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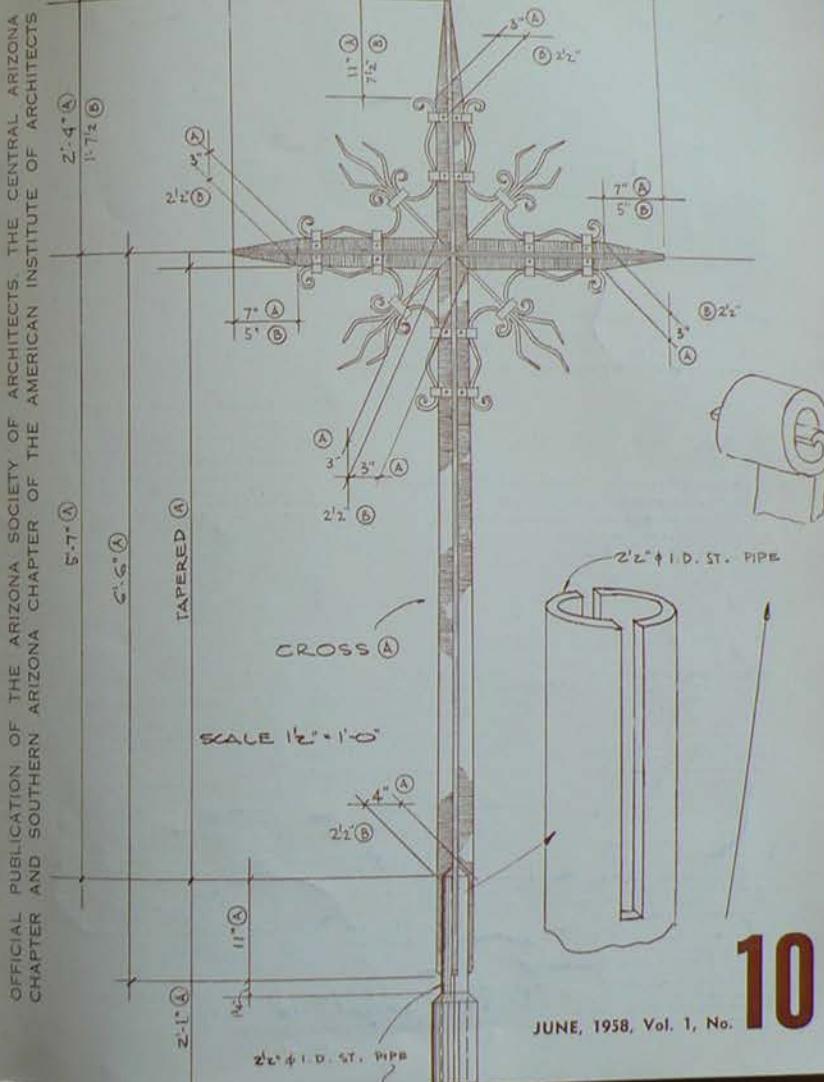
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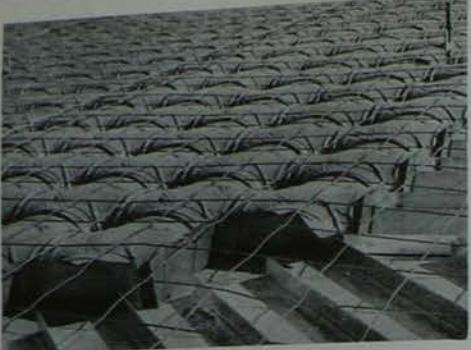
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First Methodist Church, Ontario, Calif.  
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Church of the Nazarene, Upland, Calif.  
Bethel Baptist Church, Los Angeles, Calif.  
Methodist Church, Chatsworth, Calif.  
Fuller Theological Seminary, Pasadena, Calif.  
Big Bear Lake Bible Conference, Big Bear, Calif.  
First Baptist Church, Costa Mesa, Calif.  
First Baptist Church, Lodi, Calif.  
Eden Lutheran Church, Riverside, Calif.  
Hollenbeck Church of Nazarene, Marysville, Calif.  
St. Mark's Methodist, Sacramento, Calif.  
Figueroa Christian Church, Inglewood, Calif.  
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Inglewood Krolik Baptist Church, Inglewood, Calif.  
St. Louis Church, Pittsford, N. Y.  
Bethany Congregational Church, Norwalk, Calif.  
Carmelite Methodist Church, Temple City, Calif.  
St. Marks Lutheran, Portland, Oregon  
First Methodist Church, San Diego, Calif.  
Community Congregational, Chula Vista, Calif.  
Los Felos Methodist, Los Felos, Calif.  
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Assembly of God, San Bernardino, Calif.  
The Methodist Church, Naples, Calif.  
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Phil Stitt Managing Editor

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**BOOKS FOR PROFESSIONALS**

Signed articles reflect the views of the authors and do not necessarily represent the official position of the Arizona Society of Architects or the Central or Southern Arizona Chapters, AIA.

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June, 1958

## ROBCO provides elegance...

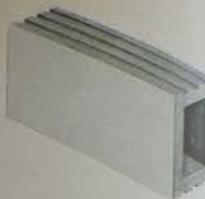
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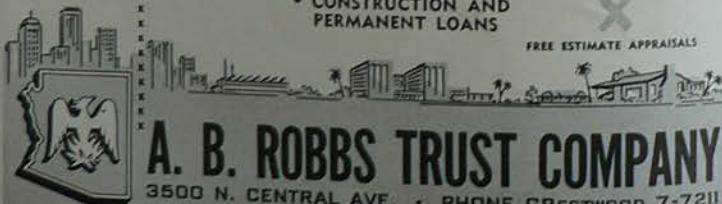
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## THE PRESIDENTS' PAGE



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CHAPTER



David Sholder

THE FIRST convention of the second century in the life of the American Institute of Architects will be held early next month in Cleveland, Ohio. These conventions are serious, important, and useful events. In one sense they're like expansion joints, allowing the developments of the year to accommodate themselves into the structure of the organization.

An example of this will be the proposal of a by-law change to create thirteen, instead of the present twelve regional districts. While the Board has the authority to *redistrict* the regions of The Institute, it cannot increase the *number* without official action by the convention. A Committee on Regional Study, under the chairmanship of Bryant Hadley, has been analyzing the regional set-up, and the Board has voted to give favorable consideration to the establishment of the states of Florida and California as separate districts.

Another by-law change to be acted upon would put on notice every corporate member as to the necessity of becoming registered in the state or territory of the chapter to which he seeks assignment (requests transfer of chapter membership).

A convention is much more than routine business, including election of officers and board members. It presents honors for distinguished work in the field of architecture, and provides seminars in important subjects, with top authorities in those fields participating.

There will be an opportunity for those attending the convention to hear addresses by some outstanding personalities and authorities. One such at Cleveland will be the noted anthropologist and author, Margaret Mead. The June 7 issue of *Saturday Review* carried a personality portrait of the young lady who became famous at the age of 27 when she published "Coming of Age in Samoa," an enchanting story of "this young female who went alone among the natives of a South Pacific island to see how the girlhood she had so recently departed... might have been spent had she been born instead on a lush and lonely patch of land anchored in the tropic sea."

Since architecture is for people, a famous anthropologist should have a worthwhile message for convention-goers.

EVERY ARCHITECT will be interested in the new booklet just published by the Institute. It is *Facts about your architect and his work*, a well-designed magazine of some 32 pages, letter-size in format, that should do much to help clients and others know what the architect does.

In a Foreword, Executive Director Edmund R. Furves says: "The purpose of this booklet is to introduce you to the person who creates the physical community in which you live. It is his business to design the structures which house you and make your life more profitable, more enjoyable, and more meaningful..."

"Your architect is not an aesthete, locked in an ivory tower. His activities are not obscure or occult, and his intellect, though capable of dealing with the problems which confront him, is not one which separates him from his fellow man. The difference is that he is especially trained to understand design, construction, traffic, building economics, and other environmental problems. His life and talents are employed to insure that you may live, work, play, and worship in a well-adjusted physical framework."

The booklet points out that architecture reflects and determines civilization, and describes the public responsibility and function of the architect and the beauty and distinction he seeks in his work.

The booklet discusses the meaning of AIA, its ethics and heritage, and the qualifications of an architect. It describes how to select an architect, how to evaluate his work, gives information on methods of setting fees, and discusses the architect's ethics and the client's responsibilities.

Normal and special services are outlined in complete detail, and the booklet carries a listing of building types under ten general headings. There is also a chart showing the complete sequence and responsibility in building, divided into three sections - "Owner," "Architects," and "Joint."

A list of chapter and state organizations is included. Priced at 30 cents, *Facts About Your Architect* should prove most useful in telling prospective clients what you can do for them.

Five



HEADQUARTERS: Central Arizona Chapter and Arizona Architect Magazine now share this attractive office at 1423 North Third Avenue, Phoenix, made available through the generosity of architects A. John Brenner, McIntire and Arnold.

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### CENTRAL CHAPTER NEWS

New members of the Central Arizona Chapter are Corporate — Lloyd Ware and Ralph C. Harris, the latter a transfer from Chicago Chapter. Associate — George Christensen. Junior Associate — Robert L. Nelson and Wayne Saylors.

No regular chapter meetings will be held during the months of July and August.

— AIA —

### A.I.A. CONVENTION PROGRAM

From July 7-11 Cleveland, Ohio, will be the host city for the national convention of the American Institute of Architects, and the Hotel Cleveland will be Convention Headquarters.

A varied and interesting program has been prepared for visiting members and their wives, students and AIA staff members. Besides the many informative panel discussions there will be tours to Nela Park, Republic Steel Corporation and Connecticut Western Reserve. The wives of members of the Cleveland Chapter, AIA, have planned special events for the ladies attending the convention and also planned are receptions, a Miss Ornival showing of "Anne Get Your Gun", visits to points of cultural interest in Cleveland, concerts and special tours.

According to Executive Director Edmund R. Purves...

The 1958 convention in Cleveland will include discussions on financing, estimating, building types, building technologies, education, research and the new competencies that the architect must develop in order to provide functionally, economically and aesthetically the environment for our ever-expanding society.

The program for the convention has been built around the theme "Architecture in a Strong America." We recognize that without a proper environment no country can become and remain strong. Our profession's obligation is to plan so well and build so soundly that a proper environment is assured.

This convention program, keyed as it is to the practical aspects of strengthening individual practice, should appeal and be of particular value to younger members of offices, chapter associates and students. Our members are urged to particularly promote the convention among these groups.

Among the prominent speakers at the convention will be Dr. Margaret Mead, Associate Curator of Ethnology at the American Museum of National History; Royal Barry Wills, FAIA; and Harlan Hatchet, president of the University of Michigan. Robert B. Anderson, Secretary of the Treasury, will give the keynote address; and Vincent G. Kling, AIA, will give the architectural keynote address.



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## The Editor's PERSPECTIVE

Rev. Eugene Golay likes to tell the story of the minister who went to visit a church member long absent from Sunday services.

As the two sat in the member's home before a glowing fireplace, the man explained that he lived what he considered to be an upright and moral life; he was good to his family and employees; he contributed financially to the church and to charity; therefore he didn't see the necessity of regular church attendance.

The visiting minister reached for a poker and pulled one glowing coal from the rest, isolating it on the edge of the hearth. And they went on talking.

Soon the man noticed that the separated coal was dying out while the rest continued to burn. He said, "I get the idea."

Granted that the influence and teachings of the Church are sorely needed in the world today—perhaps even for human survival; and granted that the men and women of the Church are dedicated, hard-working and sincere people. The fact remains that human beings have to be sold on the value of regular church attendance. Except for Easter, it has been estimated that less than half of America's church members attend church.

Bruce Barton once wrote: "Unless business holds steadily before its eye a spiritual ideal, and unless the Church learns some of the lessons that business has been forced to learn under keenly competitive conditions, neither will measure up to its opportunities."

Willard A. Plethner, an associate of Barton in a prominent national advertising agency, wrote a book some years ago entitled *Building Up Your Congregation*. In it he gave many suggestions that would lead to better church attendance. They were ideas learned from the hard world of business, and from opinion surveys which are a technique businesses are more and more using to learn the truth about themselves. To their profit and that of their customers.

It seems to me that just as successful businesses have their stores designed or remodeled for the comfort and attraction of customers, so should church leaders consider seriously the design, the equipment, and the looks of their sanctuaries.

A defective public address system, inadequate cooling or heating, drafts, glaring lights and uncomfortable pews are some of the things that positively discourage church attendance. Unimaginative design and the downright plainness and even ugliness of a great

many churches offer little inducement for people to attend.

Yet many church building committees select an "architect" on only one basis: the lowest fee. Or once an architect has been retained, the church committee or the minister too often tells him how to do his job, or so bind him by their own limited ideas of what a church should be that he is not allowed to make full use of the training and talent he may have.

Richard Neutra, one of America's most noted architects, told a Tucson audience that Arizona has a real gem in its San Xavier Mission, but lamented imitations of it that don't quite come off.

It seems to me — and I'm no architect — that a church building should in itself convey a feeling of warmth and welcome that is conducive to an attitude of prayer and spiritual receptivity. No ministerial exhortations and after-service handshaking can substitute for this feeling. The church sanctuary should convey a sense of true worth, of stability, and of lasting quality commensurate with the spiritual values it seeks there to inculcate.

Church finance committees may say they have enough difficulty keeping up with operating and maintenance costs, let alone obtaining adequate building funds. They know, too, that one of the "excuses" people most frequently give for non-attendance is that there is too much appeal for money. They ought to read Plethner's book. And they ought to have a little more of the faith that their ministers preach.

Anything worth doing should be worth doing right. And that goes for building churches as well as building schools and bridges and skyscrapers — and intercontinental bomb missiles.

A church doesn't have to be big to be beautiful. And with reasonable growth potential, even a new and small church can start out with a plan — and the land — that will permit that growth to be orderly and beautiful. Really, a church cannot afford to do otherwise.

The liquor industry does not wait for people to "discover" its products. It goes out and sells them. And in its taverns and lounges it provides a mood and a setting that is conducive to what it has to offer.

Certainly the ineffable beauty of religion, combined as it is with coldly practical values, is worth selling to a people surely in need of it. Good architecture can provide a means to that end as well as a fitting monument to God.

Phil Sut

June 1958

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ARIZONA ARCHITECT

## An Architect's Prayer

God of the Universe, Spirit of Beauty and Order . . .

I thank Thee for the privilege of serving Thy purpose, and my fellow man, through Architecture.

Grant that I may always be mindful that there are steadfast principles operating about me; in the stars that journey unerringly through space and in the atoms that forever move within every cell of the structures I create.

Help me ever to plan in beauty, and to remember that as I serve individuals I must also serve all men.

Give me the courage never to compromise with what I know in my heart to be right.

Help me ever to be fair in my dealings with those who participate in the execution of my work.

May I constantly be in harmony with Thy great and mysterious plan;

Thus may I serve Thee.

Amen

Eleven



**A**nother group of terms applicable to concrete includes "slump," "water-cement ratio" and "workability." Some clarification of these terms might be in order.

**T**he slump of concrete is a measure of its workability. Slump is determined by measuring the distance a cone of wet concrete settles from its original height when properly compacted in the slump cone. (See lower center part of above illustration).

**L**arge slumps indicate an excess of water in the concrete, or a higher water-cement ratio. W/C Ratio is the ratio of the weight of water to the weight of cement. Control of each of these factors is necessary to produce concrete with the required characteristics.

Nov. month Concrete Strength

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Twelve

Planned  
for  
Growth



Photo: Bill Sears

Religious buildings can be planned for orderly growth on a given site, yet incorporate fitting dignity and esthetics from the very first unit. A good example of such planning is found on this page in the buildings of Temple Emman-El, Tucson, designed by Friedman & Juhuich, AIA.

The photograph above shows the original building containing an auditorium, large stage, dressing rooms, storage rooms, toilet facilities and a large kitchen. It also shows the temporary, but attractive pierced wall construction in front of the auditorium. Featuring amber glass, this facade has unusual beauty at night when lights shine behind it.

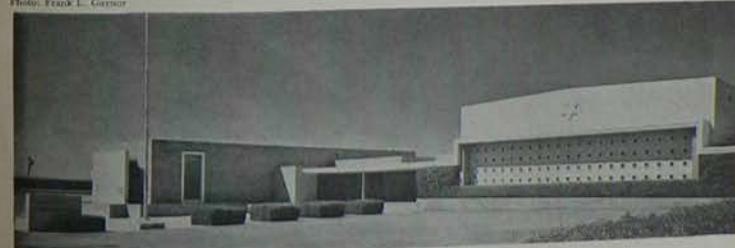
The photograph below shows the chapel addition in front of the main building and a classroom unit built in an "L" shape, with an enclosed patio between the classrooms and the new chapel. The chapel building

projecting in the front has not yet been landscaped, but the brick planter boxes will contain the same "softening" shrubbery evident in the older portion of the building.

Plans have long been made for even more expansion. Next will come a sanctuary in front of the auditorium. To build it, the frame and stucco-constructed pierced wall will be removed, and in its place will be folding wooden doors, making it possible to open the auditorium and sanctuary into one room. The seating capacity of the combined sanctuary and auditorium will be approximately 1,200.

The little chapel at the left of the lower photograph seats 100 persons; however, an additional room behind it is also equipped with connecting wooden doors to permit both rooms to seat 300 persons.

Photo: Frank L. Gremec



June, 1958

Thirteen



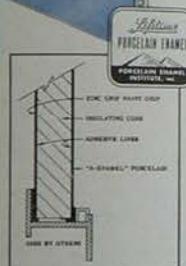
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Fourteen

By MARTIN RAY YOUNG, Jr., AIA  
Member, A.I.A. Committee on Religious Buildings

The study of architecture of the church is a fascinating one and it makes one aware of the great contribution church design has made to architecture.

The church has a continuing right to purity of plan and to cleanness of form. Through these it attained its supreme emotional values. By their recovery its meaning can again be made clear to all men.

We have witnessed too often great confusion in many of our recent church buildings. Too many times the plants "grew like Topsy" rather than through an orderly plan. Fortunate is the church which lets her architect develop a grand plan, and then follows that design.

Though ours are no longer the methods of the Middle Ages, nor are ours the methods of Rome, we turn to those pages for understanding. We seek to learn from them the dignity which the architecture of the church should enjoy.

In the architecture of the church from the sixth to the sixteenth century there exists complete revelation of design vibrant with imagination and with desire for adventure. It is the most romantic the world has known; direct in structure, seeking directness in expression, and achieving fascinating beauty.

Today's architecture demands the inspiring quality of romance. The desire for adventure, the willingness to approach adventure with joy, is truly expressive of our own day and time. We have been moved to admiration in some of our very latest church designs, while on the other hand we have wondered sometimes whether the building is a church or a school.

It is interesting to follow the development of the church building as the development of religion has found expression in its structures.

The basilican plan of the Christian church arises from the architectural forms of the city of Rome. When Constantine built the basilica of St. Peter, he built for the large number of worshipers which resulted from his act of liberation.

In building lore, Romans remained Romans, though they did embrace Christianity and from buildings familiar to them they chose the type best suited for the plan of their early churches. The pagan civil basilicas, of which there were ten in Rome in Constantine's time, were of all the buildings most convenient for the gathering of large groups of people in enclosed space.

The civil basilica consisted primarily of a long central hall, some three times as long as it was wide, and

## The Architecture of the Church

with great height. Upon either side of this hall were aisles of lesser height, separated from it by rows of columns or by great piers. This layout became the generally accepted form, with many modifications, of the great majority of Christian church buildings.

The Christian basilica varied from the civil basilica in that it returned to a ceremonial plan. The civil basilica had been a building of free circulation with entrances on two or even four sides, whereas the church was entered from one end only. In front of, and beyond, the church was an uncovered court or atrium. At the furthermost side of this court was the entrance to the church. St. Peter's is one of the finest examples of this type of planning, being over 700 feet from the front of the atrium to the rear of the apse.

As the church extended its wealth and power, so its architecture reflected this change in status. The church became the center of community life and interest. Architects and builders became daring in the design and execution. While the purpose of the building remained the same, the decoration, adornment, and embellishments became greater.

During the period of greatness came Chartres, Notre Dame, Rheims, and Amiens. These great cathedrals have been described as the most daring and interesting of all buildings.

Everywhere the expression is of power and of increasing knowledge. The works, whether in Lombardy, France, Spain, or England, are vigorous works. The piers and arches are massive, the heights generous, the plans larger and more complex. In these churches there remains a somber grandeur and a satisfying human kinship to the earth.

The marvels of the French Gothic cause it to stand apart, alone in its splendor. The Ile-de-France, with Paris as its center, gives to the history of architecture monuments compared with which the work of the ages before and after seem dull and uninspired. The architecture was functional — from the plan, through the stained glass windows, to the flying buttresses.

The discovery of the New World, and the migration of many diversified people, brought new problems and design to the church architectural scene. When the pilgrims and Puritans built, they built simple, but inspiring buildings. Buildings to fit their needs and desires.

During various periods of our history we have developed grandeur and greatness, and at other times,

Fifteen

mediocrity. Perhaps it was because of the restlessness and adventure that has been ours.

Today we are awakened to new endeavors and new adventures. The modern moves quickly, quite contrary to the slow maturity of the medieval.

The new manner is not one which delves deeply into the dim past. Too much of such search has characterized recent generations. Creative imagination seeks new expression. Medieval art was an expressive art, of great power, beauty, and directness. As such it is stimulating to the imagination. The hours spent in its study can lead to daring and to invention.

The church architect today seeks understanding of the purpose and opportunity in church design. He seeks that the complete usefulness of his building shall not be hampered or made less complete because of the intimacies of some bygone style or the haunting beauty which may lurk in historic detail. He seeks from the past the understanding with which it endowed its solutions. He longs for a like thoroughness to do in his own day and with his vastly widened material means, a work as truly creative and as truly expressive.

Above all, he seeks beauty. He sees the ugliness which initial efforts at modernity have so generally occasioned. He gags at its possible horrors in caves of glass and concrete which would make sterility our ideal. To the medieval fullness of meaning he turns for inspiration and finds there an age which took joy

in the intimate nature of its problems and solved them with clear logic as natural as the growth of a plant. In their naturalness he would search for understanding and its accompanying romance. In their romance was the expression of the love and humor of life as well as the joy and laughter of work. The modernist finds no completeness within a scientific manner alone; beauty and adventure call for honest delight and its expression in his work.

Creative design must be given freedom to compose and assemble material and masses in a manner which shall record again our acceptance of the rightness of Christian emotion and beauty of expression. They should retain from the meaning of the medieval church its orderliness, its belief in the permanence, its search for emotional expression, and its supreme position in the mind and heart of man.

When we realize the barrenness of our church buildings, we perhaps feel the barrenness of our lives. The great power of architecture lies in its ability to portray without superficiality the reality of structure, the greater meaning of the essentials in life.

We are at the crossroads. The rising sun finds the awakened architect striving in the direction of meaningful values, towards creative art. The setting sun falls upon the unthinking, with their eyes upon the past, at work digging in its cemeteries.

Now seldom do we find a building yielding a warm, rich, exquisite sense of life and comfort if entered for

solitary reverie. The church must, in its design and decoration, command worship. We must build for the worship of God.

The architect today must be honest. We must apply every energy, every invention, every ounce of creative effort to make our church worthy, fitting, and inspiring to men of our day, just as the thirteenth century builders made their church to the men of their day. Less than this is unworthy, dishonest. We must seek the meaning and give it creative embodiment in churches free from disturbing distractions.

Our buildings today must have adequate sites, intelligently selected, and then properly protected. We must recognize that the automobile is here to stay and that we must solve, in our overall design, the problem of parking and traffic. We find too many sites inadequate for the proper use of modern transportation and its accompanying problems. The grocery store finds its parking problem as real as its building problem and accepts it honestly. Are we being as honest with our church buildings?

The medieval church in its monastic, rather than its secular, examples, consisted of an extended group of buildings of varied purpose, often extremely beautiful in the group composition; but the important thing for us to recall is that these never exceeded nor even competed in importance with the dominating mass of the church.

With an adequate site, it would be interesting to

recover again the historic atrium. It could be an open atrium, a dignified court in front of the entrance, something more formal than the churchyard, yet having its reverent meaning. By it the transition could be made beautiful.

When we reach the church, we should enter through an impressive portal. Pettiness at the entry is unseemly; we need not more doors, but greater ones, we enter the building through the vast doors into modified light and generous space. We become aware that we are in the shadows of a noble architecture before we view the church's silent grandeur. We gain the emotional value of such proper transition, an interval of space and time in which to attain the finer meaning of our church.

We may design the interiors in whatever form we choose, whether parabolic or hyperbolic, or we can rigidly adhere to rectangular forms. Each can be as rightly productive of perfect beauty as the round or the pointed arch. Whatever the form chosen, the medieval meaning has taught us the accent of vertical rather than horizontal composition, the emotional value which accent of height occasions. But greater even than the vertical composition was the unified beauty. A well-formed, well-proportioned system repeating with unbroken regularity and leading to a concentrated interest at the chancel end of the church.

The church should express a convincing dignity. It should have an appropriate artistry, an ornament in

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Sixteen

## Architectural Concrete

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June, 1958

Seventeen

spring to our age. Architects and churchmen alike must rekindle their faith and their imagination in order that they may hope to reverently approach toward the flower of the church's meaning.

In light of the completeness with which the medieval church was able to embody the emotional nature of its problem, we are compelled to admit the failure, to a great extent, of architecture to express like power in the work of recent generations. The competing interests of our civilization have become embodied in a church of confused form. A recovery of direction as well as a recovery of architectural directness seems necessary.

All about us we find a material civilization rapidly developing power to express more and more exact embodiment of the things it holds useful and attractive. In its buildings it skillfully avoids confused and inefficient planning. It seeks orderly arrangement, expressive form, and greater clarity and convenience. Such is the answer of our age. Inertia and resistance lie in the building of confused form.

To hold so great a meaning, as the rich, warm emotions of the church deserve, clear thinking, progress, and sincerity are necessary in its structure. It must attract in a valid way. It must command worship. It has right to privacy of meaning and beauty. Architects must give to the church building this perfect clarity. This is our challenge.

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## "Fingers to the Sky..."

An instinctive taste teaches men to build their churches in flat countries with spire steeples, which, as they cannot be referred to any other object, point as with silent finger to the sky and stars.

— Coleridge



First Christian Church, Tucson  
Arthur T. Brown, AIA, Architect

Photo: George Geary



First Holy Trinity Church, Phoenix  
Comensu and Brooks, Architects

Church of the Nazarene, Phoenix  
Schaefer & Fuller, AIA, Architects

(Continued next page)



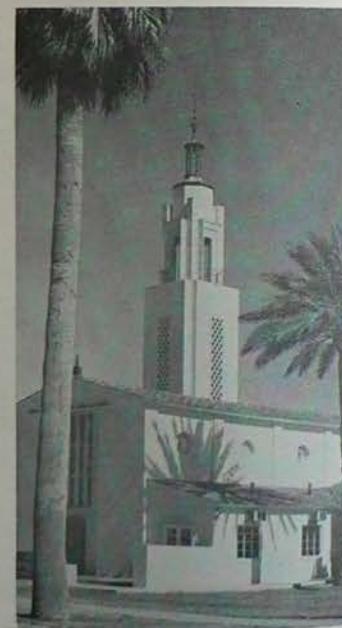
Nineteen



Photo: Frank L. Gerber



Catalina Methodist, Tucson  
Harold Wagener, AIA, Architect



First Phoenix Ward, L.D.S. Church  
Douglas Burton, Architect



Twenty

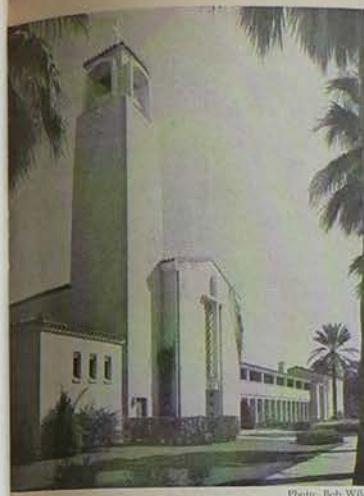
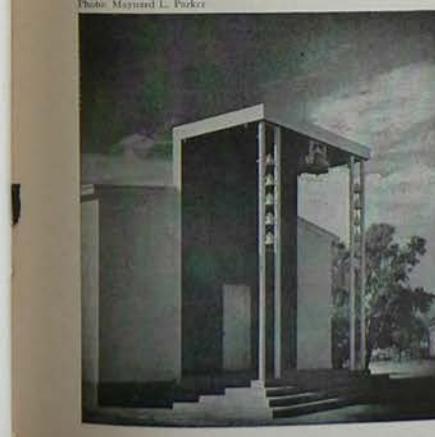


Photo: Bob Wilcox

Central Methodist, Phoenix  
Lescher & Mahoney, AIA, Architects



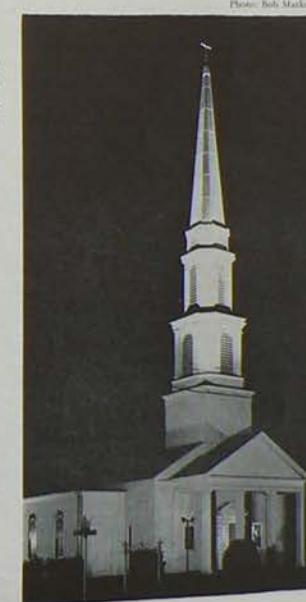
June, 1958

Chapel, Southside Presbyterian, Tucson  
Arthur T. Brown, AIA, Architect

Photo: Maynard L. Parker



Photo: August Bredtch



Twenty-one

## A LIVING TRADITION IN CHURCH ARCHITECTURE

By JOHN H. BECK  
Associate Member, Southern  
Arizona Chapter

A living tradition, a contemporary past. A seemingly paradoxical thought isn't it? How can there be a relation? How can there be no conflict?

There has always seemed to be, at least in the eye of the public, two camps into which architects fall. We have all been asked are we modern or traditional by a potential client and our answers varied with the strength of our convictions. Of course the question is justified. Traditional connotes something handed down from the past, something inherited, whereas contemporary means belonging to our time. The public can see no relation between these two thoughts and naturally feel an architect must be either one or the other.

To some, traditional is a form, a character, the appearance of a building. It is the "style" of a building, and style is something out of the past. To me, however, style is the quality coming out of a work, a building. It is not the impetus, the beginning point in the design — it is the result of it. To the traditional stylist I ask the question: would we have a Chartres if its designers had been stylists?

To the architect this paradox does not exist. To one who is reasonably aware of this world and is therefore striving to work within it with his God-given talents, there is no conflict between traditional and contemporary architecture. The two, in the true sense, are interwoven so closely that they cannot be separated. Contemporary architecture must be based on tradition, but this basis is not in form and character but rather as a guide, a philosophy.

I am not scorning tradition, I am not ignoring the past; although as an architectural student I rebelled against Fletcher's Text and wanted to begin my history with Meis and Diodock. I think of tradition as a learning process, a continuous chain to which we must add links. I marvel at the way medieval builders solved these problems, with what they had to work with. However, let's face it, we do have more at our command.

It is in church architecture that the pseudo problem of Traditional vs. Contemporary seems most poignant. Church committees are prone to think in terms of style, Gothic or Renaissance. This is a dilemma to me, for in ecclesiastical forms, truth should overcome falsehood. Truth is just as basic to religion as it is to art and architecture. Beauty always stems from a reality of things, their being what they are meant to be. In church architecture, particularly, truth is a basic commodity, and truth

is timeless. In the words of Cardinal Lercaro of Bologna, "The Church is ever of today, Jesus Christ yesterday, today and forever."

Tradition, however, must be the basis for all church architecture. There are liturgical requirements, age-old rules which must be observed. These regulations, laid down by competent authorities become just as important in the architectural program as seating capacity, or air conditioning requirements. They should do no way stifle a designer's creative ability, in fact they should stimulate it. Tradition must be respected, learned from, and the basic concepts taken and translated into the contemporary mode or scene by means of methods and materials.

The contemporary architect is certainly justified in turning, for example, to the Gothic cathedral for emotional and spiritual inspiration, but his interpretation should be entirely through the materials and techniques of our own age. Ralph Adams Cram *The Substance of Gothic* says, "Gothic Art had done its work, it had given immortal form to Christian Civilization. It can never come back, at least with the life and power that were its own." So respect it please. I love it too much to attempt a copy.

Where do we stand at present? It would seem to me that our whole materialistic philosophy has done great damage to all forms of emotional expression, particularly ecclesiastical. I have difficulty recalling, for the past four or five generations, a religious building of real monumental character, unless size is the only criteria.

Exceptions are beginning to appear. There is hope. Perhaps the most notable is Marcel Breuer's 100 year plan for St. John's Abbey at Collegeville, Minn. In the words of one reviewer this is "the most exciting architectural story since the building of the great medieval churches in Europe. A 1400 year old living tradition not bound to historical forms."

This is the crux. Jesus Christ yesterday, today and forever.

— AIA —

Candor — in a world with so much hush-hush, can be most invigorating. Once in a while, you meet a person who speaks his mind. If he does it with gusto — and without malice — his comments can be as refreshing as a cool breeze in a smoke-filled room.

It is easy to become a bit complacent — comfortable — even smug, at times. The person who can with no vicious intent hold a mirror and reveal us as others see us, is a greater friend than we may think. Sure, it many times hurts our vanity, but the person whose vanity doesn't bear many scars — hasn't learned to live — yet.

If you know someone who can and will hold that mirror up to you — you are lucky, indeed. If you don't — you can at least welcome the 'jolt' when, as and if it comes.

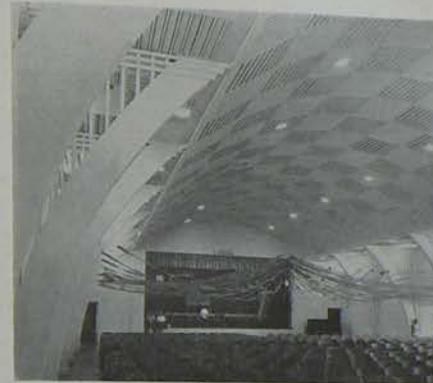
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Twentythree



"Tree of Life" window, Catalina Methodist Church, Tucson. Created by Flemish Glassworks, Scottsdale. For light pattern cast by this window, see page 25.

Eight: Rose window, Central Methodist Church, Phoenix  
Below: Window at St. Augustine Catholic Cathedral, Tucson

(Review of an article by Dr. H. G. Smith appearing in *Church Management*)



Stained glass windows, employed skillfully and tastefully in church architecture, can contribute, perhaps more than any other device, to the meaning of sermons, music and worship.

They, being more than just a display of color and design, have come to hold a special significance to churchmen and laymen alike. As with art masterpieces and classics in literature, stained glass windows are looked at, studied or read over and again.

Historically, stained glass windows have had both an intellectual and emotional appeal. Originally, the windows were created in order that those who could not read could see the gospel message illuminated before them.

The intellectual appeal is given basically by the use of figures, symbols, medallions and other similar devices which have been developed through the centuries to convey certain definite ideas. The figures are usually historical and, because of their character, stand for qualities of thought, character or action, according to Dr. H. G. Smith, president emeritus of the Garrett Biblical Institute.

"The figures are for the most part familiar," Dr. Smith wrote in *Church Management*. "The shepherd's crook is a reminder of what the 23rd psalm sets forth in lyric language. A ship is emblematic of the church, while a figure of praying hands suggests 'the soul's sincere desire.' Almost endless are the number of figures and symbols by which an artist may suggest the lessons of faith, hope and love."

Dr. Smith is quick to point out that stained glass windows have more than an intellectual appeal to offer. By the artistic use of color, the figures outlined in a window become more lifelike. So also do the symbols take on a new and deeper



"A never-ending source of joy and satisfaction . . . they both speak and sing."

## Stained Glass Windows

meaning as they appear in color and are outlined more clearly by the contrasting colors around them, he said.

The artist in stained glass windows has at his command a great variety of color to widen and deepen his interpretations. These colors in turn are changed from moment to moment while the light that shines through them varies with the shifting shadows caused as clouds drift between the sun and windows," Dr. Smith points out.

Definite and specific meanings have been associated with different colors; pure colors being emblematic of spiritual qualities and realities. White, for instance, immediately suggests faith and purity; green makes one think of hope and victory; red is accepted as the symbol of divine love, sacrifice and courage; blue suggests divine wisdom.

"It is, however, when these colors are happily blended that the meaning of what they may convey comes

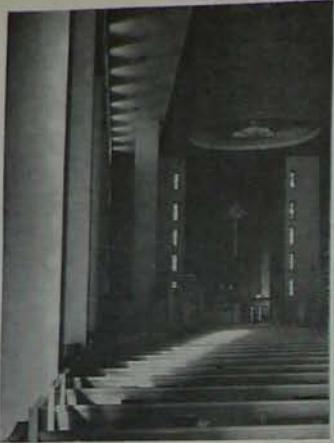
to the fullest expression. No color lives by itself alone. Unless associated with other colors, either contrasting or complementing, any color becomes monotonous, as does a single note too often repeated. However, in the blending of colors, the artist must use great care lest the result be discordant rather than harmonious," Dr. Smith asserts.

Stained glass windows, with their emotional and intellectual appeal, add something to every worship service by helping to create a worshipful setting in which the spoken word and music, vocal or instrumental, may be heard to the best advantage.

"No matter how wonderfully the architect may have done his work in wood or stone, windows of this character seem to add a climactic touch — a quality of undefined beauty to be gained in no other way. They give a degree of spiritual support that quickens and deepens the spirit of worship. The preacher, the organist and members of the choir, as well as . . . the

Stained glass wall, St. Gregory's Church, Phoenix





Light through "Tree of Life" window (see page 24) casts a soft, multi-hued glow on pews and floor.

congregation might well offer each Sunday morning a little prayer of gratitude for the architect who designed a sanctuary calling for such windows . . . the president emeritus said.

Dr. Smith also attributes to stained glass windows the ability to making a contribution "far beyond what they do by adding to the richness of the setting of worship." Because there is a limit to what can be said in words and also what can be expressed by music, he has found that the windows can "come to the rescue," suggesting what words cannot formulate and giving information about something that is beyond.

"They present implications of the unseen and the eternal and give hints of something vaster and greater . . . (they) extend the range of man's interpretation and make great spiritual realities vivid and certain. They make known what no eye has seen nor ear heard nor the heart of man conceived, what God has prepared for those who love Him."

These windows are earthly symbols by which a mind attuned to awareness grasps heavenly realities. They say the words no tongue can pronounce. They suggest truths that are beyond our speech and would escape unless they were expressed in some great artistic creation like these windows. What these windows do in the field of speech, they do more fully in the realm of music . . . They take the person led by music and introduce him into that ineffable world of mys-

tery which cannot even be suggested by a musical note."

To the success of the appeal of stained glass windows, Dr. Smith attributes their subtle qualities of suggestion. They make no effort to convince and they "just solicit the young and the old alike to dream dreams and to see visions. They have anticipated modern psychology with its emphasis on indirect appeal."

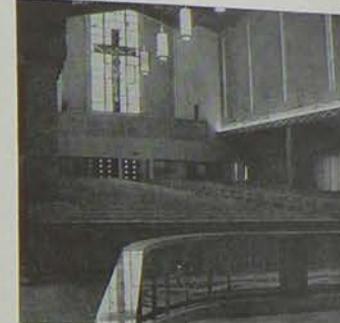
The minister points out that an indirect appeal such as that of the windows is all the more effective in a day like ours in which men are more or less schooled to resist appeals, especially those that have a quality of emotion in them. A modern congregation, he said, is much more difficult to move than one of 100 years ago. Men brace themselves against the appeal of emotion, are set against a too-ready response and "do not intend to let anybody get around them."

"But no one has built up a resistance to the subtle summons of these windows. They speak as gently as nature itself and glide into a man's deeper musings almost before he is aware of what is happening."

"And so the stained glass windows speak and sing their way into the mind and heart of those who really see them. Just as some must learn how to listen to music and others how to appreciate art, so most observers must make an effort really to see these creations. They should be studied at different times of the day and on different days of the revolving year for they

change with the shifting light of every hour of every day of every season.

"For those who will patiently seek to gain all that windows like these have to offer they become a never-ending source of joy and satisfaction . . . (for one) who in the love of beautiful things holds continued communion with stained glass windows . . . they both speak and sing."



Facade window at Most Holy Trinity Church, Phoenix, features a flesh-colored Corpus 15 feet tall on a gold cross. Colors are reflected on marble communion rail.

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## NEGLECT OF PLANNING IS WASTE OF MONEY

By MURRY HARRIS  
Associate Member, Central Arizona Chapter

The most frequently neglected aspects of religious building planning are consideration for future accessibility to the congregations, and changing technological and sociological customs. We are no longer a civilization of walkers or buggy-riders, yet current planning too often considers, for example, one auto parking space adequate for every five seats. The pace of change is such that it is reasonable to expect that within the next 20 years we will be using moving walks from traffic centers, or even remaining at "home" and attending distant events via multi-dimensional tele-techniques.

So many religious groups are concerned with "life hereafter" that there is sometimes cause to wonder if adequate thought is given to the future here on earth. This would occur to even the casual observer seeing the disagreeable results of excessive crowding of religious buildings, inadequate facilities and, above all, complete lack of rapport with the spiritual concepts they embody. Who hasn't seen large church buildings crowded close to busy streets, competing with stores, traffic, or houses for attention?

Another thing that is grossly neglected is the initial master-planning of the whole program including a "100% future expansion" that will give a frame of reference from which to develop. This planning should not only establish projected structures such as classrooms, chapels, kitchens and gardens, but envision such diverse items as future air-conditioning, religious art, television facilities and repainting schedules. Without such planning, costly and growth-inhibiting mistakes are inevitable.

The greatest need, however, is that of just plain space. There is abundant proof that failure to acquire adequate space at the outset of most building programs, because of budgetary considerations, has been the worst way of "saving" money. Increased land requirements have often worked unnecessary financial hardships on the congregations involved and caused many undesirable concessions to the lack of planning and acquisition for the future. The purchase of seemingly more-than-enough land can always be justified on the basis of future property values. If future developments indicate a lack of need, excess property can be sold to a controlled occupant at a reasonably expected increase over the original purchase price.

It is hoped that architects, in whose province the master plan rightfully belongs, will give it the precedence it rightfully deserves, and that building committees will recognize, and find a way to pay for, its inestimable values.

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## CRITIQUE

EDITOR, ARIZONA ARCHITECT

May I compliment you in printing the letter to the editor in the May issue. I found it enlightening and well worth reading. I concur with the writer for the most part, the remainder being a matter of opinion.

Where an established order of Architecture such as the "Composite" (one of five) is termed a counterfeit, I must render an objection. As history informs us, there was a good and proper reason for the creation of the Tuscan and Composite Orders, and since I assume that Miss Noye is well versed in the History of Architecture I shall not pursue its evolution further. To proclaim as counterfeit an attempt to beautify structural form to conform to present practices and availability of materials, would place the architects of the past and present in a rather embarrassing predicament.

From the time that the caveman emerged from, and abandoned, natural crevices of the earth as his home and began building walls and colonaded structures to support a roofed shelter from the elements, Architecture, according to Miss Noye, is a counterfeit, since the basis of architecture for shelter is essentially the same now as it was then with its advances in refinement to which category falls the "Composite Order."

GUDMUND MARTINSON

## BUILDING COSTS CONTINUE CLIMB

Building construction costs, notwithstanding market weaknesses general across the United States, have managed to squeak up another two per cent in the past year.

Commenting upon the significance of information received from several hundred contributors in 48 states, Myron L. Matthews, Manager-Editor, the Dow Real Estate Valuation Calculator, an F. W. Dodge Corporation service, says: "As for the future it appears reasonable to expect that the cost to build almost anything from a cottage to a skyscraper will push on upward at a rate of about one per cent every four months, or three per cent for 12 months."

The price tag on construction is 149 per cent higher than in prewar 1941 (159 per cent in Pacific Coast and Rocky Mountain area.) Generally speaking, the average level of cost was then approximately equal to the average for the years 1926-1929. In between there had been a depression and a recovery. At any rate the cost to build is today roughly two and one-half times what it was in '41. Saying it another way, it takes \$2.50 today to buy what \$1.00 bought 17 years ago.

The Dow Real Estate Valuation Calculator, a construction cost guide used nationally, and to some extent internationally, for approximating replacement costs for buildings, conducts this regular semi-annual cost survey, the aim of which is to measure changes in the cost-to-build in 146 American cities plus four in Canada. Toward this objective the survey studies local changes in prices paid by builders for the yardstick items included. Among these items are brick, plaster, lumber, cement and metals, plus nine skilled labor trades and laborers. The overall results are released by F. W. Dodge Corporation as a public service.

—AIA—

"Architecture is frozen music."  
—Schelling.

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In addition to descriptive tables summarizing the various spans and spacings for supporting metal lath and plaster ceilings, the 1958 "Specs" include a page devoted to fire-resistive ratings.

— AIA —

The primary concern of American education today is not the development of the appreciation of the "good life" in young gentlemen born to the purple.

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— James Bryant Conant

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## PROGRAMMING THE CHURCH NEEDS

BY HAROLD T. SPITZNAGEL, AIA

(From a talk presented at the Fifth Annual Architects' Conference at the University of Kansas, March 5, 1958, which this year was devoted to "Contemporary Church Architecture." Reprinted from "Skylines," Kansas City Chapter.)

If one were to reduce the church program to its bare and most urgent need, a five letter word would indeed sum it all up. The word I refer to is, of course . . . MONEY! This is usually not only the commodity for which there is the greatest need but it is also the element which is so often in short supply.

It is sad but true that in far too many cases the Building Committee, unfortunately, views the church as a purely commercial undertaking wherein their ability as a businessman qualify them for their place on the Committee. The church of all things should not be considered as an undertaking which will yield a financial return. Nor is it a building which should be constructed as large as possible for an irreducible minimum of cost. Card parties and church suppers are not the real reason for the existence of a Christian Congregation.

Let us pause for a moment to determine as to what is necessary to construct a good church. In my opinion

the requirements are:

- (1) A suitable and adequate site which will contribute more per dollar invested than any single element of the project.
- (2) An intelligent and informed Client who has confidence in his Architect, for nothing worthwhile can be incorporated in the building unless the Client appreciates and approves the design.
- (3) A dedicated, able and sensitive Architect, I want to particularly stress this last qualification because in many instances the church is adequate from the standpoint of its requirements, both structurally and spatially while still completely lacking in such things as color, texture and scale which contribute so much to the final impression.
- (4) A clearly defined program which not only solves the immediate problem but also provides for future growth.
- (5) An honest, capable Contractor who takes pride in his work.
- (6) Adequate funds — without sufficient money the best conceived building cannot be accomplished.
- (7) Last, but by no means least, a church group with a burning desire to construct a church worthy of the name.

Lacking any one of the above elements, it is virtually a foregone conclusion that only an inferior building will result despite the best efforts of all parties concerned.



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## IN THE BOOK WORLD

"The Modern Church" by Edward D. Mills. (Frederick A. Praeger, Inc. \$9.75.) Reviewed by Robert J. Ambrose, AIA.

According to the author's own preface, "The Modern Church" attempts to give some help to both architect and church building committee when the problem of a design for a new church arises. This confession can be read quite literally. The attempt is made in a little over a hundred pages of easy reading and covers a wide variety of subjects such as an Historical Introduction (I am not convinced that Mr. Mills is an historian), planning considerations, acoustics, heating, ventilation, insulation, lighting, building materials, furnishings and costs. Also included is an abbreviated form of Graphic Standards that are applicable to ecclesiastical design. At best the book can be only a very elementary primer which could be used to good advantage by a church building committee that is about to launch on its first church building project.

Unfortunately for us, Mr. Mills is an Englishman who has obviously written the book concerning conditions and situations as they exist in England. This makes for interesting reading but very little technical value can be derived from it by an American. However, Mr. Mills has included two items whose appeal is universal. First, he has illustrated his writing profusely with over 170 photographs, all of which are good. Second, he chose Mr. Basil Spence to write the Foreword. Mr. Spence is the architect who has designed the new Coventry Cathedral in conjunction with the war-created ruins of the Church of St. Michael. Spence writes such quotable stuff as:

"Architecture must be the servant of the church and of the Christian faith, and it should not be the other way round. Important principles in such design have been handed down to us through our great churches and cathedrals, and while traditional requirements have changed very little . . . architects should be encouraged to be inventive and to breathe a contemporary vitality into the various parts of the building.

"Modern architecture can give us a great many things, large spans, new and beautiful materials, mechanical equipment and efficient services. Should not these be put to the service of the church, which has never hesitated in the past to employ the best human talent of every age to the greater glory of God?"

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ARIZONA ARCHITECT

Architectural Books

"Religious Buildings For Today", an Architectural Record Book. (F. W. Dodge Corporation, \$7.50) Reviewed by Murry Harris.

Part of the lasting contributions to the society of man have been the efforts of John Knox Shear, the recently deceased Editor-In-Chief of the Architectural Record. One of these is his recently published book, "Religious Buildings For Today".

With the immittance of considerable architectural expression following the current revival of religious belief and action so evident in the world today, this book serves as a timely reminder that we cannot duplicate the past nor merely emulate the present. Commentaries from various sources are included in the book that support this premise. Particularly impressive are the explanations of his design for the new Coventry Cathedral by Architect Basil Spence, and a reported discussion with Engineer Mario Salvador on Structural Expression. In addition, the book is generally arranged to amply illustrate examples of the buildings for the various religious beliefs with brief explanations of the materials and works shown.

However, like the specification writer who snips and pastes together seemingly logical compilations of various previous efforts convenient at hand, Shear has ignored or overlooked much remarkable work in Europe and South America. This collection of predominantly American churches indicates that religious buildings today, with rare exception, reflect the growing homogeneity of our civilization, for the illustrations clearly epitomize a style that could be called "Contemporary For Today".

Though the title and illustrations speak of "Today", the thought provoking contents serve to insure the permanent value of this contribution to the library of Architectural Literature. The definitive work is still to be published, and this book points the way.

— AIA —

THE ENGLISH CATHEDRAL THROUGH THE CENTURIES by G. H. Cook. A comprehensive study of plans, purposes, building and construction with regard to church organization and subdivision of the country into diocesan areas. The text is supplemented with 115 plates and 63 plans of cathedrals. 384 pages. Single copy \$9.00.

History of St. Paul's Cathedral. A monumental history of famous St. Paul's Cathedral in London. 380 pages, 56 plates. \$12.50.

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