Religious Architecture
Grinnell

HAS THE SOLUTION TO YOUR PAVING NEEDS

Grinnell Concrete Pavingstones provide a dynamic means for creative paving in any project. Architects, Landscape architects, engineers and planners are finding added dimensions to their projects when they incorporate these interlocking pavers. Made of high density, low absorption concrete they resist wear, chemicals and extreme temperatures. They meet ASTM Standards.

Durable, Cost Effective and aesthetically pleasing they have many uses such as sidewalks, driveways, courtyards, parking lots, bus lanes pool aprons, patios to name just a few areas of use.

Grinnell Concrete Pavingstones Inc.
482 Houses Corner Road,
Sparta, New Jersey 07871
201-383-9300
Architecture New Jersey

Vol. 23 No 2

Introduction

On Religious Architecture

Projects

IFRAA

Archives

Architechnology

News

Concordia Lutheran Church

Herman Hassinger Architects

St. Augustine of Canterbury

Roman Catholic Church

Gatarz-Venezia Associates

Correction: Photographer for the Architecture New Jersey Issue 1:87 cover photo was Fred Forbes.
For your clients who deserve quality turf sprinkler installations . . .

Contact Wilpat!

- Commercial
- Golf
- Residential

Wilpat
Turf Sprinkler Systems, Inc.
Box 44 • Springfield, N. J. 07081
(201) 379-9313

Designers • Installers • Consultants
YOU ARE LOOKING AT THE FINEST, AGED AGGREGATE IN COMMERCIAL USE TODAY.

1.1 billion years in the making. Lime Crest Architectural Aggregates are unique in nature.
That's why they're proven performers when roofing specifications call for weather resistance, beauty, energy conservation.
Practical performers when vertical panels demand texture, color, sparkle.
Lime Crest. Perfected with time, available today.
Because the difference matters.

*Quarried from Pre-Cambrian strata, an ancient carbonate formation producing the beautiful, durable calcitic marble used in all Lime Crest Architectural Aggregates.

For Information:
Look in your Sweets Catalog: File Number 4.141/Lim - Exposed Aggregates, or;
Circle the Reader Information #, or;

LIME CREST
Because the difference matters™

Limestone Products Corporation Sparta, New Jersey 07871
"The reports of my death are greatly exaggerated."

Mark Twain

As a matter of fact, we at Stenni are feeling very healthy these days.
Sure, we'll be the first to admit it's been a tough year. Construction is a tough industry. And we did have some serious ups and downs this year.
But now we are back. And as Stenni's new President, I am proud to announce we are stronger than ever.
Our exterior stone aggregate architectural panels are still the standard of the industry for beauty and durability. And our management team is building new excitement at Stenni USA.
So if you need a quote, literature, or if you have a hot project, pick up the phone now and call me at Stenni.
See for yourself how alive we are!

Call me...
Brian O'Keeffe, President
Stenni USA
201-668-1414

STENNI USA, Inc.
1000 South Second St. · P.O. Box 3132 · Plainfield, New Jersey 07603
Designing a house of worship is, at least in theory, the ideal commission. It challenges the architect with the most fundamental architectural issues: the creation of heroic space, formal manipulation, shaping light, dealing with symbolic representation, and tying into tradition and context. The reality, though, is usually one of a minimal budget, constricted site, working with a discordant building committee, and the simultaneous accommodation of both a highly ritualized ceremony and a host of more secular functions. Out of such conceptual opportunities and practical constraints come the religious buildings featured in this issue.

In the first of our articles, Herman Hassinger, FAIA, shares insights gathered from a career in church design. The next article is a profile of IFRAA, the only national organization that addresses cross-denominational issues of religious art and architecture. In the Archives column, Joseph Adams outlines the career of George Washington Foster, an early 20th century black architect from Newark who is best remembered for his worship buildings. Then Steve Coppa examines the Architechnology of stained glass before we close this issue with NJSA News.
On Religious Architecture
by Herman Hassinger, FAIA

Twenty-five years ago I designed my first church, a small Lutheran first unit in Milford, Delaware. In retrospect, I see that project as an attempt to create a mini-cathedral rather than a simple space for worship. In part, this over-designing was typical of every architect's first flight into the unknown. Yet it also illustrated the pitfalls that await architects who are more concerned with the ambitions of their designs than with the needs of the congregations who have hired them. I have learned that the architect should seek to interpret, rather than ignore, both the function of a particular religious building and the traditional and contemporary forms of religious architecture.

Building Types

Religious architecture commissions span a range of building types, each distinct in its program and design solution. They include:

The pilgrimage chapel, an isolated worship structure usually located in a place of natural or historic significance. Contemporary pilgrimage chapels may be built in National Parks or on dramatic cliffs overlooking the sea. Often financed through private philanthropy, these chapels have no regular congregations, and are tourist attractions rather than worship centers.

The first unit building, in contrast, is a response to a particular congregation's needs. Small (4,000 to 7,000 sq. ft.) in size, this multipurpose building is the first phase of what the members hope will be a much larger facility. The first unit contains an assembly space for 75 to 150 persons, a few classrooms, and an impossibly overcrowded office for the usually overworked clergy.

First units have low budgets, offer limited opportunity for expression, and are hard to do well. Every first unit ought to be part of a master plan leading to a full-service religious facility within fifteen to thirty years.

The education and fellowship building is part of such a full-service facility. Often, the fellowship hall is divisible into classrooms by means of folding partitions. Kitchen and food service areas are part of the design.

The final sanctuary is the last element of the facility to be built. By this time, the original architect has either gone to that great drafting room in the sky, or has gotten fed-up with the congregation, or vice versa...

Alternatively, major remodeling of an existing building may answer the congregation's needs. The remodeling is an internal facelift with new or rearranged furnishings. Sometimes it is accompanied by a newly-constructed small addition that is subsidiary to the original work.

A major addition, though, may dwarf the original; in this case, the tail wags the dog. An addition of such magnitude is very seldom done well.

Building the total complex at one time, the entire physical plant at a new site, is an approach that relocation or fire may dictate. This type of commission is rare, but rewarding.

With a mega-congregation, the program may call for over one thousand seats, and the character of the religious building shifts from intimacy to impressiveness. One solution could be a performance-oriented facility with space for large choirs and instrumental groups. Another could be a cathedral in which sheer size becomes the main distinction. The Crystal Cathedral in Van Nuys, CA, is a good example of the former, and the Air Force Chapel in Colorado Springs, CO, of the latter.

Among buildings for specific denominations, the Roman Catholic church is a very distinct type. Roman
churches are usually free-standing worship buildings without attached educational or fellowship facilities. These subordinate functions are often housed in separate structures, as are the parish school and hall that may be located on the site.

The typical program for a Protestant church calls for a worship space, an attached education building, and a social hall for dinners, athletics, and other uses.

Eastern Orthodox churches emphasize established architectural forms and traditions more than the religious buildings of other confessions do. Since Orthodox theology conceives of the church building as a symbol of heaven on earth, the building is introspective and otherworldly. Traditional motifs, paintings, icons, and furnishings richly embellish the interiors. The preferred form uses the dome as the principal element.

The Jewish temple, like other religious facilities, needs to accommodate worship, education, and social activities. The temple must be recognizable as a house of worship without the use of historical forms and details associated with other faiths.

Last is the accurate historic replication; occasionally, some group will want an exact replication of an existing historical church. In this country, we have copies of tenth-century Scandinavian stave churches, English country parish churches, Georgian chapels, and Gothic cathedrals, among other models. Such exact replications are rare; however, a request to build "in the style of..." is common.

Traditions

The diversity of religious architecture in the United States reflects the historical diversity of the country's religious communities. American religious life has seldom been a "melting pot." Rather, it has produced a mosaic of patchwork quilt with each tradition as a brightly-glowing, colorful piece of the whole.

As American religion has included both indigenous and imported forms, so too has American religious architecture. Some Reform churches eschewed the art and architecture of the European past. These religious groups built "meeting houses" that were deliberately residential in scale and character, and purposefully devoid of symbolism, decoration, and artwork. This anti-art and anti-architecture bias is a strain of American religious thought that still exists.

Alternatively, denominations with strong liturgies, such as Roman, Episcopal, and Lutheran, tended to bring the architectural traditions of the homelands to the New World. Though modified by the realities of this country, these architectural replications were, even at a reduced scale, usually in the Western basilican tradition. Often, these churches were rectangular halls with parallel rows of seats or pews facing a raised sanctuary opposite the entrance. Anglican church architecture, for example, was quick to adopt the Christopher Wren formula that reflected current fashion in London. From New England to the South, temple porticoes and white steeples became the almost universal type of urban church building. Philadelphia's Christ Church, in its time the largest assembly hall in the Colonies, is a copy of the Wren model.

In the nineteenth century, immigrants from Eastern and Southern Europe brought a rich assortment of Hebrew, Eastern Orthodox, and ethnic Roman Catholic traditions to the New World. Jewish synagogues, if not housed in converted secular buildings, continued to be in the mode of Rhode Island's Touro Synagogue (1759). It was essentially a Colonial church building, minus a steeple.

The highly-organized, socially-oriented American congregations that had evolved by the end of the nineteenth century had new architectural programs. These congregations added rooms designed for social gatherings, such as fellowship halls and church parlors. With the rise of the Sunday school movement, the congregations also added classrooms to their traditional worship spaces.

The exuberant High Victorian period gave rise to a distinctive architectural vocabulary. With the invention of power tools, craftsmen could turn out ornament by the running foot. Gingerbread trim and scrollwork, as well as polychrome tile flooring, embellished churches.

But this brief flowering of creativity was cut off by the classic and eclectic movements of the early twentieth century. At the Columbian Exposition of 1893, the American public saw models of European classical architecture, and became interested in exact copies of the original buildings. The eclectic movement took European models and transposed them into American assembly-hall churches, often with scrupulously-copyied architectural details. Similarly, most turn-of-the-century architects who designed synagogues chose Byzantine forms as appropriate, because of the Jewish faith's association with the Middle East.
From these past centuries of American architectural history, certain iconicographic elements have become customary in worship buildings, as identifying their special function in the community. More subtly, details may identify the special character of a denomination.

Most visible of these signs is the pointer to heaven, the steeple. In the Colonial era, when the tallest building in town had only three or four stories, spires were frequently 120 to 150 feet high. In today's world, the steeple is a convenient theological anachronism. No one believes that God is UP, but the steeple is an immediately-recognizable church symbol.

Inside the church, stained glass sets a mood. This medieval art form was introduced to America in the nineteenth century; in fact, its association with churches, and hence with respectability, made it for a brief time a popular accent in Victorian residences.

Other art and decoration vary with the traditions of a specific denomination. Strongly liturgical and conservative denominations include these elements in their buildings, while the reform movements choose a bare look that denies historical tradition.

Interiors may be brightly or dimly illuminated. The bright interior is characteristic of reform churches, which historically have had open, bare worship spaces with large windows of clear glass. In contrast, the dim, "otherwordly" interiors of other religious buildings create a mysterious, transcendent quality. Before the age of electricity, dim, flickering candles heightened the effect; even with modern illumination, the church candle is retained as a reminder of the past.

Since the reform movements have emphasized preaching rather than the liturgy or sacrament, these brightly-lit interiors often have the pulpit as the central focus of a room that may resemble an auditorium. An altar or table, if present, is a minor element in the furnishing.

Dim interiors, on the other hand, are altar-focused. Often at one side, the pulpit is an adjunct to the sanctuary, and never centrally located.

The pew, the most distinctive furniture of religious buildings, also has significance. Eighteenth-century box pews gave way to basilican-oriented pew benches as heating systems developed and as the relaxation of social barriers made pews reserved for one family undesirable. In the nineteenth century pews became the accepted mode of congregational seating. Evoking ranks of soldiers in the army of God, rigid rows of pews have at times been a symbol of the church militant.

The Twentieth Century

After the Depression and World War II, new church construction flourished. During the fifties, urban congregations relocating to the suburbs usually carried the old church image along by constructing well-financed, derivative designs. For other, less affluent congregations, the emergence of the modern movement in architecture was fortuitous; congregations who chose the modern style often did so on the basis of economics rather than an intellectual commitment to contemporary aesthetics. Colonial and Gothic detail had simply become too expensive for new construction.

Structure became the major feature of church interior design after the development, in the thirties, of glues and resins that made possible (at relatively modest cost) laminated wood beams and arches of unprecedented size and span. Most post-World War II churches were the old basilican form, stripped of ornament and featuring a roof that exhibited structural gymnastics. However, architects also designed buildings shaped like rockets, crosses, stars, fish, and so on, and then rationalized these sculptural forms as symbols.

By the fifties, a time of feverish church-building, laminated arches with exposed wood decking became the structural norm for religious buildings. Design-build companies sold pews, stained glass, entire churches by the running foot or square yard. Examples of these companies' modular churches are now falling apart in almost every American community.

Some newly-established congregations began their church in fire halls or rented quarters; if they built, the new churches were always underfinanced and overused. Congregations who stayed in the older urban church buildings were often responsible for another type of project, the recycled and enhanced religious building that reflected the changed concerns of contemporary religious communities. In some instances, urban Jewish congregations recycled existing Christian churches into Jewish synagogues, by removing symbolic items.

The remodeling of an existing church, for whatever denomination, usually made the original space simpler and more intimate. Some of the most creative religious designs of the last twenty-five years have been in this category.
In the last generation, changing theological views of worship have also influenced contemporary church architecture.

For centuries the church had been the "Domus Dei," the House of God. The congregation had become an audience whose participation was limited to hymn-singing and an occasional liturgical response. In this century, though, theologians began to ask whether the concept of a "God-box" was appropriate to the modern world. The scrutiny of symbols of power and an emphasis on humanism brought into question the idea of God as a remote figure, confined to sumptuous houses of worship and bathed in the soft glow of stained glass.

In response arose the concept of "Domus Ecclesia," the House of the Assembly (more loosely, of the People of God). The building became an enclosure for an assembly of worshippers rather than a container for the presence of God. The community of believers, rather than the architecture, conferred sanctity upon the space.

The trend toward people-oriented worship affected many denominations. Those with structured liturgies, such as the Roman Catholic, Episcopal, and Lutheran, adopted modes of worship that emphasized congregational involvement rather than spectacle. Vatican II (1963), with its revision of worship practices in the Roman Catholic Church, was the single most dramatic example of this movement.

Architects are still sorting out the architectural implications of these changes in religious thought. Paradoxically, the most recent trends are best understood in light of one of the most ancient forms of human grouping, the sacred circle.

In a gathering around the traditional campfire circle, a shaman or storyteller was the focus of attention, and group involvement was direct and immediate. All early human cultures used the circular building form first; the architectural forms of primitive cultures, such as the grass hut, the igloo, and the kiva, are all centralized. Long after the development of rectangular architectural forms, circular buildings and forms continued to have strong religious and cultural connotations.

Contemporary evocations of the sacred circle are evident in the breakdown of the rectangular basilican plan into the arena or gathered-seating arrangement. A 120-degree or 180-degree spread of seats is most common; the full church-in-the-round is rare. In existing buildings, rearrangement of furnishings and focus has aimed at the same type of circular or semi-circular configuration.

This theater-style arrangement is an obvious solution for some churches that feature choirs, instrumental ensembles, and performance-oriented services. Television ministries have made the stage concept commonplace, by using a thrust platform that directly involves the audience.

The sacred circle of the past, then, is becoming the inspiration for many contemporary designs, as the emphasis in religious architecture shifts away from the monumental. We abandon the medieval linear nave for the gathered group as the role of the congregation changes from spectator to participant.

This profound change in the understanding of the nature of religious space makes today an exciting time for the architect privileged to design houses of worship.

Herman Hassinger, FAIA, is the founding partner of Herman Hassinger Architects of Moorestown, NJ. He has designed over 100 religious buildings in twelve states, from New England to the mid-South. Currently, Mr. Hassinger is a director of the Interfaith Forum for Religion, Art, and Architecture.
The proposed St. Augustine of Canterbury Church will offer both indoor and outdoor areas for worship, linked by natural illumination of spaces inside the single-story building.

The gathering area, upon which the entrance doors open, will feature a skylight above and a large holy water vessel below. On the perimeter walls of this room, the main circulation area of the church, will hang bulletin boards and pamphlet racks.

From the gathering area worshippers will enter, on the left, the chapel. This intimate space will have fixed seating for seventy persons, and will accommodate daily masses that have limited seating requirements. In addition to a central altar and a Madonna and Child shrine for quiet meditation, the chapel will house the Blessed Sacrament, aligned with the entryway.

Also opening off the gathering area, the main congregational space is designed in a fan shape, so that all 750 seats will be within seventy feet of the altar. The entire space focuses on the sanctuary and the bas-relief sculpture of the risen Christ on the wall behind the altar. To the right of the altar will be an area for the choir and organ; on the left will be the baptismal font. Natural light from an eyelid window above will flood the sanctuary.

A final component of the design, the garden, is reached from the right side of the gathering area. A statue of St. Augustine, the patron saint, will stand in a landscaped area that offers privacy for meditation and prayer.

Both interior and exterior wall surfaces will be largely of brick. Precast concrete and a standing-seam metal roof will highlight the exterior. Inside, wall finishes will include natural slate, precast concrete, and wood grilles, in addition to the brick. A slate floor will give way to a finished wood floor in the sanctuary.
St. Andrew Roman Catholic Parish Center
Block Island, Rhode Island

Herman Hassinger Architects
Moorestown, NJ

The St. Andrew Roman Catholic Parish Center, built on an island fourteen miles off the Rhode Island coast, accommodates the needs of a population that increases tenfold every summer. The multi-purpose building serves both the 600 year-round residents and the summer visitors.

In the winter, the parish center is used as a chapel, a retreat center for mainland church groups, a rectory for the pastor and for visiting clergy, and a social center and youth center for all islanders. In the summer, the parish center’s hall becomes an arts and social center where lectures, plays, musicals, exhibits, and social events are offered. Roman Catholic services are held during the summer in a large, unheated church, unusable in winter.

An upstairs loft in the parish center has a large-screen television and a collection of videotapes, to provide Saturday movies for children. A lower-level exercise and apparatus room is designed for health classes and such athletic activities as wrestling and judo.

All furnishings are flexible, and can easily be moved. The wrought iron liturgical furnishings were made by an island craftsman, just as the building itself was constructed by islanders.
Our Lady of the Magnificat
Roman Catholic Church
Kinnelon, NJ

The Gilchrist Partnership, AIA
Leonia, NJ

Our Lady of the Magnificat Roman Catholic Church provides a new focus for an existing religious community. A chapel, a convent, and a rectory already stood on the eighty-acre, steeply-sloping site, which has rock outcroppings and dense woods. These previously-existing buildings are all of rustic stone, and are located along a narrow drive that winds through the property. The new church, on a high plateau on the road, overlooks these buildings and the Boonton Reservoir beyond.

The church's pyramidal roof and the forty-five-foot-high leaded glass window draw attention to the church's rock cliff backdrop. A campanile marks the entrance to the church, which is through a low-ceilinged narthex. Sections of the roof and campanile are sheathed with terneplate that has a standing-seam pattern and is intended to weather.

On the interior, as on the exterior, all walls are of cypress siding. A system of curved, laminated-wood arches and wood decking defines the space. The church nave has a traditional center aisle, but its seating for 500 worshippers is arranged in a fan shape.

Inside, the bronze glass block around the perimeter of the church allows soft amber illumination; outside, it reflects the surrounding landscape.
Church of St. Charles Borromeo
Montgomery Township, NJ

Michael Burns, AIA
Rocky Hill, NJ

In the Church of St. Charles Borromeo design competition, architects were given no specifications other than the general region of the site, somewhere around Montgomery Township. Taking advantage of the broad parameters, this design seeks to show the possibilities of an ideal place of worship. It is a reinterpretation of the forms and the sense of place and of sequence that are inherent in religious buildings in general, and Catholic churches in particular.

The site plan assumes a gently-rolling landscape and takes into account the setback requirements of the township. The front facade, behind which is a group of buildings, faces the road. In sharp contrast to the formal approach from the road, the approach from the remote parking lot is a pilgrimage of sorts, and reveals the church obliquely; the worshipper follows a footpath, climbs steps, and finally reaches the front facade. The thick wall of the front facade serves as a final barrier between the worlds of the secular and the sacred, and as a threshold from one to the other.

Buildings beyond the facade are organized around an arcaded courtyard and include a church, a community/multipurpose hall, parish offices, and a rectory. The church building itself is composed of traditional elements. It has a Latin cross plan and a large rosette window.

Attached to the exterior of the church, in the courtyard, is a pavilion-like octagonal baptistery with a steeple. To emphasize the symbolic connection, a water trough runs from the baptistery to a fountain in the courtyard. The fountain, fed from the area of the baptistery, is the center of outdoor activities.

The project remains in the realm of the ideal, since another firm's design was chosen for actual construction.
The minister and members of the congregation expressed their desire that the new church, located on a suburban site between commercial and residential zones, use traditional elements and be recognizable as a house of worship. The building, which replaces an existing facility, contains a sanctuary, a Sunday school, a social hall, offices, and ancillary spaces.

The participatory nature of the Baptist religious service required a sanctuary that could embrace all the occupants and afford maximum visual and aural stimulation. The plan thus places the altar, baptismal pool, and choir above and in full view of the entire congregation. Above the pool is a quarter-cylinder lightwell.

On the interior of the sanctuary, background wall colors include purple, green, and white. Natural lighting comes from dormer windows in the roof and from wall windows, all of which follow the axial plan of the church.

An artifact from the original church, a scene of the Last Supper, provides ornamentation over the entry from the narthex. Similarly, stained glass windows from the original church punctuate both the lightwell above the baptismal pool and a pleated wooden screen above the choir.

The church has masonry-bearing walls and thick timber-framing. The interior walls, partitions, and suspended ceilings are of plasterboard. The exterior exposed walls use brick in different colors to create a wainscot pattern.
Residence for the Salesian Sisters
North Haledon, NJ

Comerro Partnership, PC
Paterson, NJ

The new residence for the Salesian Sisters, a teaching order, is on a beautifully-landscaped plateau overlooking the Manhattan skyline. Care was taken to preserve existing trees, shrubs, flagstone walks, and fieldstone retaining walls. Non-residential components — dining and conference facilities for the novice sisters and an administration suite for the school — are integrated with the existing two wings of the school, to create a large outdoor court.

The two-level building and additions, clustered around two courtyards, take full advantage of both panoramic and intimate views. A system of small parlors on the first floor is oriented toward the distant vista, seen best from the library directly above. Dormitory cubicles are small and austere, but each has an interesting view.

St Luke Greek Orthodox Church
Broomall, PA

Herman Hassinger Architects
Moorestown, NJ

St. Luke Greek Orthodox Church, completed in 1985, has an evocative design in the Byzantine tradition, but uses contemporary materials and structural methods. The program required that the new nave face east and also connect to the existing complex. Seating 500 worshipers in its domed nave, the building has two levels that each connect to the existing buildings; on the lower level are a weekday chapel and offices for the parish.

The design accommodates some artifacts already owned by the congregation, but for the most part the new church is a bare canvas that will be transformed with art and ornament in the Byzantine style. Completion of the artwork, icon screen, furnishings, and stained glass is expected to take ten years.
Parish of St. Luke
Long Valley, NJ

Nadaskay-Kopelson
Morristown, NJ

Set on a ten-acre site, St. Luke’s Parish is a three-phase project that will include main worship spaces, a lobby vestibule, administrative, service, and clerical areas, a “Great Room,” kitchen facilities, and a rectory.

The congregation felt strongly that the design should enhance the sense of community, rather than center on a single focus. Therefore, the design organizes spaces by function and flow rather than rigid axial relationships. The use of simple, indigenous materials — stone bases, stucco walls, and metal roofing — further integrates the various masses of the building. Moreover, by using sloping roofs and by fragmenting the building into a series of small component clustered around a dominant one, the design of St. Luke’s echoes the local vernacular farm buildings.

Christ Episcopal Church
Mt. Olive Township, NJ

Gutwein-Guenther, PA
Collingswood, NJ

The design for Christ Episcopal Church emphasizes a sanctuary that is simple in form, compatible with its rural setting, and clearly identifiable to passersby in the valley below. Thus, the sanctuary building will be separate from the three-story building housing the fellowship hall, Sunday school rooms, offices, and ancillary spaces. A curved, skylit corridor will connect the two buildings, and a large, silo-like belltower will mark the sanctuary.

Indoors, light will enter the sanctuary from the corridor and a yellow-lined skylight cylinder above the altar. Glazed portions of the sanctuary’s east and south walls will permit a view of the garden. Outside, the entire complex will be covered with stucco and will have a magenta-colored, standing-seam metal roof.
WE'LL PUT YOUR OFFICE PLANS IN MOTION

- Office Furniture
- Systems Furniture
- Space Planning & Design
- Haworth Dealer

Design Systems & Interiors
Red Bank (201) 530-1611   Princeton (609) 987-8666
Specify — A.W.I. “Quality Standards Illustrated”

Use the guide specification and the Quality Standards to simplify the writing of your woodwork specifications and insure bids of uniform content. This should assist in establishing predetermined quality and competence.
"The ultimate commission, esthetically and philosophically," is the way NJSA Past President and AIA Regional Director Eleanore Pettersen describes the design of a building used for religious worship.

Because she believes this so fervently, Pettersen, who serves as AIA liaison to the Interfaith Forum on Religion, Art and Architecture (IFRAA), is working toward increasing that organization's visibility within the architectural community.

IFRAA, now an AIA affiliate, was once a part of AIA, spawned in the 1940's as an offshoot of one of its strongest committees, according to Pettersen. Today IFRAA, based in Washington, D.C., is an international ecumenical organization dedicated to the highest standards in art and architecture for sacred space.

Open to any interested person and encompassing all religious communities, its members include architects, artists, church administrators, clergy, building committee members, and manufacturers.

To spread its own good word among architects, IFRAA, too, is working to make its presence felt. A presentation of its 1986 Excellence in Religious Art and Architecture Design Award Winners was featured in June at the AIA National Conference in Orlando. More than 200 works by architects and artists were submitted for this international competition.

Photographs of the winning designs were originally exhibited at the Judah L. Magnes Museum in Berkeley, Ca., where IFRAA held its national conference last year. According to its coordinators, the exhibit focused the attention of the public on the expression of the ineffable in art and architecture.

The prize-winning designs can also be seen in the Spring 1987 issue of IFRAA's handsome journal Faith & Forum, published semi-annually, and a membership perk. The publication includes in-depth articles on current liturgical issues affecting art and architecture, design trends, and other news. One news brief points out that the largest architectural award in the world, the Aga Khan Award, is for buildings that keep faith with the Islamic tradition, while serving the needs of the modern world.

In addition to a yearly national conference, IFRAA, which is divided into six regions, will hold six regional conferences this year. Region 1, which includes New Jersey, held its conference October 18-20 in Philadelphia. Called "We The People 200," it brought together members from Maine to Virginia to explore the heritage of 200 years of design and building of some of the country's earliest places of worship. Restorations and new construction were also on the agenda.

Pettersen, who attended the Region 6 conference in Durham, N.C., reported that the subject, "Worship Space that Works," focused on the chancel area of churches, addressing questions of design and theology. Co-sponsored by the Duke Endowment and the Duke Divinity School, the conference was stimulating, well-attended and professionally valuable, she said. IFRAA conferences and programs, she points out, are open to all, and non-members are most welcome.

IFRAA also maintains a consultant outreach program, its "consultants" appearing on videotapes to provide information on specific topics such as acoustics, lighting, and energy conservation. The organization's slide library, one of the largest of its kind, documents over 5,000 examples of art and architecture for religious space in the country.

Individual membership in IFRAA is $75 yearly. For further information, write or call Tish Kendig, Executive Director, Interfaith Forum on Religion, Art and Architecture, 1777 Church Street, N.W., Washington, D.C., 20036. (202) 387-8333.

Norma Harrison is an account executive with The Marcus Group, Inc., public affairs counsel to the New Jersey Society of Architects.

Like precision built shoes, the playing field itself is equipment. And must be constructed with the same specialist’s expertise and care. Which is exactly how Julicher Athletic Facilities are specified and built: With excellence in design and construction that will exceed your client’s expectations.

We’ve assisted architects on projects for IBM, Merrill Lynch, Garden State Race Track, Harrah’s, Trump’s Castle, and the Sheraton, Marriott and Hilton hotel chains with spectacular results.

Shouldn’t you take advantage of our unique knowledge of specialized surfaces (over 50 from worldwide sources) and almost two decades of specialized athletic facility building experience for your next corporate, institutional or private athletic facility project?

Call us to schedule a free introductory seminar of our products and services. We’ll run right over.

**Trust Julicher:**
*The Number One Name in Athletic Facilities*

901 Conshohocken Road
Conshohocken, PA 19428
215-828-6500

Julicher
ATHLETIC FACILITIES

DESIGN
CONSULTING
CONSTRUCTION
Archives: George Washington Foster, Jr.

by Joseph Adams

In 1983, Schuyler Warmflash, an engineer and architectural historian employed by the Port Authority of New York and New Jersey as a planning executive, wrote an essay, "George Washington Foster, Jr.: An Early Black Architect." This essay was appended to the Park Ridge section of the Bergen County Historic Sites Survey.

George Washington Foster, Jr., was a resident of Park Ridge the last two decades of his life. He lived at 102 Colonial Ave. in a house of his own design. Until his death from pneumonia on Dec. 20, 1923, he designed houses and other structures not only for the Park Ridge and New York City areas but also for places as diverse as Berea, KY, and Mexico City.

Foster was born in Newark, Dec. 18, 1866. His father was a carriage stripper and his mother, nee Isabella Davis, was related to Jefferson Davis. When he was four years old, his family moved to New York.

Foster's architectural education and early career cannot be documented — evidence of the early treatment of blacks as non-persons. Warmflash believes that Foster attended Cooper Union and worked as a draftsman in 1888 and 1889 in the office of Henry J. Hardenburg, the well-known architect who designed the Plaza Hotel and Dakota apartment building. During his employment with Hardenburg, he worked on the first Waldorf Astoria Hotel.

Warmflash writes that by 1903, Foster may have been working for the New York office of Daniel H. Burnham & Co., an organization based in Chicago. Foster was involved in the construction of the Flatiron Building, one of the earliest skyscrapers.

Foster apparently made the acquaintance of Vertner Tandy through membership in a Masonic Lodge. Tandy, Foster's junior by 20 years, had graduated with a degree in architecture from Cornell University and became Foster's protege. In 1908, they formed a partnership, Tandy & Foster. In that year, Foster received his license to practice architecture in New Jersey.

The Tandy & Foster firm made most of their designs for buildings in Harlem. Their best-known works were Parish House (1910) and St. Philip's Episcopal Church (1911). Parish House was constructed in the Queen Anne style and St. Philip's (still extant) is in Gothic Revival.

Around 1915, the partners split and each went into business for himself. Tandy went on to establish his reputation as Harlem's leading architect, a reputation he kept until his death in 1949. In the last part of his life, Foster worked out of an office in Harlem and his home in Park Ridge.

Foster's last project may have been his greatest. Shortly before his death in 1923, construction began on the Mother AME Zion Church, 140-144 W. 137th St. in Manhattan. This Gothic Revival church, related in form and scale to English parish churches, was completed in 1925.

Warmflash notes that Foster is said to have won a Tennessee Centennial Award and an award for a Mexico City competition. However, he adds that his information requires further validation.

At the end of his essay, Warmflash evaluates Foster's contribution: "Foster must be given recognition for having been one of the first American blacks to practice in the architectural profession...It is also clear that his abilities as a draftsman and designer were of an extremely high order and certainly more than adequate to permit his survival..." His licensure in New Jersey, only six years after state passage of the 1902 Act to "regulate the practice of architecture," indicates the high degree of recognition achieved by him at that time. His subsequent New York licensure only confirms this assessment."

Joseph Adams writes "Bergen Now and Then," a history column in the weekly Bergen Review. He is a retired New York City junior high school teacher of social studies.
PC Glass Block. The building block of the eighties! It keeps the bad guys out and lets the sun shine in. Lowers energy costs, dampens sound and turns a dull space into a dazzler!

We’re American Glass Block, the glass block people. We have a dazzling selection of glass block for you to choose from.

All the styles and sizes that Pittsburgh Corning make! Including related supplies such as expansion strips, panel reinforcing, panel anchoring, and jalousie vent.

And we have it all in stock! Now! For immediate delivery! If you’re an architect or contractor you can bring us your plans and one of our trained specialists will help you spec the job, free! We’ll tell you how much of what size block you need and give you the best price in New Jersey! Dealers too!

For Further Information call American Glass Block:

(201) 945-8797

American Glass Block
485 Victoria Terrace
Ridgefield, NJ 07657
Architechnology: Stained Glass

by Steven M. Coppa, AIA

Stained glass dates back to at least the sixth century, and the windows of France’s St. Martin of Tours. The art reached its zenith in the medieval Gothic cathedral, where stained glass punctuates the towering volumes with large areas of light and color, constantly changing with the time of day and position of the sun. Today, stained glass has a place in secular as well as religious architecture.

Typically, the modern stained glass window or panel originates with the client or architect, who presents ideas to the stained glass artist. This artist renders a watercolor sketch, usually on a scale of one-half inch to one foot, of the finished stained glass panel. At this point, when the sketch is presented to the client, the architect must take care to coordinate design and construction of the window or door panel, in order to prevent mullions and structural necessities from intruding on a composition. A good rule of thumb is that the panels should be around sixteen sq. ft. for proper support. Stiffer bars are added within that sixteen sq. ft. area, but these bars do not have the same visual impact as a mullion or other building element.

After approval of the sketch and the overall concept of the stained glass work, the artist makes a cartoon, an enlargement that includes the detail of the finished piece. The full-scale drawing is either done directly upon brown craft paper, or transferred mechanically to it. The next step is a layout drawing, an overlay of the work showing the individual pieces of glass and the lead strips, or cames, that separate them. The layout drawing will serve as the master for assembling the pieces of glass.

The lines of the layout drawing are transferred to the full-scale drawing on craft paper. Like a jigsaw puzzle, this paper is cut into pieces on the center line of each of the individual glass separations. The three-bladed shears used for cutting trim away the 1/16” width that represents the thickness of the spine of the lead came. Each small piece of the “puzzle” is labeled for the color indicated on the original watercolor sketch, and is sent on for glass color selection and cutting.

Production of stained glass has changed little since the tenth century, although the firing is done in electric ovens rather than brick kilns and the soldering of the cames is done with electric soldering irons rather than irons heated in a flame or in hot coals. The glass is still made by hand, usually in Germany, France, or England. Commonly-used “antique glass” is molten glass blown into a bubble, elongated into a cylinder, and then cut and heated to form a flat sheet of glass approximately 24” x 32”. This antique glass is more crystalline and has more imperfections than the machine-rolled glass produced in the United States, which is almost too perfect for the traditional stained glass artist.

Color is imparted by adding metal oxides to the glass mixture: green from iron oxide, ruby from gold oxide, and orange from cadmium selenium. Variation in color intensity within a single sheet of glass is inherent in hand-blown glass, and the craftsperson who produces the glass is skilled in controlling the variation. Each project requires the trained eye of the colorist to assure the final harmony of color balance and design intent.

The next step, the cutting of the glass, is particularly difficult. A medieval artist scored the glass for cutting with a hot iron, and a modern artist uses a steel wheel cutter, guided along the edge of the craftpaper template.

In order to view the work as it will appear when finished, the artist then assembles the glass pieces on an easel, and paints their edges with lines that are the width of the cames. The artist uses gum of arabic and ground glass to paint in any necessary details, such as facial features or folds in a garment. The painted pieces are fired to fuse the surface of the glass piece with the ground glass paint, which mutes or blocks out light.

Finally, cames varying from 1/8” to 1-1/4” thick unite the pieces of glass. The cames, whose cross-section is an H on its side, are wrought around the glass pieces by hand. At the juncture of each came or cames, a soldered joint is formed, and the process is repeated on the reverse side. Mastic cement is grouted and scrubbed into the space between the came and the glass.

Bracing bars added to each panel provide structural anchor to the frame or to intermediate mullions of the window opening. These round steel bars are attached to the panels with copper wire ties, which are soldered into the cames and then twisted around the steel bar. In some cases the steel bars extend beyond the glass panel and are inserted directly into the window jamb or frame.

The finished panel is now ready for shipping, installation, and the celebration of light.

Steven M. Coppa is on the Editorial Board of ANJ and a partner in the Comerro Partnership of Paterson, NJ. He wishes to thank Gerhard E. Heimer, of the Heimer & Co. stained glass studio, for providing information for this article.
CATHEDRAL OF THE SACRED HEART
Newark, New Jersey

South front and towers restored by

THE NEWMAN COMPANY
459 Tompkins Place
Orange, New Jersey 07051
201-678-1898
Charles Newman
Peter Newman

Solving Masonry Problems Since 1910
CLEANING • STONE RESTORATION • REPOINTING • CAULKING • WATERPROOFING

When it comes to design professional liability insurance, it’s our policy to provide the best.

Not all professional liability insurance policies are the same... and our experience has shown that architects and engineers have special needs when it comes to design professional liability insurance. We believe we can secure on your behalf a comprehensive policy to meet most of these special needs. We also believe that providing insurance coverage means more than just securing the policy on your behalf. We review client contracts with you before signing. Our experienced, professional staff is always available to discuss your particular insurance problems, and our loss prevention newsletter covers topics you can use in your practice. The bottom line is we provide you with a comprehensive insurance coverage, backed by a professional staff of specialists ready to assist you with every aspect of your professional liability insurance needs.

MIPI BROKERS
PROFESSIONAL LIABILITY INSURANCE

Minet NELSON CHARLMERS
OSBORNE, POST & KURTZ
AUSTRALIA • CANADA • THE NETHERLANDS • THE UNITED KINGDOM • OTHER OFFICES THROUGHOUT THE WORLD
725 TEANECK ROAD • TEANECK, NEW JERSEY 07666 • NJ (201) 837-1100 • NY (212) 480-9000
PROFESSIONAL LIABILITY INSURANCE

Discover how your premiums are developed and what \textit{YOU} can do to better them.

Thomas J. Sharp & Associates has been servicing design professionals for over two decades. We have dedicated ourselves to educating Architects, Engineers and Land Surveyors about your needs and questions concerning professional liability insurance.

As specialists in professional liability insurance let us show you:

- HOW YOU CAN IMPROVE YOUR PREMIUMS AND POSSIBLY BETTER YOUR COVERAGE
- YOUR CONTRACTUAL EXPOSURES AND HOW TO LIMIT THEM
- HOW TO UNDERSTAND YOUR POLICY
- THE INSURERS THAT BEST FIT YOUR PRACTICE
- COVERAGE FOR FULL- OR PART-TIME PRACTICES
- HOW TO BETTER YOUR CASH FLOW THROUGH PREMIUM FINANCING

DESIGN PROFESSIONALS TODAY NEED PROFESSIONAL INSURANCE BROKERS

THOMAS J. SHARP & ASSOCIATES

P.O. BOX 275, 3648 VALLEY ROAD
LIBERTY CORNER, N.J. 07938
(201) 647-5003

SHADING SYSTEMS INC.
INOVATORS IN MOVABLE SHADING

The practical side of fantastic glass, our track guided shading system cures the solar collector problems inherent in skylight and solarium windows.

- Manual and Motorized Systems
- Automatic Controls available
- Natural canvas, solar screen or your own fabric
- Atriums, greenhouses, skylights, curtain walls, barrel vaults, etc...
- Interior and exterior systems available
- Verticals, miniblinds, pleated shades, roman shades, soft window products
- Free consultations

P.O. BOX 5697
CLARK, NJ 07066
201-686-4466
The fifth annual Beaux Arts Ball, held for the benefit of the School of Architecture, New Jersey Institute of Technology, will take place aboard the “Spirit of New Jersey,” a fully-carpeted, heated cruise ship otherwise known as “The Spirit of New York.” Departure from the southside of Liberty State Park will be 7 p.m. The “1st Tier” includes a delicious dinner, open bar, two live bands, and a musical revue. The Spirit returns to Liberty State Park at 9:30 p.m. to pick up the “2nd Tier” guests, SOA students, and set sail again to enjoy dessert and dancing until midnight.

1st/2nd Tier - $200/person
2nd Tier only - $50/person

Call (201) 596-3404 to order tickets.
Chairman: Joseph D. Bavaro, AIA

Charles M. Decker, Jr., AIA, is the Treasurer of the Building Officials and Code Administrators (BOCA) International, Inc., a non-profit service organization dedicated to professional code administration and enforcement for the protection of public health, safety, and welfare. Mr. Decker is Chief of the Bureau of Construction Code Enforcement of the NJ Dept. of Community Affairs, Trenton.

Theodore Zach, AIA, and Suresh Patel, AIA, have been named associates of Berger Associates, Newark. Mr. Zach is project manager for the Newark State Prison and chief specification writer for the firm. Mr. Patel has been project coordinator and project manager for two major state prisons in NJ and was project architect for infrastructure and support facilities at a new town development in the Middle East.

Burton Berger, AIA, president of Berger Associates, Newark, announces the formation of a new affiliate, BAI Design Associates, Inc., that will provide comprehensive space planning and interior design services.

H. B. Mahler, FAIA, Senior Managing Partner of The Grad Partnership, Newark, is the first architect to receive the Humanitarian Brotherhood Award from the NJ Chapter of the National Council of Christians and Jews (NCCJ), which is presented to outstanding citizens throughout the state. Mr. Mahler was honored at the NJ Chapter NCCJ 1987 Commercial Real Estate and Development Industry Luncheon in early June.

Charles A. Johnsrud, AIA, has been promoted to the position of Director of Quality Assurance at CUH2A, the Princeton-based architecture, engineering, and planning firm.

The Hillier Group has named new associates: Gabor L. Czako, AIA, has been promoted to Senior Associate; Daniel R. Millen, Jr., AIA, to Associate; and Martin M. Bloomenthal, AIA, to Associate to assume the newly-created position of Manager of Specifications.

Linda Del Nobile Menze, AIA, has been appointed an Associate of The Ives Group, Fairlawn. Ms. Menze’s promotion includes supervision of the technical and design staff.

J. Robert Hillier, FAIA, founder and chief executive officer of The Hillier Group, Princeton, has been awarded the 1987 Distinguished Service Award by the International Association of Conference Centers (IACC). As their first Allied Member, he was recognized for his annual financial support and participation in the organization, and his extensive experience in conference center design.