continuing, Gilbert Sanchez was transforming the information to paper. In 1982, the architectural drawings were taking final shape. Because of the unusual use of materials and labor, Frank Portman, a general contractor, was added to the team. Portman had been active in historical restoration work including Mission Dolores in San Francisco.

The usual building materials of concrete, steel, and wood were no problem to obtain. But, where does one get 140,000 adobe bricks, measuring an archaic 11 x 22 x 3 inches, weighing 60 pounds each? Or dozens of huge handhewn wood beams, thousands of mission-era roof tiles, hundreds of feet of



Seismic reinforcing, north wall buttresses. Six-inch diameter plastic pipe used as slip forms for grouting wall rebars.

rawhide rope to tie down the 12,000 hazelwood branches under the eaves? And where does one find 12,000 hazelwood branches?

Portman had to scour the country for firms that could supply, or specially produce, the unusual items. Besides he had to find craftsmen who could perform the tasks of hand-hewing wood beams and untrain masons who had spent most of their lives with stringlines to get even rows of bricks. Sanchez demanded uneven walls and uneven floors, just like the original. The heavy timbers were all carefully handhewn. The doors and woodwork were finished with hand planes, all made on site and hand-crafted like they would have been by the Indians. Portman explained that "as we handled and placed these thousands of stones back around the walls, it gave us a real identity with the original Indians and priests who constructed the building. All we had to do was reset them. We realized they had to bring many stones long distances—and some of them weighed hundreds of pounds, especially the larger ones."

The feelings of the workmen reflected their pride in being a part of history. Dan Cater who was with the project from the beginning said, "It is amazing to realize what they did in the old days with crude tools... like stepping back in time."

The cost of the project is \$4,000,000, underwritten by the diocese. It has been



Interior ochavado ceiling, chandeliers, and artist painting wall murals.

Most of the foundation cobbles that were in the original foundations had to be removed in order to put in heavy reinforced concrete foundations that were needed for reconstruction. The original cobbles were saved so they could be used in the manner of the initial construction.

assisted by monetary contributions from many concerned businesses, individuals, and several foundations. A major donor was Walter Gleason of Oakland.

The mission and adjoining museum, located on Mission Boulevard in Fremont, California, are open each day, with docents available for guided tours.

CONTEMPORARY PUBLIC ART: PROCESS AND POSSIBILITIES

by Gary M. Young

In only two decades, the enterprise of public art has assumed a major role in the visual arts in this country. At the same time, public agencies collectively have become one of our largest patrons.

It is a patronage apparent at many levels. The National Endowment for the Arts initiated a program in 1967 to assist communities in commissioning art for public places. Since then over half of the states have passed legislation mandating or allowing allocation of funds for art in state buildings or other public sites. Dozens of cities have enacted ordinances for public art. Other public agencies voluntarily have initiated programs. The Massachusetts Bay Transportation Authority, for instance, has set aside over two million dollars for art in its new and renovated stations. Although there are no statistics available on the total amount of public funds devoted to public art, the New England area alone will spend over three million dollars in 1986.

The mere scale or expanse of this enterprise is not, however, its most important feature. The public sector has assumed a formative role in commissioning new art. This process has helped revitalize ideas about the nature of art and its place in society. The interaction in the commissioning process between the diverse demands of public purpose and contemporary artists may have a growing influence on the di-

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The purpose of public artwork in churches must be painstakingly thought through, and the approach should be adopted with a vivid awareness of its implications.

rections of their work. The architect Caesar Pelli commented, "Public art is changing the shape of art." While the critic Calvin Tompkins observed: "To make significant public art today ... it is necessary to take the public into consideration. In our century that is a revolutionary idea."

As Tompkins suggests, there is an historical dimension to the delineation of public art. At least a sketchy sense of this dimension is essential to begin understanding the nature of the changes underway in artists' approaches to their publics.

An Historical Dilemma

It is a commonplace now that modernism has been a passage to a private, largely esoteric art beyond the comprehension or concern of the general public. There is some sense in this view.

The modernists of painting and sculpture in the 19th century championed a commitment to work from their personal experience of art as well as life. For most this meant unfastening connections with the traditional literary sources and con-

ventional images of history, religion, mythology, and allegory. At the same time, they challenged even more the conventions and assumptions of traditional form. In both painting and sculpture artists plunged into an inquiry as to the very nature of their means, evolving more personal vocabularies in answer to the questions they had unleashed.

Ironically, it was not necessarily the intention of the modernists to disengage from the contemporary public, but rather to transform the terms of engagement so they could be more true to contemporary realities. Some, such as sculptors lacob Epstein and Duchamp-Villon, sought metaphors or sculptural equivalents that would be a bridge to the public's experience of modernity. Others, like Matisse and Brancusi, investigated how new means could impart contemporary meaning to traditional themes.

The modernists, however, were pursuing the problems of their art in a context in which public meanings were fractured and flying apart under the wheels of change—social, technological, economic, and political. As Duchamp-Villon wrote in 1913, "... in an epoch of floating ideas and aspirations there can be no definitive or durable monument."

The results of the artists' inquiries were generally confounding to the public, igniting a succession of controversies. All this poses a formidable dilemma for the traditional notion of public art which presupposes, as Albert Elsen noted in Origins of Modern Sculpture, "... a sympathetic and knowledgeable public."

This is not, of course, a novel observation. In fact, Holger Cahill, Director of the Federal Art Project of the WPA, wrote in 1936 of the disunity in modern industrial civilization and the increasing isolation



of the arts. He observed that from the close of the 19th century, "Art had become its own subject and an understanding of its self-communicated mysteries was to be limited to a few initiates." Under his guidance the Federal Arts Project became this country's pioneer excursion into public art.

Trying to turn back the tide of isolation, the project distributed thousands of works from artists it employed to a variety of public buildings and schools throughout the country. The mural division, perhaps the most prominent part of the effort, sought to recapture the potential of monumental public art that would, as one of the artists wrote, "develop towards a formal pattern for the things we say that will bind us closer to those to whom we speak."

The conviction that art should belong to everyone, not just the affluent, was pervasive in this effort. Yet the internal dilemma for the artist persisted, as Balcomb Greene's remarks in 1937 show: "The view is enforced by history that the function of art at its most progressive point has been profound rather than extensive."

In many ways the idea of the monument sums up the historical dilemma of public art and leads to reflection upon the alternative traditions available at the present.

Transposition of the Monument

For many the monument has been, at least until rather recently, the essential image of public art. Traditionally such pieces were created to commemorate an idea, event, or heroic individual. Bartholdi's Statue of Liberty, for example, continued that tradition and exemplifies the tendency of monuments towards landmark proportions.

Auguste Rodin, who helped shape the origins of modern sculpture, challenged at the same time the traditional version of the monument. In his commission to portray the self-sacrifice of Calais in defense of France, The Burghers of Calais, he pursued his sculptural investigations and personal vision of the meaning of their-experience. The piece disappointed its commissioners and the public. Indeed, his later Monument of Balzac was rejected by its sponsors. In these works, however, and others like the Thinker and the Walking Man, Rodin showed artists an alternative to the traditional message art. Albert Elsen has called it: "... a modern equivalent of the classical heroic monument to an individual: the exemplary figure that was either anonymous, a modern type, or a spiritual self-portrait. By this means, rather than glorifying the dead, artists could convey their hopes, ideals, and convictions about man in modern society."

Still, this alternative was a pause in the course of modern sculpture and the monument. Artists like Duchamp-Villon, Georges Van Jongerloo, and Arp raised the question of how to realize experiences and conceive ideas directly in the new vocabularies of sculptural form itself without references to other imagery. Artists have continued to explore these issues in contemporary abstract sculpture. These works often assume monumental scale, yet tend to be distillations of artistic and personal inquiry. They are stages in an artist's line of investigation. They are not necessarily created for a public's expectation or a particular site.

In a sense, the monument has been turned upon its head. For abstract sculpture, by virtue of its placement in numerous public sites, has come to function as a monument commemorating the artist's esthetic ideas. As one commentator has written, it is "... a monument to the idea of art as idea." It is just this reversal of the monument that has, in part, stimulated exploration of alternative traditions.

Space and Places

In the past two decades, as the public art enterprise has taken shape, two fundamental approaches to its task have emerged.

The first is essentially a mode of collecting art. Although this includes the purchase of existing work, it also encompasses the commissioning of artists whose work is self-referential. Its content is contained within itself and does not derive from the environment in which it is placed. These are artworks that could be exhibited in a gallery, museum, or a variety of public spaces without damage to the integrity of the pieces.

Although when commissioned for a larger space a work might be increased in proportion, it does not alter the content or intention of the artist's object. In fact, such artworks stand as independent objects in their environment. Collecting, in this sense, is certainly the prevalent approach to public art today. The modernist monument, whether in a form related to the figure tradition or the abstract entity, dominated the scene.

Richard Serra's Tilted Arch in Manhattan's Foley Square is a clear example of the abstract monument. It is typical of the artist's experiential investigation of the concept of space. Apart from its physical dimensions it could be in a museum or gallery, since its essential content derives from the artist's personal inquiries. Another example, with a different vocabulary and content, is Herk Van Tongeren's Serie Metafisica XVII, installed on the campus of Southern Connecticut State University, New Haven. It was commissioned upon the basis of a small bronze model that, in fact, had been exhibited in a gallery as an artwork in itself. The installed version of Metafisica XVII was scaled to its large size, twenty-two feet long, by the artist's sense of a monument's relation to viewers. Certainly it was carefully sited



"Serie Metafisica" (bronze) by Herk Van Tongeren, Southern Connecticut State University.

within the campus, but it is conceived within the abstract nature of space and not for a particular place.

Tilted Arch and Metafisica XVII exemplify how the collecting approach draws from the historical antecedents of putting sculpture together with plazas, buildings, and grounds. The terms of the artwork itself, however, have shifted decisively. They demonstrate the problems and potential stemming from that process because they commemorate private inquiry and values, not common socio-political experiences or ideals. Their contemplation was sanctioned by being set aside from the general public in museums and galleries. While placement in public areas has exposed them to greater audiences, it does not afford them a context that sanctions the artist's investigations as such. Both are major artworks, but it should not be surprising that the aggressive statement of Serra has generated a storm of controversy. Metafisica, on the other hand, whether because of its site, more visible content, or other factors, has been appreciably received by campus and community

Collecting remains a fundamental approach for public art, in part precisely because it is responsive to the mainstream of contemporary art. Through this process, collections of a cross-section of contemporary work are being created for the public in the future as well as the present. The collecting approach is not intrinsically responsive to the actual particular places available for public art, however, and it must be pursued with attention to selecting sites beneficial to the nature of the artwork as well as with a vivid awareness of the tensions integral to the approach.

An alternative tradition in public art, one that attends conceptually and physically to the particular place, is under renewal at present. This approach involves the artist at a different stage of the process, and to some degree in the decisions. The artist creates work whose content is shaped by the site so that the piece is not transferable to another space. In this approach, artists must investigate the uses and users of a particular place, past and present, and they must collaborate with architects, community members and sometimes other artists. The final content and nature of the artwork will refer to the complex physical and social realities of its place.

Artists attached to this current of public art have drawn ideas from efforts such



"End of the Line—West Rock" by Nancy Holt

as earthworks by Robert Smithson and Michael Heizer that incorporated the site into the formation of the piece. Public places, however, have a richer, more tangled social and historical context.

Artist Scott Burton, in an article published in 1983 in *Design Quarterly*, contended that public art "... is not only made for a public place but also has some kind of social function. In fact, what architecture or design and public art have in common is their social function or content. Public art has descended from, but must not be confused with, large-scale outdoor sculpture, site-specific sculpture, and environmental sculpture." Contemporary as this concern may be, it is allied to a tradition stretching back to ancient art's relationship.to special social sites.

As an example of the first approach, Metafisica XVII can be contrasted to a piece on the same campus by artist Nancy Holt. Her work, entitled End of the Line/ West Rock, is completely specific in regard to its place. It creates a meditative site defined by a stone wall rising from the earth of a small knoll and finding focus in metal rings that center viewers upon the peak of a ridge that is a major topographical feature of a larger site. She has said, "I want to emphasize that I'm tired of the isolation of aesthetics. Art needs to be a more necessary part of the world, of society." gathering place related to human questions of sites, space and perception. It is rooted in its place, physically, spatially and socially. Holt's work begins to demonstrate how the site has acquired some of the function of the artist's studio. It also shows the attention given by artists of this attitude that the viewer be not only an observer of an object, but also an interactor with the art environment.

The artist Robert Erwin has distinguished four levels of relationship between art and site: First is the independent object or monument. Second is work adjusted visually to the site, but remaining a recognizable example of the artist's vocabulary, such as *Metafisica*. Third, work specific to the site itself, such as Doug Hollis' "wind sculpture," *Aeolian Garden*. Finally, there is work that is generated by the site. The place itself is conceived of as art.

Practices

The actual practices used by public agencies to plan and place art in public spaces can yield some practical guidance. Although these practices share some fundamental similarities throughout the country, they also reflect the divergence between collecting and placespecific art.

One difference between the present public art enterprise and that fostered through the WPA is the introduction of legislation mandating the expenditures

End of the Line has created an open

for art, usually a percentage of construction costs for public facilities.

Should the users of a site have a role in planning or selecting artwork? The most common solution has been some version of a panel or committee with professional expertise, sometimes incorporating users from the site, to guide the process. In Connecticut, for instance, the process proceeds in three phases.

The first consists of a site committee composed of users, the architect, and an arts professional acting as a consultant. This committee does the preliminary planning for the placement and general kind of artwork. Their planning works from early blueprints and visual information. The result is a basic program for siting the selected types of work.

The second phase is a screening of artists to determine who will be invited to present proposals. Many agencies provide artists 'access to consideration through competitions. This generates an enormous number of proposals, the bulk of which are poorly thought out or prepared. For this reason, the Connecticut Commission offers access through a submission of slides. The panel then reviews relevant work and determines who shall be invited to prepare serious proposals. These artists are then interviewed, and the selection of two finalists is made in conjunction with the site planning committee. Phase three consists of formal ratifications of those selected by the Commission on the Arts and the cabinetlevel Commissioner of Administrative Services.

The detail of this particular version illustrates the time-intensive nature of the public process. In part this can be attributed to the necessity of establishing accessibility and formality in public practices. Beyond that, however, it carries an educative intent important to the future as well as the present of public art. The participatory nature of the process helps demystify the artist's aesthetic object and begins to open doors towards conceiving of work that would be more integral to the place itself. Although this model of process has been largely used in the collecting mode, it has also produced work, such as Doug Hollis' Aeolian Garden, which is more determined by the



"Aeolian Garden," a wind sculpture by Doug Hollis.

specific site.

This is still not a process that effectively allows for extensive collaboration of artists as part of the design team itself. That level of collaboration will be necessary to explore the potential of wholly integrated places.

Conclusions

The first is as obvious as it is significant: A remarkable range of options exists within the two fundamental approaches. The purpose of public artwork—whether in corporate sites, public buildings and plazas, or churches—must be painstakingly thought through, and the approach should be adopted with a vivid awareness of its implications.

The place-directed approach is especially time consuming for those involved, requiring collaborative effort at many levels. Artists must be engaged as early in the planning as possible, not introduced to produce an object for a finished space. However, it should be clear that the place-directed orientation is not necessarily the final solution. It often focuses upon "useful" solutions engaging participants and lessens the controversial aspect of public art.

Richard Serra contends that the relationship between artist and society should be quite the opposite—the needs of art must be paramount. "It is your job as an artist," he says, "to redefine society by the values you were introducing, rather than the other way around."

Most artists continue, after all, in the modernist tradition of personal inquiry. The visual means available to them is astonishingly diverse and often perplexing to their public. At the same time, the paucity of powerful public iconography is troubling to artists seeking more than private or socially critical content.

Mark Rothko sought to resolve the problem by creating his own world of discourse through which to intimate enduring experience. Others, like George Segal, continue with the human figure as the final vestige of traditional iconography, and others sift through the vast debris of contemporary images for fragments of a telling iconography.

The public art enterprise in this country is a prism for the problems of the modernist tradition and the society in which it is rooted. Holger Cahill's conviction in the thirties about our first foray into public art is not dimmed but made more poignant by the present: "Here is the odyssey of the American artist in our time."

CONTEMPORARY SCULPTURE AS A LITURGICAL ART FORM: A MODEL ACQUISITION



A small Delaware church commissions a garden sculpture. An exciting challenge with five distinct stages from concept to completion is met by non-professionals.

by Jeanne S. Rymer

When funding became available for the addition of a sculpture to the memorial garden of a Wilmington church, many unique questions confronted the small committee of lay persons. They had no connection to professional art agencies, no experience with selection processes, and little formal training in the fine arts. Questions fell into four broad categories.

1. What type of sculpture was suitable historically, philosophically, spiritually—for this liberal Christian congregation with a very diverse social, educational, and occupational mix of members?

2. What type of sculpture was suitable artistically—for this garden adjacent to a very contemporary church structure?

3. How could the congregation and larger community be involved in the processes of exploration, decision-making, education, and appreciation?

4. How could the practical aspects of selection, acquisition, and installation be successfully managed by the lay committee?

IEANNE RYMER is an Associate Professor of Design at the University of Delaware. She acted as chairperson of the committee implementing the acquisition process. Her areas of research and publication are in furniture history and interior and product design. The following is an account of the activities of the three-person committee, working through unfamiliar experiences in an attempt to make a permanent, high quality contribution to the 150th anniversary celebration of the founding of their church.

Developing a Plan

It was apparent that a primary need of the committee was for professional advice regarding most aspects of this selfassumed challenge. Upon inquiry, it was learned that the Delaware Arts Council, a government agency, listed this type of assistance to citizens among its functions. With its encouragement, the decision was made to conduct a sculpture competition leading to the awarding of a commission.

The Visual Arts Director of this council was generous with personalized assistance as well as resources, and also acted as a much needed sounding board. Of great benefit was having access to the council's slide registry of Delaware sculptors. Guidance was provided in developing the format for requests, for proposals, drafting specifications for the competition maquettes and the actual sculpture, and in setting a time schedule. Suggestions also were offered by the state arts council for qualified jurors and seminar speakers. This association with the council proved to be a continual source of information and support, as well as a supplier of exhibit equipment.

Time Schedule for Sculpture Project • 1984 Summer—Investigate/formulate plans, write/circulate specifications and request for proposals

• Fall—Receive proposals, facilitate artists explorations

• Winter—Stage exhibit of eleven entries, host reception for artists and community, select/orient jurors, conduct opinion survey of congregation/community, award the commission, negotiate the contract

• 1985 Spring—Submit proposal for funding to Delaware Humanities Forum, sponsor educational seminar, supervise installation of sculpture, organize dedication ceremony

Competition and Jury Process

Discussion with church leaders, the architect of the fourteen-year-old building, and members at large provided a general sense of what might be appreciated in terms of physical size and style of a sculptural piece. Because of the liberal philosophy of the congregation and the encouragement given for the development of human potential, including individual expression through the arts, few strictures regarding form or interpretation were imposed. A set of specifications and requests for proposals was formulated and circulated to twenty-two Delaware sculptors whose past works indicated potential interest in the commission.

Of these, eleven sculptors submitted an intention-to-propose within the twomonth time frame, and ten half-scale maquettes were delivered before the submission date one month later.

Within the following week an exhibition of entries was staged in the church lounge, coordinated with a musical performance and reception to which the community and the sculptors were invited. This dual attraction provided wellpublicized exposure of the entries and fostered a congregational feeling of involvement in the selection process. Opinion survey forms eliciting responses as to the "meaning," spiritual or emotional impact, interpretation, personal preference, etc., were completed by persons attending.

Additional comments reflected a surprising interest, insight and involvement with the entries as well as the whole process. Responses such as "revealed an uplifted spirit," "a form of joyful motion," "amazing interpretation of the nontraditional character of this church" were shared. One respondent wrote a fullpage personal interpretation of his first choice, as well as his opinion about what would be appropriate for the garden.

Composition of the four-person jury was balanced, reflecting varied artistic training and backgrounds. The Director



Expressing the liberal philosophy of the congregation—"one which questions as well as affirms"—is this contemporary home of Second Baptist Church, constructed in 1970. David H. Carlton, architect.

of the Delaware Art Museum, the Director of Visual Arts for the Delaware Arts Council, the architect of the church building, and a University of Delaware Professor of Design contributed their expertise. The latter two were members of the congregation.

lurors pre-screened the entries prior to their exhibition and all were judged worthy of exhibition. After the first round of deliberations, the top contenders were studied in the garden setting before the jurors arrived at a unanimous decision.

Educational Outreach

Delawareans, and particularly those in the Wilmington area, generally reflect a high degree of artistic sophistication, due in part to the wealth of museums in the county. Located in northern Delaware are Nemours, the E.I. DuPont Museum focusing on French decorative arts and architecture; the world-renowned Winterthur, museum of American Decorative Arts; and the home and workplace of the prolific and well-known realistic sculptor, Charles Parks.

It is believed, however, that the level of appreciation of abstract sculpture is not well developed in this area, and that much community enlightenment did result from the year-long project.

Activities employed to enhance this interest in sculpture included the already mentioned exhibition of entries, the opinion survey, and a free educational seminar entitled, 'A Panel Dialog: Seeing, Understanding and Judging Sculpture.'' The competition winner, Richard H. Bailey, joined two respected art critics in this discussion, which also reviewed Bailey's past work.

Active questioning from seminar participants elicited a revealing commentary on Bailey's interpretation and approach to his abstract winning sculpture, "Five Spiritual Forms Meditating." Also explored were practical considerations of fabrication techniques and siting.

These activities were publicized, wellattended and well-received in the community.

Contract, Fabrication and Installation

A simple contract outlining the expectations and terms of the agreement was felt necessary, and was easily negotiated. Because of the outdoor installation on a be-



Visitors to the community-wide exhibit of competition entries were encouraged to submit their responses, opinions and personal preferences, which were later studied by the jury.

Photo by David Clarke



"Rising from the River" by Douglas K. MacDonald, Malvern, Pa. Of welded steel with painted surfaces, the sculpture is mounted on a formica pedestal, raising it to a 48" height. The sculpture measures 18" w x 12" d x 20" h, and is highlighted at the entry of the reception room of Second Baptist Church, Wilmington, Del.

low-grade concrete foundation, it was considered appropriate to include a requirement regarding satisfaction with installation after one winter season.

One inspection visit was made by the committee to the sculptor's studio after all elements of the work were rendered and ready for assembly. Final adjustments were made and installation details and date were confirmed.

Dedication

All major donors to the Memorial Garden Fund were guests of honor at a dedication ceremony. Also, especially invited were art and garden committees of other local churches, competition entrants, and the sculptor and his family.

This Sunday ceremony followed an "Arts Saturday" celebrated by the church, and both were major events of the 150th Anniversary year.

Conclusion

It can be observed that this project exemplifies a model for citizen involvement with the appreciation and acquisition of high quality public sculpture. Persons involved in the project experienced many immeasurable ecumenical benefits such as community outreach, congregational fellowship and spiritual growth. In addition, the church and the larger community have been enriched by expanded knowledge about a not-well-understood art form, and the placement of an exceptionally fine piece of sculpture within their environment.

From beginning to end, and with a minimum of advice and consultation with experts, a group of non-professionals succeeded in expanding and enriching a community's art experience. They were able to anticipate and manage logical steps in the process, from inception of the idea through writing of specifications, selection of qualified jurors, exhibition, education and awarding the commission, to final dedication.

Post Note

Evidence of the success of this experiment in increasing a community's sensitivity to art in their daily environment came shortly after the dedication ceremony. A family who had been wanting to donate a visual memorial was motivated to do so by this project. One competition entry which was deemed by the jurors to have fine art quality, but to be inappropriate for the outdoor site, was very suitable for interior display. This abstract expression of church tradition, "Rising from the River," now occupies a prominent position in a newly renovated church lounge. It is a constant source of inspiration, wonder, and delight to persons inside, as is the garden sculpture outside.



"Five Spiritual Forms Meditating" by Richard H. Bailey, Smyrna, Del. Of black Indian granite from Vermont, polished to a low lustre, the sculpture rests on a pedestal raised 16" above ground level. It measures 36" w x 16" d x 32" h and is the focal point in the Memorial Garden of Second Baptist Church.

PROTESTANT HOUSES OF GOD: A CONTRADICTION IN TERMS?



ome years ago the Dutch writer Gerardus van der Leeuw, with characteristic audacity, made the following sweeping generalization: "There is actually no such thing as Protestant church architecture" (Sacred and Profane Beauty: The Holy in Art [Abingdon, 1963], p. 200). Let us be clear about van der Leeuw's point: It was that there has been no Protestant church architecture. Of course, there have been buildings built by Protestants to house their religious and other congregational activities, but by "church" van der Leeuw meant a building that was quite literally "God's house." Protestants have failed to achieve a characteristically "Protestant" alternative to the churches of medieval or Byzantine Christians, for example, wherein "God's presence" was the "focal point, and the form of the cross" was their design.

Van der Leeuw contended that if the only function of a Protestant church is to provide a forum for the hearing of sermons, then even the format of a theater provides too much structure for such an activity. He offered the forlorn claim that since theologians are afraid to touch the matter, architects themselves were taking the initiative and demanding to build houses of God and not "conference rooms." The issue that van der Leeuw was raising, though it has been largely ignored, is as theologically and historically

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significant today as when he wrote 20 years ago. I want to try to take up the challenge of his remark.

We should first examine several pre-Protestant buildings that are truly churches, in van der Leeuw's sense of the word. It is crucial to understand that there exists an intimate relationship between the architectural style of such buildings and the theology of the era in which they were built. After seeing this relationship illustrated in several great churches, we will be in a better position to see why there has been such a paucity of great church architecture in the Protestant tradition and why that paucity is a direct result of the tradition's theology. Perhaps van der Leeuw's call for a Protestant church tradition is as futile as trying to square the circle.

The great buildings we will look at share a common basilica plan. They are all buildings which feature a large central area, the nave, which is flanked on either side by aisles which are not as tall as the nave. The upper walls of the nave (the clerestory elevations), since they rise above the aisles, can carry windows which light the nave. Characteristically, at the east end of the basilica, in the sanctuary, the building ends with a semidome, the apse.

This simple but highly flexible building format served as a Roman secular building plan before the triumph of Christianity. From the period of Constantine on, the basilica style was widely adapted for church architecture, and it is the plan on which the majority of ecclesiastical masterpieces throughout the history of Christian architecture are based. In each succeeding generation, old forms were given new significance by the aesthetic

reworking of their architectural elements in order to express the predominant theological Zeitgeist.

The church of Hagia Sophia (537 A.D.) in ancient Constantinople (modern Istanbul) is the supreme example of Byzantine Christian architecture. (It is now a museum.) Inside the building every effort is made to disguise its massive buttressing. Its profusion of windows, slender pillars, the subtle curves of its arches, minor apses, semidomes and graceful pendentives give the building an air of delicacy and weightlessness. Even the capitals are carved so as to look like jewel settings, seemingly denying their weightbearing function. The enormous dome, surrounded as it is by windows, appears to float, hovering independent of the rest of the building, in apparent defiance of gravity.

Hagia Sophia was designed to evoke a sense of the "dematerialization" of its physical elements and to create in the beholder a very ambiguous sense of space. In contrast to the dynamic vertical thrusts of Western medieval church architecture-the powerful downward movement of Romanesque, the soaring upward movement of Gothic-Byzantine architecture creates a sense of serene spatial stillness. Hagia Sophia, despite its great height and depth, permits the beholder seemingly to drift toward the apse through the miraculous delicacy and light which surround one.

What is this but an architectural expression of Byzantine Christianity's faith in salvation by deification? Christ became what we are that he might make us what he himself is. It is salvation by the cosmic transformation of flesh into spir-







Hagia Sophia

light are architectural expressions of the Eastern emphasis on spirit and eternity.

We are in a profoundly different world of faith when we enter a church like St. Etienne in Nevers (1083-1097). Probably the first achievement of the "mature" Romanesque style, it is a masterpiece precisely because of its almost brutal severity. There is no attempt to disguise the mass of the structure. The piers in the nave are powerful. The thickness of the walls is accentuated by the addition of galleries above the aisles. The windows in the clerestory are very narrow and further accentuate the mass of the walls.

The barrel vault running through the nave is given greater power by the heavy transverse arches that strengthen and emphasize it. The apse draws down upon its supporting structure, and the windows beneath the apse provide the light that emphasizes the gravity of the east end. There is a semicircular aisle—i.e., the ambulatory and radiating chapels behind the colonnade supporting the apsidal structure—but far from offering relief, these elements only further emphasize the physicality of the whole building.

To stand in such a church is to *stand under*. Of course, the eye goes up, for the nave leads up to the semicircular vault and necessarily the eye is drawn there, but with great force the eye of the beholder is driven down again by the massive arch of the vaulting. One's momentary visual ascent is profoundly reversed by the building's radically downward verticality. One is held down by the heaviness of the overbuilt piers and walls.

What sort of theology is portrayed in St. Etienne? It is a theology that is affected by a profound sense of our finitude, our earthbound and fallen state. True, we do by nature aspire to God, and our initial glance is upward. But without the answering grace of God our striving is fruitless, and even when we are granted the grace for faith, we stand always in awareness of our earthbound dependence. Jaroslav Pelikan, in paraphrasing Whitehead's epigram concerning Plato, has observed that Western theology is "a series of footnotes" to Augustine. This was never more true than during the Romanesque period—the 11th and early 12th centuries.

The greatest theologian of the period was undoubtedly St. Anselm, who regarded himself as a thoroughgoing Augustinian. In his enormously influential doctrine of the atonement, Anselm portrayed the human condition in terms of an archetypal theological Catch-22. Humanity has sinned against the honor of God and must satisfy that honor. God cannot freely forgive us without granting sin an omnipotence equal to God's own. That would be inconceivable. We are so hopelessly in debt to God, however, that we cannot begin to pay for our sin. Therefore. Christ volunteers to become the God/Man, and thus on the cross he makes satisfaction for sin as no mere human ever could. That Anselm's unique theory became instant orthodoxy is testimony of how profoundly the architecture recorded the theological predisposition of the era: Humankind is helpless apart from the saving initiative of God in Christ.

The cathedral at Amiens, begun in 1220, achieves the very climax of the "High Gothic" style. It is 137 feet from the



East nave, St. Efienne

floor to the crown of the vault, and radical upward verticality drives the eye of the beholder up into the vaults—and there one stays. There is no question of the eye's being forced back down. The great height of the building accentuates the upward thrust. But it is clearly not a matter of height alone. St. Peter's Basilica in Rome, for example, is even higher, but its impact is totally different.

The architecture at Amiens achieves this radical upwardness by the use of long, slender columns which are made more delicate by the addition of columnettes. The triforum-the delicate screen between the aisle arcade and the clerestory windows-creates an air of suspension. In the choir there are even windows behind the triforum, accenting its weightless delicacy. The windows of the clerestory are very tall; their height is emphasized by the slender, vertical stone tracery which supports the glass as well as the upper rose windows. The building is almost too high for the eye to take in. The initial effect is dizzying.

In the early and High Gothic periods, roughly from the late 1130s to the 1230s, a new spirit was alive in Christendom. The early Augustinian style was shaped by two significant theological developments. First came a revival of mysticism and neo-Platonism, which led to the belief that by prayer and meditation one could rise to union with God. Second, there arose a new confidence in human reason. Though deformed by the fall, reason could nevertheless establish the existence of God. Reason was a gift of God in nature. Therefore, some theologians were beginning to say that human beings did not require redemptive grace to establish God's existence; natural reason alone was sufficient.

Augustine was a passionate existential thinker, but he was not primarily a mystic. The older he grew the more his earlier neo-Platonism diminished and the more biblical and grace-oriented his theology became. Augustine's thought was filled with tensions, but at root he saw grace as a prerequisite not only from human salvation and virtuous action, but also for right reasonings about God. The Gothic period was an orthodox age, and the rejection of Augustine would have been unthinkable. Nonetheless, the age had a confidence in the natural capacity of human spirituality and reason which Augustine would have thought Pelagian.

Like intellectual historians, art historians on the whole show remarkable indifference to the theology of any era, no matter how theologically that era may have understood itself. The dominant philosophy of the Byzantine, Romanesque and early Gothic periods was neo-Platonic in cast. This fact alone leaves unanswered the fundamental question: How can the same philosophic mind-set have produced such contradictory architectural aesthetics? The variable that explains this great divergence of style is above all the theology of these eras: Philosophy and architecture were both the handmaidens of theology.

By the 15th century, architecture had evolved into a style which gave expression to the "emotionalism of the Late Gothic mystics and nominalists" (Whitney S. Stoddard, Art and Architecture in Medieval France [Harper & Row, 1972], p. 288). It was a style that seems to have prophesied the coming of the Reformation. Taking somewhat different forms in different countries, this late "Baroque" Gothic was characterized by extremely elaborate vaults, windows and facades. Typically, the vertical flight of the naves and choirs of these churches was interrupted by horizontal elements, signaling a very tentative accent. Once the eye reached the vault it was not met by the visual calm'of the simple High Gothic rib vaults. Rather. up above was the disquieting clamor of highly ornate, idiosyncratic geometric designs.

One is reminded of Luther's years in the monastery: The place could not give him peace. His religious passions were inflamed by the prudence and doubt that were endemic to his time—witness the instantaneous, widespread response to his call for reform throughout Europe. Luther's was an age that could still build in the Gothic style; although it could pretend to itself the unity of the original Gothic periods, it was in fact rent by a pluralism that was the necessary outcome of its nominalism.

Nominalism taught that only individual things exist; thus the universal forms of Plato and Aristotle were reduced to merely the names we give to similarities we observe in the endless parade of objects confronting us in the world. Small wonder that in such an era houses of God faltered in their unified upward ascent.

What do we learn of the theology of the age from the extravagantly detailed ornamental decoration which dazzles the eye while cluttering the mind? Reason cannot prove the existence of God because there are no self-evident analogies that



Amiens Cathedral

can be drawn from a world populated by an endless array of individual objects. For Augustine it was human sin that made a full-blown natural theology impossible. The Augustinianism of the 15th century added to the sense of original sin a metaphysic that undercut the natural knowledge of God.

Despite the rich Christian diversity exhibited in pre-Protestant architecture, there existed a consensus on two issues without which the building of houses of God would have been inconceivable. These were the unquestioned authority of the Christian church in the world and a Eucharistic theology that unequivocally affirmed the real presence of Christ in the sacramental elements.

When Europe was emerging from the anarchy of the Dark Ages "about three years after the year 1000, the earth was covered with a white robe of churches." So wrote the 11th-century monk Raoul Glaber. From small parish churches to great cathedrals and monastic edifices. Christendom was giving architectural expression to the Augustinian view that increasingly the church as the City of God was to replace the secular Earthly City and rule the world. Throughout the whole medieval period the church's rights and prerogatives as God's elect were concretely asserted through the prominence and splendor of its architecture.

could claim that the "church even now is the Kingdom of Christ, and the Kingdom of God" would not only find it legitimate to build the houses of the heavenly King on earth but also to spend the enormous treasure that so grand a claim seemed to merit. The Byzantine church did not assert the same political rights as the Western church, but its claim to imperial privilege similarly supported an enormous confidence in its worldly prerogatives.

Protestantism was born of a rejection of the claims of the medieval church to political power and wealth. Christians were called out of the monasteries and convents to a commitment to God through vocations in the world. The Protestant instinct is to be dubious concerning the idea that the church should amass the resources necessary to build a great tradition of houses of God.

In addition to the self-critical "Protestant principle," which impels Protestantism to be suspicious even of its own successes, there are the economic implications of Protestant "worldliness." Exercising one's Christianity through one's secular vocation entails allocation of money in such a way that commitment to God is but one of a number of urgent budgetary concerns. To be in the world inevitably requires that one come to terms with the world's priorities.

Huge capital expenditures on grandiose houses of God cannot help but seem wasteful to a consistent Protestant. Ironically, such frugality vis-a-vis the church is exercised in the name of the very God whose elegant houses the Protestant refuses to afford. The question occurs: If a Christian truly believes it is proper to erect a house of God, can such a Christian seek to do so thriftily? Wouldn't the building of God's house without lavishing one's treasures on it be a blasphemy? Protestants avoid the dilemma between impoverishing the world and impoverishing God by simply not building God a house

Unless one holds the view that the Incarnation is the prototypical justification for a high sacramentalism—perhaps including the veneration of relics, icons and images—then it is difficult to imagine just what would impel one to think in terms of churches *housing* God in the first place. It is true that Luther had a more Catholic view of the real presence of Christ than did Zwingli or Calvin; however, Luther's rejection of the medieval doctrine of transubstantiation was significant.

Clearly, those who with Augustine n

For Luther, Christ's body was truly present "in, with and under" the elements of the Eucharist. But Luther never intended to subscribe to the quasi-magical logic into which the doctrine of transubstantiation led. For example, Lutheranism has never been scrupulously concerned over the question of what one does with the bread and wine that remains after the celebration of the Eucharist. As one Lutheran recently told me, for a Lutheran that is "a non-question."

For Catholicism, however, the handling of the leftover elements and even the cleaning of the sacramental utensils was a serious matter. Great care had to be taken of every crumb, for every fragment was God's body. Transubstantiation raised problems analogous to the disposing of radioactive materials—and presumably the "half-life" of the Eucharistic elements was eternity. Since Vatican II there has been a new mood in Catholicism, and such scrupulosity has abated, even if the doctrine of transubstantiation is still maintained.

Lutherans and Reformed Protestants are closer to one another in their sacramental views than they are to pre-Vatican II Catholicism. Neither Protestant wing would find the locus of the sacrament in the relationship of the priest to the elements. It is what takes place through the elements in the gathered congregation as the body of Christ that is crucial. The Reformed tradition insists on a spiritual 'real presence," while Lutheranism holds to the miracle of a physical "real presence." But both regard the gathered church as the indispensable locus of the sacrament. Thus, it is of the very essence of Protestantism to reject medieval Catholicism's veneration of the host, relics, etc. Byzantine Christianity-even without the doctrine of transubstantiationsimilarly venerated the Eucharistic elements, together with icons.

If what I have argued is correct, Protestantism could not remain true to itself and aspire to a building "which has God's presence as its focal point." The focal point of God's presence can only be the people of God gathered for worship. One example of what a consistent Protestantism *could* build was the 17th-century meetinghouses of the New England Puritans. They were severe, purely functional buildings. Their interior space was designed to center on the pulpit, yet they were also intended to be used for secular as well as religious purposes.

This was consistent both with the

worldly focus of Protestant righteousness and the Protestant sense that there can be no sacred space just as there can be no sacred objects. As the New England meetinghouse evolved, it grew in size and gradually gave way to "churches" which were used solely for religious purposes. The utter, stark simplicity of the early buildings also yielded to the elaborations of the English Renaissance style, supremely exemplified by the architect Christopher Wren. Already the Puritans were finding it difficult to cope with the daringly severe implications of their own theology; church entrances, steeples and pulpits were now richly adorned in a style which, ironically, developed from the Catholic Italian Renaissance. Nevertheless, the Puritan simplicity of church interiors was preserved, and the central pulpit was generally maintained. The Puritan style died slowly.

It is extremely difficult to maintain the Protestant worship life centered in the community of faith as the body of Christ. In our weaknesses and sins, in our individualistic pluralism, we look to either side of us in our church pews and perhaps even look within ourselves and wonder: Could such an aging, discordant, bourgeois, conservative, self-serving assortment of late 20th-century Americans be the locus of Christ's presence? The impulse to answer No is not a new one. It is recorded in the church architecture of the 19th century as well. We can deceive ourselves, but we can't escape from what we build: it reveals the truth about us.

The movement toward medieval revivalism, beginning in the Protestant church architecture of the 19th century and evident in contemporary church architecture, was born of the same impulse to despair over the viability of Protestantism itself. Why would Protestants build Gothic and Romanesque revival buildings? Was it not an attempt to provide a sense of religious mystery to congregations that lacked the zeal and mutual discipline and upbuilding that would permit them even to pretend that they were themselves the body of Christ? It was an ersatz mystery, to be sure, but somehow Protestants found ways to make such a mystery their own

Van der Leeuw was right to claim that no medieval or renaissance revival church can express the Protestant vision. His statement that modern architects were demanding to build houses of God is revealing, however. For if Protestant-

ism discovers a genuinely modern style that enables it to create a house of God or a "sacred space," that same Protestantism will have evolved beyond itself and will in fact no longer exist.

Look at prizewinning modern Protestant church architecture. Often such buildings reflect an attempt to create the sense of mystery van der Leeuw was calling for. Indeed, the sense of mystery created in such churches *does* evoke a feeling of awe.

Modern church architecture clearly looks "modern"; that is, it conforms to the sensitivities of modern style and uses modern materials and building techniques. Yet there is no consistent theological perspective. There is no unity of architectural expression that in any way parallels that of the Byzantine, the Romanesque or the several Gothic periods we have examined.

The dynamics of even well-designed modern buildings range all over the place, as they thrust up, down, forward, sideways—or even not at all. Their "mystery" reflects the highly personalized expression of the individual architect, who may not even be a Christian. Just as much Protestant preaching is nondoctrinal, personal and even idiosyncratic, so modern Protestant church architecture reflects the radical pluralism and individualism of our age.

Protestantism has no vital theological center. Its architecture reveals this disarray. Our modern church buildings exhibit Protestantism's desperate attempt to provide a sense of mystery that will fill the spiritual void within our community of faith by creating some sort of sacred space around us.

I am not pointing a finger at the schizoid tendencies of others. How can a Protestant who is obsessed by the beauty of medieval churches accuse anyone of inconsistency. The true genius of Protestantism is to make extraordinary spiritual demands on very ordinary people. Protestantism provides no dwelling place in which to keep one secure. When the Holy Spirit is quiescent, Protestantism has no shelter from elemental doubts and the icy blasts of the abyss. Thus exposed, it is inevitable that it will seek protection and warmth from any roof that will provide it.

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HEAVEN MEETS EARTH: EASTERN ORTHODOX CHURCH ART AND ARCHITECTURE



by Bishop Chrysostomos of Oreoi

h, East is East and West is West, 11 and never the twain shall meet." A few decades ago every school child knew this famous ditty from Kipling's poetic pen. The jet plane, the realities of modern Weltpolitik, and other harbingers of the proverbial shrinking world, however, have made this observation dated. In many ways the West and East have met. One can buy Coca Cola in that great icon of the Orient, China; any good boutique in the United States sells baskets made by peasants in outposts of the once mysterious Orient; and our colleges and universities are clamoring to participate in an exchange of ideas and scholars that has marked East-West relations since the 1960s.

But in another way, East and West are still, as the prophet-king and psalmist David expressed it, as far from one another as the restored sinner is from his transgressions (Psalm 103 or 102 in the Septuagint, as employed by eastern Christians). While a New Yorker may be familiar with Beijing and a resident of Singapore with San Francisco, how many Westerners know of the ikonostasion, the monastic republic of Mt. Athos, or the formulation for the calculation of Easter

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(Pascha, in traditional Orthodox terminology) in the Christian east? Fewer than we care to admit!

Eastern Christianity is still easternboth in substance and geography. In truth we have reached across the expanses of the globe to embrace the east "out there," but most of us know frightfully little of the eastern origins of western Christian traditions-of the canon of scripture, the major historical liturgies. and the Nicene Creed. It is as though we have forgotten our own backyard. In their historical amnesia, many western Christians have lost a vision of the Christian east and of its distinctive art and architectural traditions. And so I would like to make a few general comments to a largely western audience about these traditions, opening a small window on the Eastern Church, with the hope that someday the door between the Christian east and west may swing open with a stream of fresh cultural air.

Some Necessary History

It is natural that a lack of familiarity with eastern Christianity has spawned misunderstanding. We tend to distort that about which we have insufficient data. This is an established law in the psychology of perception. Therefore, western Christians tend to enter an Eastern Orthodox church and compare the icons to western paintings, the screen separating the altar from the congregation with the rood screen in English churches, and the ornate liturgical services and vesture with those found in medieval Roman Catholicism. We distort what we do not understand in eastern worship by finding western parallels, and the result is an unauthentic portrayal that separates us from the reality of the eastern Christian experience.

I might add that understanding the American Orthodox church is yet another challenge. Of the some five million Orthodox in the Americas, a vast majority of them are of Greek Catholic background—that is, they derive from the Byzantine Rite in eastern Europe which was joined to Rome starting in the fifteenth century, keeping some of their Orthodox customs but succumbing for the most part to Latin theological and liturgical traditions.

When the Greek Catholics arrived in America early in the century, the Latin bishops found their customs (particularly the married priesthood) almost incomprehensible. Many of these so-called Uniates (from the union of eastern Christians with Rome) thus disavowed their ties to Rome and joined themselves to the ethnic Orthodox communities, Bulgarian, Greek, Serbian, Syrian, Romanian, Russian and Ukrainian that have served small populations since the nineteenth century. The effect of this union, the former Uniates far outnumbering the ethnics, was to introduce a spirit and tradition into American Orthodoxy that separates it from the centuries-old Orthodox witness of Greece, the Holy Land, and eastern Europe.

These new converts brought with them

many ideas and art forms that are far more western than eastern. At the same time, save for tiny communities of strict traditionalist Orthodox (the so-called Old Calendarists who symbolize their resistance to reforms by adherence to the Julian calendar), most of the ethnic Orthodox have themselves fallen under the influence of western ideas and the western ethos. This manifests itself in distinctly American traditions, moving them away from the organic growth of the Eastern Church.

This leads not to a fullness of tradition, but rather to a fullness of expression in art and architecture, which binds the past and the present in an "eternal nowness" of transfixed time. That some of the "old country" orthodox communities, caught in the tidewaters of modernism, have also begun to lose their traditional customs is yet another complicating factor in the quest for knowledge of a Christian tradition that reaches back to the Apostles themselves.

Let us look at this continuing Orthodox tradition which western Christians little know and which westernized Orthodox Christians have to some extent lost.

A Difference in Theology

Contrary to all that one may read, it is not time and culture that separate eastern and western Christianity. It is theology. In the nineteenth century a great saint, living in the monastic center of eastern Christianity, the peninsula of Athos in northern Greece, wrote that for the Orthodox Christian there is but one goal in the Christian life-theosis, divinization or union with God. All spiritual effortsprayer, fasting, virtues and so on-have as their goal the transformation of man, not only in the world to come, but here on earth, bringing human beings into a fullness of interaction with God even in earthly life. Mortal man, joined to God through immortal grace, is lifted up to participation in the Divine life restored through the resurrection of Christ. The ancient dualism separating man from God is destroyed by a relationship of synergy between the mortal and the Divine. God meets man in the perfect God-Man Christ.

In this interaction between man and God (in theosis, the central idea that distinguishes eastern Christianity from the western confessions), we see the basic premise of orthodox art and architecture. The church building, along with the art which adorns it, is joined to Heaven. Sa-



Chapel of the St. Gregory Palamas Monastery, Etna, Calif.—typical of small Orthodox "sketes," where three to five monastics live strictly cloistered life of meditation and prayer.

cred Infinity comes to reside in sacred space. Heaven and earth are joined. Orthodox art and architecture become media through which theological precepts are expressed and actualized.

This understanding of art and architecture stems from a deep need in the human psyche to join that which is above with that which is below. The ancients strove to enclose places on earth which they believed joined the "other time" to mortal time and space. It is for this reason that the early Christians, especially in the East, built their temples on the sites of pagan temples, on places where prayer and spiritual seeking had brought earth and Heaven together. It is interesting to note that few Westerners realize that the temple atop the Acropolis was for a short period used as a church by the Orthodox Christians of Greece, being dedicated to the Panagia, the All-Holy One or the Virgin Mary.

The earliest Christian churches, then, attempted not to create presence, but to contain the Divine Presence in those places where the Divine and the temporal met, those curious spots where the two dimensions seem to intersect. And even as Christian temples proliferated, the eastern community always sought out specific sites, turned their altars to the east (the classical place of enlightenment and knowledge), and invoked the Holy Spirit to come and invoke that touching of Heaven and earth that bespeaks a place of true worship.

The Interior Church

Entering an Orthodox church, one finds it divided into three sections: the narthex or entrance; the nave or central portion; and the altar which constitutes the section where the celebrants carry out the services and wherein is contained the

Holy Table, normally called the altar in the west. Though Orthodox churches are often built in the form of a cross, the oldest style is that with a central dome supported on all sides by various wings. The dome represents the universe, and is expressive of the desire to capture Heaven and earth in one place. It is usually painted with a depiction of Christ the Pantocrater, Ruler of the Universe.

Between the narthex and the nave one finds a dividing wall, with two gates allowing passage between the two sections. These gates, seldom found in modern Orthodox churches, are called The Royal Doors. Between the narthex and the altar one also finds a set of gates called the Beautiful Doors. These doors form the central passageway in the wall called the ikonostasion or templon. This altar screen often reaches up to the ceiling and has two side doors through which the clergy enter for liturgical processions. It is ornately decorated and covered with icons (sacred paintings) of Christ, the Virgin Mary, angels, various saints and holy feasts.

To preserve the fullness of space in the church and because standing is considered both a form of ascetic prayer and a sign of respect, Orthodox worshipers do not sit in pews. The introduction of pews into Orthodox worship is newer than electricity and obviously violates traditional architectural concepts and spiritual practices. Sadly, they are a feature of modern Orthodox churches in America and in some places in Europe.

These three areas of the Orthodox church have tremendous symbolic significance. The narthex, in which in the oldest traditions the "lesser offices" are said (Hours, Midnight Service, etc.), represents the world of believers who struggle in the Christian life. During the "greater services," these doors are opened to the nave, which is covered with a dome representing the renewed universe.

It is here that, during entrances with the gospel and the Holy Gifts for the Eucharist, the universal story of man's redemption by Christ is timelessly "recreated." Historical events take on timeless significance and are repeated in one eternal event that has no past and no future, but a momentless present. The doors to the altar are opened when the realm of Eternity is joined to the earth and the congregation is lifted up into "the congregation above." In these liturgical acts one can glimpse the continuing renewal of eternal creation. The novus



The templon (ikonostasion) in an Orthodox Church separates the altar, the "Holy of Holies," from the nave.

homo stands before his immortal life after death. That which is below participates in that which is above.

Icons

With the loss of tradition in contemporary American Orthodoxy, an understanding of the mystical symbolism of Orthodox art and architecture has suffered. Many who have been influenced by the pronouncements of the Second Vatican Council and who lack a basic conception of their own Orthodox worship are calling for the removal of the icon screen, claiming that it separates the clergy from the people.

Some bogus scholarship, repeated by art critics and theological texts, claims that the icon screen was not a feature of early Christian church buildings. In fact, Eastern Christian worship was modeled on Jewish temple worship at the time of Christ, and it is likely that the icon screen had its origin in the wall separating the congregation from the Holy of Holies in small, rural temples. The Eternal Light, preserved in the Orthodox church, as well as the curtain covering the altar, attests to this.

Many have lost the vision of icons as "revealed portraits," as it were, and favor replacing this mystical art with inappropriate abstract forms that keep neither the spirit nor the meaning of true iconography. It is also a fact that many ill-informed observers imagine that the traditional art forms themselves are deviations from early antiquity, and they have begun to call for a return to primitive Christianity. Little do they understand that primitive Christianity is, to the true Orthodox, just that—primitive.

The embryonic roots of our art and architecture may be found in ancient Christianity, but the Church has grown and matured. Her timeless call to bring earth and Heaven together expresses not a call to what is ancient, but to an immersion in what has developed from ancient roots. Our forms of art and architecture continue to call one to the maturity of a



An Eastern Orthodox deacon vested for the Divine Liturgy.

Christian growth that has been guided by constant and intimate contact between earth and Heaven, the latter subtly and slowly transforming the former.

An Invitation to Understand

How does one invite a Westerner to an authentic experience of traditional Orthodox art and architecture? There are some traditional structures in America, but they are both few and imperfect. I recall, for example, accompanying a group of students to view a beautiful Greek Orthodox church, its exterior built in the best of the eastern tradition. Once inside, I was flabbergasted at the contrast.

I found myself in a baroque European cathedral. My shock took a comical turn when, wholly ignorant of her own traditions, the guide told us that one of the most impressive features of the church was the beautiful pipe organ music. I quietly said to myself in Greek, "apistevto"-unbelievable! The actual fact is that Church canon forbids the use of musical instruments: first, because they introduce something theatrical into the sacred realm and second, because they distract from the meditative atmosphere created by traditional Orthodox chants. Choral, music too, is a modern innovation in Orthodox liturgy. The dilemma for the Westerner is great and certainly not helped by the fact that European orthodoxy is not free of western influence. One need simply bring to mind the giant cathedrals of Orthodox Russian, which for the most part are products of Italian architecture, not Byzantine tradition!

All we can do is ask the Westerner to understand the *goal* of Eastern Orthodox art and architecture. Even in its imperfect form, it seems to taste of that meeting of Heaven on earth on which it seeks to feast. Such an understanding will not only thwart the creation of distorted ideas, but will expose the distorted examples one sees in the Orthodox west.

The purist can do more than this. He can travel to Constantinople, which we still call Istanbul, and behold God's finger touching earth in a structure that was ancient when the Lateran and St. Peter's were but gleams in the eye of history. There he can see the magnificent Cathedral of St. Sophia, one of the oldest monuments in Christianity, completed in the sixth century. There the modern artist and the contemporary architect can reflect on the power of the meeting of Heaven and earth, which builders and engineers say that we in modern times cannot adequately reproduce.

THE ORGAN IN JEWISH WORSHIP

by Herbert Fromm

he organ entered the synagogue with the event of Reform Judaism. A short survey of this movement's history may be useful.

Reform Judaism started in Germany at the beginning of the nineteenth century, but it took half a century before the movement spread in the United States. The reformers breaking away from Orthodoxy, which to their minds did not satisfy the needs of modern times, had to take a radical stand in order to draw clear lines of separation.

Some Reform synagogues held their service on Sunday, instead of Saturday, the use of Hebrew was curtailed, most prayers were in the vernacular, and the sermon was considered the central part of the service. The music consisted of some short liturgical responses in Hebrew; anthems and hymns were sung in German or English respectively. The hymns written in the four-part harmony of the Protestant church emphasized the ethical mission of Israel. Cantors were the exception rather than the rule.

After the Reform movement had firmly established itself as a third branch of Ju-

HERBERT FROMM is well known in the United States and Europe as a composer and conductor. Born in Germany, he was conductor for civic operas in Bielefield and Wuerzburg. After coming to the U.S. in 1937, he was music director and organist for Temple Beth Zion, Buffalo, N.Y. and Temple Israel, Boston. A private pupil of Paul Hindemith, his compositions include choral works, song cycles, chamber music, cantatas and a large body of liturgical music. In 1945, he won the Ernest Bloch Award for his cantata The Song of Miriam. Many of these works are available as recordings. His literary publications include three books. The Key of See-Travel Journals, Seven Pockets-Writings, and On Jewish Music—A Composer's View.

daism—Orthodoxy and Conservatism being the other two—there was a slow but steady return to more traditional ways. Jewish rituals were valued again, the successive editions of prayer books contained more and more Hebrew and today, both male and female cantors are found in most Reform temples.

The music reintroduced old chants set in scales different from the major and minor keys of secular compositions. Certain motifs characteristic of the holidays, hymns in Hebrew, even Chassidic tunes from the folkways of Eastern Europe were accepted. The gap once separating Reform from Conservatism has become narrower while the difference from Orthodoxy is still considerable.

Now let us consider the organ in Jewish worship.

A primitive reed organ was already known in the First Temple by the Hebrew term *ugav*. The Talmud, referring to the practice of the Second Temple, calls it

one of the two instruments retained from the First Temple (the other one being the *shofar*), and informs us that it became defective and could not be mended.

Another more complicated type of organ, called *magrepha*, was used extensively in the Second Temple, mainly for signal purposes. We do not have a satisfactory description but, by inference, we can imagine something like a pan pipe operated by mechanical wind pressure. A Talmudic tractate speaks of ten holes, each of which could produce "ten kinds of songs," so that the instrument in this unlikely description was capable of yielding one hundred "kinds of songs."

Contrary to a rabbinic edict banning instrumental music from the synagogue after the destruction of the Second Temple in Jerusalem, we hear of sporadic appearances of organs and other instruments long before the Reform movement raised the question early in the nineteenth century.





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The introduction of an organ in the first Reform synagogue built by Israel Jacobson in Seesen, Germany in 1810, aroused a storm of indignation that grew to fierce dimensions when big cities. such as Berlin and Hamburg, also installed organs in their temples. The orgelstreit (organ quarrel), as it is known in German-Jewish history, divided congregations and produced a whole literature of rabbinical response. The opposing parties founded their argument not only on the old injunction that instruments must not be heard in the synagogue, but they also considered the use of the organ as infringing on the prohibition to imitate alien cults (chukkot hagoyim).

Among the early Reform temples was one built around 1815 by the wealthy banker Jacob Herz Beer in Berlin. Beer's son, later world famous as the opera composer Giacomo Meyerbeer, arranged the music for his father's temple. Enlightened a musician as he was, he did not wish to introduce an organ in Reform worship.

"I consider it my merit," he wrote in a letter to the Jewish community in Vienna, "that in accordance with Mendelssohn-Bartholdi, I arranged in Berlin an *a capella* choir only. A man in prayer should approach God without any intermediary. The Jews have maintained that opinion since the destruction of the Temple, and we should not introduce any innovation. But, if instruments are required, then flutes and horns should be used, similar to those used in Solomon's temple. However, the human voice is the most moving."

Meyerbeer, obviously after consultation with Mendelssohn, gave a clear opinion but he was wrong when speaking of flutes in Solomon's temple. The flute, *chalil*, was considered a secular instrument and as such was not allowed in worship.

A German writer and scholar of such high artistic sensibility as Leopold Zunz (1794-1886) seemingly liked instrumental music in the Synagogue, but made a conciliatory statement in his *Gottesdienstliche Vortraege* (Lectures on Worship): "Only the accompaniment of the music is new—but not un-Jewish. Instruments and song were a main part of the ancient temple worship ... but then, concord is the best sounding harmony and organ and choir should not be instituted if they cause a rift within the congregation."

After the dispute had settled, the organ became a permanent and necessary part of Reform worship. Even a number of Conservative congregations decided for an organ although the instrument, in many cases, was looked upon with suspicion and not allowed to take part in some of the feasts of the Jewish year. The first organ in an American Reform synagogue was installed in 1841 in Charleston, South Carolina. Other congregations followed in quick order.

There is no doubt that the organ has lifted Jewish liturgical music to a new level. Suffice it to say that composers of worldwide reputation, like Ernest Bloch and Darius Milhaud, wrote complete services for the synagogue.

The instrument's most important function is, of course, providing an accompaniment for the singers and congregational participation. Solo music for organ in the synagogue is relatively new and no older than about one hundred years. The only worthwhile organ work on Jewish themes coming out of the nineteenth century is the Fuenf Fest Pradeludien (Five Festival Preludes) by Louis Lewandowski, opus 37. Today we have a certain amount, not yet a literature, of solo music by Jewish composers written specifically for the synagogue. There are two categories: (1) larger, independent works for recital purposes or prelude and postlude material, and (2) strictly liturgical pieces in smaller forms needed during the reading of the Kaddish or covering the Silent Devotion.

A significant work is a volume, edited by Samuel Adler, under the title, Organ Music for Worship (Wallan Music, New York, 1964). This book, a collection of organ music by Jewish composers in America, contains pieces by Hugo Adler, Samuel Adler, Jean Berger, Herman Berlinski, A.W. Binder, Isadore Freed, Herbert Fromm, Ernst Levy, Heinrich Schalit and Robert Starer.

Among the volume's most extensive pieces I would name particularly Samuel Adler's "Feast of Weeks," which utilizes three traditional melodies for Shevuot and an imposing Passacaglia by Isadore Freed. I have special affection for a small organ prelude of only 13 measures by Ernst Levy. It is called "The Sabbath Bride" and rests on a purely diatonic melody faintly recalling the chanting of Shir Hashirim, The Song of Songs. The melody is set forth with a minimum of accompaniment and is so finely stitched with melismatic ornamentation that it brings to mind the delicate work of Yemenite embroidery.

Aside from this volume, we have a number of separate publications of organ music by Jewish composers, such as Samuel Adler, Ernest Bloch, Herman Berlinski, Mario Castelnuovo-Tedesco, Isadore Freed, Herbert Fromm and others.

Some old synagogues have fine pipe organs; new buildings, almost exclusively, employ electronic instruments that have no pipes to use as an architectural feature. Choir and organ are best located above the pulpit platform so that the cantor's voice from below comes from the same direction as the sounds of choir and organ.



Interior of Temple Israel, Boston.

The accompanying photo was taken from the interior of Temple Israel on Boston's Commonwealth Avenue, now the Morse Auditorium of Boston University. The synagogue was built in 1905 and had a fine two manual organ by Hutchins and Votey. The pipes were housed in a chamber of the right side wall. The striking fanlike arrangements of large, non-sounding pipes around the stained-glass window were for visual effect only. The number of these pipes is thirteen. I do not know if the designer aimed at a symbolic meaning. In any case, thirteen is an important number in Jewish lore. Two examples: a Bar or Bat Mitsvah (son or daughter of the commandment), after reaching the age of thirteen, is ready to take part in the life of a congregation, and in the book of Exodus, Chapter 34, God is described as having thirteen attributes.

In spite of what has been achieved so far, organ music for the synagogue is still a little known branch of Jewish music. It will grow in volume and stature and, at some future time, may well command the attention of the music world at large.

RENOVATION—THE PROCESS The New New Old South Church, 1976-1986

by Rolland Thompson, FAIA

The venerable youngster, the Old South Church at Copley Square in Boston, is now again resplendent, inside and out. It is a joyful house of Prot estant worship, with relevant preaching on Christian issues, varied programs for all ages, an outreach mission that ranks it high among Boston philanthropic foundations, and music programs using the newly acquired, newly rehabilitated E.M. Skinner organ. This article is about its interior religious resplendence, or rather about the management process and the kind of people that made it all happen.

Founded in 1669, Old South is now in its third home, called the New Old South Church. Its previous home, the landmark Old South Meeting House, built in 1730 on Washington Street, served it well for 145 years until the congregation decided that a highly commercialized district had no future for its religious life. Because of urban crowding, excessive air pollution from cooking fires, and increased crime, the majority prevailed and moved the church to Copley Square.

There they built the New Old South Church, a Victorian statement of Gothic architecture from northern Italy; a design choice inspired by the writings of John Ruskin who hailed the importance of decoration as being paramount in a successful architectural design.

In 1950, the building had become a burden to keep resplendent. Deferred maintenance, water infiltration, and sundry other burdens of age required defensive repairs. Simultaneously there was thoughtful resistance to spending Christian resources on "bricks and mortar," a

ROLLAND THOMPSON, F.A.I.A., recently retired to Boston from an active practice in New York City. He is a member of Old South Church and served on the Management Committee with enthusiasm and dedication for this successful renovation. perceived embarrassment of misplaced mission.

So the interior was painted a greenish grey—walls and structure, limestone and brick piers, 19th century stencils—everything disappeared. The cupola, with its purple glass from the Tiffany period remodeling, was concealed with a wooden diaphragm, and the gloomy interior was lighted with glaring spotlights. The 1915 Skinner organ was sold and a Reuter organ placed in a northern European styled West Gallery.

But history repeats itself, and in 1976, in the spirit of the 200th celebration of the country's founding, a trustee of the church wrote "Plans for a Project," which included inside and outside work, roof repairs and the cleaning away of the urban grime of a century. Inspired now by its "bricks and mortar" heritage, the congregation set about the task. It agreed with the need to rehabilitate the sanctuary, but deferred that task to the more important one of preserving the exterior. They hired the Boston firm of Shepley, Bulfinch, Richardson and Abbott to oversee its preservation, which was accomplished during the 1970s.

And now a complication, an opportunity if you will, presented itself in the summer of 1982. The Ordway Music Hall in St. Paul was to be demolished and there was an eagerness to find a new home for the great E.M. Skinner organ, opus 308, purchased by public subscription in 1921. The trustees met by telephone, made a decision, assembled a team and removed the masterpiece to Massachusetts one week ahead of the wrecking ball! The decision was one of faith. It was also one of historical perspective, for the church had once contained a Skinner organ, from 1912 until the late 1960s.

In the summer of 1983, the Long Range Committee of Old South Church set up the "Old South Fund" to back programs addressing Christian concerns of hunger, housing, and education. Because of creative financial management of its rental office building on Washington Street, the church now had the resources to address Christian program and "bricks and mor-



The Management Committee: (seated, from left) Rolland Thompson, Theodore Parkins, The Rev. James Crawford, Samuel Brown: (standing, from left) John McConnell and Daniel Coolidge of Shepley, Bulfinch, Richardson & Abbott, Architects. Not present: Thomas Wardell and David Worth.
tar" simultaneously. A management committee was formed by the trustees to continue with the renovations and plan installation of opus 308.

The committee was composed of members with professional talents: the senior pastor, a lawyer with strong financial experience, a businessman with long time dedication to the church, an organist, an engineer, and an architect. The committee set management goals and priorities, made an organizational decision-making diagram that worked, and dedicated itself to the democratic process. It set programmatic, religious, functional, aesthetic, technical, financial, and scheduling matters with speed and authority. And it operated in a democratic way to respond to the wishes and needs of the congregation, staff and friends of Old South. Like it or not, the architects faced 350 clients, including three committees, Board of Trustees, and the Church Council.

The committee had to give the designers architectural freedom to experiment and yet require them to be responsive to constructive criticism. It had to see that schedules were met and budgets adhered to. It required that the logistics of planning, construction, and daily operations were possible. This project was not to become a camel, defined as a horse designed by a committee. This project had to be a creative reconstruction combining the agenda and skills of many different people. Working rules and regulations were developed as follows:

Management Structure

I. Lines of Authority and responsibility were established and adhered to throughout the project. Creative accountability was the order of the day.

Communications

2. Frequency of Meetings: In the planning and design stages from the summer of '83 to Council vote in June 1984, the committee met biweekly to assure evolutionary development of design and construction costs. Each meeting had a written agenda with a time limit.

3. Meeting Records: Comprehensive minutes were kept not only of the decisions made, but in many cases, of the logic that determined the decision. The committee wanted a record that stated the reasons—aesthetic, financial, practical, technical and spiritual.

4. Communications with Architects: Informal design reviews were held at SBRA's office

prior to more formal review with the committee. This meant that the architects could test ideas and schemes in the developmental stage, a time saving process that focused their efforts.

5. Communications with Old South: When design watersheds were reached, the management committee set meetings with key members of the congregation to keep them informed of progress and to invite a critique of design, function, changing program, cost, quality, and schedule. Written reports were issued to the trustees on a monthly basis. A verbal report was rendered at each monthly meeting of the Council, the governing body of the church and congregational meetings were held to keep everyone informed.

Design Tools

Techniques were adopted by the church to aid everyone in understanding the design, to give the architect freedom to design creatively, and to control construction costs.

6. Photography: The architects were encouraged to use the services of a professional photographer to provide the basis for drawing perspectives. preparing detailed 1/4" scale cross sections, and developing construction details.

7. Full Size Mock-up: The Rambusch Company, one of the last of the New City Studios from the turn of the century, prepared a two-day mock-up of the architects' color, stenciling, and cleaning schemes. The mock-up proved it was cheaper to paint and glaze collonettes to resemble cherry than it was to strip them of their paint and refinish the real cherry wood below. The congregation inspected the designs and made creative comments. One woman felt the first design mock-up was too geometric, too rectilinear, that it competed with the architectonic quality of the interior. She expressed a desire for a stencil design inspired by floral motifs. The architects responded with new and inspired versions.

8. Two Acoustical experiments were conducted. Before the construction documents were completed, carpeting was removed from under the pew areas to test the potential reinforcement of congregational singing. Prior to the renovations, members were asked to state their reactions to the acoustical change. As a result, the final design contains wood floors and carpeting in the aisles.

Later on, when the organ was installed, an experiment was conducted to determine the best sounding board effect for the choir. Curtains behind the ornamental chancel screen were abandoned in favor of a solid acoustical wall to achieve choral synchronization.

9. Furniture Mock-ups were prepared both for the choir chairs and the modesty screens prior to final design acceptance and fabrication.

10. Final Wall Stencil Mock-ups were prepared during construction. This gave the architects a chance to refine size, scale, design, and color of the walls and their surrounding patterns of diaper work, floral scrolls, and panelizations. Through meetings in the chancel for all interested parties, the congregation was able to express its feelings and the architects to respond with evolutionary designs.

11. Construction Consultation was deemed necessary to control costs and make the expertise of a builder available to the architects *during* the design process. The committee reviewed contracting options, checked client references, and hired Walsh Brothers as a construction manager to set a guaranteed maximum price for the project at 80 percent completion of construction documents.

12. Guaranteed Maximum Price was based on sub bids from the important trades affecting cost: scaffolding, stained glass repair, painting, millwork, and electrical. The GMP-Contractor provided general conditions, supervision, laborers, rough and finish carpentry par excellence.

13. Form of Cost Estimate was tailored to the type of project and the needs of the client to control costs. Costs that were impossible to qualify in advance were established as three allowances. The first was a contractor's allowance to cover expected items of work that could not be determined until construction examination was made from interior and exterior scaffolding. This included the state of the trusses, copper flashing and cladding of the cupola, deteriorated plaster on the sanctuary ceiling, etc. The second allowance was for items not yet completely designed that would change as the work progressed, such as wall stenciling and carpet design. The third allowance was for items to be purchased directly by the church, but not yet designed or selected, such as choir furniture, modesty screens, pew cushions and the like.

14. A Status Report was prepared by the committee to help it in the decisionmaking process as the job progressed. Prepared in a few hours by a computer programmer from an existing software database program, it meant that as the job progressed and costs became better known, unknowns revealed themselves, and new program needs developed, the committee could on an ad hoc basis decide what would be financially feasible. 15. Criteria for Authorizing Additional Work. Availability of scaffolding and skilled craftsmen, aesthetic up-grade, technical up-grade, availability of savings from allowances, etc., were the criteria úsed. It would be a half century before scaffolding was repeated again. The skills of the assembled work force were unique and to be taken advantage of. Finally, there was always consideration given to upgrading the design technically and aesthetically.

The final design reflects such consideration. Besides the creative restoration of the sanctuary itself, of particular interest is the chancel platform, increased threefold to include organ console and choir. The pulpit maintains its dominant position, a New England tradition of the Protestant movement with its emphasis on preaching and interpreting the Bible. The organ console is recessed into a pit during worship services to hide the distraction of choral directing and to afford the choir better sight lines to the organist. The pulpit, which was rehabilitated and redesigned to be on wheels along the chancel steps, may be moved aside for celebration of the sacraments, for weddings, and baptisms. Also, for concerts the console is raised to chancel level and the choir furniture replaced with musician's chairs and stands.

The Art and Architecture of the Sanctuary

Mention Congregational churches, especially New England Congregational churches, and the image is one of a white steeple nestled among white painted frame houses against a backdrop of green fields and tall elms. Further reflection will bring to mind an interior of a meeting house with side balconies, center pulpit and tall clear glass windows ... as in this church's previous house of worship, the Old South Meeting House on Washington Street.

Enter the New Old South Church on Copley Square in Boston, and you will see an entirely different architecture, one created out of the optimism and wealth of the Industrial Revolution after the Civil War. Its original design was inspired by the Gothic architecture of northern Italy, but now recreated, rehabilitated, and redesigned in the mid-1980s to meet the needs of an active, concerned and loyal congregation.

Look first for the signs of the Meeting House tradition. You will find it in the center pulpit and the side balconies. You will also find it in the placement of the communion table below the pulpit. This is a church in the spirit of the Reformation where the Word of God as preached by man is the architectural theme. It is the interpretation of the Bible that is most important and the dominance of the pulpit speaks to that.

Now notice how the present design meets the needs of today's congregation. The original pulpit has been given wheels to permit movement to either side. This opens up the chancel platform for use in weddings, baptisms, and the reception of new members. The rehabilitated Skinner organ console is centrally located on an hydraulic platform, raised for concerts, sunken for services of worship. The choir, formerly in the West Gallery, are



seated on contemporary Ruskinian chairs of cherry wood. Their voices rebound from the patterned cherry wood floor to join the acoustics of the organ in what is a musically lively space.

Next, look to the choice of Northern Italian Gothic as the original architects' inspiration. Notice the cruciform plan, the lantern over the center of the crossing, and the visual strength of the wooden trusses supported by four masonry piers. The piers themselves have a hierarchy of masonry, two colors of sandstone at the base, limestone and red brick above. Notice the carvings in the limestone. The trusses are a glory of sophisticated structural design in New England pine with cleverly conceived wood forms, with champfer and applied trim. Even the metal bars that take the forces of tension are decorated with ironwork designs of the period and colorfully painted. If you look carefully you will see the iron crosses. Notice how the diagonal trusses spring from the supports to terminate in the square of lattice trusses, which act as a compression ring supporting the walls of the lantern. The form of the lantern is 1875, but the design of the painting is 1985 with its gilt, blue dome, and stars.

Now notice the arched wooden screen behind the chancel, below the Annunciation window. It is a 19th century copy in cherry wood of the stone screen found on the second floor of the Doges' Palace in Venice. It was moved forward in 1985 to make room for the pipes of the great organ retrieved 61 years later from the path of the wrecking ball in St. Paul. In this sanctuary you are standing inside a musical instrument, the organ. Notice the flanking towers containing pipes, the exposed wooden pipes recently installed at the ends of the side balconies and decorated with polychromatic designs (a Venetian tradition), and



finally the pipes and gilded trumpets on the east wall of the gallery.

Continue to appreciate the Gothic tradition by observing the woodwork and carvings in the sanctuary, most from the last century but some from the recent rehabilitation. The elaborate carvings on the pulpit celebrate the forms of nature and the symbols of Matthew, Mark, Luke, and John. The paneling of the balconies has flower forms in nonrepeating variety, the pew ends have elaborate panels topped with flower finials. The paneling of the side walls is enhanced with a floral frieze in plaster, now painted to resemble cherry wood. Admire the Venetian glass mosaic panels over the exit vestibules to either side of the chancel, as well as the diagonal vision panels in the paneled doors.

And the stained glass is glorious especially on a sunny day. Like the Catholic churches of Europe they instruct those who care to learn. The south window over the right hand balcony shows five of Jesus's parables, opposite are five of his miracles, and high over each are stunning designs of abstract virtues. In the rear of the nave to the left are four prophets and opposite high up the four Gospel disciples. Along the side walls the nature theme is again expressed in flower designs, each deserving contemplation.

And more glass, stained and clear, can be found in the paneled doors leading to the narthex. Much of the glass is new, some is old. It now allows the sanctuary to be viewed from the narthex.

Observe the celebration of color on the walls and ceiling. Inspired by the spirit of design from the last century, these are 20th century creations of the architectural designer. The infill pattern in the arches over the windows, technically known as diaper work, takes its theme from the stone diaper pattern on the outside arches of the church, including the ornamental trailing curlecue. The pattern in the carpet is a variation of this theme, as well as the needlepoint in the 19th century ornamental chancel chairs, fabricated by members of the congregation.

Finally, look at the lighting which not only provides a level of illumination in the pews, but also illuminates the walls and highlights the ceiling. Cummings and Sears, the architects of the original building, deplored the removal of the chandeliers after the turn of the century. Fortunately, the architectural firm of Shepley, Bulfinch and Abbott, through the talents of Daniel Coolidge and John McConnell, created new chandeliers with playful lights and powerful lenses.

Give a thought to the artists and craftsmen who fashioned the myriad of details in wood, stone, glass, fabric, and metal, in 1974 and 1984.



ENERGY CONSERVATION IN RELIGIOUS ARCHITECTURE



by Lawrence Cook, AIA

The energy crisis which began with the oil embargo in 1972 caused a major change of direction for contemporary architecture. The current drop in oil prices along with the success of conservation efforts to date have lulled many into thinking that this crisis has passed, but nothing could be further from the fact.

The world supply of oil will be nearly exhausted by the year 2000 and all fossil fuels soon thereafter. The only remaining fuel of long-term supply is nuclear power, which is losing popular acceptance due to near disasters in the United States, Russia and elsewhere. With such a challenging dilemma before us, religious leaders and their architects should give serious consideration to designing energy efficient facilities as well as retrofitting most buildings constructed before 1975.

The architectural firm of Lawrence Cook Associates has specialized in adapting passive solar and other energy technology to the demands of religious architecture. This article illustrates four facilities built in Virginia for different denominations which employ most of the proven energy strategies.

The integration of passive solar and other conservation techniques added little to the initial construction cost of these buildings. Most features paid for their cost with fuel savings in much shorter periods than the four to eight years predicted in energy analyses. Once constructed, these features provide continued savings for the owners. In the lifetime of a well designed passive solar sys-

LAWRENCE COOK, AIA, current Vice-President of IFRAA, is a practicing architect in Falls Church, Virginia. The firm has received four design awards from the U.S. Department of Energy.

tem, the mortgage can be paid for two or three times over with the fuel savings!

Other design concepts such as multiple use of spaces, structural, mechanical, and lighting systems, or interior design, will be mentioned only in sufficient detail to give an insight into each of the four design concepts. The buildings are all well insulated, but insulation technology is so widely employed it does not need further mention here.

Columbia Baptist Retreat

Located on a farm in the rural mountains north of Winchester, Virginia, the Columbia Baptist Retreat was designed to enhance the spiritual and social growth of a large congregation in an all-season retreat center (Plate 1). Its main energy features are light mass, natural daylighting,



Plate 1. Columbia Baptist Retreat is light mass construction for quick heat up.



Plate 2. Columbia Baptist Retreat floor plan.

cooling by natural drafts, and heating by direct solar gain. The lodge is in use every weekend (with a year long waiting list), but not always during the week. Therefore the building is heated up and cooled down frequently. This called for a light wood frame structure to reduce the mass. A heavy mass building, such as masonry, would have required more time and energy to heat up for each weekend visit to the retreat.

The lodge was set into the forest to provide natural shade as well as screening from highway noise and view. Orientation to the sun, mountainside, and deciduous trees rendered the optimum sun and shade factors for summer and winter. The placement of large windows, deeply recessed clerestory windows and solid walls, was determined by summer high and winter low sun angles as well as views (Plate 2).

In summer, the entire lodge was designed to be cooled by induced drafts. As warm air rises up the hillside from the valley below, the Venturi principle is used to draw air through low front windows and exhaust it out high rear clere-



Plate 3. Columbia Baptist Retreat direct solar gain in main room.

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story windows. In winter, the main space of the lodge is heated by direct solar gain and a log burning fireplace (Plate 3). The two zone furnace system, needed for severe winter cold, heats the two wings of the building, which are separated by time of occupancy.

Christ the Redeemer Church

Christ the Redeemer Church requested a 15,000 square feet Catholic parish center under one roof (Plate 4). The applicable energy strategies include earth sheltering, heavy thermal mass and daylighting. Other energy conserving features are the plan configuration and a self-ventilating roof to reduce the air conditioning load. The building is zoned into five areas by time of use, and only the spaces being used are fully heated or cooled.



Plate 4. Christ the Redeemer, a Catholic Parish Center under one roof.



Plate 5. Christ the Redeemer floor plan with three major spaces arranged along the central axis.

The floor plan (Plate 5) illustrates the concept of "a square within a square," that is, the main worship space surrounded by the remaining spaces of the building. The efficiency is twofold: heat generated within the building is transferred from one space to another; heat lost to the outside is minimized because the area of exterior skin is minimized.



Plate 6. Christ the Redeemer. Interior spaces are flooded by natural daylighting.

To accommodate for varying size groups and different activities, the three major spaces were arranged along the center axis so that all spaces could be combined for maximum seating of 700 persons or subdivided by folding partitions into various combinations for smaller, simultaneous functions (Plate 6). The main space was also designed for dinners, socials, dances and performing arts in addition to its primary worship function. The small chapel is heated for daily Mass, private devotions, and the reservation of the Blessed Sacrament, thus avoiding the need to fully heat the larger spaces. The clerestory windows on four sides of the flat central room (Plate 7) provide a flood of natural light to all major interior spaces. Skylights provide natural daylighting to the interior administrative support wing.

The curved north end was buried into the natural hillside and earth berms were placed against the other exposed exterior walls to reduce heat transfer. The earth maintains a natural temperature of 55 degrees Fahrenheit year-round, which drastically lessens the amount of fuel needed to heat or cool the spaces. It also keeps the floor warm for children to play or sit on. A French drain system and a good vapor barrier prevent drain system and moisture problems. Concrete masonry was selected as the basic building material for heat retention mass and economy. The concrete masonry thermal mass acts as a heat sponge that absorbs heat during the day and releases it at night when temperatures drop.

Burke Presbyterian Church

Burke Presbyterian Church built an initial phase facility of 7,500 square feet, to include a 270-seat Meetinghouse for worship, social events and education, plus a support wing (Plate 8). Due to a lack of community facilities in this new town, the building has been serving both the Burke Jewish Congregation and the Burke Presbyterians.



Plate 8. Burke Presbyterian Church is heated and cooled by one of the largest Trombe walls in the United States.

A wide spectrum of energy strategies can be examined in this one building: Trombe wall heating and cooling; daylighting; earth berming; exterior insulation; and selective areas of glazed and solid walls. The total energy bill has been reduced by 75 percent of what it was estimated to be without these energy fea-



Plate 7. Christ the Redeemer longitudinal section shows large clerestory windows on four sides.



Plate 9. Burke Presbyterian Church. All spaces are lighted by natural daylighting.

tures, which paid their way with the first two years of energy savings. It was estimated to cost \$2,200/month average without these features, but has, in fact, cost a mere \$360/month average during the first three years of heavy occupancy! This is an all-electric facility, so measuring the energy consumption has been very accurate.

The passive heating system provides about a third of the average annual heating. The system consists of a solid 2,000 square foot masonry Trombe wall (Plate 8), which faces due south. This is among the largest Trombe walls built in the United States. It absorbs winter sunlight and stores heat for distribution via interconnected fans and ducts as needed to heat various parts of the building. Heat is also stored in the wall and transferred by radiation to adjoining space during the diurnal, day to night, cycle. The stepped ceiling of the Meetinghouse (Plate 11) causes hot air to rise to the top of the center bay (which is 26 feet high to accommodate a future pipe organ). From here the air is returned through the furnace system in winter or exhausted outside through two large fans in the tower in summer (Plate 12).

The various rooms were arranged in



Plate 11. Burke Presbyterian Church. Interior view of Trombe wall.

plan by their need for outdoor view (Plate 10). Thus the kitchen, storage, mechanical equipment and toilet rooms were set along the Trombe wall. The floor plan is elongated along the east-west axis for maximum southern exposure. The north wall of the sanctuary is completely solid to lessen the impact of prevailing storms from the northwest. The support wing is earth bermed to reduce heat transfer.

The passive cooling system provides more than half of the annual cooling, which is much better than was estimated. In summer, the Trombe wall must be shaded from sunlight by tall deciduous trees (Plate 8). Outside air enters through

louvers at the bottom of the Trombe space and exhausts through louvers at the top. At night the same process is assisted by fans, thus cooling the Trombe wall, which in turn draws heat out of the building. The gravity draft system through the north tower also provides constant cooling of the Meetinghouse. This cooling can be increased significantly by the two large exhaust fans used before and between services.

Daylighting is used in every space of the building (Plate 9). Clerestory windows in the Meetinghouse provide both daylighting and direct solar gain. Automatic blinds are silver on one side to reflect summer sunlight, but are black on the other side to absorb winter sunlight. All exterior rooms have operable windows for ventilation as well as daylighting. All interior spaces have skylights or clerestory windows.

Materials were selected for energy performance as well as esthetic enhancement. The structural shell of the entire building is exposed concrete block on the interior for solar mass and wrapped with a two-inch layer of rigid insulation on the exterior to improve thermal retention. This masonry shell is clad with stained cedar ship lap siding over the exterior insulation to render the "Meetinghouse" appearance (Plate 13). On the



Plate 12. Burke Presbyterian Church. Trombe wall is protected during summer by deciduous trees and high sun angles.



Plate 13. "Meetinghouse" appearance expressed by stepped massing, exhaust tower and clapboard siding.



Plate 10. Burke Presbyterian Church floor plan showing Trombe space along entire southern exposure.

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interior structural laminated wood trusses with exposed steel connectors frame the clerestory windows. The Trombe wall is finished with dual glazed fiberglass panels, which have a high solar gain factor with good heat retention (Plate 8).

Fairfax Unitarian Church

This church needed a flexible, multipurpose room to be used for worship services, theatrical performances, social events and art shows. Other spatial requirements included an outdoor worship space (Plate 17) and a commons area for overflow crowds. A moveable platform and chairs provide for a variety of arrangement patterns to accommodate different functions, but can be removed completely for dinners and dances. The roof of the main space is supported on a laminated wood truss, which bears on four Douglas fir posts to reflect the strength of nature in lieu of traditional religious symbols (Plate 14).

The major energy features are daylighting, direct solar gain from the large bank of clerestory windows which transverses the main room, and earth sheltering of the support wing (Plate 16). Other features include the plan arrangement (Plate 15), glazing versus solid walls, the



Plate 15. Fairfax Unitarian Church floor plan shows main room surrounded by earth sheltered wing. Covered walk encloses outdoor space.



Plate 14. Fairfax Unitarian Church direct solar gain and daylighting from clerestory window accent exposed structure.

use of high and low mass materials, exterior insulation, and a self-ventilating roof.

Continuous windows on two sides of the main space allow views into the surrounding woods, but are a compromise energy wise. The main space is constructed of a light steel and wood frame for low mass, which can be readily heated when needed. At other times the temperature is set back to 45 degrees Fahrenheit. The other two sides of the building are nestled into the hillside providing earth sheltering (Plate 16). Heavy mass materials including masonry walls and concrete floor were specified to utilize the earth's constant 55 degrees Fahrenheit of the surrounding hillside.

Clerestory windows, which accent the high, wood ceiling, bring in a flood of natural light and direct solar heat gain into the main space, which can be controlled by roof overhang and operable, reflective blinds (Plate 14). The return air grills are at one end of the clerestory windows to collect hot air, which is redistributed during winter and exhausted during summer. The commons area features a large log-burning fireplace, more for psychological than physical comfort.

Although the four religious facilities illustrated are located in Virginia, the same energy techniques can generally be applied at about the same latitude across the country, with greater or lesser efficiency, depending on climatic and geographic conditions. In more northerly latitudes where cold winters must be resisted, sheltering and double shell exterior walls are more popular, while in more southerly latitudes earth sheltering and naturally induced ventilation control the hot, humid summers. Most of these techniques will perform well in a wide variety of climates and geographical locations.

Most energy conserving features, especially passive solar techniques, are an integral part of a building and therefore should be taken into consideration at the



Plate 16. Fairfax Unitarian Church recessed clerestory windows traverse the main room; earth shelters two sides.

inception of the design process. Normally, within any building, there are different thermal requirements, and thus different techniques should be considered for different parts of the same building. Each technique has certain constraints as well as opportunities. The proper techniques must therefore be chosen for each specific design.

Regional architecture, which preceded energy-consuming modern architecture, was very responsive to climatic conditions. It is interesting to observe many characteristics of regional architecture reappearing as a response to the energy crisis! Much can be learned by examining older structures that were built before energy was so plentiful.

In the spirit of good stewardship, both religious leaders and their facility designers should include the appropriate energy conserving techniques in every design. And indeed, why not? The money saved through energy conservation can surely be better spent serving our neighbors.



Plate 17. Fairfax Unitarian Church entrance covered walk defines outdoor worship space.



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EDUCATING A CONGREGATION VISUALLY

by Gerald Shertzer

Educating a congregation visually can be a lengthy, albeit an enjoyable, journey. It can be a comprehensive journey, including art history, hands-on studio work and constant exposure to looking at contemporary painting, sculpture and architecture. It may be, for those whose leisure time is channeled elsewhere, tedious. In this piece, instead of the didactic route, I have chosen to step into the moment of "seeing" and present a basis for evaluating a work of art without a great deal of background. Seeing critically should be intelligent and comfortable, as natural as eating a good meal.

I've often told my classes that creating art is very much like cooking. In both activities the artists involved first need a clear idea of what they are trying to make; well chosen ingredients; and a fascinating, if not magical, sequence of adding one part to another until, voila perfection!

At the outset, they visualize both the challenge and the results in largely unfocused terms and, excited by this unformed image as they proceed, are ever watchful for an innovative opportunity. They may push this effect, reduce that, play one taste against another, borrow

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There is good reason to stay clear of both volatile artist and chef in the heat of creative battle. And so now we have these highly energetic, coming-into-focus people standing or running around, cooking or painting, while we as laymen wait with anticipation for the incredible concoction to be finished. We wait for that,moment of truth, of taste, of look, and inevitably, we are called to judge.

Now judging is treacherous. Will you miss some subtlety that will clearly expose your inexperience? Will you say something so inappropriate that you will



As I passed the corner, I saw a most surprising octagonal motif covering a concrete wall.

be asked to leave the room? What are the criteria for judging something truly new? After all, the artist or the chef is the expert and your insights have never been exactly sought after. How does one begin a process of thoughtful response?

In an attempt to clarify the process, I would like to use a single art form as illustration: architecture. I choose it for two reasons. First, we are certainly more familiar with it, since we live in it and see it all around us. Second, we have a rich heritage in building from our earliest history to the present. In many important ways, this history gives us an ability to judge. Granted, our judging ability may have been dulled by inactivity, but if we use our eyes and acquired knowledge, we may be surprised at how quickly the unfamiliar can make sense.

Let's suppose the congregation, in preparation for a new structure, is asked by its architect to look at another new building. You are unable to join the group and so you go alone for two hours at lunch time. You approach the building. There it is. Now what?

The first thing to do is somehow "smell the building." By this I mean come upon it by surprise. Now see it in focus, but as a vague interruption to all else around it. Try to see its major intrusion on the landscape; height, mass, weight, profile and space surrounding it. This can be a wonderfully clean, insightful moment of seeing, because when we are not sure of the details of what we are supposed to see, we see best.

There are a few lines by Emily Dickinson about "first seeing" that are beautifully on target:

I was thinking today—-as I noticed, that the Supernatural, was only the Natural, disclosed. Not Revelation—'tis—that waits, But our unfurnished eves—.



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Not just the "Super" art work, the building that waits, but also our hungry eyes to see. Try to extend the "furnishing" of your eyes by reapproaching the building several times. Try walking away at an angle and then turn quickly to see it anew, or any other way you can invent to keep your eyes fresh. In a very real way this fore-image is what the architect was inspired by originally. This is the first, overall Gestalt vision of the work. Everything else is secondary though supportive of what your eyes are now "tasting."

What should you think about what you have just experienced? Your thoughts at the beginning are subjective and personal, but do not feel wishy-washy about them. Be strong about whether you feel the building works for you, whether it fits the site or does not. Does it nestle in and look as if it has always been there, or is it what nature needed to complete its own intentions? Did the artist take clues from the environment for inspiration or did he work with total disregard of everything near and far?

Think about your perceptions with conviction, but keep in mind any plus or minus now is still tentative. After all, this is still the first smell, which can be either intriguing and delicious, or unappealing and distasteful. Oddly enough, an initial negative impression can later turn to ardent support. However, what you should try to avoid is likening this new building to any other, i.e., "it looks like a garage." Just thinking garage will fill your eyes with garage. At a point like this, one would do well to remember Emily Dickinson.

Next, take a position at the center of the building and allow your eyes to go out of focus. Out-of-focus seeing is somewhat of an art. Let me explain. If you're looking at a center and try to see the whole by using peripheral vision, you tend to lose focus on the center. That's good seeing, because you're letting the whole image penetrate in a receptive way rather than excluding information by concentrating on one element.

Let the texture of the internal elements wash over your eyes. Avoid the larger profile aspects. Lose yourself in the interior materials, the holes, the dark and light, the color. Look at the sections of the overall elevation, and see if they vary or repeat. Pick out all the repeating elements as if they were the visible "stitching" of the building. Does the building seem to be held together by the several repeating elements? This will

slowly get you to focus on various elements for short periods of time, and you can then alternate between seeing in and out of focus as you evaluate the design of the overall structure.

What you are seeing now and understanding a bit better is how the architect supported his original vision with various choices, this or that way of handling small or large parts; the mullions or lintels, for example. He chose brick or stone, a great deal of glass here and hardly any there. Why? Once you start asking questions, you have gone beyond just smelling and are up to tasting. Your perceptions and judgments are becoming more reasoned and sharper. Some of the choices that the architect has made will leave you wondering, hold onto your doubts-they are important. Other choices in design may leave you outraged. This is good energy for the next leg of the journey. Now it is time to go inside and try to relate the exterior to the interior design

ludging an interior can be complicated. There are so many hidden requirements and details that must be dealt with, it may be impossible to know in a short visit if the architect is successful. Some say that the function of interior space is just that—to function. If this is true the architect will do well to design only from the inside out, covering the usable space with its covering. Others feel the "significant form" of the building should dictate the interior spaces, defin-



As I approached, coming south on 5th Avenue there it was, floating out over the avenue.

ing its use as a desirable by-product of the artist's vision. Buildings of both definitions can be found. Actually, an excellent design can be both a significant reflection of the artist's feel for materials and space, and also an innovative solution to function for both immediate and future needs.

As you enter, if you have all the interior information with you, it may be helpful, but even if you do not it will still be possible to judge how successful the space is. Basically, what you are going to judge now is how comfortable, how exhilarating the spaces are to be in. The entranceway alone can give you a penetrating insight.

Have the space, materials and light combined to give you a warm and welcoming transition from the outside? Are the corridors and rooms immediately out of the entrance clear or confusing? Is the outside structure in some way repeated inside? Does the inside feel that it belongs to the outside? Do they know one another? Or are there spaces that appear to belong in another building? Each time the architect has joined the image of the exterior to the interior in a coherent. functional manner he has succeeded. Each space, even the details of hardware, doors, railings and stairs, should reinforce the overall impact.

Both the architect and the chef are aware that the taste of a bite should partake of the same flavor as the whole. Keep the freshness of your original image of the building in mind as you move through the interior. It will soon become evident that two hours is hardly enough time to "consume," much less digest, this creative offering. You will, however, be well filled with a host of images, questions, and matters of choice when you return to share your experience with the congregation.

An Applied Dinner

I had occasion to be at the Guggenheim Museum in New York City recently, and having not been there for several years, I decided to apply the "educating the congregation" approach to my visit. I consciously expunged (to whatever degree this is possible) any residual memory of the building and tried to see it as a totally new work. As I approached, coming south on Fifth Avenue, there it was a block away, floating out on to the avenue: three visible slabs of concrete, wrapped around something hidden, and immensely appetizing to the eyes.

I avoided a full frontal view and turned



The buildings around looked like tall thin hands protecting the Guggenheim from the wind.

east on 89th Street in order to approach from a different angle. As I returned, I was struck by the cavernous hall of 89th Street. Its familiar New York architecture, all rectangular and reaching up beyond my vision, glared down at me. Again, I came upon the museum. First sight was a tall, rectangular column slightly off the sidewalk. It looked like a totem, similar to those of Northwest Indians, except that this was devoid of design and climbed six stories. Oops! I remembered I shouldn't think of it as resembling anything. As I came abreast of the column I was surprised by a most interesting concrete wall, also six stories high. Surprising because it is covered with a motif of cast concrete octagons. Mmmm? Whatever for?

I crossed over to the west side of Fifth Avenue to look at the whole front face of the building. The three floating slabs of concrete I originally saw are the top three of four circular floors curving completely around, with very thin, very dark slots separating each curve. At the left, at about the third floor level, embracing a four-story cylindrical glass structure, is a large rectangular slab, darting horizontally across half the building. Down in front there is a wide marquee slab that runs the entire block from 89th to 88th streets, curving around at the corners of the building. This was clearly the most unusual structure on the avenue.

Curved and mostly horizontal, while all the buildings around loom mostly vertical, the Guggenheim is clearly an oddity. The scene surrounding the museum looks like many long thin hands placed around in a semi-circle, protecting the Guggenheim from the wind. I continued to scan the horizon, and I began to see that as the museum rises, it angles out into space and is wider at the top. All the other buildings recede at the top, and I realized at once that that must have been one of Frank Lloyd Wright's first images—a building expanding as it grew like a bold massive flower. Unlike its skinny neighbors, it is low, mighty and full of energy.

I continued to ingest all before me, and I noticed that the dark slots of the circled bowls and the darks under the marquee are so deep that neither sunlight nor shade changes the visual impact. In other words, the building looks quite the same in all kinds of light. I felt this was a real plus. Now quickly, I picked up at a glance that the very dark, upper edge of the cylindrical structure on the left has a semi-circular geometric design as it curves around the cylinder. I realized that it is an exposed dark horizontal as opposed to the space of the dark slots on the right. A wonderful juxtaposition of dark elements! It also brought to mind the octagonal motif on the other side. I remembered my culinary comparison. This was without question an exciting visual meal.

I crossed the avenue and approached the entranceway placed in the center of the building and quite recessed from the street. There is a single circular glass revolving door, a bit small but quite reminiscent of the glass cylindrical structure above and to the left. A small hors d'oeuvre in preparation for the feast inside! The lobby space is low but it opens to museum space on the right, functional space straight ahead and to the left. It is like making a choice from a menu. I chose the main course: the museum space. There is no question. It is magnificent.

First, the interior space soars unfettered to the roof, making the entire structure, inside and out, at once comprehensible. Second, the roof which is a beautiful translucent glass dome sends down an extraordinary light, warm and natural, cleanly picking up the richness of the interior materials. The main floor, a large circular area, is rimmed by a ramp that hugs the walls and curves continuously as it rises the full five stories to the dome. Each curve of the ramp, as it spirals upward, is separated by a dark space that is clearly a replica of the outside bowl.

Sculpture on the first floor is beautifully bathed in natural light, while the paintings against the wall and under the ramp are difficult to see in an incandescent light. This switching from daylight to bulb light, in fact, becomes a problem to the eye. As I walk up the ramp, another lighting problem becomes apparent. Any glassed works such as drawings or prints pick up such strong reflections from the interior that it is almost impossible to see them. Further along the ramp I came upon side galleries, quite hidden until you are almost past them. Inside these more intimate, triangular spaces, both the light and the opportunity to sit and contemplate a few works made me wonder if the ramp plan is really successful.

I reached the top just as an elevator delivered a few patrons. They began to view the works as they descended the ramp. I realized that's what most people probably do—ride up and see the show walking down! Continuing my own backward excursion, I rode the elevator down. On the way I realized that the spiraling ramp receded as it rose, while the building does the reverse. Thus the "extra space" at the intervals is created for the triangular galleries. At the bottom, I stood again in the middle of the main arena looking up. I now felt I really understood the entire plan.

Aesthetically, the space, the ramps, the light and surfaces are a marvelous combination of architectural seasonings, a banquet of three-dimensional form. On the way out, I stood in the lobby and surveyed the whole space, left and right. Ahead was the bookstore, behind a glass wall, well placed and easily accessible; to the left, an entrance to the restaurant, equally well placed. It all felt right. I returned to the sidewalk and walked away slowly, glancing back, feeling assured. The building and the site are in harmony.

I recalled that there was much controversy at the grand opening. Mostly because it looked so different. That, it seems to me, is precisely its strength. Not that looking different is in itself a virtue, but the way Wright combined the ingredients—the cylinder of glass, the bowl of the main gallery, the wrapping in the wide ribbon of the marquee—is sheer genius. One savors the taste of each separate course, but the enjoyment of the entire meal is ultimately complete and satisfying to the palate. It is, voila perfection.

THE IMAGE OF ARCHITECTURE IN OBJECTS



by Cecilia Lewis Kausel

The real world itself, because it changes, is not as permanent as a symbolic statement which exists through time, across places and is present in different objects.—Cecilia Lewis Kausel

The primary and most profound function of architecture is to shelter human beings. Buildings which convey this in their design seem to acquire extraordinary meaning and inspire strong attachment in every culture. So strong, in fact, that in every century, people reproduce these images in small objects. Apparently this arises in a desire to make permanent the image the art of architecture has inspired.

Objects common in Romanesque and Gothic art were functional as sacred reliquaries. These containers for the sacred relics were often architecture in miniature, and hence, their form laid claim that their purpose was to shelter and keep within, just as a building keeps human life inside.

The creation of these small objects in either example seems to be linked to an intimate symbolic conception of a "church" or temple in which the form of architecture represents a concept of protection that exists in the human being and reaches beyond allegory to an intimate presence. Why is this so?

John Summerson, the architectural historian, proposed in an essay, "Heavenly Mansions," that miniaturized imagery has a conceptual relationship with

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Miniaturized religious architecture dating from Roman Times. Terra cotta. Found in the ruins of the Satricum temple south of Rome. The miniature is believed to be a model of a temple built in 400 B.C. Source: Guido Kaschnitz von Weinberg, May 1962.



The Eltenberg reliquary. Rhenisch, c. 1150. In the Victoria and Albert Museum, London.

the shelter-seeking activity found in children's play. A child will improvise a shelter under a piece of furniture or covering device and will call it "his house." This behavior reveals a human internal concept of shelter which resorts to the object as a simple vehicle to express what shelter signifies.

Just so, the viewer of a Gothic cathedral may be sensitively affected and may perceive that the architectural spaces and sculpture are filled with meaning. He may be emotionally moved, but not envision easily or in essence the meaning represented by the imagery. The complexity of forms may divert his imagination. The powerful symbolism of the miniaturized object finally enables him to appropriate the meaning unto his person.

The theme of the figure representing miniature architecture above a human figure (whether painted, sculpted or carved) is ancient. Illustrations of manuscripts as well as ivory caskets and urns from classical periods show miniature arches and vaults over human figures. There was a proliferation of these images around the year 1000 when religious faith in Europe motivated intense pilgrimage. Roads to shrines were marked with monasteries and sacred images were produced primarily in cloisters, which became centers of craftsmanship. Sculptural motifs surmounted by an arch were placed above entrances in the tympanum and in the interior of churches in capitals



Chartres Cathedral. Statues of Biblical Personages in the Royal Portal. Mid-12th C.

and wall reliefs. Among the motifs used for capitals were allegories of Paradise and Biblical passages.



Capital in the convent of Nazareth.

In the following illustration, a sculptural allegory from the 11th century represents two angels carrying Christ with six apostles at his sides. The distortion of the bodies fitting tightly between the columns is a common trend in medieval art in which the figure is subordinated to the form of the arch, and the columns curve to contour the form of the bodies.

This transformation of proportions can also be observed in miniatures. Its origins are found in early Biblical illuminations. A viewer understands that this kind of art *represents rather than portrays* a theme and his eyes justify the distortion. The arch is symbolically represented as a compartment for the body. It is a symbolic ritualization of the role of architecture



Marble bas relief in San Genis les Fonts, Rousillon, France. Dated between 1019 and 1020. Altarpiece or lintel carved in a "calligraphic" way, which seems to be related to the art of manuscript illumination and ivory crafts of the period. The composition shows Christ in majesty in a mandorla carried by two angels between six apostles. Holy figures under horseshoe arches have origin in early Biblical illustrations of Spain.

as shelter and protection.

Records from the 12th century left by Abbot Suger, the patron of the first Gothic church, S. Denis, tell us that these miniaturized architectural images are representations of structural forms that have been endowed with meaning.

As cloisters and religious orders multiplied, identification became necessary. This process included the development of religious dress for ceremonies and priesthood. These clothes were a part of a figurative language that exists in the whole context of liturgy. It is interesting that there were certain forms of head attire that evoked the architecture of their period—attires whose forms resembled buildings, a roof, an arch or a facade.



Coffering in the interior of the Pantheon, which has been reproduced through centuries of vault building.



Tudor gable headgear worn by Margaret Beaufort (left) and Catherine of Aragon (middle), both after portraits by unknown artists in the National Portrait Gallery, London. At right, mortuary sculpture on the tomb of Richard Beauchamp, Earl of Warwick, in the Church of Saint Mary, Warwick, Britain.



Left: Assyrian palace with temple tower, 742-706 B.C., as reconstructed by Altman. Near Nineveh. Detail. Right: Assyrian inscription of the Law Code of Hamurabi c. 1760 B.C. In the Louvre. Detail.

It is even possible to conjecture that as far back as 1760 B.C., the headgear of Hamurabi (or a royal person) takes the spiraling form of the temple tower of the Assyrian palace.

There has been much interest shown recently in costume as a revelation of period culture. The Metropolitan Museum of Art in New York City has found it extremely instructive in expanding the public consciousness of a period to present a detailed costume exhibition at the same time it exhibits all other art and artifacts of a period.

The search of the human for symbols of shelter and protection is a long one. The architect reaches for and may attain a professional imagery; the layperson responds to this imagery, built or in miniature. Both experience a personal emotional attachment. Why? Jung proposed that cultural symbols are not devoid of a primordial numinosity or "spell," and are intermingled with the human eternal religious questions.

The viewer of a building may become aware that the architect has been successful in putting together an intensely harmonious organization of forms, and further, he may sense that they carry a greater substance than can be seen at first. He may be filled with admiration for the magic of the architect who had this idea. He then yearns to possess the idea



and the emotion for his own, and so he creates the image of such architecture in an object.

It is perhaps worthwhile to note that today one still sees in the commercial market architectural miniature buildings of the present. When confronted with a feature of cultural creativity which transcends time, it is interesting from the architect's point of view to reflect upon the extent to which an architectural idea or design can be influenced by the symbolic preferences of a culture, or whether a culture adapts its preferences after available design ideas.

E.B. Smith, in his book The Dame, suggests that the dome-shaped helmet of antiquity was important in the development of domed architecture. Though every architect today would know that domes are conceived for the purpose of spanning great spaces rather than resembling a helmet, it must be recognized that domes—being structurally conceived—have a form very suitable for symbolizing the enclosing protection of architecture. Hence, they are endowed with meaning and compared to domical objects.

The origin of forms is hidden in the subliminal and the unconscious. The important thing to be aware of is that the attachment of meaning to built form (on anyone's part) is a cognitive phenomenon, an adaptation of vision to new forms which relies on association. It takes human effort to identify meaning or symbol in images. Once the symbol has been linked to built form, it can be decorated, rearranged or made more complex. For even though an architectural design may in this way be adjusted to evoke a cultural idea, it is in no way diminished by it, nor does this resemblance make structure necessarily subservient to cultural symbols. The development of an architectural form reaches an apex in its essential structural system without which nothing would be possible. The imagery plus the structural system created the art.

The generation and reproduction of symbolic forms is a phenomenon involving people collectively and individually. But whether for architect or for layman the need of assurance of shelter and protection is necessary. Architecture in miniature and object form will continue to remain with us.

This material is an excerpt of a larger historical work entitled, "The Fundamental Expression of an Architectural Motif," M.I.T. thesis, 1982. The primary and most profound function of architecture is to shelter human beings.



Original art by Cecilia Lewis Kausel.

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	Contact: Church Architecture Department, Baptist Sunday School Board, 127 Ninth Avenue North, Nashville, TN 37234, (615) 251-2466.
Oct. 12-15, 1986	IFRAA National Conference Berkeley, CA at Marriott Inn, 200 Marina Blvd. on East San Francisco Bridge
	This conference will enjoy the facilities of the Graduate Theological Union, the University of California School of Architecture and the Judah Magnes Museum. There will be a pre-conference tour of the wine country and a post-conference tour of Japan. See postcard inside this issue for further details.
	Coordinator: Frank Mighetto, AIA, (415) 548-5700 Japan tour inquiries: Rev. Donald J. Bruggink, Western Theological Seminary, 86 East 12th Street, Holland, MI 49423
Nov. 19-20, 1986	IFRAA Northeast Region #1 Meeting Boston, MA
	Meeting will be held in conjunction with the Boston Society of Architects' Annual Convention and Trade Show, "Build Boston '86." Exhibits and workshops for architects and other professions.
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Feb. 1987	IFRAA Southeast Region #6 Meeting Durham, NC
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