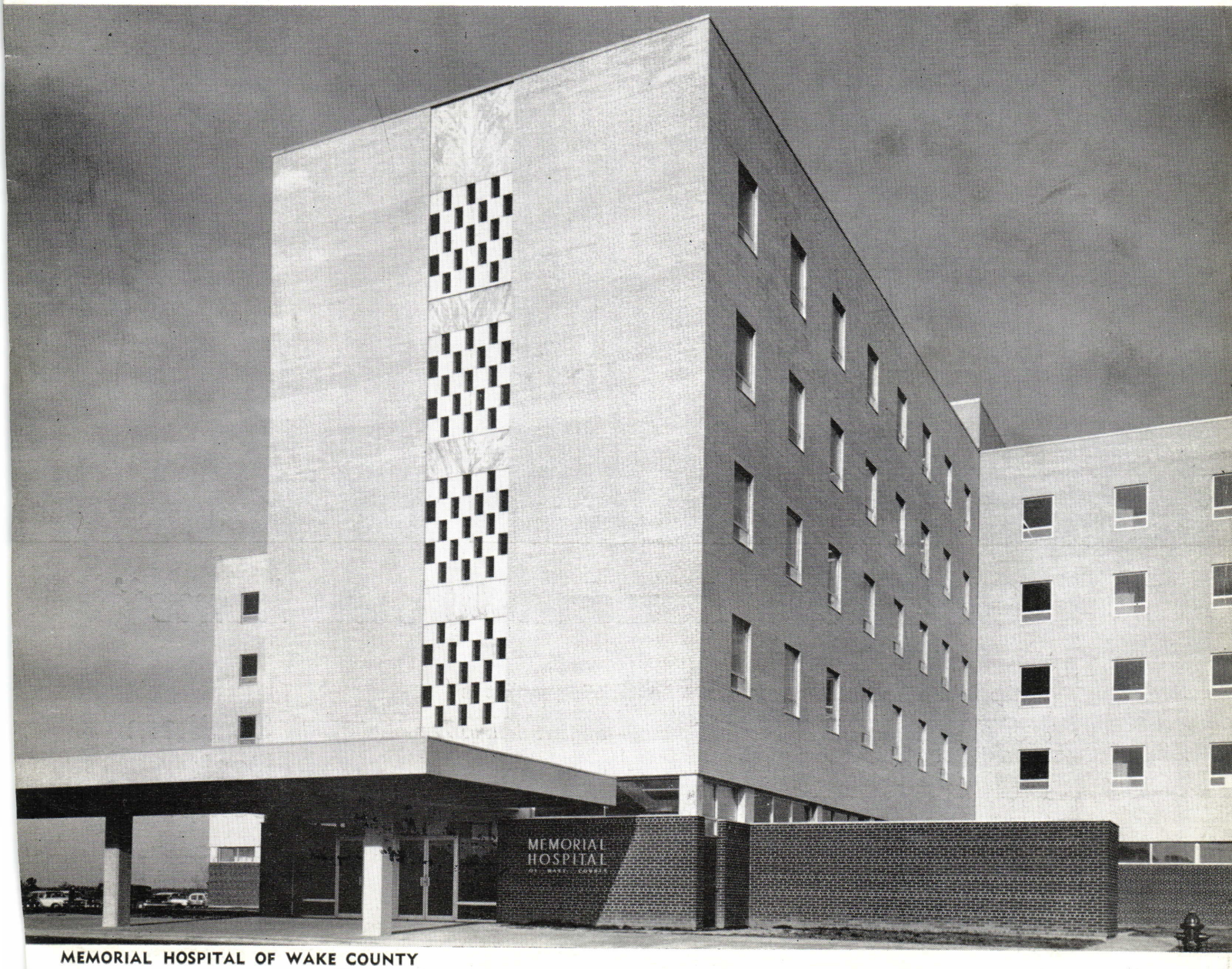
SOUTHERN ARCHITECT

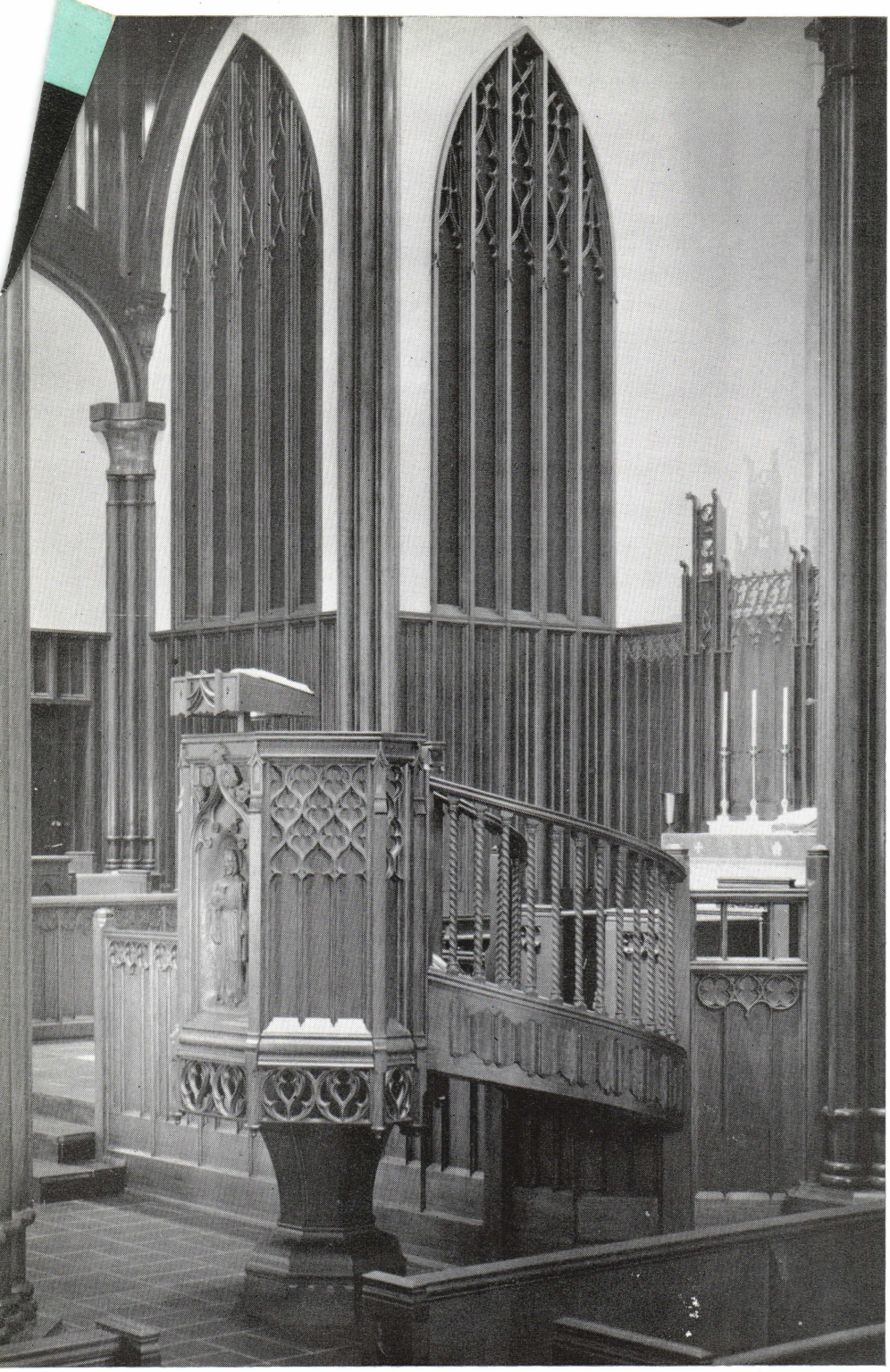
PUBLISHED BY THE NORTH CAROLINA CHAPTER, AMERICAN INSTITUTE OF ARCHITECTS

HOSPITALS

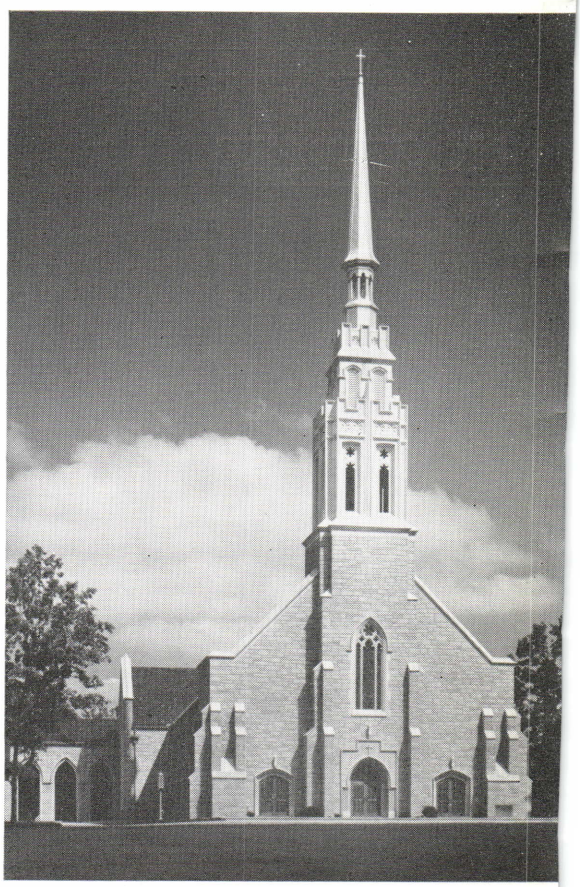
SEPTEMBER 1961



MEMORIAL HOSPITAL OF WAKE COUNTY



Corinth United Church of Christ
Hickory, North Carolina
ARCHITECT: *Six Associates*
Asheville, North Carolina



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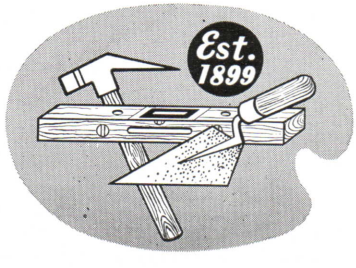
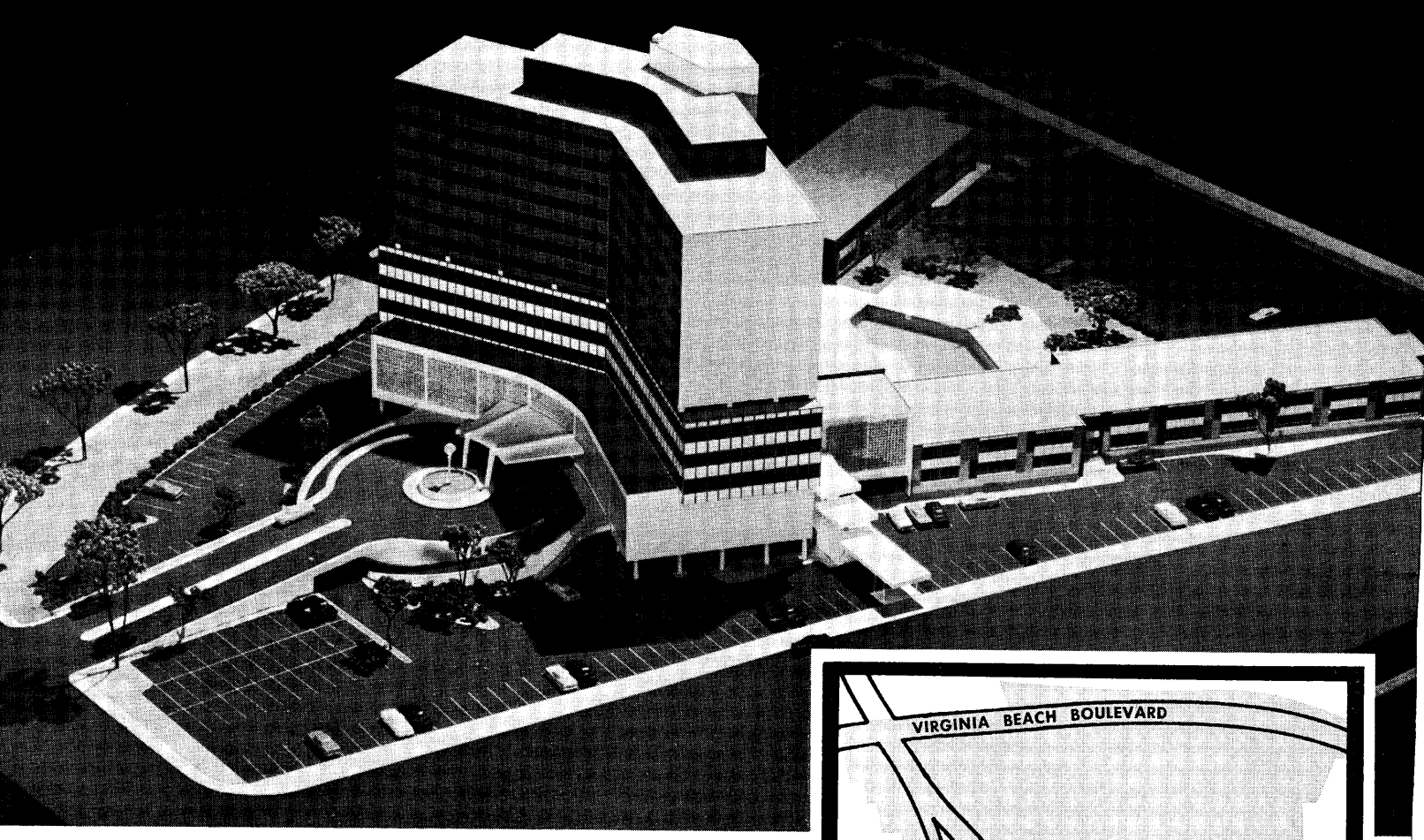




The Golden Triangle, Norfolk, Virginia

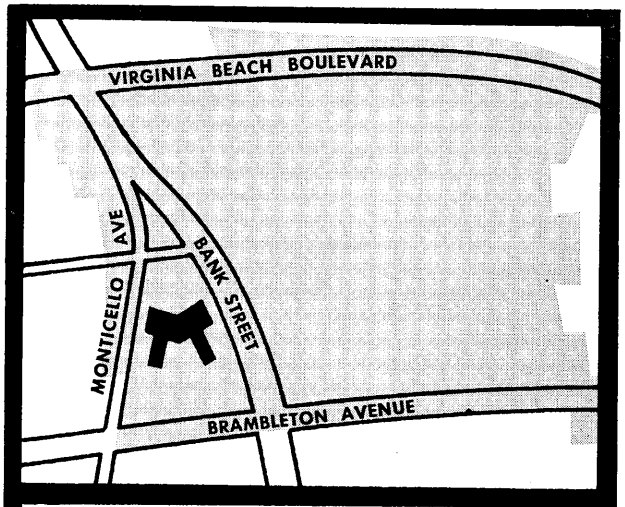
Our Changing Skyline

Located in the heart of downtown Norfolk, the $6.5 million Golden Triangle building wraps a multitude of functions within its sleek, 14-story frame. A motor hotel, hotel, office building and convention center, it is the city's first new downtown hotel in more than fifty years. Architecturally, it will remain an achievement of enduring significance.

The building occupies an entire city block. It houses more than 350 guest rooms, three floors of office space, and a complex of commercial shops. A convention center, comprising fourteen expandable, inter-communicating banquet and meeting rooms, offers a seating capacity of 1,000. Also included: A 135,000 gallon swimming pool and off-street parking for 400 cars.

In keeping with its compelling, contemporary design, the Golden Triangle exemplifies the use of the latest techniques and materials in modern, multi-story construction. Basic construction of the towering building is reinforced steel, with Solite lightweight structural concrete used for floor decks. The choice of lightweight concrete for use in this multi-story building is significant. Solite's actual weight advantage is 1000 pounds per cubic yard, or 500 tons dead load saved for every 1000 yards of structural concrete laid. In the Golden Triangle, this meant substantial savings in structural materials and labor, easier transportation and faster construction *while still assuring the required in-position strength.*

These reasons alone, plus others too numerous to mention here, have made Solite lightweight structural concrete the overwhelming choice for the finest structures on our "ever changing skyline."



The Golden Triangle stands out as an impressive element in Norfolk's urban redevelopment plan. Map above shows its location in area of Redevelopment Project No. 1.

GOLDEN TRIANGLE

ARCHITECT:
Anthony F. Musolino, AIA
CONSULTING ARCHITECT:
Morris Lapidus
STRUCTURAL ENGINEER:
Keller-Loewer Associates
GENERAL CONTRACTOR:
Blake Construction Co., Inc.

Lightweight aggregates used in lightweight structural concrete produced by Solite Corporation. Offices in Richmond, Va.; Charlotte, N. C.; Jacksonville, Fla. Plants in Bremo Bluff, Va.; Leaksville Junction, Va.; Aquadale, N. C.; Green Cove Springs, Fla.

SOUTHERN ARCHITECT

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SOUTHERN ARCHITECT IS PUBLISHED BY THE NORTH CAROLINA CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS, BETTY W. SILVER, EXECUTIVE SECRETARY, POST OFFICE BOX 666, RALEIGH, NORTH CAROLINA. ADVERTISING RATES ON REQUEST.

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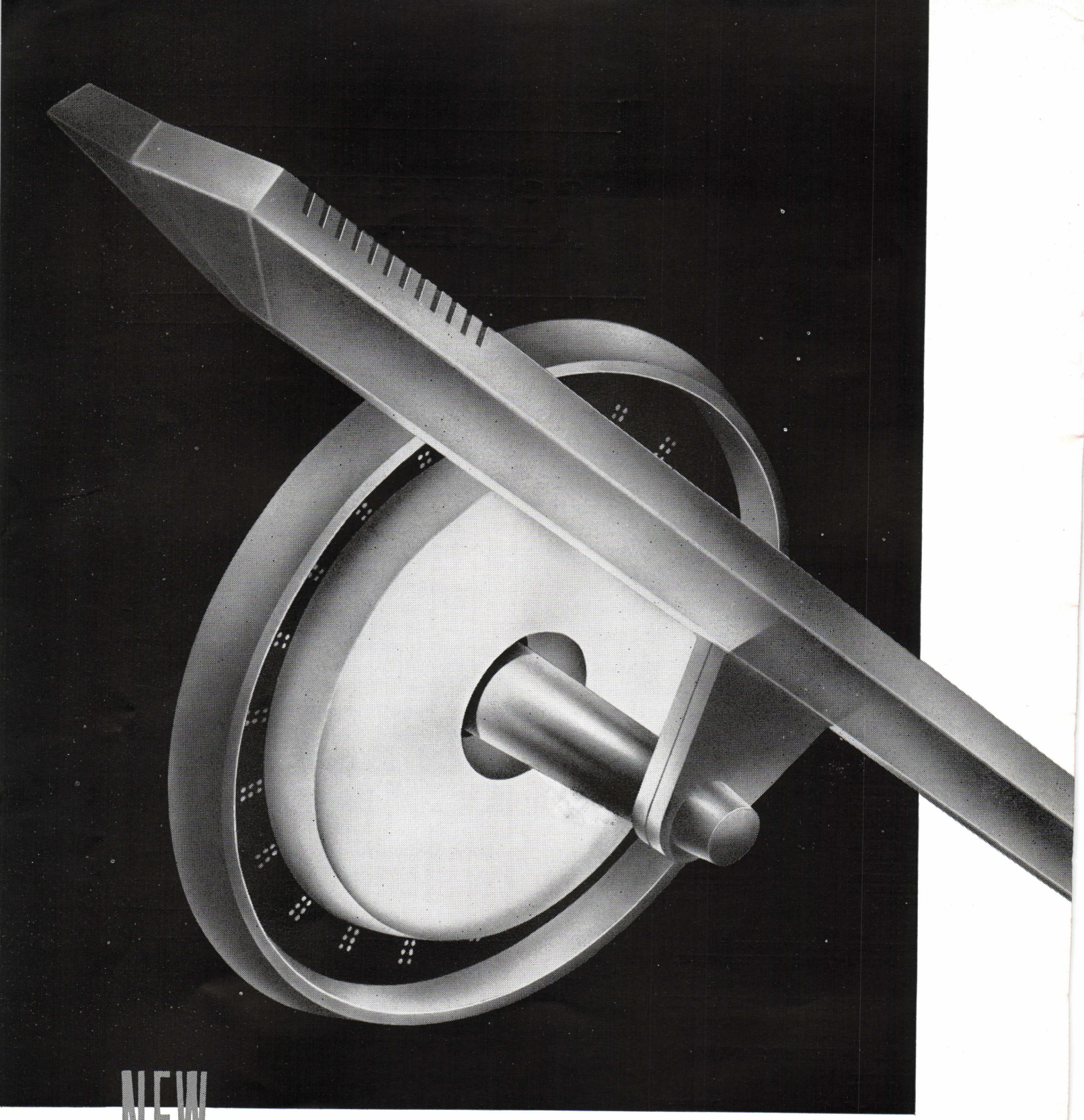

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Raleigh, N. C.
September 1961

Manufacturers and Manufacturers' Representatives
Serving North Carolina

Gentlemen:

The architects of North Carolina have for many years felt confident in specifying certain materials and building products on the basis of the reputation of the manufacturer and the product name. I have become quite concerned within the last year as it becomes evident that we can no longer follow this procedure. This is certainly not true of all manufacturers of products or materials but we are finding more and more following the pattern set by the automotive industry of the large automobile manufacturer entering the "compact" field. However, within the building industry we are not finding the reduction in size, but a reduction in quality under the same name, and sometimes with the manufacturer's name and trade mark omitted but coming from the same production line. I have been told that this has become necessary to meet competition. Such manufacturers are meeting competition today only as time and field testing will prove that it is a lowering of the standards only.

There is nothing wrong with making a cheaper and a more economical product, but the architects of North Carolina and their clients will appreciate the representatives of reputable manufacturers keeping us informed of "economy lines" being sold under the same name "to meet competition." The architectural services representatives are doing an excellent job of keeping us informed of quality products, but are generally failing to tell us of the "economy lines" and the attempt is made by the sales representative to substitute the "economy line" for quality. Keep us informed, please. An architect stakes his reputation on the materials and the products he specifies. An architect is oftentimes held responsible for materials on the job appearing there in the interest of competition demanded by the owner.

We, as architects, are not afraid to use new materials and "economy lines" provided such have been manufactured according to definite standards and have been properly field tested. The architect today would not be without such materials as thiocol, vinyls, epoxies and urethanes and acrylics to mention a few, but even these need definite standards of manufacture and quality.

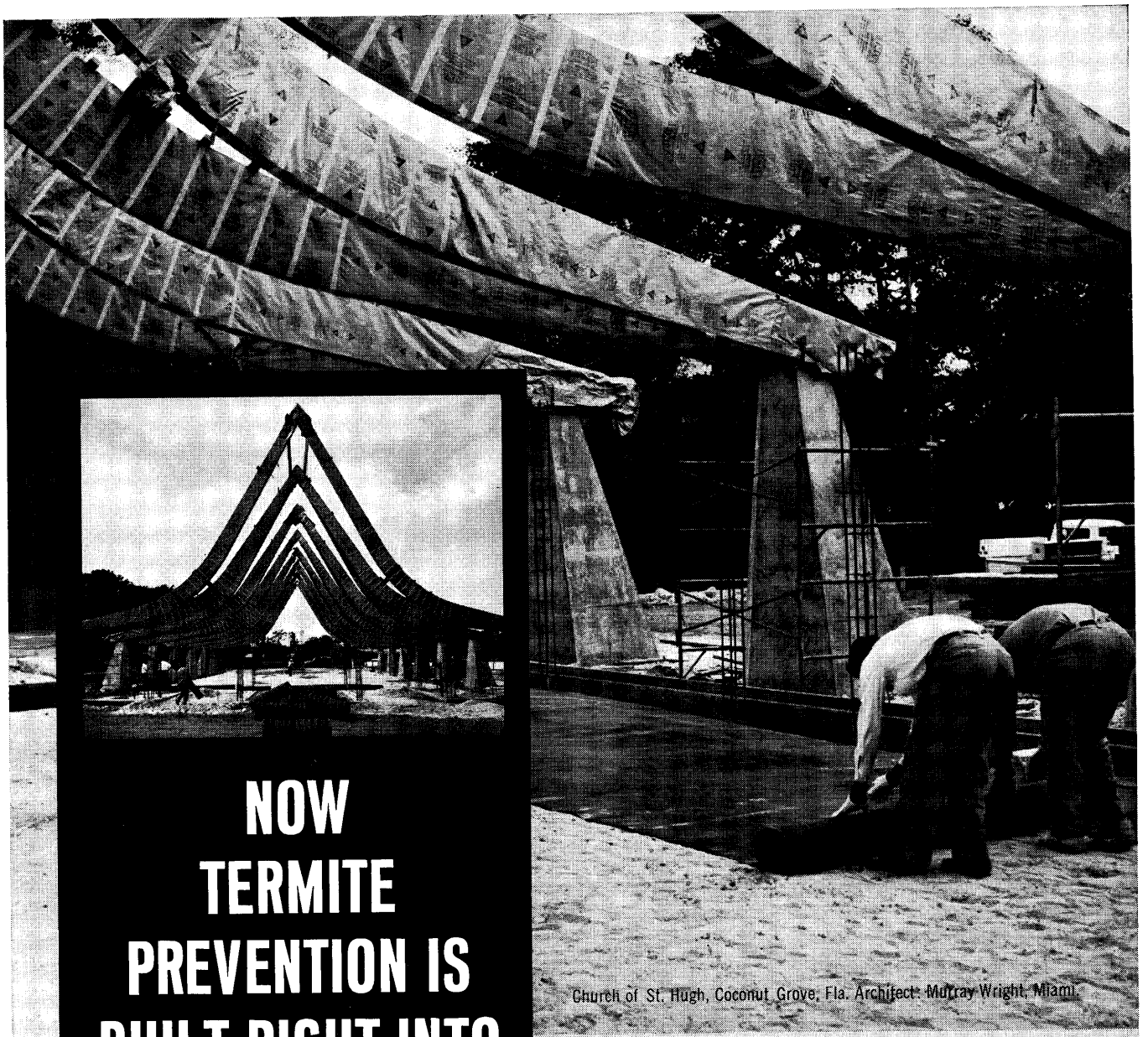
We recognize a hard job in this day of competition of meeting the price and keeping the quality and wish to commend the manufacturers who are making available to us many fine materials and products and solicit the help of all in keeping the reputation of the building industry in a place of high esteem in the eyes of the public. If we can help, call on us.

Sincerely,

Albert L. Hawkins, Jr.

President, N. C. Chapter, A.I.A.

PRESIDENT'S MESSAGE



Church of St. Hugh, Coconut Grove, Fla. Architect: Murray Wright, Miami.

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HOSPITAL OF THE FUTURE — FACSIMILE OR FORESIGHT?

By William F. Henderson, Executive Secretary
North Carolina Medical Care Commission

Hospital design is definitely in for a change and perhaps a radical one if it is to conform to the vastly changing concepts in medical care. Inasmuch as these concepts have been developing gradually, it is probable they have not been sufficiently demonstrative to command our attention architecturally. As this may be the case, it seems urgent that we delay no longer the identification of the more influential factors that call for departures from conventional and prototype designs.

During the past decade and a half, general hospital construction, with impetus from the Federal Hill-Burton program, was generally directed to small, new hospitals developed in communities where none previously existed. However, the most immediate concern now is with the expansion, modernization and coordination of existing physical plants and with the replacement of obsolete facilities now providing service for which there is a continuing need. The very nature of this change presses us to a different type of planning, particularly for the larger institution. Correspondingly, it will present a more complicated program for the architect. The expansion of an existing building and the appropriate integration of the older, more usable areas with the new require more thorough study than the development of an entirely new plant. It is usually a much simpler assignment to build a brand-new 100-bed hospital than it is to add 50 beds to an existing 50-bed facility.

We observe frequently the inclination to add beds as utilization increases without adequate consideration for the reciprocating demands on the supporting service departments. With the sizeable expenditures already incurred for initial hospital projects, the prudent perpetuation of these investments will require more expertness to assure efficiency and economy in the inauguration of subsequent enlargement projects. This task, obviously, cannot be accomplished by stop-gap and quickly conceived schemes geared principally to the immediate availability of financial resources. While the extent of additional construction, to be sure, will be governed by obtainable funds, this should not preclude long-range studies and master planning for the future. A master plan is essential. It must allow for the development of initial stages in an order that will permit functional coordination with the projected needs of the hospital and the community in more distant periods. We have observed, perhaps all too often, the abandonment of some existing areas resulting from expansion projects which could have been prevented by the incorporation of a long-range plan with the initial program.

The sizing of service areas is becoming, regrettably rather late, a matter for more intensive evaluation. When will we ever abandon the mystic formulas for sizing hospital ancillaries? The future demands upon our hospitals must arouse a more inquisitive approach to departmental requirements. The "X square feet per bed" formulas used too arbitrarily in the past for computing the needs of supporting departments have made us lazy and easy victims of the manual. How unscientific can we get when we plan operating rooms routinely on the basis of one for each 50 beds? We are aware of the rapid introduction of new clinical techniques and the amazing acceleration of diagnostic examinations in recent years. Yet, many laboratories are continually gaged to a meaningless recipe of square footage-per-bed.

Traditionally the hospital's responsibility has been related to short-term, acute conditions. Should this notion continue, then let us abandon the misnomer "general hospital". Chronic illness can well be cared for in the general hospital or its extensions. The future community hospital must and will provide a wider range of services for the ambulatory patient, for physical rehabilitation and more hospitals will implement long-term units for the convalescent. This comprehensiveness will ask for features permitting a greater flexibility in the allocation of space for changing services. Adaptable partitions for selected areas and logical concentration of service departments to serve long-range expansions and modifications should be studied for greater possibilities.

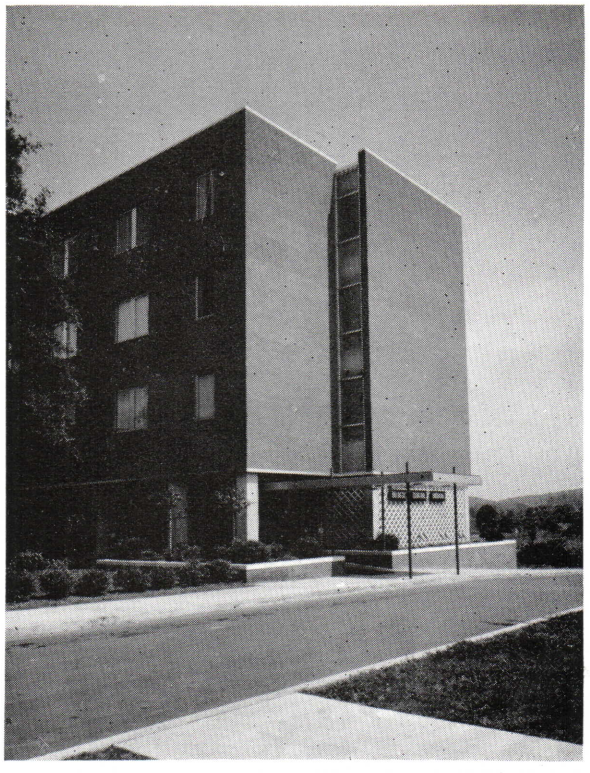
Research in industry is constant and from it, we must anticipate revolutionary adaptations in the hospital physical plant. We will definitely see in the future more frequent and radical changes in hospital equipment.

A review of some of our present-day experiences substantiates this conclusion. It was just a few years ago when established standards prescribed non-conductive floors in areas where flammable anesthetics are employed. There was then too little emphasis, we have found, on isolated electrical systems in these departments. More recent research, however, warns that floors should be conductive rather than non-conductive. Thus we were creating hazards rather than eliminating them. With the introduction of more specialized equipment for anesthetizing areas, more thorough attention must be given to electrical circuits to provide maximum compatibility with the safety standards of today. We can also begin inquiring into how spacing for sterilization will respond to the advent of high vacuum autoclaving, the new, more efficient sterile water distillation systems and pre-packaged disposables. Electronic data processing is increasingly indicated for many hospital operations and the affect this will have on administrative areas is a matter for consideration. And now we are learning more about non-flammable anesthetics. What impact will they have upon the design and specifications for surgical departments? The increasing availability and acceptance of disposable items may eventually release some areas for different purposes. And how much thinking have we done about radioactive fall-out protection? Thanks to our procrastination, the next generation may not be around to criticize us for this.

These things, of course, suggest the "business-as-usual" philosophy is not only passe, but dangerous. All levels of professions associated with hospital design and construction will be hard put to conduct the necessary research in all aspects of this highly technical and rapidly changing business. There must be no inclination, nor should there be any excuse, to refer automatically to old patterns

(Continued on page 28)

HOSPITALS



VALDESE GENERAL HOSPITAL

Valdese, N. C.

Architects-Engineers:
J. N. Pease and Company
Charlotte

Project Architect:
J. O. Raley, Jr., AIA

General Contractors:
A. Z. Price & Associates, Inc.
Charlotte
F. N. Thompson, Inc.
Charlotte

This is a 120-bed general hospital which is completely air conditioned and utilizes a reinforced concrete structure. The building was designed to be supplemented by a 40-bed Nursing Home and a Community Clinic Building.

FORSYTH GENERAL HOSPITAL

Winston-Salem, N. C.

Architects-Engineers:
Lashmit, James, Brown & Pollock
Winston-Salem
Bruce Jones, AIA
Medical Care Commission

General Contractor:
Rea Construction Company
Charlotte

Landscape Architects and Civil Engineers:
R. D. Tillson & Associates, Inc.

Located on a 76 acre site, the total square footage of the hospital is 338,068 with an additional 58,000 square feet in the nurses' residence and training school. A total of 542 hospital beds are planned with 200 beds in the nurses' residence.

Of steel frame and flat slab floors the partitions will be of plastered tile with terrazzo floors and bases. There will be dual duct air conditioning system with absorption refrigeration. Part of the equipment planned will include audio-visual nurses' call, audible paging system, television system for patients rooms on a rental basis and a closed circuit television for observation and visitation. The facility is presently under construction.

CHARLOTTE MEMORIAL HOSPITAL ADDITION

Charlotte, N. C.

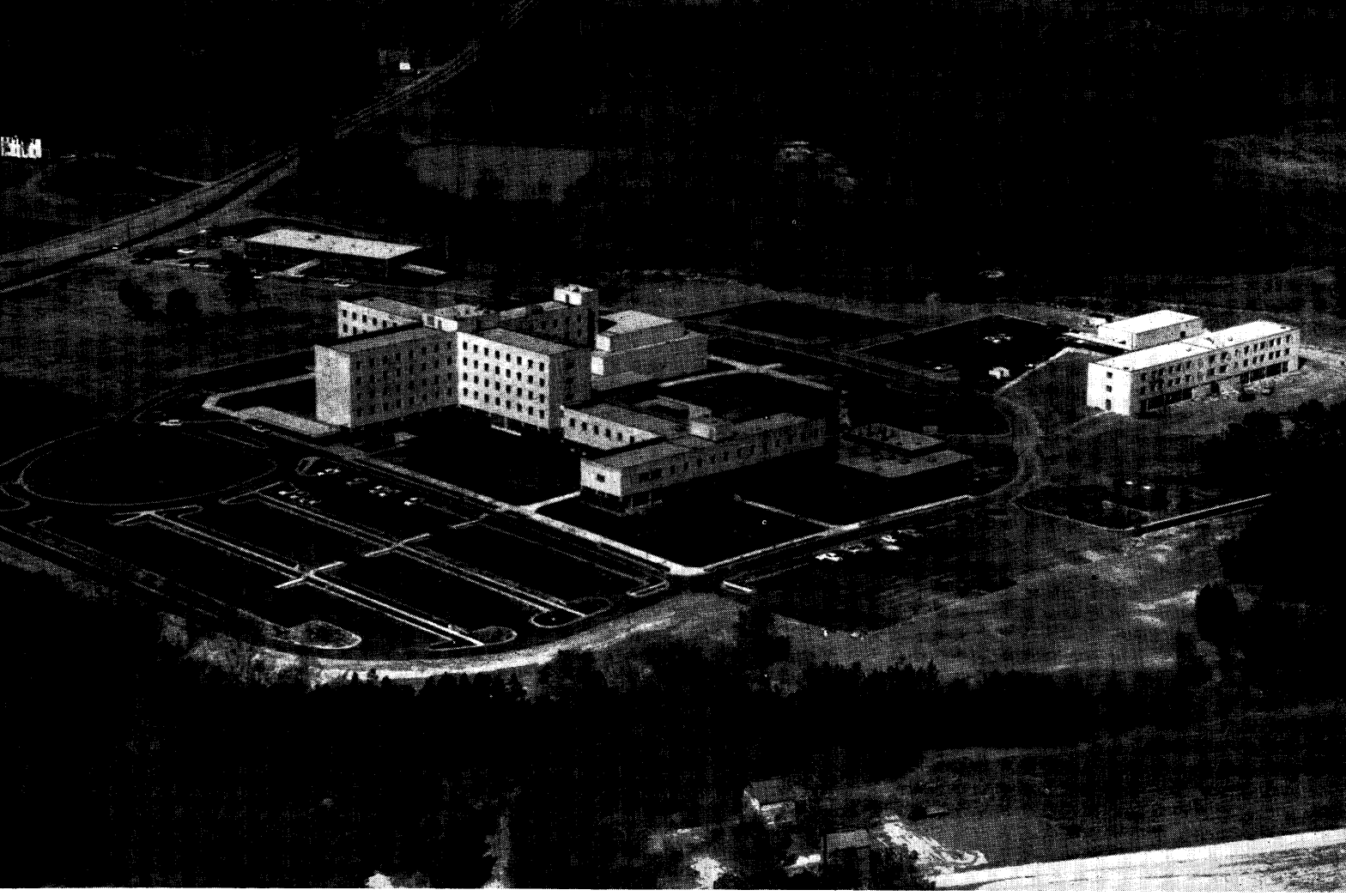
Architect:
A. G. Odell, Jr. & Associates
Charlotte

General Contractor:
Little Construction Co.
Charlotte

Charlotte Memorial Hospital of 350 beds was originally constructed in 1938 and the present program called for the development of a master plan which would eventually reach a total expanded capacity of 800 beds. 250 beds comprise the immediate project now under construction and an additional 200 beds would be provided in the next construction phase soon to begin. The exterior front of the old hospital will be left virtually intact and the new addition is located at the rear of the old hospital and will become the principal entrance facing a new street. Heating and air conditioning will be by a dual duct system.

In addition to the expanded bed capacity, a new heating plant, maintenance shops, laundry, out patient department and a nurses' home are provided.

The hospital addition is of reinforced concrete construction of a flat plate slab design. Exterior wall surfaces are precast concrete, exposed aggregate. Extensive renovations and enlargements of supportive facilities, such as kitchen, X-ray and surgery, laboratory and a central sterile supply resulted in a most complex and painstaking planning operation, which was further complicated by the necessity of keeping the hospital and all facilities in operation during the construction period.



Wm. Moore Weber, AIA, Raleigh
J. N. Pease and Company, Charlotte
Associated Architects-Engineers

General Contractor:
T. A. Loving & Company
Goldsboro

MEMORIAL HOSPITAL OF WAKE COUNTY

Raleigh, N. C.

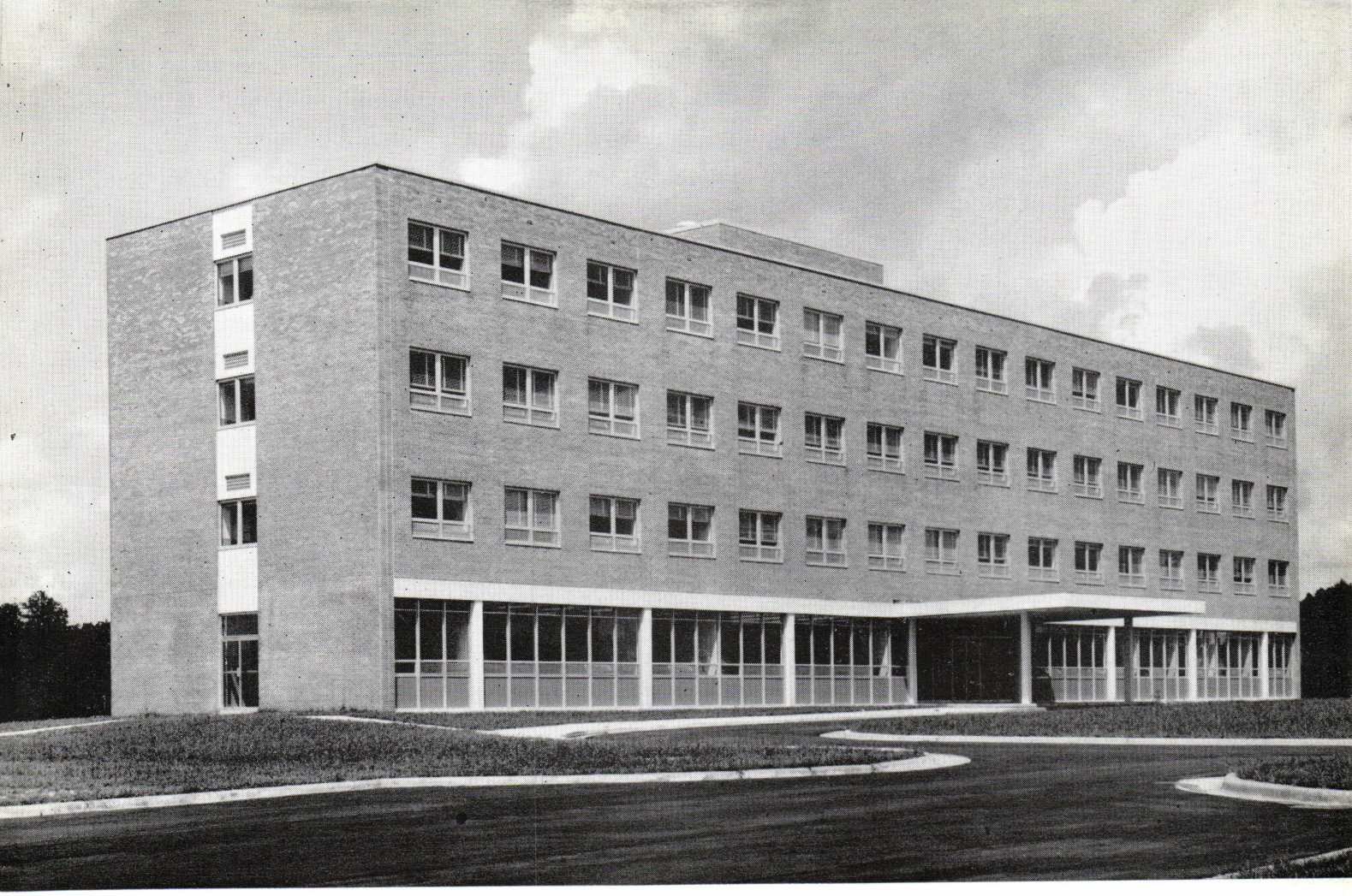
The Memorial Hospital of Wake County, which was dedicated April 24, 1961, has a 380-bed capacity and is designed for expansion to 600 beds and contains medical facilities unsurpassed in the Southeast.

The cost of this structure was $5,500,000.00 in addition to the $500,000.00 Nurses' School and Residence, which is located to the right in the above photograph.

The hospital currently has a full trained staff including over 70 physicians and surgeons. Many of the features incorporated in this structure and found only in the most modern facilities of this type include the following: completely air conditioned throughout, a dial-operated, automatic pneumatic tube system for carrying requisitions and supplies to all departments of the hospital, automatic unloading washers in the laundry and automatic linen-folding machines, central recording and transcribing system for medical records, centralized assembly line tray service for patients, nurse-to-patient intercommunication system on each hall, ultra-sonic washer for surgical instruments, and motor driven hospital beds.

This building with basement and five floors has a total of 230,000 square feet of space. There are eight (8) operating rooms, four (4) delivery rooms, and five (5) nurseries. Quarters for patients include one hundred five (105) private rooms, one hundred ten (110) semi-private rooms with the balance in four-bed arrangements.

Present personnel is approximately three hundred (300). When the entire hospital is in full operation, personnel required will be approximately seven hundred (700).



MEMORIAL HOSPITAL OF ALAMANCE COUNTY

Burlington, N. C.

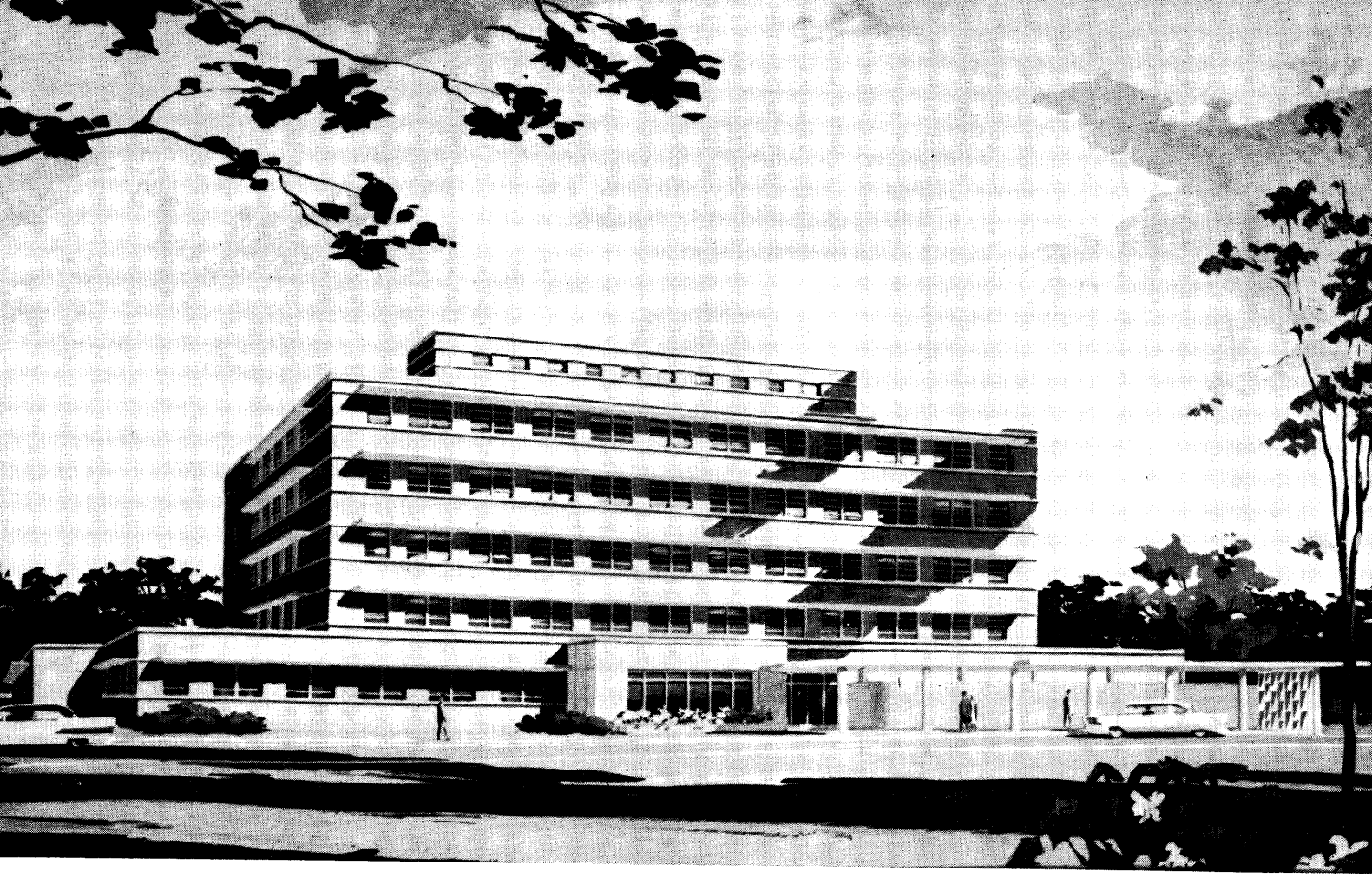
Architect:
Wm. Moore Weber, AIA
Raleigh

General Contractor:
King-Hunter, Inc.
Greensboro

Memorial Hospital of Alamance County, soon to be dedicated, is a modern 100-bed capacity hospital designed to replace the existing general hospital building.

Built and equipped at a total cost of $1,680,-000.00, the hospital was financed through Hill-Burton funds and local public donations. The structure, which contains 61,000 square feet, incorporates many modern mechanical features including complete air conditioning with individual control for each room, nurse-to-patient audio-visual intercommunication system, central recording and transcribing system for medical records and a central oxygen system with outlets in all patient rooms, nurseries, operating and delivery rooms.

The new hospital building is of steel frame construction, with face brick exterior walls and aluminum windows.



Architect:
George Watts Carr, AIA
Durham

General Contractor:
R. H. Pinnix
Gastonia

ALBEMARLE HOSPITAL

Elizabeth City, N. C.

Completed in April 1960 at a total cost of $2,111,-226, the building has five floors, contains 89,366 square feet and has a total of 150 beds. This modern facility is completely air conditioned. The foundation is of concrete piles with frame and floor slabs of reinforced concrete. Exterior walls are brick face with tile back-up. Partitions are of clay tile, windows aluminum projected, floors of tile, terrazzo and vinyl. Ceilings are of plaster and acoustical tile with wall finish of wall-tex over plaster.

Located on a point overlooking a broad river, the hospital was designed to make the most of the view of the water.

A PLACE OF HOSPITALITY

John T. Caldwell, A.I.A.
Office of Wm. Moore Weber, A.I.A.

A key to the origins of today's hospital is found in the word hospital, itself. It is derived from the latin "hospes" meaning guest and a definition formerly found in most dictionaries reads "a place of hospitality for those in need of shelter and maintenance." Until the early part of the twentieth century, competent medical treatment depended almost entirely on the personal skill and knowledge of the individual physician and his portable array of medicines, leeches, and curious implements. It is in the twentieth century, however, that the hospital has become synonymous and indispensable to the competent practice of medicine. A brief study of almost nineteen centuries of arduous development along an unusually set pattern gives further insight into the multitude of current problems facing the contemporary hospital architect, and sets a challenging task for contemporary architecture.

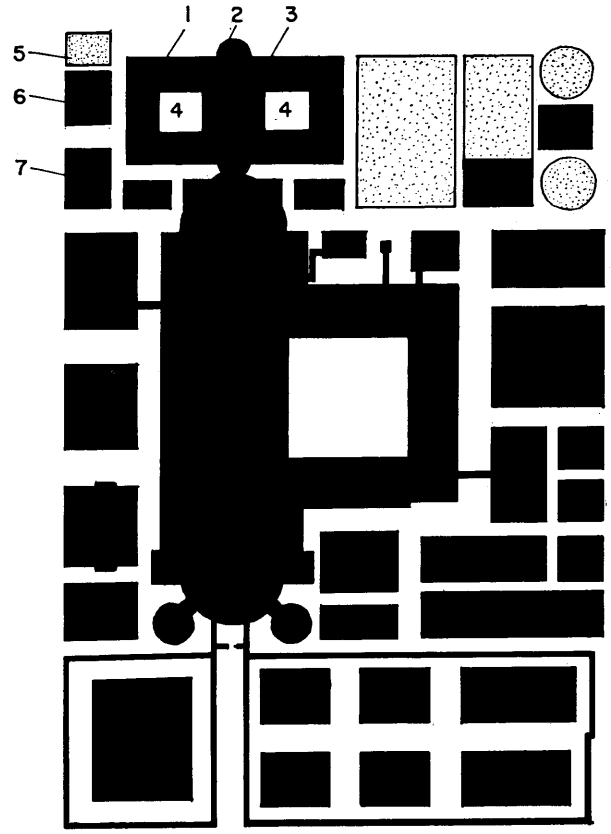
THE MEDIEVAL PHOTOTYPES

The monastic system, the religious counterpart of the feudal system, was perhaps the true origin of today's hospital. The original plan for the Benedictine monastery of St. Gall (820 AD) shows an infirmary, quarters for a monastic physician, a leeching room, a pharmacy, the traditional herb garden, court yards for light and ventilation, and the other necessary components for a complete monastic community. This original plan still exists in the library at St. Gall and was the prototype for the medieval monastic community. The small hospital facility included probably represents the first planned hospital and its characteristics were repeated countless times for nearly eight centuries.

Cluny (927 AD) was the second great monastic prototype and its influence was widespread. Over 300 monastic complexes patterned after Cluny were built by the Cluniacs. The Cluny plan departs from the rectilinear module of St. Gall and by freeing the infirmary from the novitate and chapel provided room for expansion as needed.

Monastic infirmaries were chiefly domicile in nature and made little or no provision for the treatment of the patients. The wards were filled with great canopied beds placed as close together as possible. Patients were crowded into these dark damp facilities sometimes as many as four to a bed. There was no understanding of the connection between dirt and disease and more often than not these infirmaries were filthy with blood, grime, lice, and refuse. Epidemics were not uncommon. Through the wards all day and night the tinkling of a bell was a familiar sound as some priest passed along to perform the last rites for the dying. Surgery was done in a dark corner of the ward in full view of the ward patients. Major surgery had little chance of success and proceedings were usually begun by a priest who administered the Last Sacrament.

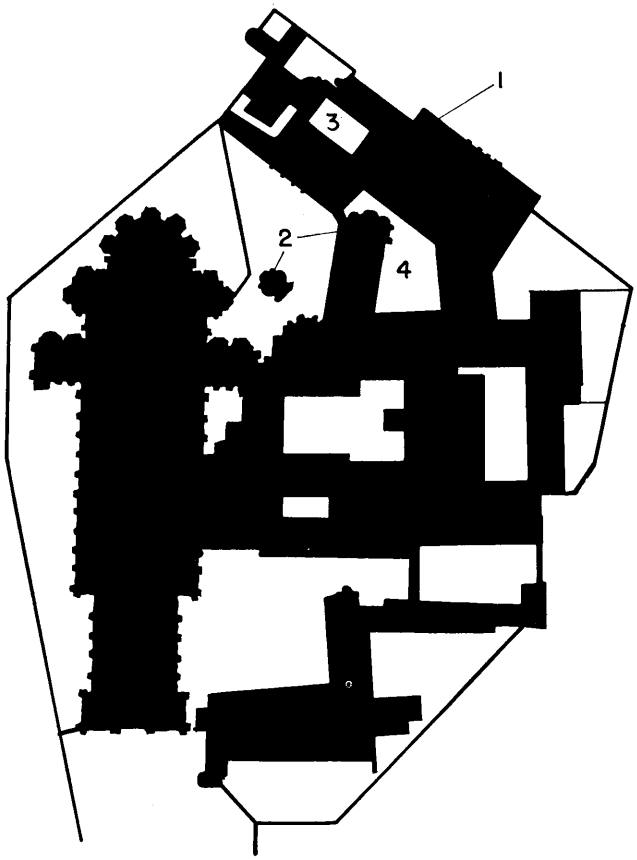
Generally speaking these original hospitals, the monastic infirmaries, were centers of pestilence and human misery, and the inhabitants rarely left except in a shrowd. The very fact that the church was the dominant influence in every facet of medieval life implies that all other architectural forms were second choice. The Abby Church rose above and commanded the countryside as a mother hen tending her brood, and the subsidiary Almshouse served only as a protective wing for the safety of the infirm. It is inconceivable that the development of architectural space as shelter for the ill could have risen above that of the patron church during the first 1,000 years following the fall of Rome even if the achievements of medical science had been stupendous rather than negative.



PLAN ST. GALL MONASTERY c820 AD

KEY

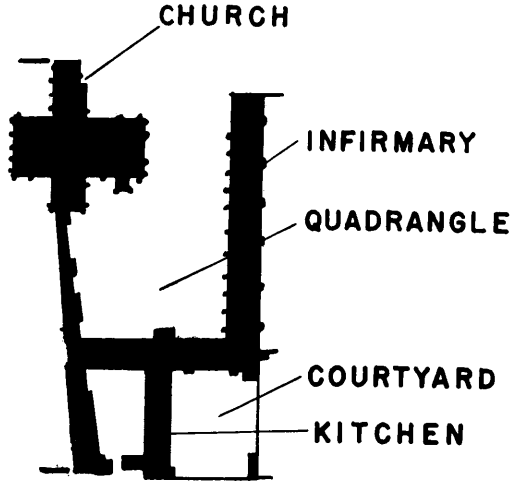
1. INFIRMARY
2. CHAPEL
3. NOVITIATE
4. COURT YARD
5. HERB GARDEN
6. PHYSICIAN
7. LEECHING



PLAN CLUNY MONASTERY IN 1157

KEY

1. INFIRMARY
2. CHAPEL
3. COURTYARD
4. INFIRMARY CLOISTER



HOSPITAL OF S. CROSS
WINCHESTER, ENGLAND
1136

AUTONOMY

The decline of the monastic community and the rise of municipal power brought autonomy to the hospital for the first time. The cessation of monastery services created a great need for additional hospitals, separate from the monastery. At first these new Almshouses were still attached to the church that supported them, but later were developed as charitable institutions with private individuals as benefactors. The planning changed very little during this transformation. Still present was the familiar quadrangular form with wards and rooms surrounding a large hall or a courtyard. One of the oldest of these institutions is the Hospital of St. Cross in England (1136). The hospital is still attached to the church, but the monastery complex has disappeared. Gradually the physical ecclesiastical bond diminished and a more secular identity began to emerge, as can be seen in the design of Fords Coventry Hospital (1529) in England.

Ironically, the first building to display the Renaissance forms was a hospital. Filippo Brunelleschi pioneered the Renaissance classical form with his design of the Ospedale degli Innocenti (1419 AD) in Florence. This quadrangular building contained the traditional interior courtyard and was surrounded by a delicately sculptured colonade, which was the stimulus for the Renaissance architectural style. In the late years of the Renaissance, the hospital attained great proportion. Sir Christopher Wren's Blackheath Almshouse (1695) and Greenwich Hospital (1715) exemplify the new autonomy and the growth of the hospital during this period. However, even with a new identity, the basic plan form is still reminiscent of monastic infirmary many centuries previous. Perhaps the reason for this is the fact that the real nature of the hospital had not significantly changed during the time since its origin. The Renaissance hospital as was the monastic infirmary was still a charitable refuge for the destitute, the aged and infirm. Only those who had no home or other place to go were the unfortunate patients in the hospitals. The physician ware rarely to be seen in these almshouses except as a student or an observer. Physicians of this time preferred to concentrate their efforts towards the scholarly aspects of medicine, such as anatomy and the classification of disease. Surgery was the responsibility of the barber and obstetrics the job of the midwife as the Renaissance physician was above soiling his hands with these menial tasks. Surgery was finally elevated to the medical profession in the sixteenth century mainly through the accomplishments of Ambroise Pare, and the barber-surgeon slowly began to disappear. The description of medieval hospitals conditions previously given can be applied to Renaissance hospitals with little or no change. It has been said that the ill had a better chance of recovery in the worse slum of Europe than in the Renaissance hospital. Medical schools were numerous and the Almshouse was a classroom for observation and study. The fact that development of the hospital went little beyond attaining a degree of autonomy during this period is not surprising. For architecturally the accomplishments were well beyond the corresponding achievements in medicine and in the care of the ill. The medical progress made during the Renaissance was not to have its influence on hospital architecture until the nineteenth century.

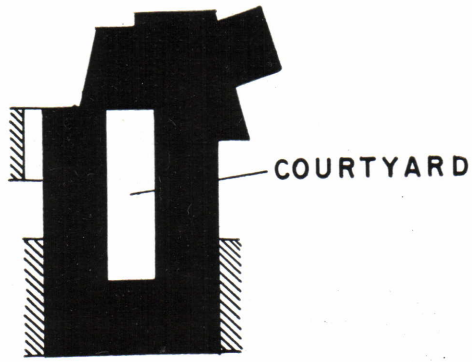
TRANSITION AND DEVELOPMENT

The eighteenth century perhaps is best classified as another period of transition. Romanticism produced no progressive advances in the design of hospitals except perhaps the occasional addition of an occasional separate room for surgery. There are no records of hospitals in the early colonial days of America. The first hospitals in America followed the European trend of Almshouse, and the first was established in Philadelphia by William Penn in 1713. Others were eventually established in the leading colonial towns such as the Charity Hospital in New Orleans (1737). There were also isolation hospitals in seaport towns for the control of contagious diseases. The first bona fide hospital in the United States solely for the care of physically and mentally ill was established in Philadelphia in 1751. Other hospitals grew up around medical schools in various parts of the country. The most significant of the early American hospitals was the Massachusetts General Hospital designed by Charles Bulfinch in 1820. This unusual struc-

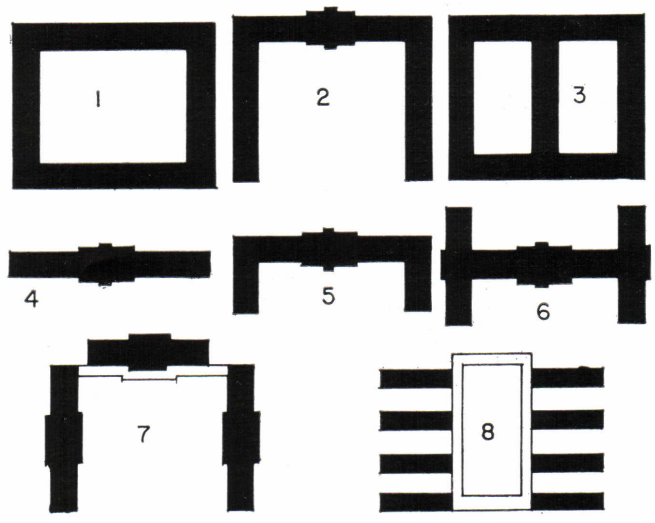
ture incorporated some of the most advanced theories of the age. Rising above the main part of the building was a large glass dome for surgery. Included in the building was a unique central heating system, a ventilating system and one of the first complete plumbing systems to be installed in a hospital. Medical developments that were to have a tremendous influence on hospital planning were introduced here. The first public demonstration of anesthesia in surgery was held in the surgical amphitheater of "ether dome" in 1848. Later, in 1887 the Massachusetts General Hospital was the first hospital to make special provisions for the aseptic practice of surgery.

In England during the nineteenth century developments were being made in the planning of hospitals. The much used quadrangular form of the middle ages was being discarded in favor of new arrangements. The following appeared in the September 11, 1858, issue of the "Builder", a weekly architectural magazine.

> "Figures 1, 2, and 3 represent arrangements of buildings at present occupied for hospital purposes, which ought to be carefully avoided.
>
> It may be considered certain that, whenever such arrangements exist, injury to the sick is so constant that, when practicable, all the angles should be opened to admit of the circulation of air.
>
> The simplest form of structure for ensuring light and ventilation is to build hospital wards in a straight line, fig. 4, with windows on both sides, i.e. back and front; the length way of the ward being the lengthway of the building, and the administration in the centre. By such an arrangement as this, however, no more than four wards could be obtained, if the building were two stories high. For small hospitals not exceeding 120 sick this plan would be economical and efficient. The direct of the axis of such a building should be from north to south, a little inclining to the east, which would ensure the sun shining on both sides every day of the year, and would also protect the wards from north-east winds.
>
> One stair case would suffice for an (sic) hospital such as this. It it were carried from the bottom to the top of the building, and ventilated above the roof, it would cut off entirely one set of wards from the other, which is all that is necessary to prevent the possibility of any intermingling of foul air.
>
> By adding projecting wings at the ends of such a line of building, as in figs. 5 and 6, additional ward space might be obtained.
>
> But additional staircases also there must then be at the ends, and such a building would have the disadvantage of a closed angle, although this would be of less consequence, if the wings were very short in proportion to the length of the front.
>
> A much better arrangement is represented in fig. 7, in which the wings are entirely detached from the centre, and connected with it only by an open corridor on the lower floor. This is the plan adopted in the great military hospital at Vincennes, and is a very good one for hospitals of a certain size, for the open angles permit air to circulate freely round the building. All of these plans, however, have the disadvantage of not admitting extension beyond a certain limit. The only plan which allows as much extension as can be necessary in any single hospital up to (say) 1,000 sick (beyond which hospital management becomes very difficult), is the plan adopted in the hospital at Bordeaux, of which we ran an engraving in our volume for 1856; or still better that of the Lariboisie're at Paris. In that fine hospital, each block containing 102 sick constitute a separate hospital. There are six of these blocks, which are arranged parallel to each other on two opposite sides of a square. And there are four blocks containing the administrative and other offices. The kind of arrangement is represented in fig. 8.



FORDS HOSPITAL
COVENTRY, ENGLAND
1529



HOSPITAL BUILDING TYPES 1858

All the blocks are joined together by a glazed corridor along the lower flat, and by an open terrace above for convalescents taking exercise. In such a building, for the sake of sunlight, the axis of the wards should run nearly from north to south, and the distance of the blocks from each other should be about twice the height of the side walls."

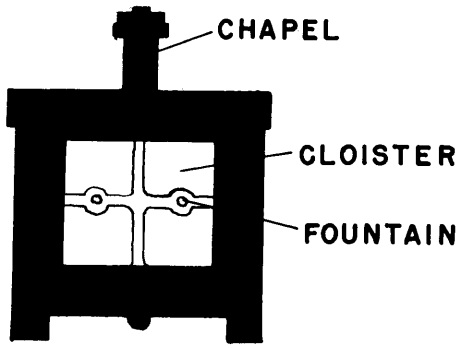
This small excerpt from a series of articles on hospital architecture appearing in the "Builder" during 1858 is indicative of hospital planning during the nineteenth century. From the same article another sentence suggests the thesis that better architecture can contribute to the recovery of the ill. "Can we avoid by any structural arrangements such excess of mortality? This is the great question to be decided by hospital architects."

A NEW COMMUNITY — A NEW CHALLENGE

The weight of nineteen centuries of development along a single avenue descended on the twentieth century with a resounding impact. Scientific growth, economic progress and social reform gave the hospital a new position in society. What had once been a charitable almshouse for the indigent became a diagnostic and therapeutic center for people of all levels.

Indicative of the years ahead is the rigor and phenomenal speed with which this new concept in medical care has extended its scope during the past fifty years. The increasingly wide range of medical science has intensified specialization, and has instigated a diversified range of care and treatment. Such a trend has transformed the hospital from a domicile facility for housing the ill into a complex community of diagnostic, treatment, nursing care, rehabilitation, and teaching units. This contemporary medical complex is not too unlike the medieval monastic complex from which it evolved. Just as the monastic community provided all the necessities for a spiritual environment, the medical center contains every requirement for up to date medical service. Because of the diversification and complexity of today's medical science, the small general hospital is gradually becoming extinct. The wide range of special service and the expense of providing adequate facilities and personnel for them is now beyond the scope of the small general hospital. Future hospitals of less than 100 beds will not be able to provide a complete range medical care except as a specialized clinic. In designing a small hospital today, it is highly important that these factors be given serious consideration. For if it is to grow with the population and continue to provide up to date facilities and personnel, it must be initially planned as a growing community of medical facilities geared to adapt itself to future developments. During the next fifty years new developments and new concepts in the care and treatment of the ill will come at an unbelievable pace, and we must be prepared to put them to use. Today we have reached a point in planning where growth and changes sometimes occur at a faster rate than the existing architecture can accommodate them. Many buildings are obsolete before they are occupied, and with the high cost of hospital construction we can ill afford such a dilemma. A building of such high initial cost must have a useful life of considerable length in order to amortize the investment. Poor planning increases the cost of medical care. Thus we have a growing situation which calls for a fresh approach to hospital planning. The need for flexibility in the planning of hospitals is paramount. Each element of the hospital community must be given the opportunity to expand as necessary and to accommodate the changing concepts of a progressive era. We must discard the dismal institution of past years for a planned and coordinated complex of modern facilities for the care and treatment of the ill. Only a dynamic architecture is worthy of this task and such a challenge is upon us.

END



BLACKHEATH ALMSHOUSE
1695
SIR CHRISTOPHER WREN, ARCH.

ROBERT R. CADMUS, M.D.

Recently the North Carolina Hospital Association elected as its President, Dr. Cadmus, who eleven years ago this month, arrived in Chapel Hill to activate the University of North Carolina's new Memorial Hospital. A native of New Jersey, he brought with him a rich background in the field of Hospital Administration. After graduating from the College of Wooster in Ohio, he received his M.D. Degree from Columbia University in New York City, where he remained at their teaching hospital as a surgical resident. After serving almost four years in the Army Air Forces as a Flight Surgeon, being discharged with the rank of Lieutenant Colonel, Dr. Cadmus returned to the Columbia Presbyterian Medical Center in New York, where he served as Director of the Vanderbilt Clinic and Administrative Assistant in Charge of Professional Services to Patients. Later he became Assistant Director of the University Hospitals of Cleveland, Ohio and in 1950 came to Chapel Hill.

He is active in hospital and medical affairs at both a local, state, and national level and has been a Consultant to the Government of Panama in the activation of a new hospital in that Country. Recently, he was appointed as a member of the Board of Directors of the Hospital Care Association of Durham. In addition to his interests in the operational problems of hospitals, Dr. Cadmus holds an appointment in the University as Professor of Hospital Administration and also serves as the Principal Investigator of a research project sponsored by the National Institutes of Health. In addition to contributing to the hospital literature, he also serves as a member of the Editorial Council of *Southern Hospitals*. His father-in-law, Mr. John B. Peterkin, is an Architect and A.I.A. member in New York City.

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HOSPITAL OF THE FUTURE

(Continued from page 10)

or to transpose prototype designs without a thorough evaluation of the hospital's changing functions. The very nature of the delicate service for which hospital projects are conceived strongly presumes that only the specialists or those who are able and willing to be such should be entrusted the planning job.

Bed areas vary little with advancing medical requirements, as, to the most extent, the recovery of the patient is influenced elsewhere in the hospital plant. To the contrary, demands upon the service departments are constantly changing. The need, therefore, to reassess these circumstances is urgently pressing. Hopefully, some one, some day, will have the fortitude to express a practical plan that will weight degrees of permanency to those areas that are not subject to significant changes and that will reflect a concentration of service departments more subject to change which can be constructed of less permanent materials replaceable at an economic advantage. Might we not try concentrating hospital ancillaries in separate wings of a more temporary type of construction and patient beds in free-standing units constructed of more permanent materials.

And not least of all, we may be certain that the public will review more critically our construction budgets. Competition from all segments of the social order for the donated and appropriated dollar doubtlessly leaves little alternative. Increased utilization will continually place demands upon the community for capital funds in proportions beyond any previous experience. Hospital needs, of course, will have to be considered concurrently with the requirements for other essential public services. Accordingly, hospital fund drives should support only those proposals reflecting the highest degree of fidelity.

Perhaps the following reflections of deeper thinkers in the past more effectively sum up our problem: The art of progress is to preserve order amid change and to preserve change amid order and nothing is sadder than the consequence of having worldly standards without having worldly means to support them.

END

CALENDAR OF EVENTS

SEPTEMBER 19: Winston-Salem Council of Architects, Y.W.C.A.
William R. Wallace, AIA, President

SEPTEMBER 20, 27, OCTOBER 4, 11, 18, 25: Architect's Guild of High Point, Marguerite's Restaurant
George C. Connor, Jr., AIA, President

SEPTEMBER 28, OCTOBER 26: Greensboro Registered Architects, Maplehouse Restaurant
Jesse B. Owens, Jr., President

OCTOBER 1: Deadline for material for November issue.

OCTOBER 4: Durham Council of Architects, Robert W. Carr, AIA, President
Harvey's

OCTOBER 5: Charlotte Council of Architects
Chez Montet
R. Emory Holroyd, Jr., AIA, President

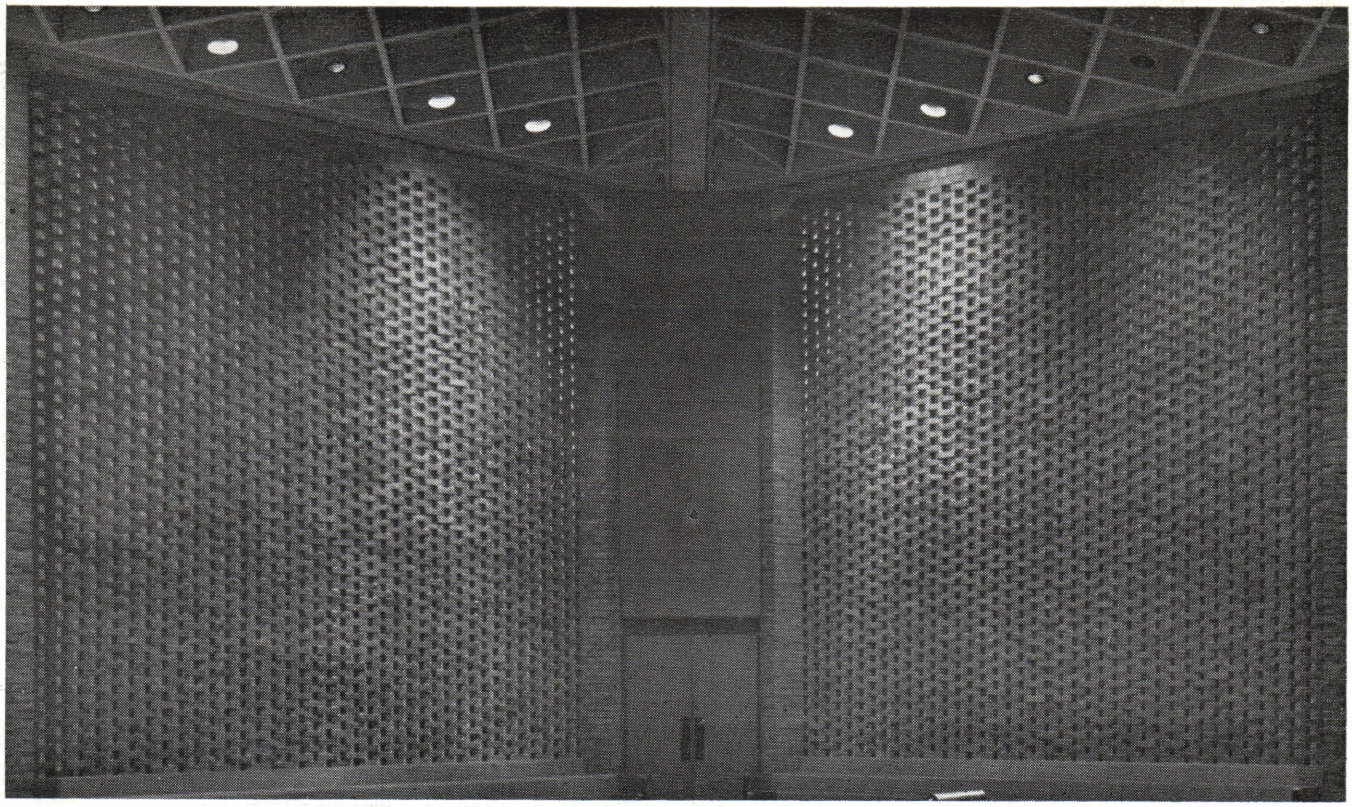
OCTOBER 5: Raleigh Council of Architects, Holiday Inn
Robert W. Etheredge, Jr., AIA, President

OCTOBER 27: Eastern Council of Architects
(Place to be announced)
Robert H. Stephens, AIA, New Bern
President

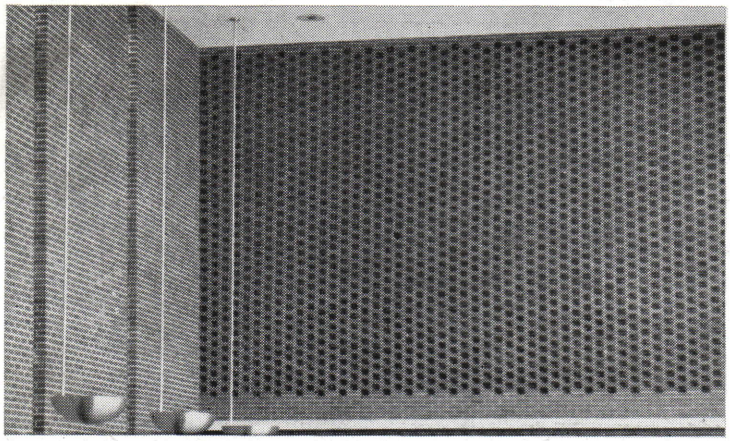
NOVEMBER 6-7: Conference on U. S. Government Construction Contracts, George Washington University, Washington, D. C.

NOVEMBER 28-30: Building Research Institute Fall Conferences, Mayflower Hotel, Washington, D. C.

JANUARY 25, 26, 27, 1962: Winter meeting
Mid-Pines Hotel, Southern Pines



Brick excites the imagination



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