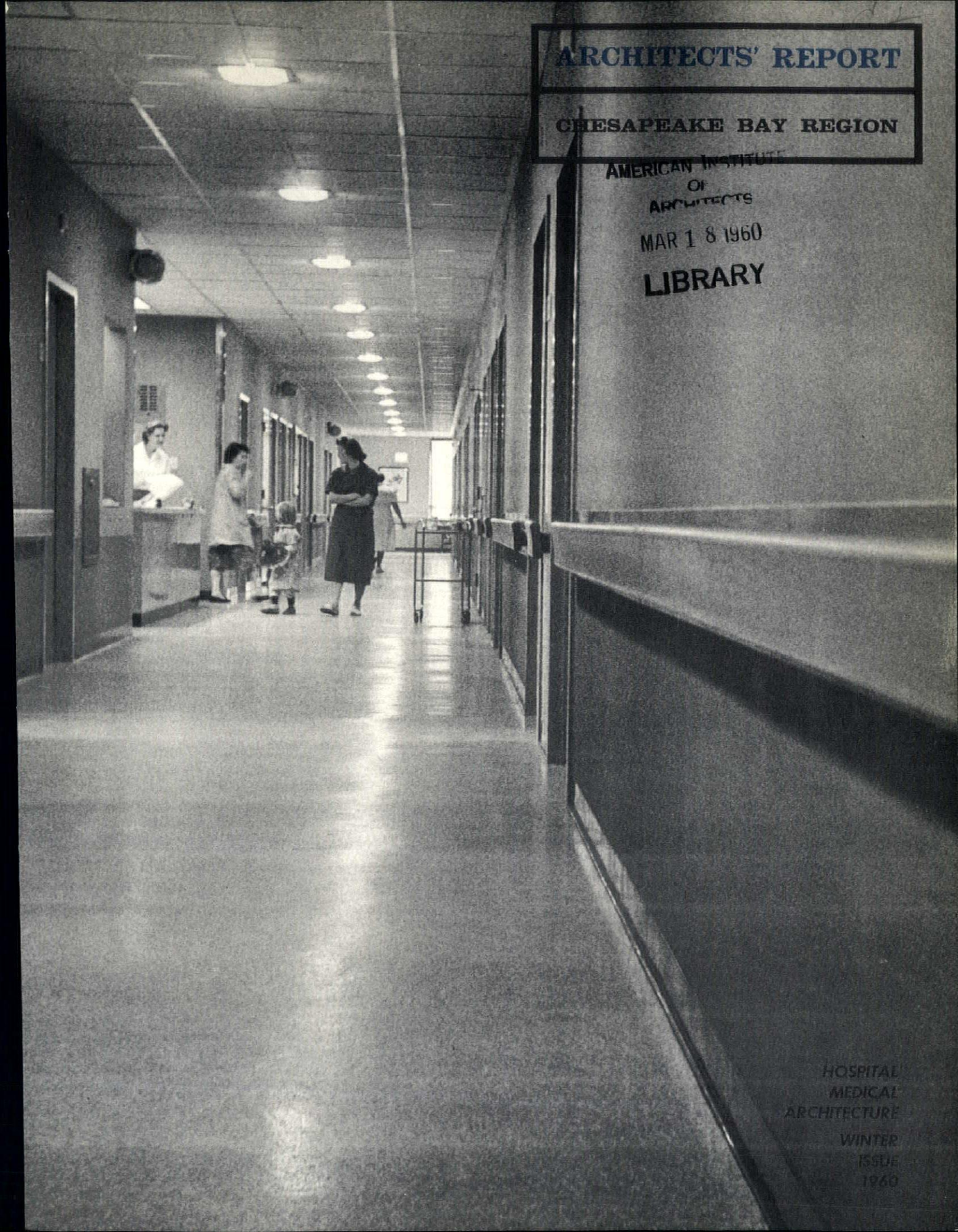


ARCHITECTS' REPORT

CHESAPEAKE BAY REGION

HOSPITAL
MEDICAL
ARCHITECTURE

WINTER
ISSUE
1960

people in architecture

Van Fossen Schwab, on January 13, became the youngest president in the long history of the Baltimore Chapter. In the twelve short years since his graduation from the University of Pennsylvania he has gained the respect of his fellow architects, public officials, as well as his many clients. He re-established the Chapter Public Relations and Civic Design Committees as valuable assets to the profession and community. He has served on the faculty of McCoy College, Johns Hopkins University, and on the Board of Architectural Review of the State of Maryland. In 1957, with Thomas Jewell, he formed the firm of Schwab & Jewell, now Schwab, Jewell & Wolf.

Benjamin P. Elliott, a graduate of Catholic University, is one of the energetic young architects who founded the Potomac Valley Chapter of the A.I.A. in 1948 and has served as its Secretary, Vice-President, Public Relations Chairman and now as President. He has somehow not only found time to work hard at establishing this Chapter but also to build the flourishing practice of Elliott & MacIntire in Silver Spring.

James I. Porter, has been elected President of the Washington-Metropolitan Chapter of the A.I.A. for 1960. An architect by heredity, a graduate in Engineering from Cornell University and registered in both professions, he has previously served his Chapter as Treasurer, Secretary and Director, and his community on the Executive Committee of the Greater National Capital Committee, the Washington T.B. Association and as President of his Lions Club. His firm, Irwin S. Porter & Sons, has executed a wide variety of projects including schools, hospitals and the Washington Islamic Center.

James I. Campbell, a native of Texas practicing architecture in Baltimore, is the newly elected President of the Baltimore Building Congress and Exchange. He prepared for this important job and for partnership in the firm of Fisher, Nes, Campbell & Associates, Baltimore's largest, by studying at Rice Institute, practicing in Houston, working for the U. S. Housing Authority and serving in the Corps of Engineers of the U. S. Army. It is a source of pride to all of us to see this able architect honored by the Building Industry.

Exhibit Policy

a. An Advisory Board, consisting of four members of the Baltimore Chapter A.I.A., appointed by the Executive Committee, in addition to other duties shall sit as outlined below to screen all photographic exhibit and adver tising material intended for publication in the ARCHITECTS' REPORT.

b. The Advisory Board, when sitting as a screening jury, will have as its specia Chairman an out-of-state Architect. Since it is the intent that the ARCH TECTS' REPORT be of the highest possible standard and that anything pub lished therein be of credit to the profession, the instructions to the screen ing jury are to identify material acceptable for publication on the basis o quality, both architectural and photographic, keeping in mind the Editor intent to display varying categories of work from different parts of th broad area of Maryland and the District of Columbia. It is furth intended that acceptance by the screening jury will not in any way imp premiation of Material approved.

c. The screening jury will further be empowered to make recommendatio modifying exhibit material if, in its opinion, such modification impro the standard.

d. Material which is accepted by the screening jury shall be considered suitab for publication whether included in the next succeeding issue of th ARCHITECTS' REPORT or not. Material accepted will be returned noted to owner.

By following the above policy, we have in six issues presente projects by 28 different architectural firms representing 58 principa and over 103 corporate members of the AIA.

editorial: a new premise for hospital design

Philadelphia architect Vincent Kling recently stated that one of the principal duties of the architect in medical care projects is to represent the patient. How true, yet how new! If we choose to interpret this broadly to include the patient's pocketbook as well as his emotional and physical requirements, this simply-stated premise for hospital design adds up to quite a challenge to the hospital architect. Mr. Kling, of course, speaks out in an era which has seen the banishment of the hospital as an underfinanced charity and the evolution, though nowhere near complete, of the hospital as a humanitarian institution based on sound business management. His statement is an indictment against the old hospitals which were designed oftentimes with other things than the patient's interests at heart. It is likewise a salute to those who now recognize that the proper care of patients, together with the research and teaching which leads to it, requires a very special, a very technical, yet a very human type of architecture.

To meet this challenge, architects are giving serious consideration to the total "owning costs" for an indefinite period. Hospitals today must be flexible within and expandable without. Materials and equipment must be selected with an eye to their maintenance, operating and replacement costs, as well as their original costs. The public, or more particularly, the hospital patients, will not accept a hospital that is obsolete the date construction is complete—because they, in the role of subscriber, taxpayer and health insurance beneficiary, rather than some philanthropic source, are now paying the bills.

In satisfying the new public demands for efficient hospital design the hospital may have to spend $25,000 or more per bed for construction and as much as $8,000 per bed per year for operation. The building cost may seem high, but we hasten to point out that the operating cost, which will be with us for the life of the hospital, will equal it in three short years. Thus, it is obviously a major factor in the design. Though there may be a slight increase in initial capital outlay for new hospital construction, the architectural plans must be developed to take advantage of every possible savings in the eventual operating costs. Not only must today's hospitals be designed for the care, comfort and convenience of the patient, but there must likewise be a genuine concern for the patient's capacity and willingness to finance the new hospitals, whether he is a patient or not. The combined construction and operating cost must be kept at the very minimum, yet not fall below the level conducive to the best patient care, teaching and research facilities. And in view of the ever-increasing signs that the public will no longer tolerate mediocrity in design, the architect, already cost-conscious and care-conscious, must also meet the demands of public taste.

Table of Contents—

ARCHITECTS' REPORT-Vol. 2, No. 2

EDITOR: Grinnell W. Locke, AIA.

	Page
Editorial	1
A New Premise for Hospital Design	
Ralph B. Murphy	3
Baltimore's Progress in Hospital Facilities	
Barry Bowers, M.P.H.	6
The Impact of Progressive Patient Care on the Architect	
William F. Morrison	8
The Role of the Architect, The Hospital Administrator and the Board of Trustees in Designing Hospital Facilities	
Hospitals Are For People	10
The Office of James R. Edmunds, Jr., Architects	
St. Joseph's Hospital	14
Fisher, Nes, Campbell & Associates, Architects	
Prince George's General Hospital	15
Faulkner, Kingsbury & Stenhouse, Architects	
Franklin Square Hospital	16
Cochran, Stephenson & Wing, Architects	
Union Memorial Hospital	16
Cochran, Stephenson & Wing, Architects	
Western Maryland Chronic Disease Hospital	17
Tyler, Ketcham and Myers, Architects	
Mount Wilson State Hospital	18
Meyer and Ayers, Architects	
Washington County Hospital	18
Meyer and Ayers, Architects	
Maryland State Penitentiary Hospital	18
Meyer and Ayers, Architects	
Keswick, The Home for Incurables of Baltimore City	19
Finney, Dodson, Smeallie, Orrick & Associates, Architects	
Crownsville State Hospital	20
Gaudreau and Gaudreau, Architects	
Springfield State Hospital	20
Gaudreau and Gaudreau, Architects	
North Anne Arundel County Hospital	20
Wheeler, Bonn, Shockey & Associates	
Church Home and Hospital	21
Fisher, Nes, Campbell & Associates, Architects	
1959 Craftsmanship Awards	22
Dave Mako	30
Planning the Department of Radiology	
Chapter News and Notes	32

THE ARCHITECTS' REPORT, the official publication of The Baltimore Chapter of the American Institute of Architects, Inc., is published quarterly: October, January, April and July. EDITOR: Grinnell W. Locke, AIA. BUSINESS OFFICE: 1025 St. Paul Street, Baltimore 2, EDITORIAL OFFICE: 2517 St. Paul Street, Baltimore 18. Entered as third class matter August 1958 at the Post Office at Baltimore, Maryland. SUBSCRIPTION RATE: $2.00 a year in the United States and Canada. SINGLE COPY PRICE: $1.00.

baltimore's progress in hospital facilities

By Ralph B. Murphy

Mr. Murphy is Assistant Director of the Hospital Council of Maryland, having served as Director of the Baltimore Hospital Council since 1955. A Midwesterner, he received his undergraduate education at Harvard University and did graduate work at the University of Cincinnati. In World War II, he served in the U.S. Marine Corps. Before entering the hospital field, Mr. Murphy held government posts in the Indian Service and as a civilian with the U.S. Army Air Force. In 1947 he accepted a post with the Division of Hospitals of the U.S. Public Health Service and held a number of positions in Public Health Service Hospitals and in the Washington Headquarters.

For many years Baltimore lived with the comfortable assurance that her hospitals were among the finest in the country. Baltimore hospitals had seen the great work of many pioneers of medicine. Her hospitals had contributed to the renown of the city as a medical teaching center. The people of Baltimore were—and still are—justly proud of this medical tradition and of the hospitals that support it.

Beginning a few years ago, however, Baltimore has faced the growing realization that these fine hospital facilities cannot be taken for granted. One hospital after another has found its aging physical plant is past the point of economical repair. The conclusion is inescapable. Baltimore's hospital plant, largely the legacy of the nineteenth century, is old and inefficient, suffering from the accumulated obsolescence of many years. Fine buildings do not necessarily make fine hospitals. But there comes a time when age must be given its due, when buildings must be replaced before they fall down, or worse. In its study of general hospital facilities, the Hospital Council found in 1957 that the Baltimore area required a reinvestment in present hospital plant of $60,000,000 to restore it to first-class condition, and by 1965 investment of another $30,000,000 to provide more beds for a larger population.

Fortunately, much has happened recently to brighten the picture. Progress has been of two kinds: (1) there have been a number of major hospital projects providing replacement, modernized, or additional facilities—quantitative progress, and (2) these new facilities represent great gains in efficiency, flexibility, and serviceability of hospital structures—qualitative progress.

In the last four years, seven general hospitals in Baltimore have undertaken major construction projects, ranging from addition of new wings to complete replacement: Baltimore City, Bon Secours, Church Home, Maryland General, Mercy, Sinai and St. Agnes. Four other hospitals are either at the stage of fund-raising or have announced campaigns for major construction. Perhaps another half dozen hospitals have plans of varying degree for major improvements. These major projects are over and above the modernization on a limited scale that is going on almost constantly in every hospital. Truly, Baltimore hospitals are seeking to do their part to alert the community to the need for massive action.

Perhaps the most exciting kind of progress to the hospital community, and certainly to the individual hospital concerned, is the functional excellence of these new facilities—qualitative improvement in the environment for patients and in the work resources for personnel.

Several examples from Baltimore's newest hospitals have been selected to show progress in design—a happy marriage of form and function. Figure 1 is the floor plan of the operating room suite at the new Sinai. In this ingenious arrangement, hospital architects and operating room personnel will see at once the departure from the traditional layout. Patients enter the operating room from an outside corridor which in effect becomes a "dirty" area. Surgeons and operating room personnel, however, enter from the "clean" area, a center core for scrubbing, substerilization, and instrument processing. Clean and dirty traffic is thereby completely separated with a consequent improvement in technique. There are added advantages in centralization of work space in the center.

Figure 2 is a simple, but no less creative, example of functional planning—the handrail in the corridors of the new wing at Church Home and Hospital. The handrail has proved its value in saving nursing time previously required by patients who are being encouraged to ambulate. The rail replaces the nurse. It also solves the problem of preventing wheeled equipment from marring the walls, a condition with which all hospitals are more or less plagued.

Figure 3, again from the Church Home wing, shows that a functional element can also enhance the appearance.

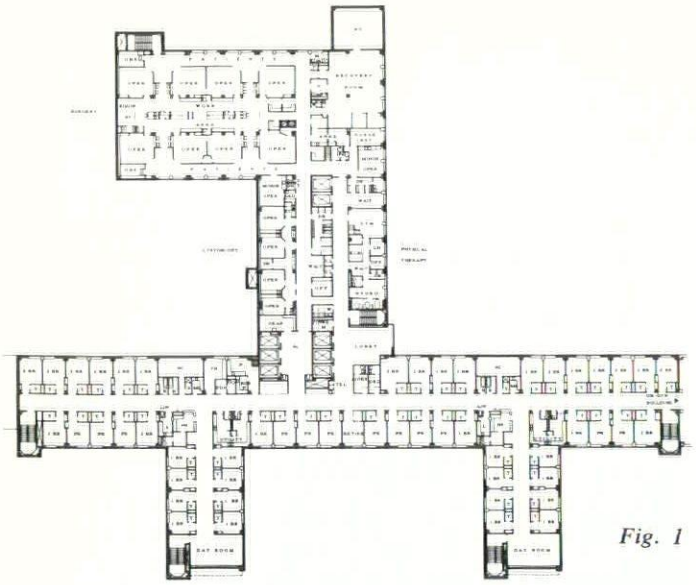


Fig. 1

The balconies are primarily platforms for window washers, making possible the extensive use of glass, this in turn to give the patient a feeling of connection with the outside, organic environment. On the south side, the balconies are six feet wide, providing shade from the summer sun and a promenade for patients. Altogether, they provide architectural balance to the structure. Thus, the balconies have several purposes, of which one—the esthetic purpose—is probably secondary. In his solution, the architect has given us this pleasing bonus.

As also shown by the exterior view of Kent and Queen Anne's Hospital, Figure 4, the architect can provide a beautiful form for his functional design. Perhaps it would be more accurate to say he has recognized beauty as one function of form. Especially in hospital design should the architect accept the challenge to build beautifully. Surely, an esthetically satisfying environment has a real, if intangible, part in the healing process. Examples of good functional design from our new hospitals could be multiplied.

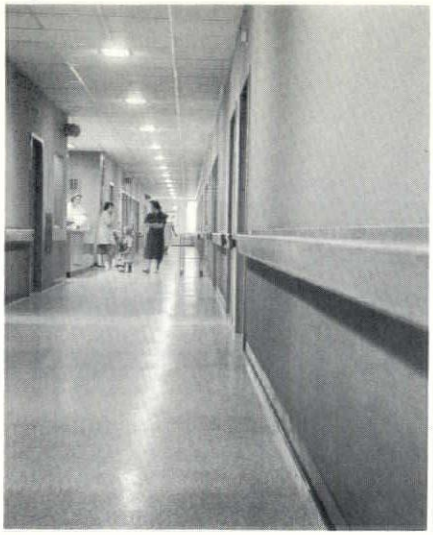
We would expect a new building to suit its modern purpose better than would an old building. However, the improvement in hospital design is out of all proportion to simple up-dating. "Form follows function" is an ancient dictum. Because the truism is as old as Aristotle, we might be tempted to believe that hospital architecture has always followed function, that structures have become obsolete because of new technological developments in the hospital. This is only partly true. In few buildings besides hospitals can the results be so appalling when form does not follow function. There are too many older hospitals where, for instance, the only way out of the morgue is through the front lobby, where a public corridor runs by an operating room, or where the hospital itself may sit on a high hill with a mountain of steps to climb.

I believe there are two principal reasons for the tremendous improvement in hospital design: (1) Greater specialization in hospitals by architects and their firms. Recognizing the complexity of the functions of modern hospitals, some architects have specialized in hospitals on a continuing basis and others are reluctant to enter the field for a single or limited number of projects. (2) Development of the team concept of functional planning. This means that those skilled in the performance of the functions of the hospital will be called upon to give their exact knowledge of hospital processes. With a detailed knowledge of function, supplied either by hospital personnel, outside experts, or both, architects are better equipped than ever before to exercise creative imagination on solutions. It is interesting that one of the futuristic ideas, the circular nursing floor, is to be tried in Southern Maryland at the Physicians Memorial Hospital.

There are doubtless additional reasons for better design, such as improved materials. Also, the same progress we have noted in the hospital field may be paralleled in other kinds of architecture. But hospital people are particularly aware of the outstanding progress in hospital planning. It may be necessary to wait a number of years to judge the functional adequacy of modern hospitals, but from all current evidence, they seem to be wonderful examples of form following function.

An illustration of why hospital design is so difficult lies in the essential role of complex equipment in the functioning of a hospital. The hospital's work processes revolve principally around the use of its equipment. More so than in most other structures, the hospital plant is a collection of equipment, and designing a hospital is a matter of housing its equipment so that it can function effectively. Therefore, the detailed planning for and selection of equipment is a basic part of the functional planning. Consider that there are many parts of the modern hospital that did not exist until a particular piece of equipment was invented, e.g., the x-ray machine and many elements of the clinical laboratory. Much obsolescence in

Fig. 2



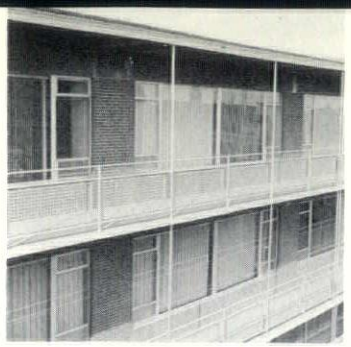


Fig. 3

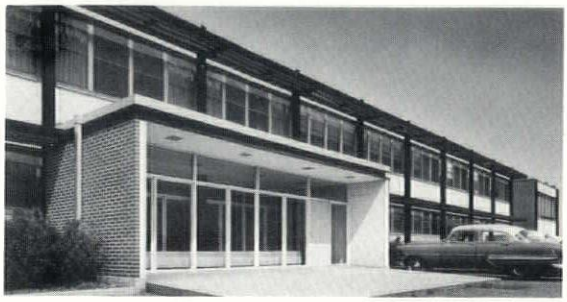


Fig. 4

design is accounted for by the fact that new machines and therefore new functions are incorporated which were unknown at the time of the original construction, i.e., radioisotope laboratories.

Sometimes, equipment offered to perform a hospital function is quite standard and so long as the architect has in mind its general characteristics he can plan the space. Frequently, however, in the choice of equipment there is a choice of widely-different methods of hospital operation with profound implications on the organization of space. The different ways of serving food, particularly central vs. decentralized service, involve radically different equipment and different space and personnel planning.

Hospital processes are so complicated and interlocked, and hospital technology so dynamic, that it appears impossible to design a large hospital perfectly. After the structure has been built, it is easy to be critical of at least some aspects of its functional planning. As soon as it is built, a degree of obsolescence will creep in. Also, various "bugs" in the layout will show up. If the architect-administrative team has done its job competently and thoroughly, the "bugs" will probably not be major. More likely than not, they will turn out to be errors in equipment planning. The piece of equipment was not quite of the size, capacity, or function that had been assumed, or perhaps a later model or different machine was substituted after construction started. These innocent-sounding substitutions or blithe assumptions can be expensive and can make all concerned rue the decision to postpone an equipment selection as a "detail." In one case, a change from a through-the-wall film-developing tank, as originally planned for x-ray, to an automatic film processing machine—a substitution that looked to be simple enough from the standpoint of measurements and utility connections—the simple substitution entailed redesign of the x-ray suite and cost $13,000 in contract changes.

The necessity for planning around processes and equipment which might change introduces an element of inflexibility in hospital design. It tends to create special-purpose space, e.g., operating rooms, central sterile supply, and laboratories. To resist this and make possible desirable functional changes in the future with minimum expense, architects and engineers have made great progress in using removable partitions, non-bearing walls, and flexible utility distribution systems. They have also everywhere built in extra capacity and expansibility for the future.

In Baltimore, then, we find great progress in providing new and better hospital facilities. These fine new hospitals should not blind us, however, to the work that remains to be done. A great chunk of the $90,000,000 backlog will remain, even after current construction is finished. Many persons believe that the problem of reinvestment in Baltimore hospitals will be solved in the traditional way, that is, individual hospital boards of trustees will eventually attract the needed capital to modernize, replace, and expand. Other observers are not so sure. Baltimore has not proved overgenerous in its recent support of hospital capital campaigns. Two hospitals, this fall and winter, are conducting campaigns for large sums for badly-needed replacement of obsolete facilities. The relative success or failure of their efforts may give a clue as to the future of the individual hospital campaign in Baltimore. Other large cities, through their hospital councils or independent citizens groups, have carried out large-scale hospital modernization and expansion programs on a coordinated basis. These efforts have included joint public subscription drives and governmental bond issues. A variety of techniques have been worked out that the individual hospital probably cannot use, such as in-plant solicitation of employees with payroll deductions. Before we have seen a solution to hospital obsolescence, the Baltimore community may find it must embark on a similar venture.

Mr. Bowers was recently announced as the Director of the new $10,000,000 Greater Baltimore Medical Center, to be opened on the Sheppard-Enoch Pratt Hospital property in 1964 and to incorporate the Presbyterian Eye, Ear, Nose & Throat Hospital and The Hospital for the Women of Maryland, of which Mr. Bowers is at present Director. Mr. Bowers was an Administrative Resident, Administrative Assistant and Assistant to the Director at the Johns Hopkins Hospital from 1951 until 1954. He earned his M.P.H. from The Johns Hopkins University, School of Hygiene and Public Health, in 1951, after a three-year tour as a Lieutenant in the U.S. Navy. He received his B.E. from Vanderbilt University in 1947.

Progressive patient care is an organized system of services and facilities designed and staffed to provide patient nursing services in a manner more physically and economically satisfying than presently available in the vast majority of our existing hospitals. The concept of progressive patient care has been in a process of development since World War II. Within the past several years, it has emerged as a total pattern for providing patient care services.

The concept of progressive patient care was initiated by the many problems incurred in trying to provide nursing personnel in acute critical areas for patients who have the greatest need for these services. Consequently, the post-anesthesia or recovery room was developed some ten years ago. In retrospect, hospitals have found that the recovery room provides the best patient service for post-anesthesia problems by putting the patient and trained personnel within the same area. This was the first step in the development of the Progressive Patient Care concept.

The United States Public Health Service, a federal agency which sets the standards for hospital construction, has standardized terminology on progressive patient care and offers these classifications: Intensive Care, Intermediate Care, Self Care, Long Term Care, and Organized Home Care.

The Intensive Care Unit provides patient services for the critically and seriously ill patients, regardless of diagnosis. These patients are under constant observation by specially trained nurses and are surrounded by all of the emergency equipment necessary to help the physician and nurse meet this emergency.

The Intermediate Care Unit is the largest component of progressive patient care in terms of beds and is most comparable to the average hospital bed today. Patients in this area require a moderate amount of nursing care of a non-emergency nature. These patients may be semi-ambulatory for short periods of time.

The Self Care Unit provides facilities for those patients who are ambulatory for the most part and are convalescing in an atmosphere leading to the discharge of the patient from the hospital. Patients admitted to the hospital for diagnosis may also use these facilities. Perhaps the diagnostic patients may in the long run be the greatest users of the Self Care Unit.

The Long Term Care Unit accommodates patients requiring skilled medical and nursing care over an extended period of time.

The Home Care Unit is a mechanism by which the hospital services are extended into the home of the patient. This part of the program, of course, is hospital oriented but all of the patient services are provided in his home, with the exception of some of the adjunct facilities such as radiology, laboratory, and the physical medicine components of physical therapy, patient's occupational therapy, etc.

The total progressive patient care program then provides for the best possible nursing care and services relative to the need in areas designed for the acutely ill patient, the semi-acutely ill patient, the convalescing patient, the patient requiring minimal medical and nursing care at home, and the chronically ill patient with continuing nursing care. However, one additional area of patient services suggests itself, namely that of Elderly Care. There are many situations in which our elder population should receive more comprehensive medical evaluation, even though they are ambulatory and can, for the most part, take care of their own personal requirements. It is suggested that in an Elderly Care Unit, patients' needs would revolve around a complete and continuing medical evaluation, and program of occupational, physical, and recreational therapy. A real effort should be made to help our older population maintain an interest in life and in living and participating in some part of the community's activities. Needs for these facilities have not been completely documented by formal studies. However, it is apparent that many families are greatly disrupted by the needs of the elders. Our hospitals should take some recognition of this problem and provide an adequate solution.

How does progressive patient care affect the architect? It goes without saying that good design is the result of good planning. Planning for progressive patient care is of the utmost importance, and must be done with members of the medical staff, board of trustees and the hospital administration, since many of the traditional philosophies are discarded in this kind of a program. It is imperative that the architect understands and comprehends completely the total program of progressive patient care and all its

the impact of progressive patient care on the architect

By Barry Bowers

ramifications, medical and administrative, in order to provide facilities which are functional, economical, and contributory to patient morale. Flexibility is still the most valuable tool in hospital design and this must be uppermost in the architect's thinking.

The architect must reorient his thinking in order to provide the facilities necessary in the different areas. In all phases of progressive care, visitors, personnel, and patients are on the move much more so than in conventional design. Traffic problems are more complex. Experience dictates, however, that patients do not move as much as one might believe. Not all patients are started in the Intensive Care Unit and moved through every phase of the program. Many patients are involved in only one phase of the program. For example, an acute appendicitis patient may be admitted, operated upon, sent to the recovery room, and back to an Intermediate Care Unit. This patient, presumably, has no need for constant and highly skilled nursing care post-surgically and, therefore, is not eligible for, nor is in need of, the Intensive Care Unit. This patient would stay in the Intermediate Care Unit until he is ready for discharge, and then discharged directly to his home. An acute diabetic patient, on the other hand, would be admitted directly to the Intensive Care Unit, then transferred to Intermediate Care after his acute episode is under control, and perhaps finally to the Self Care Unit where his disease may be regulated.

In the Self Care Unit, the patient is ambulatory, is able to go to the cafeteria for his meals and, in general, is able to present himself in appropriate areas for the services he requires. Diagnostic patients may start in the Self Care Unit, have the necessary diagnostic studies completed while in this unit, and then transferred to more highly skilled nursing units for treatment. Visitors, of course, will follow the patient through any of these phases of his hospital experience. Consequently, traffic and its control are more complex within the program of progressive patient care.

It is important to make a special analysis of the requirements of the recovery room and the Intensive Care Unit. Many hospitals today are being designed with specific units for recovery or post-anesthesia in one area of the hospital, and intensive care in another area. Both of these units have many of the same physical requirements. Since the Intensive Care Unit, for the most part, is an outgrowth of the recovery unit, it seems logical that these two facilities be combined. This has been done in several hospitals throughout the country with apparent success and has provided a mechanism whereby economies may be affected. Since the Intensive Care Unit is providing service twenty-four hours a day, the combination would mean that recovery facilities could also be available for twenty-four hours a day. This is not always true in our existing recovery rooms. Flexibility is again of the utmost importance.

It was reported in the Journal of the American Medical Association that 21 per cent of the patient days require constant care and observation, 59 per cent require average attention, and 20 per cent require minimal or convalescent care. Approximately these same percentages have been set as the standard for the United States Public Health Service. Research should be done to find the appropriate distribution of beds for a given institution. Hospitals are like people in that each one is an individual.

Lastly, the economics of the hospital operation should be a consideration of the architect. Naturally, his design will be influenced by all of the efficiency and labor-saving devices that are available. However, a creative imagination should be able to provide patient services and facilities for the entire progressive care program, resulting in improved benefits to the patient. Obviously, facilities and services required in an Intensive Care Unit are very expensive compared with those in the Self Care Unit. Therefore, varied rates and charges may be applied to the patient. It is a challenge to the architect to develop these areas so that a patient gets the most for his dollar. Progressive patient care is certainly a product of the times. The architect should be cognizant that this program could be the pattern for many years to come, but his professional concern for it should be such that he is alert to further developments in hospital care. His design and concept must withstand the test of time. Flexibility is still our most valuable tool for keeping pace with medical progress.

the role of the architect, the hospital administrator and the hospital board of trustees in designing hospital facilities

By William F. Morrison

Mr. Morrison is Director of the Church Home and Hospital, an historic 102-year-old hospital which is now in the construction stages of a multi-million-dollar redevelopment program. Born and raised in North Carolina, he came to Baltimore to attend the Johns Hopkins University, where he received his A.B. in 1949. He spent two years at Rex Hospital in Raleigh, North Carolina, as an Administrative Resident, and two-and-one-half years in the Office of the Surgeon General, U.S. Air Force. He was appointed Assistant Director at the Church Home and Hospital in 1953.

It is surprising how little is known about the institutions people rely on so heavily for health care, particularly when the "hospital business" is the fifth largest industry in the nation. Recent public questions about hospitals promise to remove the haze surrounding hospitals and make clear the complexities and peculiar problems of providing hospital services. The architectural profession is becoming involved more and more each year and recognizes the complications which must be dealt with in untangling hospital plants which have somehow grown in all directions, yet still struggle for more space.

Swift advancement in the field of medicine and the speedier application of successful research to the practical treatment of hospital patients has in many cases altered drastically the space requirements for hospitals. Such advancements in the clinical techniques and the growing and aging population have exerted such pressures on hospitals that not only are new building projects current thinking in most hospitals, but also old structures are being renovated wherever possible and converted to the needs of 1960 medicine.

This trend, as most laymen realize, has brought additional woes to hospitals in the form of much greater capital expenditures per patient per year. The matter of how to finance a new hospital, or addition, is a most difficult problem, but it is sufficient here to point out that the costs average $25,000 per bed or $28 per square foot. At a time when hospitals have to expand and modernize in the face of diminishing philanthropy and rocketing hospital costs, it especially behooves the voluntary hospital to accomplish construction in a most deliberate and efficient manner.

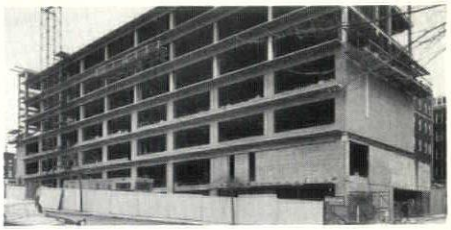
The principals involved in such an undertaking are the Board of Trustees, the Administrator, and the Architect. Each of these must function together in perfect harmony in order to successfully conclude a hospital building project.

The role of the Board of Trustees is to make all of the broad, overall decisions. The Board must inform itself as to the physical needs of the hospital. Having determined the needs, the Board next makes an appraisal of the availability of funds to meet the needs. Inevitably, some compromise is necessary to reconcile these two factors in order to determine a feasible project. The Board must select an architect, and certainly retain proper powers of approval as the facility develops from ideas into plans and specifications and on through construction.

The role of the architect is to produce an analysis of need and program of requirements which includes in some detail the objectives of the institution, but within the framework of the Board's decisions. From this are made preliminary layouts and later, final plans and specifications which adequately answer the needs and which will render a pleasing appearance. The architect recommends contractors which are capable of building a facility and he sees that it is contracted properly and according to plan.

The administrator, like the architect, has very complex responsibilities. Generally, he must coordinate and define the needs and desires of the hospital departments affected and the wants of the medical departments. The administrator has to make the numerous detailed decisions which result in the most satisfactory solutions of everyone's problems and yet see that the facility stays within the Board of Trustees' definition of the project and within the available financing.

It is of interest to consider some of the relationships and problems in more detail. In order to assure that the greatest value is received for the funds available, it is the responsibility of the hospital Board of Trustees to commission only a qualified architect. The selection of an architect is a matter of critical importance, since there are very few who are qualified to plan and build a new hospital facility. A hospital is, in some opinions, the most difficult type of job an architect can undertake. The architect's proposal and cost estimates are prepared on a basis of the objectives and purposes of the institution and the current and future needs as related by the Board of Trustees. The architect's knowledge and understanding of hospitals is most important at this early stage, and it is a most difficult job to translate needs into feasible preliminary plans and accurate cost estimates. The proposal will enable the Board of Trustees to decide whether



to proceed or delay the project, depending on availability of capital funds.

Every hospital is a problem in itself. Two major points must not be forgotten during the planning stages: (1) planning should not be rushed, and (2) each detail should be complete. When the Board of Trustees issues instructions for the development of plans and specifications, it in effect creates a team composed of the architect, the administrator and any consultants which may be employed. Complexity and special requirements of the construction are what make it extremely costly. It is so simple to correct a problem in the planning stage, but sometimes it is financially disastrous to make corrections after construction has begun.

The architect-administrator team expands on both ends. The architect needs constant and up-to-date consultation from those industries and engineers having to do with hospital construction. Special problems have to be dealt with—explosion-proof features of the operating rooms, intensive therapy areas, communications and traffic, piped oxygen, alcohol vaults, and all the peculiarities found in hospital construction. There is little room in the specifications for the phrase "or equal." These words are a constant source of trouble. In most cases, the architect or administrator should know the materials and equipment best suited for the job and should so specify whenever possible. The competent architect will leave nothing to guess or assumption.

The responsibilities of the administrator include decisions as to the best sizes and shapes of patient nursing units, the right kind and proper placement of equipment, the efficient and economical production of patient care, the patients' safety and comfort, future trends in hospital care, etc. The extent of the project, of course, determines the amount of assistance the administrator must have from the hospital staff. Many features of the project should be delegated to the department heads to obtain benefit of their specialty knowledge.

It would be most unusual for the desire of the departments, the thinking of the administrator, the suggestions of the architect, and the requirements of the budget to fit together perfectly. It is then the most important responsibility of the administrator to coordinate and direct the resolution of many problems which will arise. In some instances, decisions can only be made following extensive research. The partnership of the architect and administrator can leave no stone unturned in looking for unnoticed problems or omissions in the plans.

The determinations of the team must be blended properly with guidance and approval of the Board of Trustees (or a committee thereof) to produce the final plans and specifications. Architects who have been most successful in hospital construction realize that the problems involved are beyond their ordinary experience. The administrator, on the other hand, knows that the conversion of hospital requirements into bricks and mortar is far beyond his own capabilities, therefore, the cooperative motivation of the team is automatic, and usually the degree of success can be judged by the extent of change orders and extras required during and after construction.

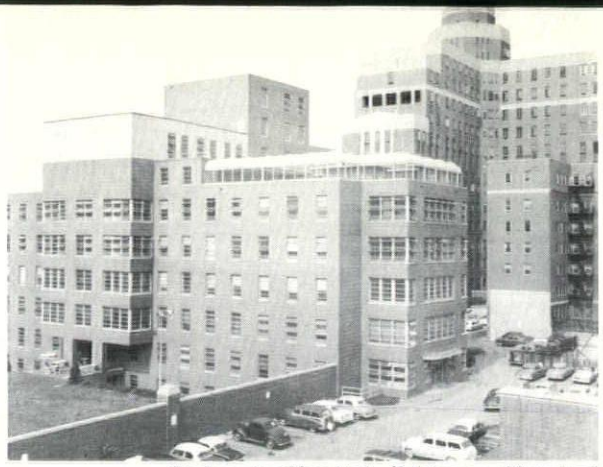
There is another side to hospital construction, too. Hospitals are engaged in the business of providing personal services for the sick. With the vast array of building materials available it is possible to give patients and employees an environment which is conducive to better and more effective patient care. Function and atmosphere can be integrated to complement each other. Through the proper use of color, acoustical and decorative materials, and modern conveniences, a pleasant home-like atmosphere can be had which will greatly enhance the clinical aspects of patient care and add character to any institution.

Hospital design and construction is distinguished by its extreme complexity in detail which is the reason for its high cost. It follows that the specific responsibilities of the Board of Trustees, architect and administrator go only so far, and in many areas the roles of each will overlap; but when each segment of the group performs its function conscientiously, out of the sometimes confusing situation comes a more satisfactory result in the form of better hospitals for modern medicine.

Architect:
The Office of James R. Edmunds, Jr.
Baltimore, Maryland

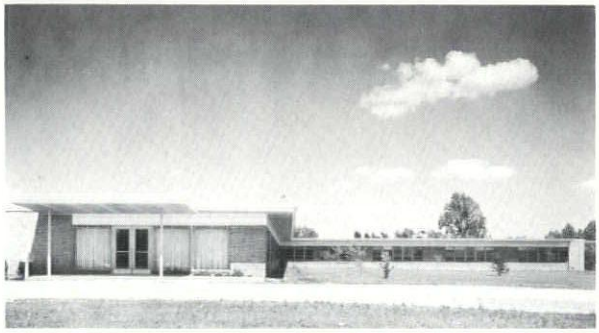
Hospitals are for people. Just as people vary so do hospitals. All are alike, however, in one respect: their devotion to healing the sick.

Some are large teaching institutions . . .



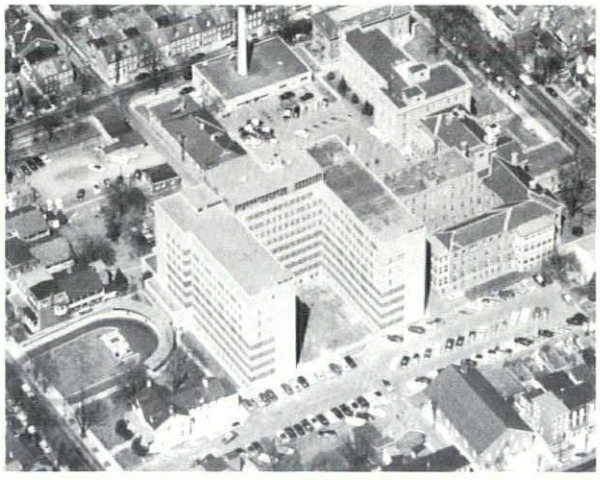
University Hospital Baltimore, Maryland

Some are community hospitals . . .



Calvert County Prince Frederick, Md.

Some re-orient and enlarge . . .



Lancaster General Lancaster, Penna.
Lancaster New Era Photo

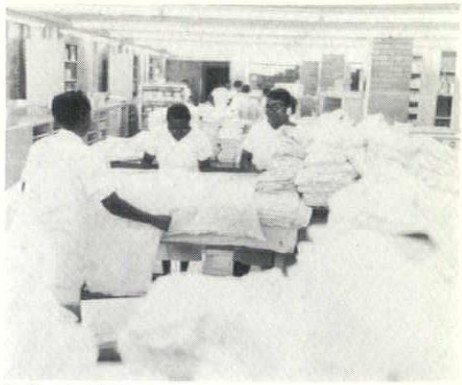
Some rebuild and expand . . .

Lutheran Medical Center
Long Range Plan

Eichbaum Model
Blakeslee-Lane Photo

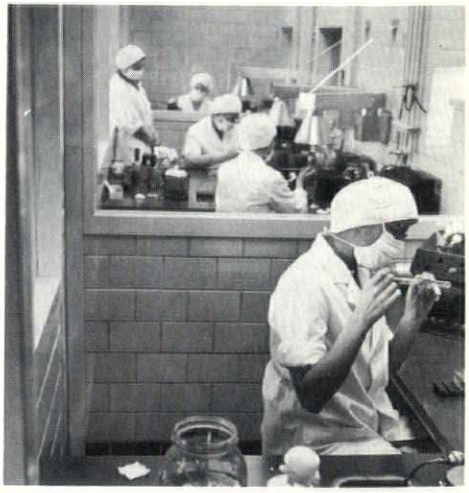
As a result of these variations, architectural problems are many and diverse. Growth, change and development of new techniques is constant.

Every hospital is a combination of many parts . . .



. . . the production line of central sterile supply . . .

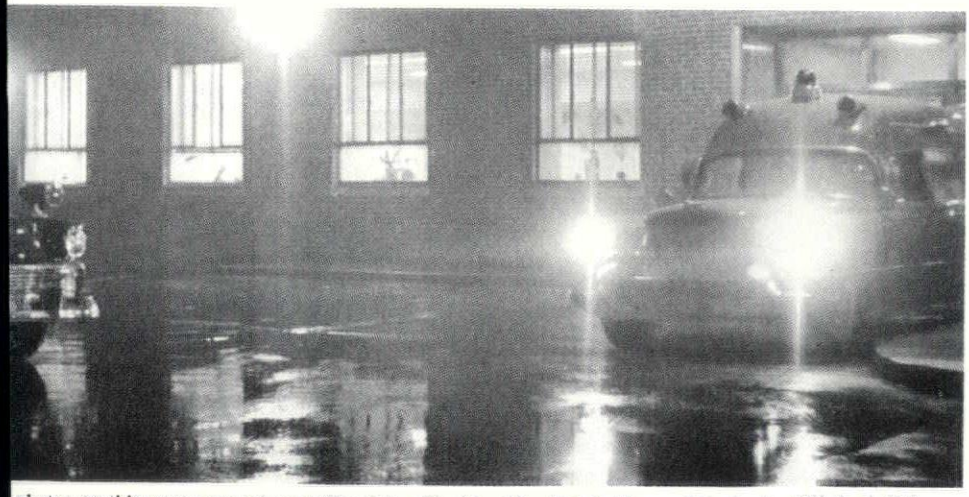
Osler Building



. . . the individual effort of the laboratory work . . .

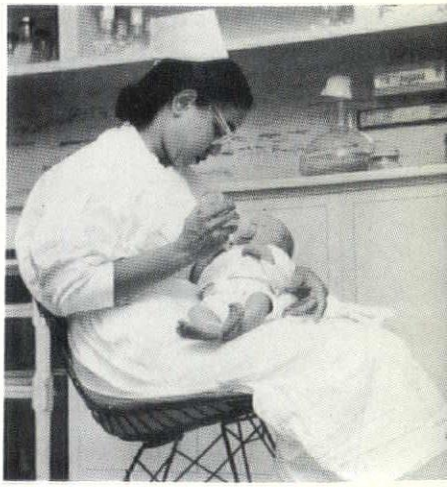
Clinical Science

. . . the hurry of the accident room . . .



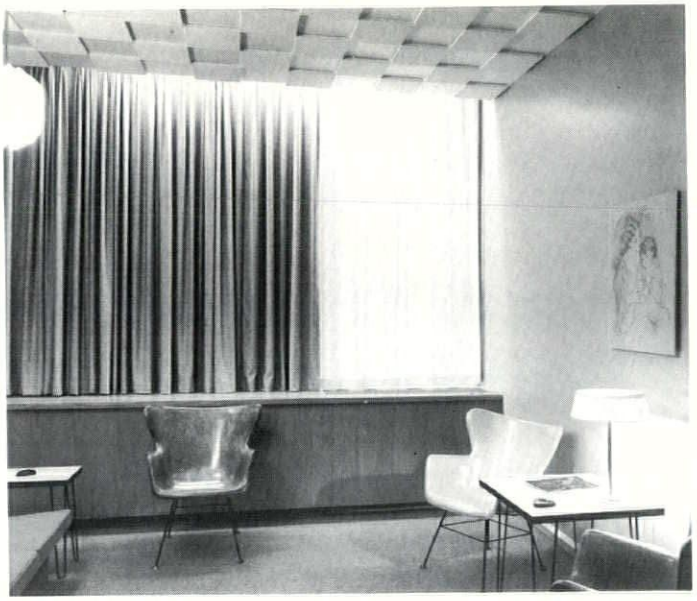
photos on this page were taken at The Johns Hopkins Hospital, Baltimore, Maryland Clinical Science

. . . and the quiet of the nursery . . .



Women's Clinic *Richard Thompson*

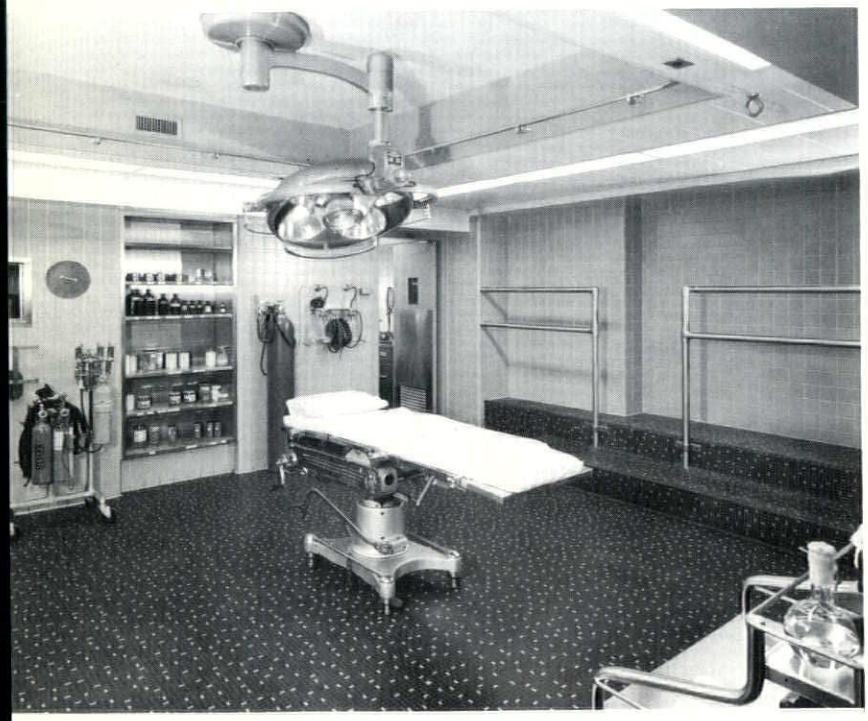
Architect:
The Office of James R. Edmunds, Jr.
Baltimore, Maryland



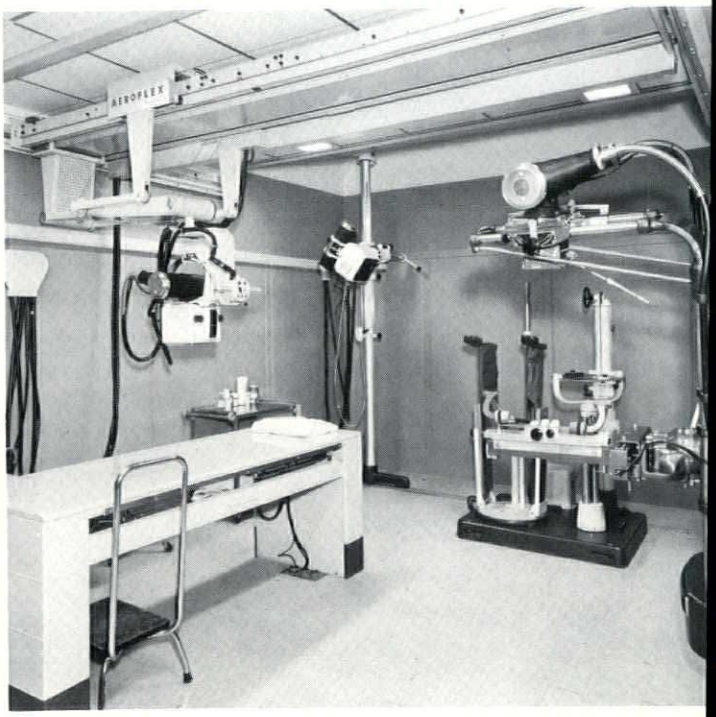
Woman's Clinic — Blakeslee-Lane

Very little of a hospital is ever seen by the public. An exception is the quiet room for fathers-to-be.

Most of it is hidden; elaborate equipment kept ready and waiting. These are rooms which are themselves complex machines to assist in diagnosis and treatment. . . .



General Operating Suite — *Zalkind*

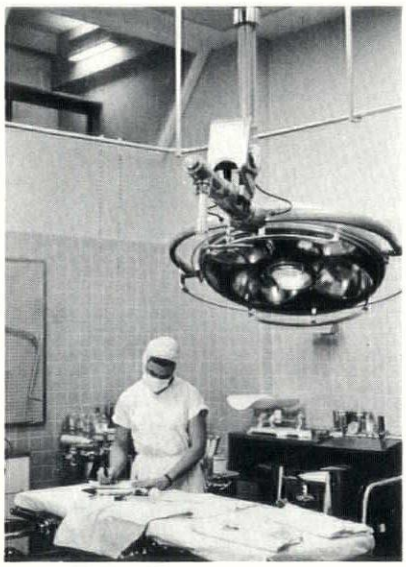


O.P. Radiology Suite — *Blakeslee-Lane*

General Recovery Room

. . . Some are constantly busy guarding life . . .

. . . and some provide teaching facilities for future generations.



Woman's Clinic

Private Patient Clinic *Richard Thompson*

All these, and many more, are behind the spaces for those who must wait. Each plays its part. Each works with the others toward one end—good patient care.

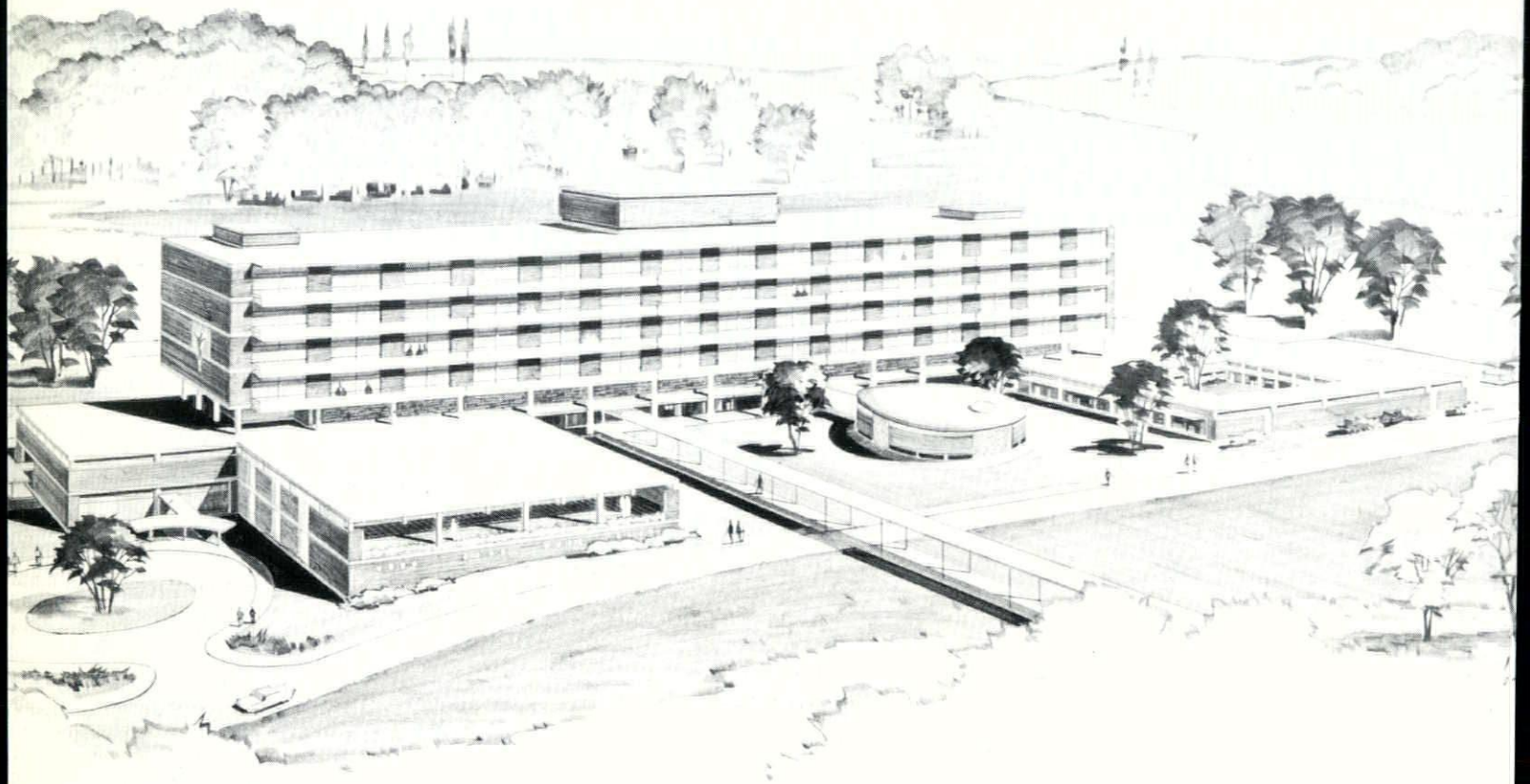
Maryland General Hospital *Blakeslee-Lane*

All photos on this page (except noted) taken at The Johns Hopkins Hospital

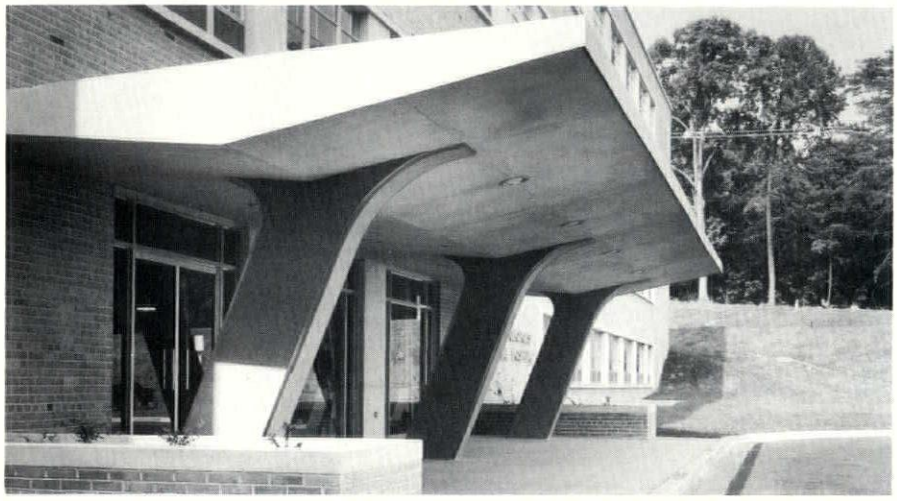
Architect:
Fisher, Nes, Campbell & Associates
Baltimore, Maryland

ST. JOSEPH'S HOSPITAL. Towson, Maryland. This 322-bed hospital is the first stage of a hospital campus for the convent of St. Joseph's. A future convent and nurses' home will be linked to the hospital by an arcade enclosing the cloistered area with the chapel as its focus. Separated by the mechanical level, the nursing units form the upper block with the adjunct facilities on the lower two floors.

The lower level will be comprised of out-patient, emergency, therapy, laboratory and pharmacy departments, along with central sterile supply and the operating suite. The main level will contain the lobby, administration, kitchen, main dining room, internes' quarters, central records and central stores. The chapel joins the lobby on this level. Above the main floor there will be the mechanical and electrical facilities, the dead storage for medical records and the pediatrics department in the rear wing. The nursing units occupy the third through sixth floors with the obstetrical department in the rear wing of the third floor. *Estimated total cost:* $8,000,000.



Architect:
Faulkner, Kingsbury & Stenhouse
Washington, D. C.



PRINCE GEORGE'S GENERAL HOSPITAL. The building shown is an addition to the existing hospital and forms the second increment which will eventually become a multi-story fireproof 500-bed general hospital. The third and last increment will replace the original one-story building constructed during World War II.

The building has a concrete frame faced with brick with limestone trim to match the first multi-story increment but not to duplicate it since much larger fenestration is used. It contains three hospital size elevators which supplement the two elevators in the existing building.

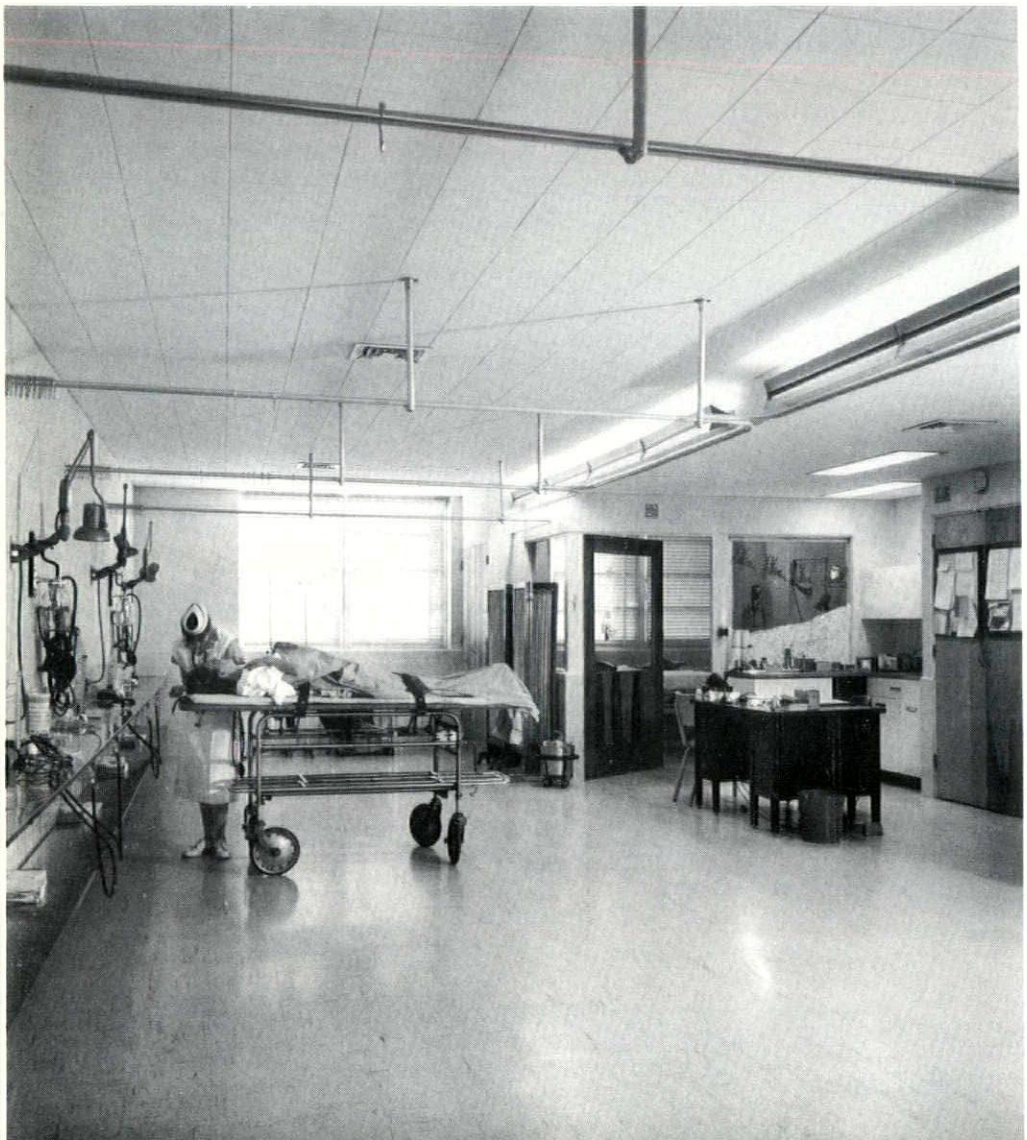
The building is completely air conditioned. All patients' corridors and the operating suite corridor have glazed structural tile wainscots. The operating room walls are glazed structural tile to ceiling. Colors of all tile were carefully chosen. Operating room floors are staticproof tile, lobby floor is terrazzo and other floors including bedrooms, corridors, general purpose rooms are asphalt tile.

Cost of the building was $2,067,139.00 or approximately $20.00 a square foot if area of building includes exterior walls. The architects believe this low cost was to a large extent due to the use of the double corridor plan and the large nursing unit which has a minimum of fifty beds expandable to sixty-four beds. The building contract was let on July 23, 1957 and the building was occupied in March 1959.

The operating suite and central sterile supply area shown on first floor plan have been so planned that all cleaning, sterilizing and wrapping of materials used in surgery is done in central sterile supply including instruments. Tables for each operation are set up in the sterile table room and taken from there to the assigned operating room. Materials going to and from nursing floors to central sterile supply and patients being brought to surgery use the rear corridor.

Architect:
Cochran, Stephenson & Wing
Baltimore, Maryland

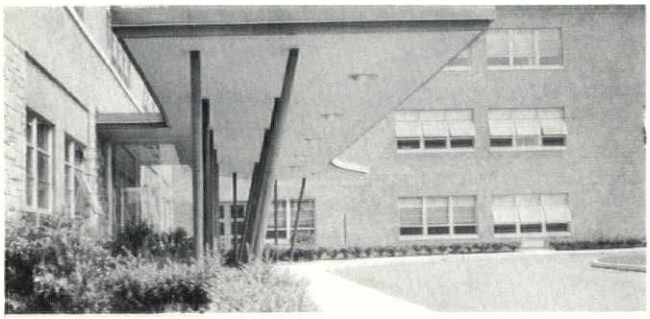
FRANKLIN SQUARE HOSPITAL, INC. Proposed hospital for Baltimore County site. To provide 300 general hospital beds expandable to 500 beds. *Estimated cost:* $7,500,000. *Hospital Consultant:* Gordon A. Friesen, Associates. *Consultant Engineers:* Henry Adams, Inc., *Mechanical and Electrical;* Ewell, Nelson & Bomhardt, *structural.*

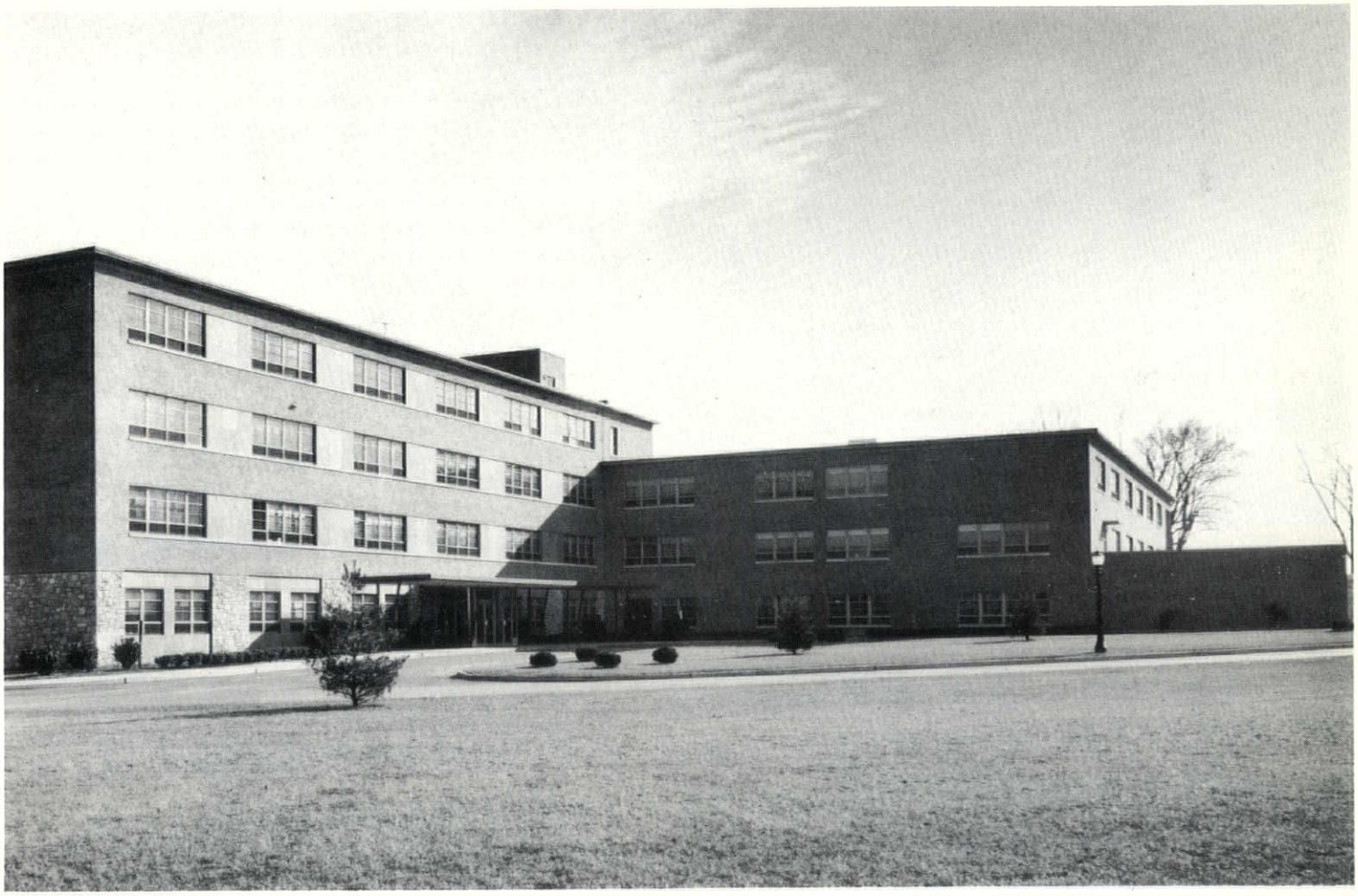


UNION MEMORIAL HOSPITAL. Baltimore, Maryland. Intensive Care Unit. *Approximate cost:* $22,000 per unit. Two units. *Mechanical and Electrical Engineers:* Henry Adams, Inc. *General Contractor:* William H. Sands, Inc.

Architect:
Tyler, Ketcham and Myers
Baltimore, Maryland

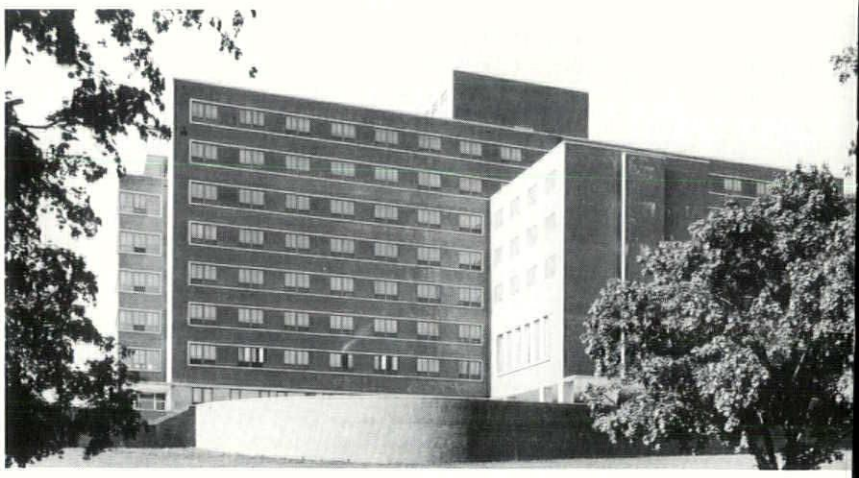
WESTERN MARYLAND CHRONIC DISEASE HOSPITAL. Hagerstown, Maryland. *Size:* 300 beds, including 136 rehabilitation, 100 tuberculosis, 60 admissions and acute. *Area:* 157,300 square feet. *Volume:* 2,191,300 cubic feet. *Structural System:* reinforced concrete. *External Wall Material:* face brick with some rubber ashlar, limestone and green stone trim. *Back Up Material:* cinder block. *Floor Construction:* concrete with cinder block filler units. *Roof Construction:* same as floor. *Finished Floors:* vinyl asbestos tile with terrazzo tile in lobby and quarry tile in food area. *Wall Finishes:* plaster painted. *Shape of Building:* Block Type "Y". *Total cost:* $2,424,840. *Contractor:* Blake Construction Co., Inc., Washington, D. C.





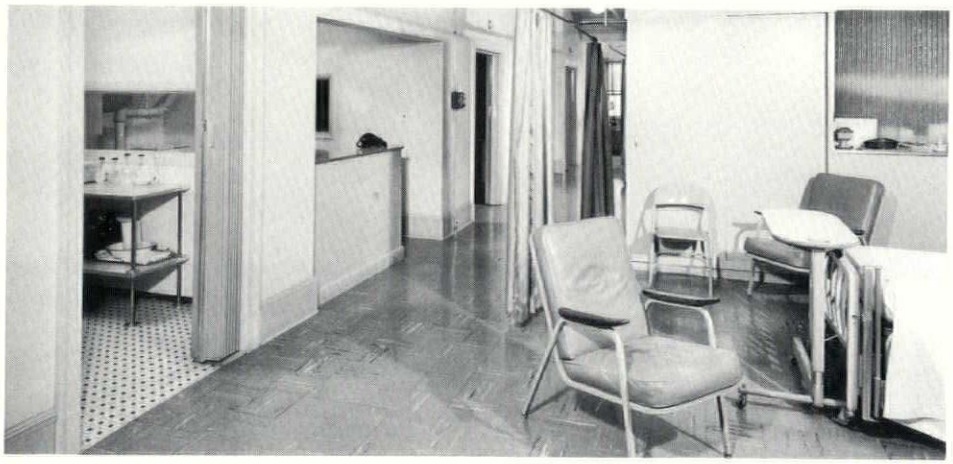
Architect:
Meyer and Ayers
Baltimore, Maryland

MOUNT WILSON STATE HOSPITAL. Baltimore County, Maryland. *Owner:* State of Maryland. Planned as a 300-bed tuberculosis hospital with a complete operating suite, the building is so designed that it can be converted in the future to a general hospital if the need arises. The structural frame is designed for the addition of more floors and provision is made for additional elevator service. *Cost:* $3,300,000. *Mechanical and Electrical Engineer:* Charles E. Daniel. *Contractor:* Cramer-Vollmerhausen Co., Inc.



HOSPITAL BUILDING FOR THE MARYLAND STATE PENITENTIARY. Baltimore, Maryland. *Owner:* State of Maryland. The building provides modern hospital facilities within the interior of the penitentiary, a maximum security institution. Also housed in the structure are the execution chamber, the death cells and psychiatric cells. *Completion Date:* 1955. *Cost:* $900,000. *Mechanical and Electrical Engineer:* Henry Adams, Inc. *Structural Engineer:* J. L. Faisant & Associates. *Contractor:* Kirby and McGuire, Baltimore, Maryland.

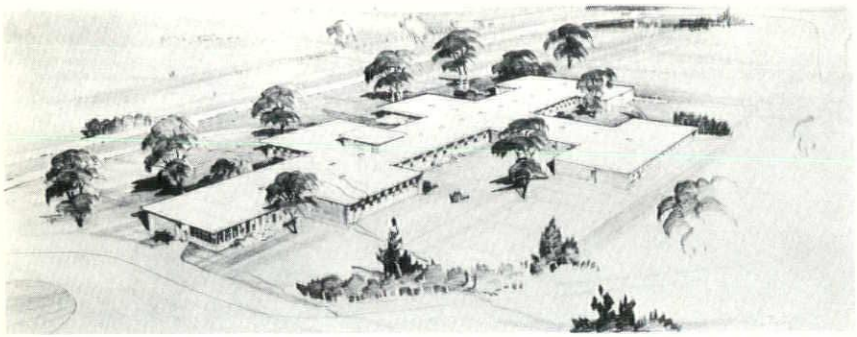
WASHINGTON COUNTY HOSPITAL. Hagerstown, Maryland. The old central portion of the hospital was razed and replaced by the new seven-story double-pavilion plan building. The low wings on either side of the central portion are parts of the original hospital building and the new solaria above are cantilevered over them. *Completion Date:* 1952. *Cost:* $1,467,000. *Mechanical and Electrical Engineer:* Charles E. Daniel. *Hospital Consultant:* Winford H. Smith, M.D. *Contractor:* Norman S. Earley & Son, Hagerstown, Maryland.



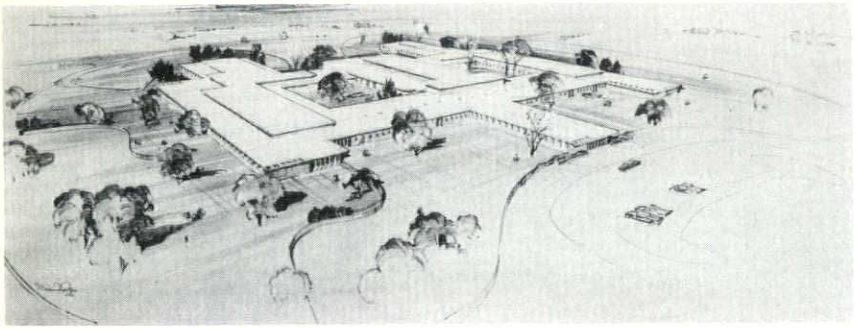
Architect:
Finney, Dodson, Smeallie, Orrick & Associates
Baltimore, Maryland

KESWICK, THE HOME FOR INCURABLES OF BALTIMORE CITY. Baltimore, Maryland. Remodeling and modernizing the facilities of a long-term hospital for the chronically ill. The hospital capacity was increased from 152 to 204 beds and additional therapeutic and staff facilities were provided without increasing the building volume by reclaiming the attic of the building.

Architect:
Gaudreau and Gaudreau
Baltimore, Maryland

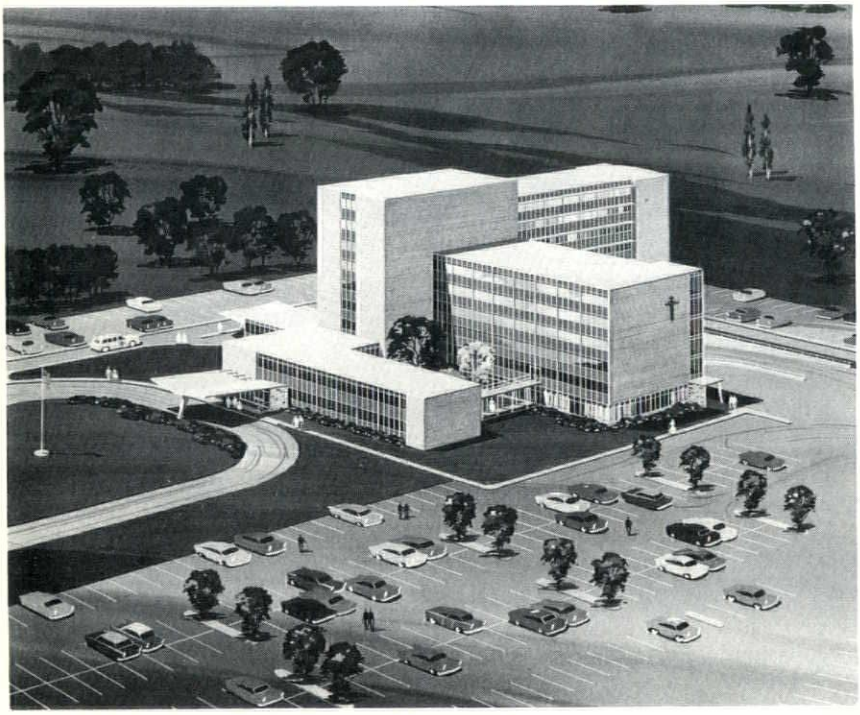


CROWNSVILLE STATE HOSPITAL (Medical Surgical Building). Crownsville, Maryland. *Owner:* The State of Maryland. *Area:* 32,500 square feet. *Cost:* $767,000. *Structural Engineer:* J. L. Faisant and Associates. *Mechanical Engineers:* Egli and Gompf, Inc. *General Contractor:* Lacchi Construction Co.



SPRINGFIELD STATE HOSPITAL (Geriatrics Building). *Owner:* The State of Maryland. Sykesville, Maryland. *Area:* 45,000 square feet. *Cost:* $778,900. *Structural Engineers:* J. L. Faisant and Associates. *Mechanical Engineers:* Egli and Gompf, Inc. *General Contractor:* Lacchi Construction Co.

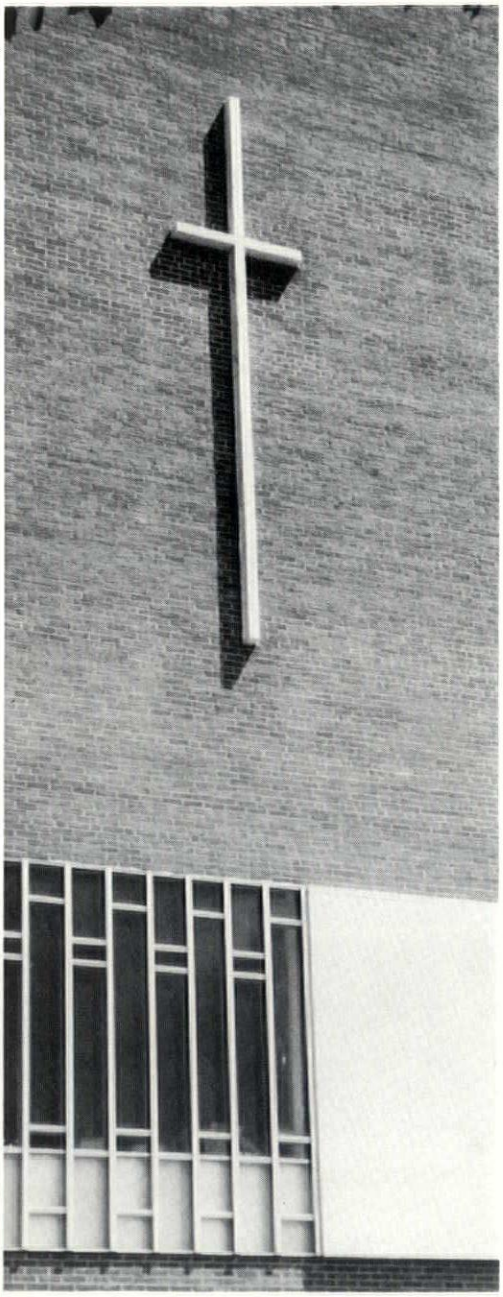
Architect:
Wheeler, Bonn, Shockey & Associates
Glen Burnie, Maryland

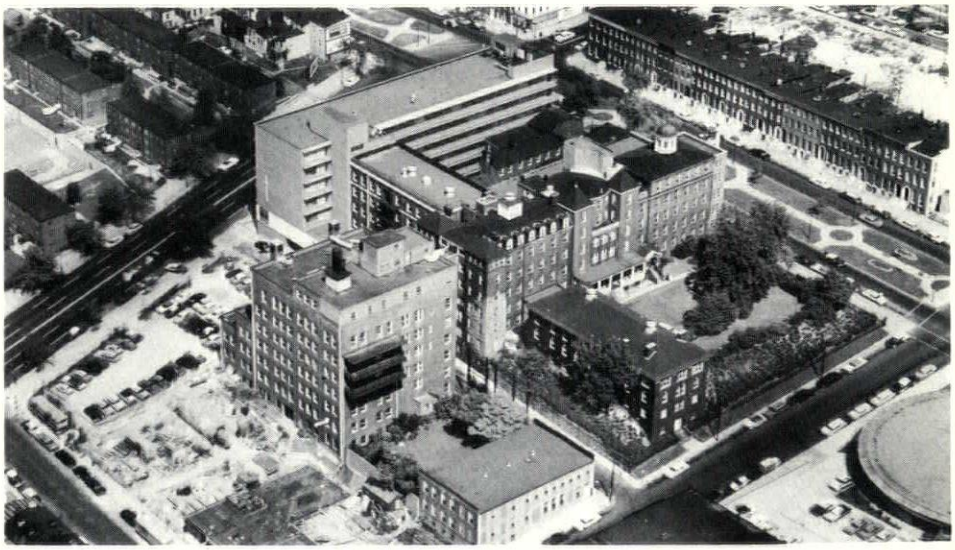


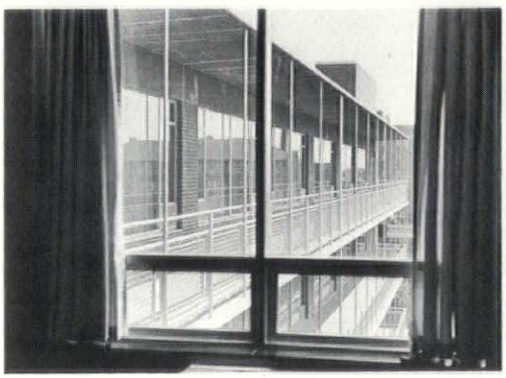
NORTH ANNE ARUNDEL COUNTY HOSPITAL. *Owner:* North Arundel Hospital Association, Inc. *Area:* 183,850 square feet. *Cube:* 2,239,534 cubic feet. *Estimated Construction Cost:* $3,900,000. Designed for present 210 beds with future vertical expansion to 330 beds. *Two-Story Foreground Wing:* lobby, administration conference rooms, meditation room. *One-Story Left Wing:* equipment and storage and emergency operation facilities. *Six-Story Right Wing:* laundry, kitchen and cafeteria, operating suite, laboratory suite, central supply suite, delivery suite, x-ray. *Eight-Story Main Structure:* supplies, out-patient facilities, nursing units, pediatric nursing units, utilities. Boiler house, maintenance building in separate facilities at the rear. *Structural Engineer:* Perry, Lamprecht & Rickert. *Mechanical Engineer:* Turpin, Wachter & Associates. *Hospital Consultant:* James R. Mays & Associates, Philadelphia.

Architect:
Fisher, Nes, Campbell & Associates
Baltimore, Maryland

CHURCH HOME AND HOSPITAL. Baltimore, Maryland. *Phase I:* Demolition of row houses at Broadway and Fayette Streets. Construction of seven-story hospital wing containing 200 patient beds, 38 elderly care beds, out-patient and emergency facilities and other related installations. *Total cost:* $2,400,000. *Phase II:* Demolition of row houses on Bond Street and Fairmount Avenue. Construction of five-story nurses' residence containing accommodations for 128 nurses and faculty, as well as a library and recreation facilities. *Total cost:* $730,000. *Phase III:* Remodeling of the main building and annex to include general nursing units, intensive care units, doctors' offices, laboratories and administrative space. Partial remodeling of the service building. *Approximate cost:* $300,000. *Contractor:* Consolidated Engineering Company, Inc. *Structural Engineer:* Van Rensselaer P. Saxe. *Mechanical Engineer:* Egli and Gompf, Inc.







CRAFTSMANSHIP AWARDS 1959

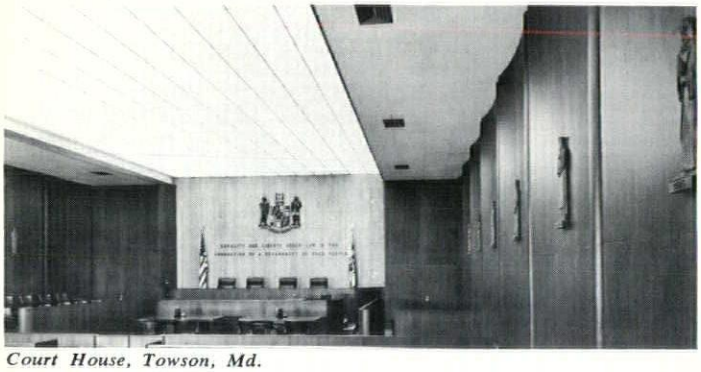
In modern building the trend is continuously toward more mechanization and labor saving devices in order to simplify construction and to offset increasing labor costs. But the mechanic in the field still performs a most necessary service. It is, therefore, rewarding to note that in the field of building and construction many mechanics are still vitally concerned with a job well done and a desire for good craftsmanship.

Assuming that the Architect's design concept is good initially, a building will only become good building and good architecture if every detail has been designed with care and then executed with the highest standards of craftsmanship by the mechanic on the job.

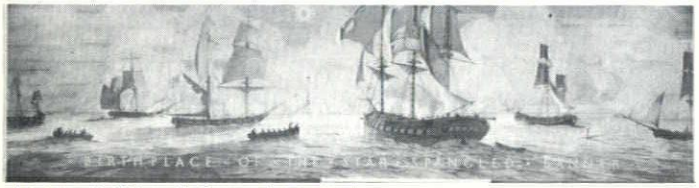
The 1959 Craftsmanship Awards Committee of the Building Congress and Exchange, under the chairmanship of Howard L. Border, made inspections of 62 items of specific craft and visited 32 projects spending several days at this task before making their final decisions on the awards. The awards, which are listed below, were presented at the 71st Annual Meeting and Dinner of the Building Congress and Exchange on November 20th, 1959.

We would like to thank the recipients for their skill and offer our congratulations.

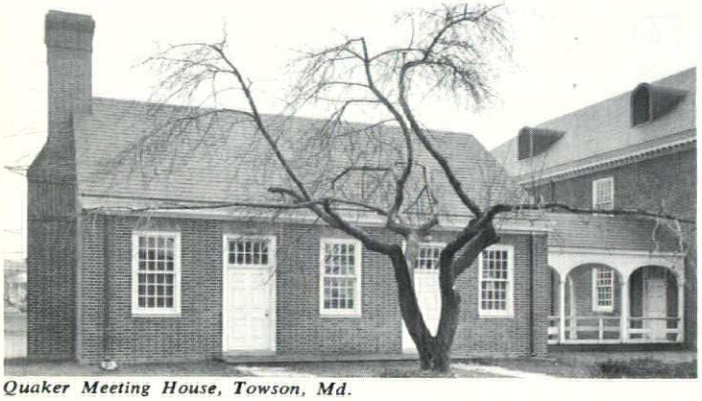
Madison Square Building & Loan Association



Court House, Towson, Md.



Augusta Building & Loan Association



Quaker Meeting House, Towson, Md.

DISPLAY CENTER, *cabinetwork*
JOHN WAGNER—*Mechanic*
Building: Banking Quarters, 5401 Belair Road; Owner: Madison Square Building & Loan Association; Architect: John H. Foutz; Contractor: Carl Gonnsen & Son, Inc.

RIGGS, DISTLER & CO., INC., *Combustion control installation*
WILLIAM GEORGE COWEN, JR.—*Mechanic*
Building: Central Power Plant Renovations, Wolfe and Monument Sts.; Owner: Johns Hopkins Hospital; Engineer: Henry Adams, Inc.

FREY & SONS, *chancel millwork*
HAINES FINKBINER—*Mechanic*
Building: Church, Hampton Lane, Towson, Maryland; Owner: Towson Methodist Church; Architect: J. Alfred Hamme & Associates; Contractor: John K. Ruff, Inc.

MATTHEW PELOSO, *for wood statues*

CONRAD PROTZMAN, INC., *interior millwork*
LEO WURMSER—*Mechanic*
Building: Court House Additions, Towson, Maryland; Owner: Commissioners of Baltimore County; Architect: Gaudreau & Gaudreau; Contractor: John McShain, Inc.

STANDARD ART MARBLE & TILE CO., *interior tile and marblework*
SERGIO DiDOMENICO—*Mechanic*
Building: Hospital Addition, Pulaski Street at Baltimore; Owner: Sisters of Bon Secours; Architect: Fisher, Nes, Campbell & Assocs.; Contractor: Lardner & Wich, Inc.

HARRY A. HUDGINS CO., *carpentry in stairway*
GEORGE F. EBY—*Mechanic*
PIETRO PERSICO—*Brickwork*
CHARLES A. MARLING—*Mechanic*
Building: House of the President, Homewood Campus; Owner: Johns Hopkins University; Assoc. Architects: William McMillan and Smith & Veale; Contractor: Harry A. Hudgins Co.

JOHN J. BRUNS, INC., *for interior millwork*
JOHN STAMFEL—*Mechanic*
DONALD PUTMAN—*Mechanic*
THE PROPERTY CONSTRUCTION CO., *for erection of interior millwork*
Building: House, Seminary Avenue near Falls Road; Owner: Mr. and Mrs. Richard W. Gowdy; Architect: Fisher, Nes, Campbell & Assoc.; Contractor: The Property Construction Co., Inc.

MORROW BROTHERS, INC., *for installation of millwork*
GEORGE ELSEROAD—*Mechanic*
Building: Johnnycake Elementary School, Craigmont and Vanderwood Roads; Owner: Board of Education of Baltimore County; Architect: Hopkins & Pfeiffer; Contractor: Morrow Brothers, Inc.

FRANK J. BLANCH CO., *for installation of mechanical equipment & piping*
ROBERT H. SIMONAIRE—*Mechanic*
Building: Office Building, Annapolis, Maryland; Owner: State of Maryland; Assoc. Architects: Harder & Dressel and Rogers, Taliaferro & Lamb; Engineer: Egli & Gompf, Inc.; Contractor: Blake Construction Co.

R. McGILL MACKALL, *for mural of Star-Spangled Banner*
Building: Office Building, 420 N. Howard Street; Owner: Augusta Building and Loan Association; Architect: Gaudreau & Gaudreau; Contractor: Charles J. Spielman, Inc.

VINCENT CAMPITELLI, *for exterior brickwork*
HERMAN HEMMING—*Mechanic*
Building: Quaker Meeting House, York Road, Towson, Maryland; Owner: The Sheppard and Enoch Pratt Hospital; Architect: Hopkins & Pfeiffer; Contractor: John K. Ruff, Inc.

DIETRICH BROTHERS, INC., *wrought iron grilles, gates and railings*
CARROLL McTAVISH ELDER—*Mechanic*
Building: Rectory, Loch Raven Boulevard and Woodbourne Ave.; Owner: St. Matthew's Roman Catholic Church; Architect: Howard G. Hall; Contractor: E. Eyring & Sons Co.

FARAONE & BORSELLA, INC., *for stonework*
GUISTINO FARAONE—*Mechanic*
Building: Residence, Anton Farms Road, Pikesville, Maryland; Owner: Herman Rosenberg; Architect: Bacharach & Bacharach; Contractor: Ralph L. Bollinger.

GENERAL BRONZE CORP., *for decorative aluminum vault screen*
ERNEST NEMETH—*Mechanic*
Building: St. Paul Place Office, Commercial Credit Building; Owner: First National Bank; Architect: Fisher, Nes, Campbell & Associates; Contractor: Consolidated Engineering Co., Inc.

HILGARTNER MARBLE & GRANITE CO., *for interior travertine in lobbies*
JOHN E. GLEESON—*Mechanic*
LOUIS PERNA & SONS, INC., *for exterior rubble stone walls and flagstone paving*

EMIL C. PERALDO—*Mechanic*
COLDSPRING GRANITE CO., *for fabrication of granite*
Building: State Roads Commission Building, 300 W. Preston Street; Owner: State of Maryland; Assoc. Architects: Fisher, Nes, Campbell & Associates and L. P. Kooken Co.; Contractor: Blake Construction Co., Inc.

CHURCH OF OUR SAVIOR

BROADWAY & McELDERRY STREETS
BALTIMORE, MARYLAND

OWNER:

CONVENTION OF THE PROTESTANT CHURCH
OF THE DIOCESE OF MARYLAND

ARCHITECTS:

COCHRAN, STEPHENSON & WING

GENERAL CONTRACTOR:

CONSOLIDATED ENGINEERING CO., INC.

INSULROCK ROOF DECK INSTALLED BY

JOHN H. HAMPSHIRE, INC.

INSULROCK

MULTI-PURPOSE
NON-COMBUSTIBLE
BUILDING SLABS

•

LIGHT IN WEIGHT
AND INCOMBUSTIBLE

•

THERMAL INSULATION

•

ACOUSTICAL ABSORPTION

•

60 TO 70% LIGHT REFLECTION

•

ATTRACTIVE APPEARANCE

HAMPSHIRE

330 WEST 24TH STREET • BALTIMORE 11, MARYLAND

BASIC SCIENCE BUILDING

The Johns Hopkins
Medical Institutions

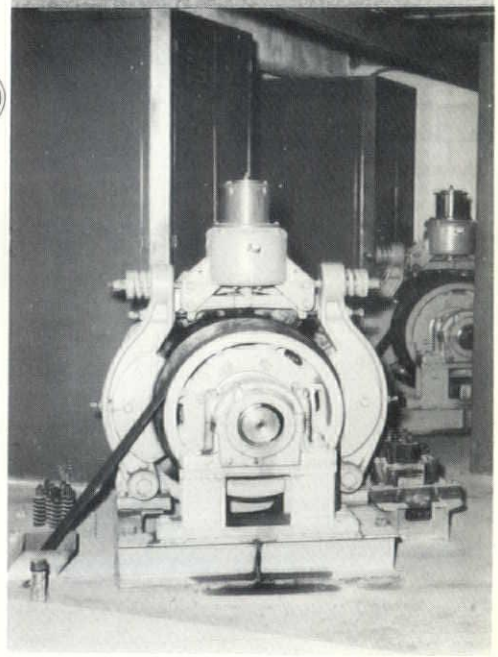
ARCHITECT

Fisher, Nes
& Campbell

ELEVATOR DESIGN

Two gearless traction automatic elevators running at a speed of 500 feet per minute and rated at 4,000 pounds and one running at 400 feet per minute and rated at 5,000 pounds.

General Elevators



GENERAL ELEVATOR COMPANY

Baltimore
Washington
Hagerstown
Philadelphia
Wilmington
Harrisburg
Reading
Newark

Consolidated Engineering Company, Inc.

specialists in hospital construction

HOSPITAL PROJECTS
By Consolidated

CHURCH HOME AND HOSPITAL
- New Wing
- Nurses' Residence

DUPONT COMPANY
- Plant Hospital (Curtis Bay)

JOHNS HOPKINS HOSPITAL
- Hurd Memorial
- Kitchen and Service Building
- Osler Medical Building
- Halsted Surgical Building
- Nurses Home
- Nurses Home Addition
- Physiology Building
- Power and Boiler House
- Wards D and E
- Welch Memorial Library
- X-Ray Clinic Building
- Surgical Building, R. U. 1
- Dispensary Building Alterations
- Wilmer Clinic Alterations

KERNAN HOSPITAL
- Administration Building

MERCY HOSPITAL
- Additions
- Preliminary Site Work

NAVAL HOSPITAL (Bethesda)
- Research Building
- Animal House

SINAI HOSPITAL
- Hess Memorial
- Research Laboratory

UNION MEMORIAL HOSPITAL
- Nurses Home

U. S. VETERANS ADMINISTRATION
- Hospital

UNIVERSITY OF MARYLAND
- Hospital
- Medical Building
- Nurses Home

YORK GENERAL HOSPITAL (York, Pa.)
- Hospital Building

ST. AGNES HOSPITAL
- New Hospital
- Nurses Home and Power Plant

ST. PAUL AND FRANKLIN STREETS **BALTIMORE 2, MARYLAND**

TOWSON PLAZA
Shopping Center
Towson, Maryland

Leavitt Associates, *Architect*
Fenimore Terrace, Inc., *General Contractor*
Henry J. Knott, *Masonry Contractor*

Georgetown Colonial Brick
Range C-70, an extraordinary blend of lightly flashed rose sand-finished brick.

Outstanding

Because of the excellence of our selected raw materials and method of manufacturing, our brick have extremely low water absorption . . . they are highly water resistant and, as a result, retain their original fine color down through the years.

United Clay
& SUPPLY CORP.

3000 DRUID PARK DRIVE
LI 2-8500

"Third Generation of Fine Cabinet Makers"

ARCHITECTURAL CABINET AND MILLWORK

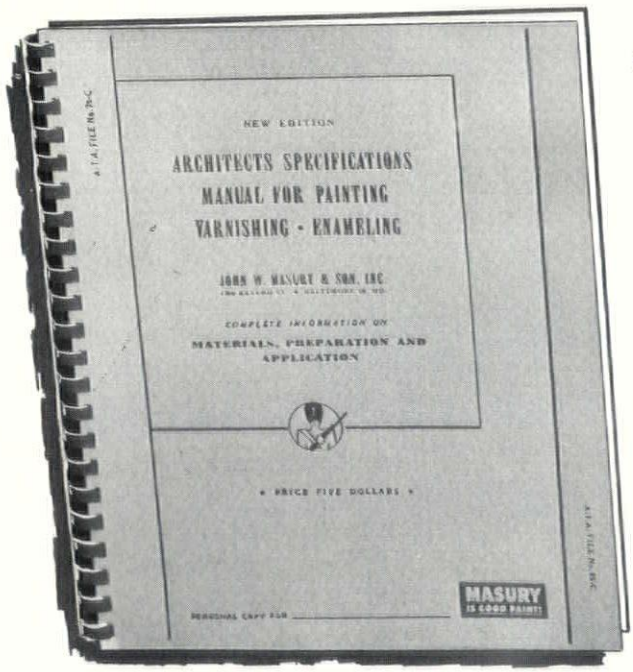
Conrad Protzman INC.

8 W. West Street
Baltimore 30, Maryland
LExington 9-1063

TITLE:
Ernie's Shoe Store, Towson Plaza

DESIGNER:
Conrad Protzman, Inc.

INTERIOR DECORATING & CABINETWORK:
Conrad Protzman, Inc.



A DEPENDABLE SOURCE

OF ACCURATE INFORMATION AND RELIABLE PRODUCTS

In every field of endeavor, it seems, there is a source of supply that builds a reputation as "the place with the answer" when a difficult problem arises and reliable materials are needed.

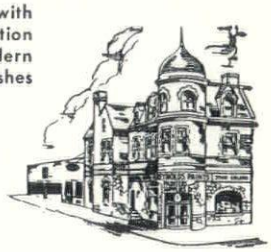
Through the years, we at Reynolds have striven to attain and hold that position in the field of finishes. By carefully selecting, and continually educating our men; by showing equal care in selecting our sources of supply, and by keeping abreast of latest developments through reading and trade associations, we have constantly worked to maintain our reputation as a dependable source of accurate information and reliable products.

In line with our policy of furnishing the finest, we depend on Masury Paints as one of our main sources of supply. The House of Masury, founded in 1835, is one of the oldest and finest manufacturers in the business. For outstanding beauty, and praiseworthy performance . . . professionals have long agreed . . . MASURY IS GOOD PAINT!

MASURY IS GOOD PAINT!

ARCHITECTS SPEC BOOK

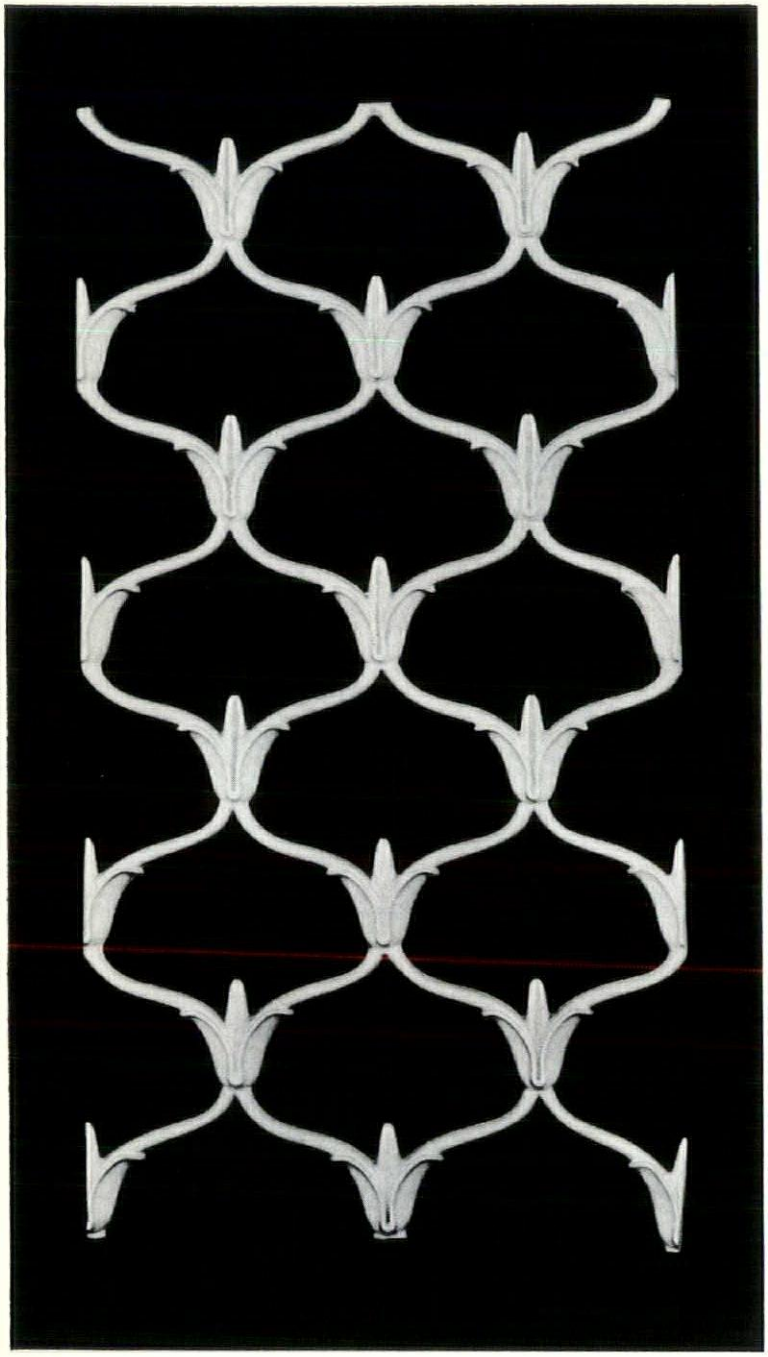
Upon request we will be happy to present you with your individual copy of Masury's Architects Specification Manual. We are sure you will find one of these modern books an invaluable aid in choosing and specifying finishes for all surfaces.



"Paint Info"

REYNOLDS Paint Co., Inc.

ARCHITECTURAL • INDUSTRIAL • AUTOMOTIVE FINISHES
MARYLAND AVE. AND 21st STREET BALTIMORE 18, MD. Phone BE. 5-6776



CONTEMPORARY TREILLAGE:
new Amsterdam design

The delicate and graceful Amsterdam pattern, superbly executed in malleable iron, is equally striking in traditional or contemporary environment. Continuous designs are obtained by joining the castings, both vertically and horizontally, to form screens, grilles, columns or railing panels. The non-shattering quality of malleable iron assures permanence, as well as fabricating economy. "Amsterdam" is but one of the many beautiful panels carried in stock by Julius Blum & Co., Inc.

More than 8,000 items in stock. See Catalog No. 8 or Sweet's Architectural File No. 6e/BL. Phones: Carlstadt, N. J., GEneva 8-4600; Philadelphia, MArket 7-7596; New York, OXford 5-2236

JULIUS BLUM & CO. INC., CARLSTADT, NEW JERSEY

JB Fifty Years 1910-1960

NEW SINAI HOSPITAL
Belvedere and Greenspring Avenues

The entire group of buildings is constructed of Homewood Colonial, Cameo Blend bricks manufactured by Baltimore Brick Company.
Architect: Voorhees, Walker, Smith, Smith & Haines.
Contractor: Turner Construction Company.
Mason Contractor: C. O. Struse & Sons, Inc.

3200 East Madison Street
Baltimore 5, Maryland
Orleans 5-0260

BALTIMORE BRICK CO.

ANDERSON & IRELAND Co.
111 LIGHT STREET

JENNINGS & WINTERS Co.
3834 FALLS ROAD

ALBERT GUNTHER, Inc.
36 W. BIDDLE STREET

MacCARTHY Company
111 E. 25th STREET

HOSPITAL HARDWARE

—designed to meet the most exacting appearance and performance requirements of modern hospitals—should be specified only by trained Hardware Consultants.

EXPERIENCE BREEDS CONFIDENCE

NATIONAL BUILDERS' HARDWARE ASSOCIATION
N B H A

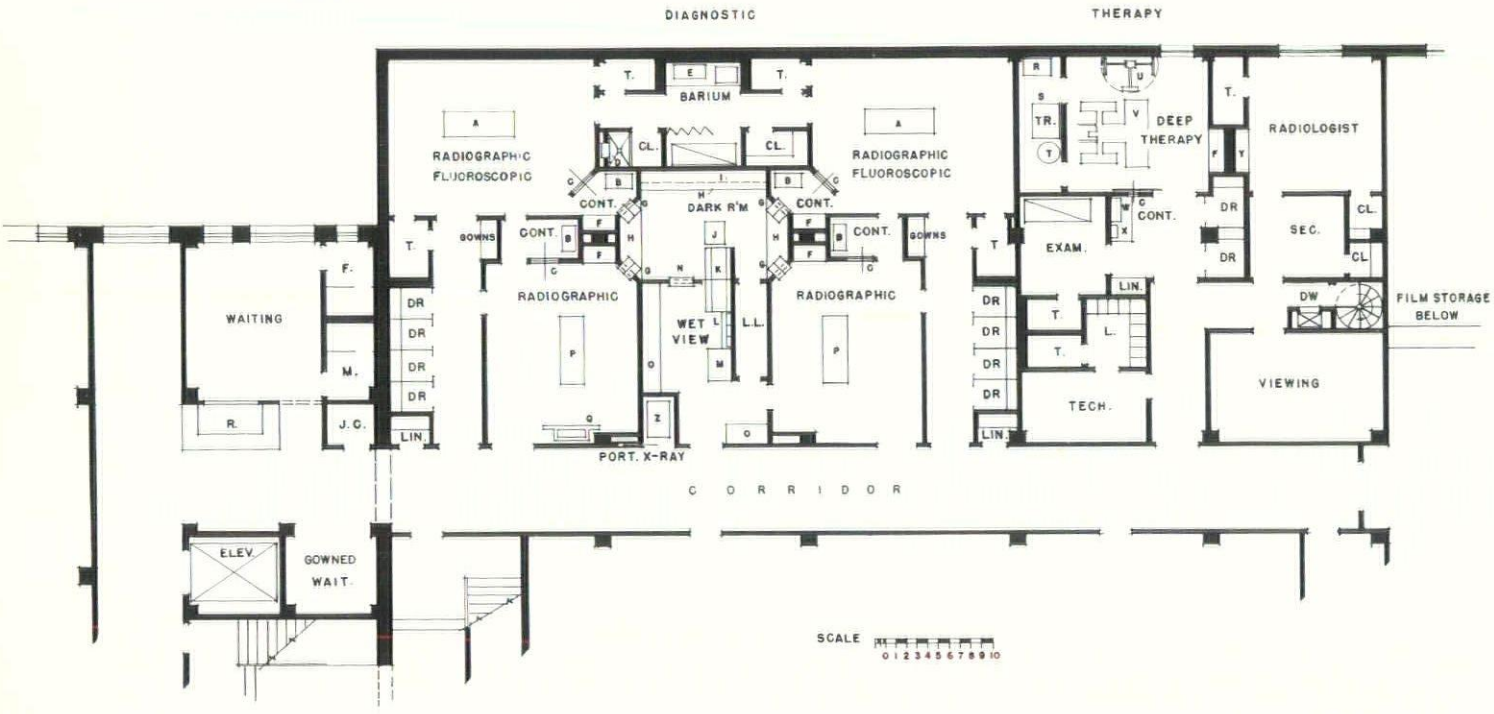
BALTIMORE MEMBERS

NATIONAL BUILDERS' HARDWARE ASSOCIATION

planning the department of radiology

By Dave Mako

Manager, X-Ray Planning and Layout Section,
Westinghouse Electric Corporation, X-Ray Department



Department of Radiology—Hanover General Hospital, Hanover, Penna.

Legend

A—Radiographic—fluoroscopic table
B—X-ray control
C—Lead glass window
D—Bedpan washer & mop trough
E—Cold-warm barium dispenser
F—Accessory cabinet or shelves
G—Thru-wall pass box
H—Work bench
I—Wall cabinets
J—Tank cooler
K—Thru-wall developing tank
L—Wet film viewlights
M—Film dryer
N—Thru-wall hanger return box
O—Trim-sort bench
P—Radiographic table
Q—Cassette changer
R—Superficial therapy transformer
S—Deep therapy transformer
T—Therapy tube cooler
U—Superficial therapy tubestand
V—Deep therapy tubestand & treatment table
W—Deep therapy x-ray control
X—Superficial therapy x-ray control
Y—Bookcase
Z—Mobile x-ray unit

When radiology was in its infancy, there was little need for x-ray planning as we know it today. The largest hospital had need for only one, or perhaps two, x-ray rooms. But recent developments—in Cobalt 60 treatments, x-ray therapy, etc.—have made it necessary for the radiologist and the architect to work together more than ever before when planning the radiological department of a hospital. Like the architect, the radiologist is a highly trained specialist in his profession. And just as the architect is highly critical of his own office and work area, so the radiologist is very demanding when it comes to the planning of the department in which he is to work and live.

The radiologist's plea is for custom planning, a plan to suit his particular requirements. He will invariably reject stock plans—just as an architect would reject stock plans for his home. This desire for custom-planning—for the most efficient possible working area—creates difficulties. Sometimes the radiologist cannot convey his thoughts and requirements to the architect, and the result is a series of misunderstandings and errors.

To act as a liaison between the architect and the radiologist, Westinghouse maintains a staff of x-ray specialists whose job it is to communicate between the architect and radiologist in a language familiar to both, and thus assist in the formation of a functional working plan.

One of the most common questions asked is, "Where should the x-ray department of a hospital be located?" A large percentage are located on the first floor, where they are convenient to related services. If economical radiation protection is a prerequisite for Cobalt therapy, the below ground level location is excellent. On the other hand, the much-improved vertical transportation in today's hospital makes it possible to place the non-treatment or diagnostic section on other floors to meet functional needs of the hospital.

Each radiological department should be planned with four basic considerations:

1. Patient traffic, including comfort, privacy, convenience, and courteous assistance on the part of the hospital staff.
2. Film flow, providing for efficient, speedy processing and interpretation from cassette to file room.
3. Technician traffic, involving the proper handling of personnel traffic to minimize daily steps.
4. Radiologist and staff traffic, which requires the most effective pattern to conserve time and energy.

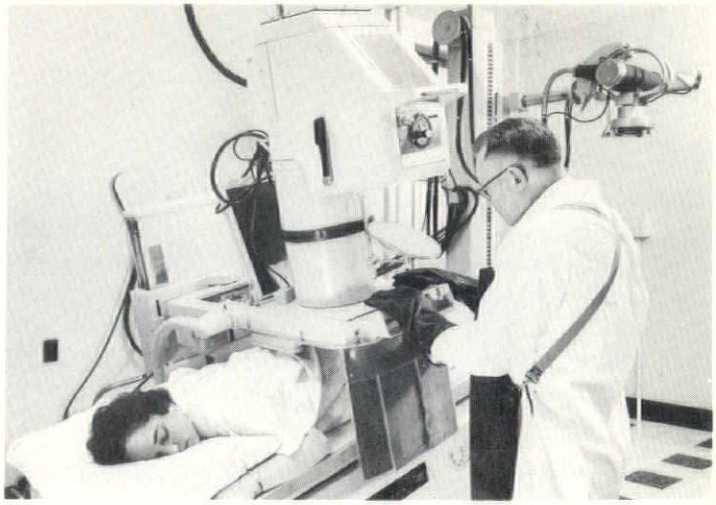
The most common x-ray department arrangement is the centralized corridor, cutting the department literally in two. This is good if the department is located in a separate wing, but poor if the corridor is used by other services.

Another arrangement is the double corridor concept, which is particularly good for private and clinical patients. The department with four, five or more corridors has its advantages in those large massive hospitals where natural light and ventilation are not a factor in design.

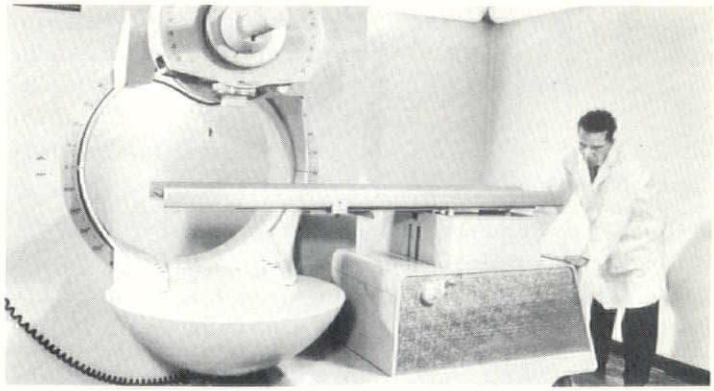
Within the last few years the "cluster" arrangement has become popular where space permits. The cluster—consisting of four to six rooms situated around a central dark room—forms a highly functional and efficient unit. The accompanying plan is a good example of a four-room cluster. A double cluster, each consisting of four diagnostic rooms, can be thus grouped to double the patient load. In this case, one dark room can be automatic and the other manual.

Over-all space requirements for a new department are not proportionately related to hospital bed capacity, but are based on actual or estimated daily patient load. No two hospitals of the same bed capacity produce the same volume of x-ray work, due in part to the in-patient and out-patient ratio, the type of work performed, the efficiency of the department and its personnel, geographic location, etc. If patients-per-day-load is known or can be estimated, a fair rule of thumb is 60 square feet minimum per-patient-day for determining department area.

Of valuable assistance to the architect planning a radiological department is the "Planning Guide for Radiologic Installations," compiled by the American College of Radiology from the experience of 48 authorities in the field.



The Diagnostic Area usually consists of rooms for general radiotherapy and rooms combining fluoroscopy and radiography. Here the doctor uses a modern diagnostic device which intensifies the fluoroscopic image to permit examination in a normally lighted room.



The Therapy Area uses high kv x-ray or high energy radioisotope equipment. Increasing interest is shown in the use of Cobalt 60. This equipment requires thick concrete protective walls.

The Darkroom Area is located within the x-ray department so that films can be processed rapidly for "wet" reading before the patient is released. Shown here is the wet viewing portion of the thru-wall developing tank.

CHAPTER NEWS AND NOTES

NEW OFFICERS:

At the Annual Meeting at the L'Hirondelle Club, January 13th, **G. Van Fossen Schwab** was installed as President of The Baltimore Chapter (see inside front cover). The men elected to this office in recent years have been true leaders and unselfish workers and as a result the architectural profession has gained considerably in stature and influence throughout the community. Van Schwab is no exception.

David H. Wilson, of the firm of Wilson and Christie was elected to serve as Vice-President. A product of Harvard University and Harvard School of Design and a wartime aircraft structural engineer, he has not only developed a reputation as an outstanding architectural designer but served our Chapter well as chairman of the very active Committee on Professional Practice.

H. Parker Matthai, the new Secretary, will now have to find time to keep the Chapter records as well as fulfill his duties as a partner in the firm of Fisher, Nes, Campbell and Associates, a Commissioner of the Episcopal Diocese of Maryland and as soloist in one of the finest choirs in the region.

J. Prentiss Browne, will serve as Treasurer for the coming year. Active in the Kiwanis of Baltimore City, the Masons and Y.M.C.A. Community Extension, he has practiced architecture under his own name since 1953.

Paul L. Gaudreau and **Archibald C. Rogers,** Immediate Past Presidents complete the Executive Committee.

NEW MEMBERS:

The Baltimore Chapter welcomes: **W. Bolton Kelly** of Tatar, Singh, Kelly, & Associates, Planning Consultants, and **E. Hamilton Niles, Jr.** of Wilson and Christie as new associate members in the Chapter and congratulates **Charles A. DeMarco**, with Donald B. Ratcliffe, upon his elevation to Corporate Membership in the Institute.

FIRST IN NATION:

Cochran, Stephenson and Wing Architects, have established for themselves a distinct "first" with their contribution to the Nation's initial "Commerce and Industry Combined Health Appeal."

In order to eliminate the multiplicity of fund appeals for different Health research and service programs, nine of the leading national health agencies with active service programs in the Baltimore Area are joining forces for the nation's pilot program in this new concept of giving. This Appeal—CICHA—is the result of a full year of study and planning, and was developed at the request of business and labor organizations. Among its advantages are a single company drive for nine major health programs and the use of simplified time-saving and money-saving solicitation methods. The CICHA program has been endorsed by Mayor Grady and Governor Tawes as well as leaders of business, trade and labor organizations.

CHAPTER MEETINGS:

At the October meeting David Wilson, Chairman of the Committee on Professional Practice, presented a report on fees, including comparisons with other Chapters and regions and their impact on design. Proposed revisions to the Schedule of Fees were discussed and referred to the Executive Committee.

The December meeting featured a unique "black board" presentation and talk on the Civic Center by A. G. O'Dell, FAIA, architect of the project. Sketching as he spoke, he gave his listeners a feeling for the problems involved in the solution of this project along with some of his theories for solution.

The Annual (January) meeting was a delightful dinner occasion, with many wives and guests present to hear Dr. Louis A. M. Krause, Professor of Clinical Medicine at the University of Maryland, part-time archeologist and Bible scholar, relate these three fields in an entertaining talk. Architects are inclined to assume a rather proprietary attitude toward archeology and it was refreshing to hear how it has been useful to another profession. We also picked up some useful pointers for reading the Bible. As noted elsewhere the new officers were elected and installed.

APPOINTMENTS:

Thomas R. Silcox has been appointed Coordinating Architect for the Episcopal Diocese of Maryland.

NEW OFFICE:

William Albert Lewis announces the opening of an office for the practice of architecture at 714 Park Avenue, Baltimore 1, Maryland.

COMPETITION:

Mastic Tile Division—The Ruberoid Co.
Second Annual $25,000 Design Competition
Junior High School, High School and Community College
"Education for Youth and Adult—Recreation for all the Family."
Deadline for Entries May 15. Submissions June 30, 1960.