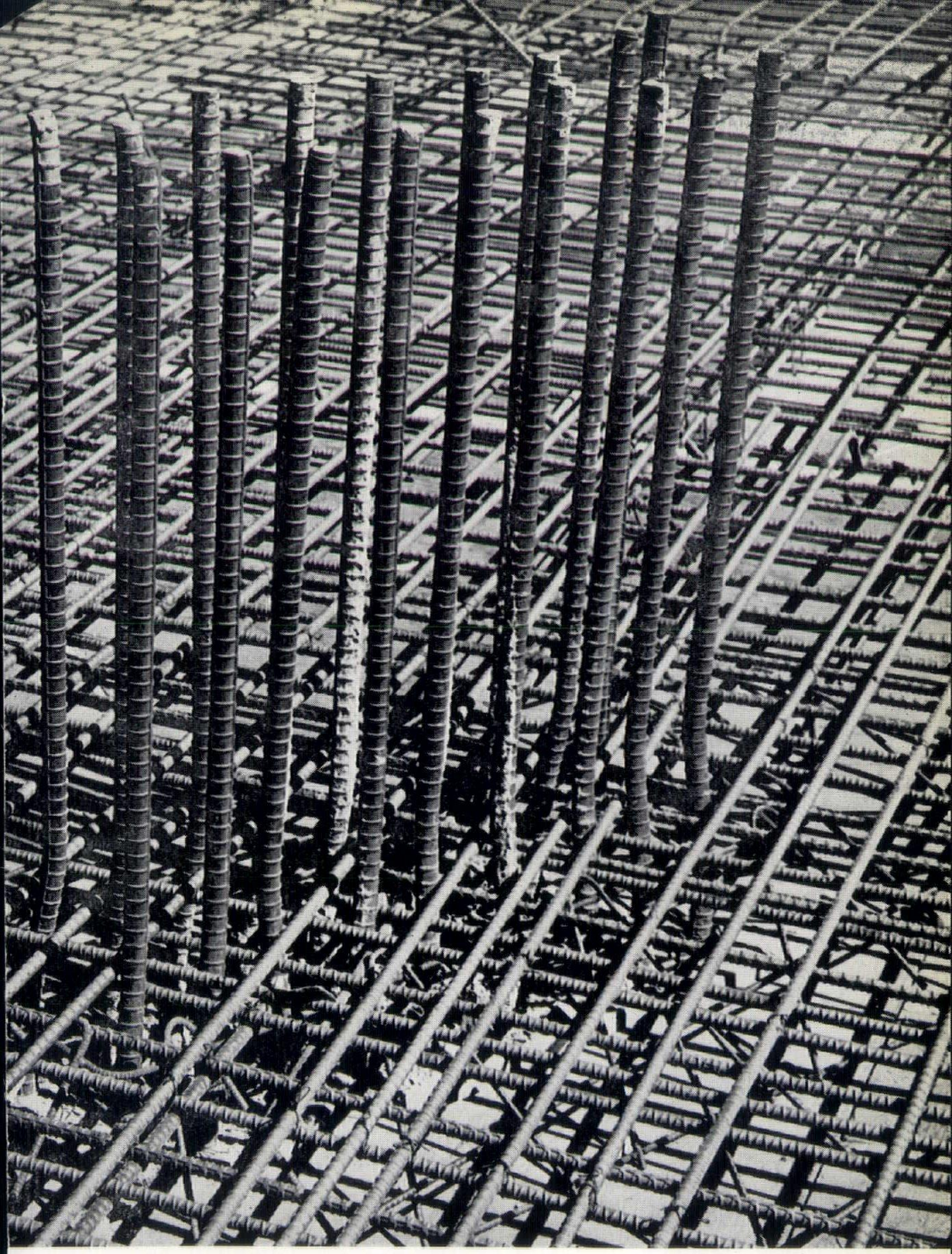

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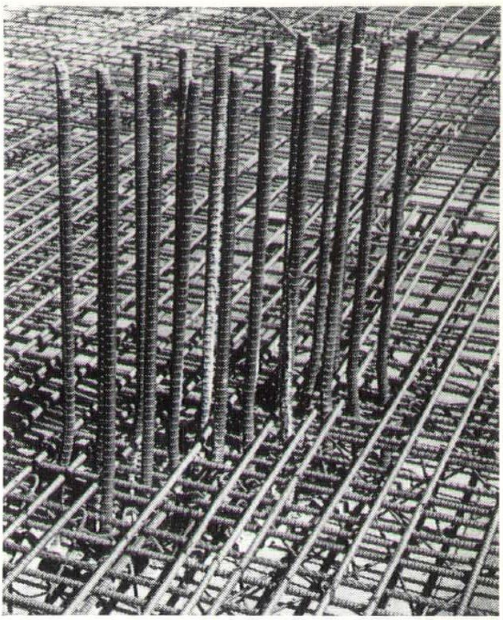

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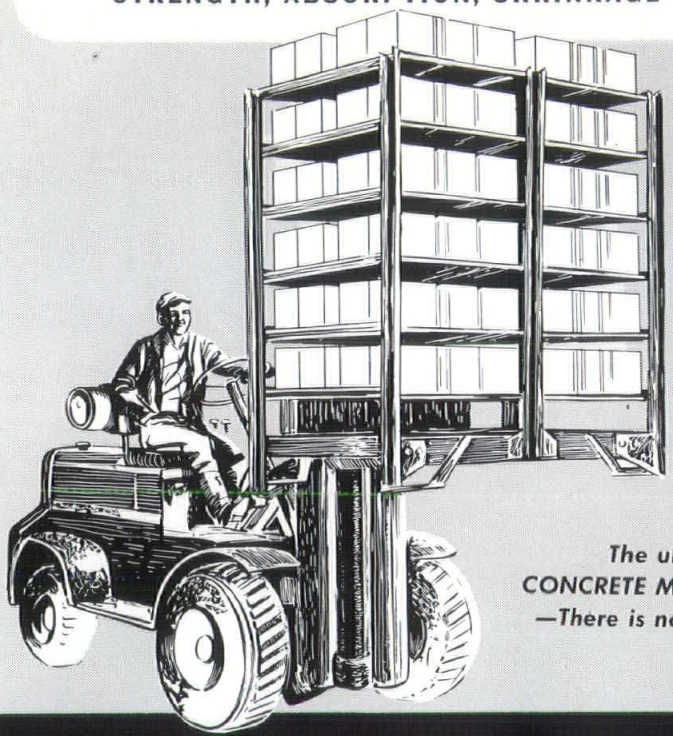

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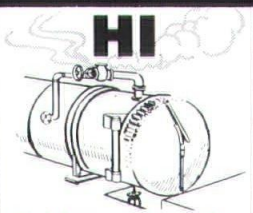

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## EDITORIAL

Television, radio and the newspapers speak of the loss of liberty and the dangers of conformity. This they say is a product of the social technological character of the times. It may be true, but if it is, the danger lies most in the dedication of mass media.

The influence of a Boris Pasternak or a Frank Lloyd Wright while it does not directly affect the mass drive toward acceptance somehow cuts across the public conscience, and thereby sets a standard. It seems that the principle itself is not so important; but it is rather the acting upon a principle which is important; and, this is the role of the individual be he Architect, writer or politician. Group and individual always counter-balance each other. The one a measure to which the other aspires.

Freedom and the principles upon which action is based are not at odds with one another for freedom has to do with the making of decisions; or, if you please, judgment tied to knowledge. Anything less would be arbitrary. The more advanced the technology, the broader the base need be upon which the making of decisions rests. And as this base reaches the limits of individual capacity it becomes, of necessity, fragmented.

So it is that one decides within the limits imposed by the facts of a given time. And as development accelerates and population increases these limits become more circumscribed in relationship to the whole, but gain perhaps a broader dimension over those which governed our fathers.

---

## PORTRAIT OF AN ARCHITECT

**By RALPH RAPSON**

A fascinatingly frustrated person passing as an exhaustingly exacting aesthetic expert on the basis of being able to develop, in an impossibly short interval of time and after innumerable changes, an infinite series of incomprehensible answers calculated with slide-rule inaccuracy from vague assumptions based on debatably documented data taken from ill-formed apprehensions and painstakingly produced with instruments of problematical precision by a pleasant peasant of dubious reliability, indeterminate integrity, but monumental mentality, for the avowed purpose of beautifying, amazing and confounding a defenseless and unsuspecting citizen who was unfortunate enough to have asked for the conclusions in the wrong fashion in the first place.

## OUR CITY'S TOMORROW — THE NEED FOR PLANNING

**By A. DEAN BARNEY, Assistant Planning Director, Salt Lake City**

Thousand of years ago the Greek philosopher, Aristotle, made the statement, "Men come together in cities in order to live; they remain there in order to live the good and full life." Although this has been so since earliest times, one has cause to wonder just to what extent Aristotle's philosophy needs to be modified in the light of today's megalopolis. How effectively are today's cities providing their citizens with the opportunity to live the good and full life? Basically the opportunity to do this is the prime goal of City Planning.

City Planning has been defined as the process of substituting foresight for hindsight. It is a means of preparing programs and courses of action for accomplishing approved objectives. It attempts to foresee emerging problems and devise means of dealing with them before they become acute. It seeks to preserve the good features of a community, improve those which are substandard and provide plans for an orderly development in the future. For those who doubt that much can be done to improve inconvenient or undesirable features of a city, remember, that while this cannot be accomplished over night or even in a year or two, startling changes do occur in time. Within 50 to 100 years from now the majority of the buildings in a city the age of Salt Lake City will be replaced. This gives great impact to the necessity of daily guidance based upon a comprehensive long-range plan. City Planning does not use a magic wand. Its methods consist of the systematic collection of information, analysis, preparation of plans and recommendations for action. It has long been recognized that if a city is to avoid many costly and sometimes crippling errors that are always associated with their expan-

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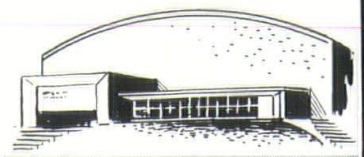

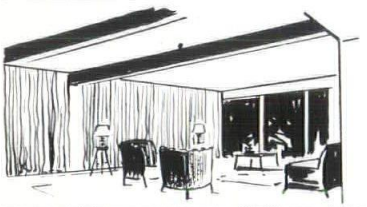

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## OUR CITY'S TOMORROW — THE NEED FOR PLANNING

(Continued From Page 3)

sion, development and change, it is necessary that they utilize a long-range plan. Using the term long-range plan in the singular, however, is misleading and hazardous without the understanding that there never can be a single plan which will suffice as a guide for a city's optimal development. Change is a continuous phenomenon common to all communities so all long-range plans must be continuously modified, updated and improved. With a good plan the city can stride into the future with confidence.

The plan must be comprehensive in nature in order to fulfill properly its role of coordinating and activating agent, and it must be based upon accurate, reliable data. It must never be forgotten that above all "planning is for people." Population figures which indicate past, present and future numbers, locations and characteristics are essential. Also information about traffic and transportation and calculated predictions concerning traffic patterns are necessary. Geographical, historical and economic base studies form a sturdy foundation upon which to build a plan for the future. Fundamental also is a knowledge of the land use pattern of the past and present to aid in determining desirable patterns of the future. Salt Lake City has a good "personality" and this can be maintained and improved by employing knowledge about local traditions, local aspirations and community spirit, coupled with planning.

The plan should have elements which are concerned with transportation and major street systems, parks and recreation, future land use and zoning, civic center and other public buildings, schools, hospitals, water system, sanitary sewer system, storm sewers and drains, housing conservation and rehabilitation. Of equal importance is a realistic financial plan which points the way to the accomplishment of specific goals. When all the elements of the plan are viewed together, they can be seen in their proper perspective and each can be given the needed emphasis at the right time and in the correct manner. With a priority list established, work can progress with the assurance that it is justifiable and that the most economical use is being made of the money expended.

Salt Lake City was laid out by its founders according to a pre-conceived plan. Ten square acre blocks and 132 feet wide streets in a gridiron pattern were the general rule in the city center. For residential purposes the ten-acre blocks were divided into 8 lots of 1.25 acres each. This provided room on the lot for a garden and fruit trees and flowers in addition to the home which was to have a 25-foot setback. Unfortunately, much of the subsequent re-subdividing of the ten-acre blocks was not so desirable for their intended use. In some cases intensive subdividing of the periferal area has left rather inaccessible, unused open areas in the center of the large blocks. More often narrow streets, alleys and courts have disected the blocks and without the maintenance of proper setback and yard areas, over-crowding has resulted. Now there are many pockets of deteriorated, crowded housing areas in Salt Lake City, particularly in the older residential areas bordering the downtown commercial and industrial districts. Present codes and ordinances are designed to prevent a reoccurrence of this particular type of housing blight but much more needs to be done by way of housing codes and urban renewal to accomplish desired housing conservation, rehabilitation and, if necessary, removal. It is hoped that through required legislation, education of and support from the people and from the public servants, that urban renewal provisions can be utilized for better future living conditions.

Until recent years, there has been little formal planning for Salt Lake City and most of the informal planning was that instituted by its founders. While it is true that this void has been partially filled by many far-sighted and interested individuals through the years, it has not been adequate in the over-all planning picture and has left many improvements to be desired. The zoning ordinance initiated in 1927 was the first formalized planning attempt made by Salt Lake City. Much good has come from it, but because it was not based on comprehensive planning studies it was not sub-

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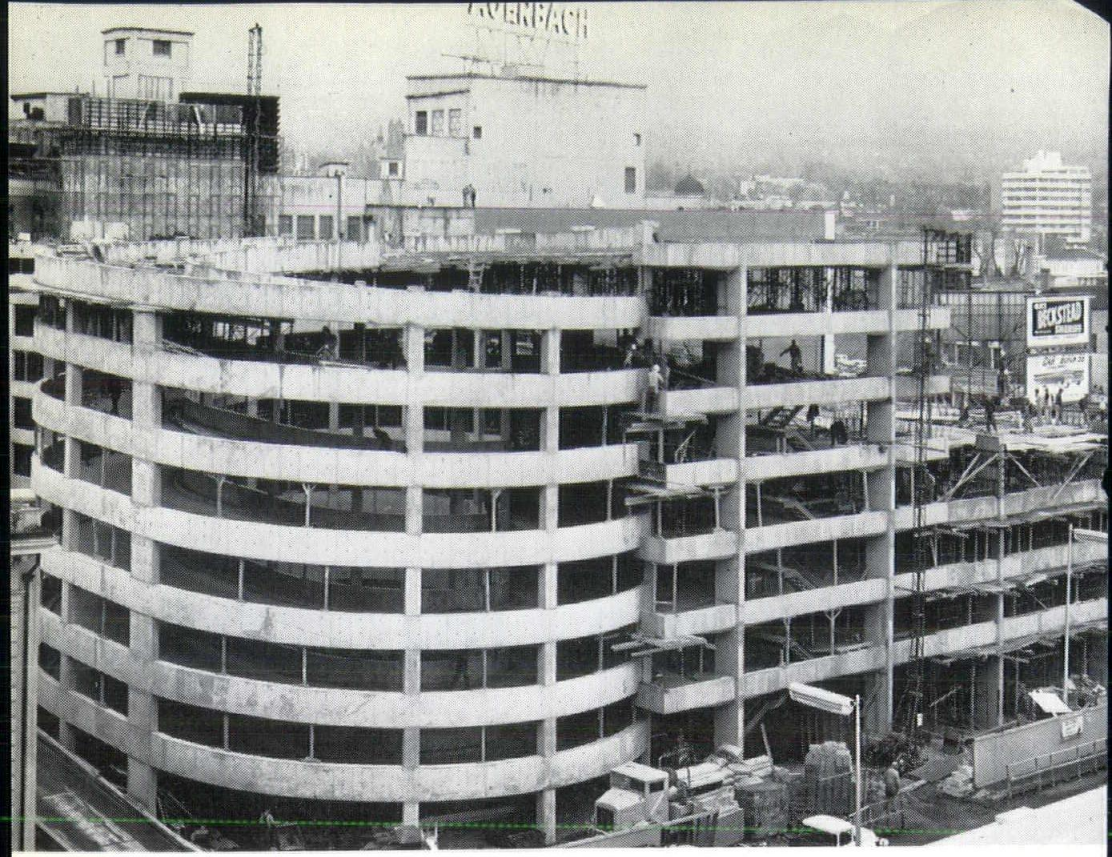
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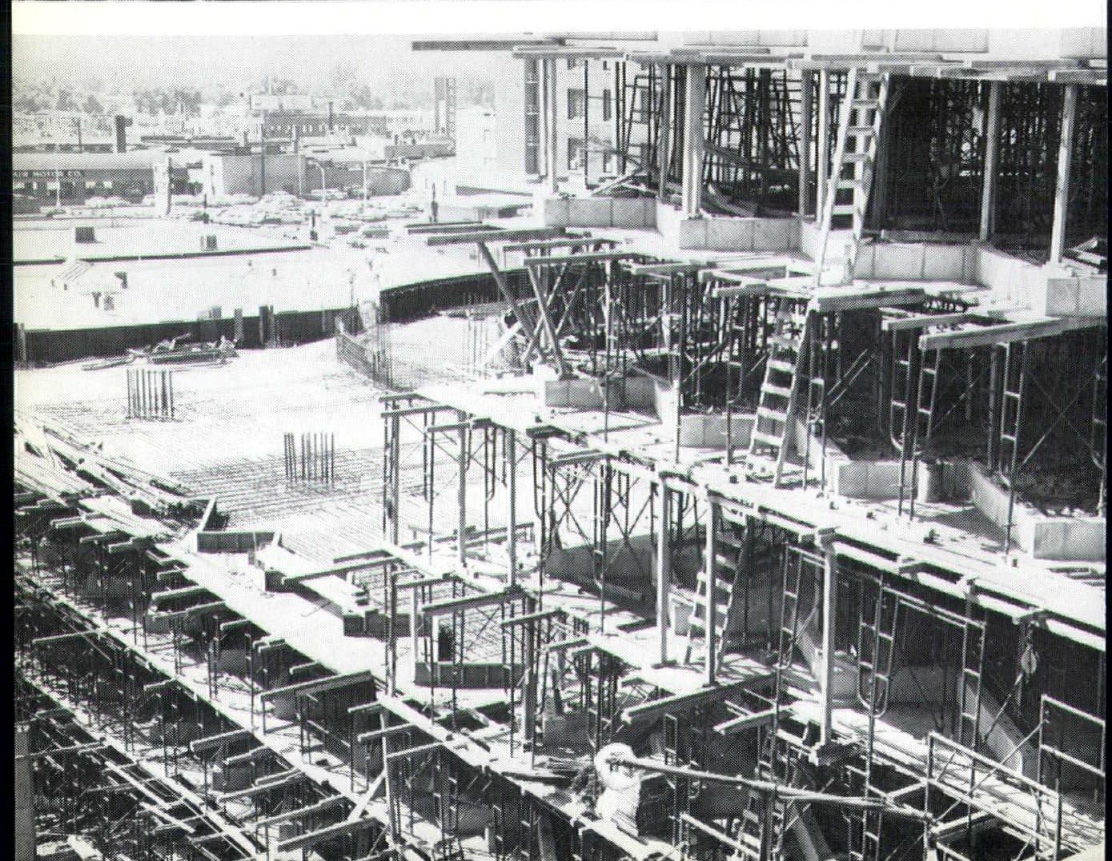

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## OUR CITY'S TOMORROW — THE NEED FOR PLANNING

(Continued From Page 5)

sequently the effective land use guide that it might have been. In 1945 a Planning Commission was organized to act as an advisory body to the City Commission in matters of planning. Later a small full-time professional staff was secured to aid the Planning Commission in performing its duties. Although recently there have been additions to this staff, its size is still woefully inadequate to accomplish the planning task required of it.

The major street system of Salt Lake City s one of the elements of the master plan hat has received careful consideration in ecent years. Originally the streets were constructed wide enough to "permit the 'U' turn f a span of oxen without making the driver cuss." These wide streets have been great boon to today's traffic where it is desirable to have through traffic. But for local residential streets unnecessary width is a detriment as is evidenced in those areas where only the center section of the right-of-way has been hard-surfaced leaving soft shoulders and no curbing. Where the entire street is hard-surfaced to alleviate the dirt areas not needed for traffic purposes, it becomes a through artery. The result is that most streets are through arteries whether they should be or not. The major street plan as officially adopted indicates those streets which are of sufficient width, those which are to be widened and those which need to be extended. It also shows the location of the freeway through Salt Lake City and proposes a parkway system to connect parks and scenic areas. This plan assures that there will be an effective traffic circulation pattern in the future as Salt Lake City continues to develop. Combined with the adoption of an official map it provides that no construction will take place in the required right-of-way of those streets to be widened or extended. A fine example of this is the official map on the proposed widening of Second West Street. All the new buildings that front this street have

(Continued on Page 9)

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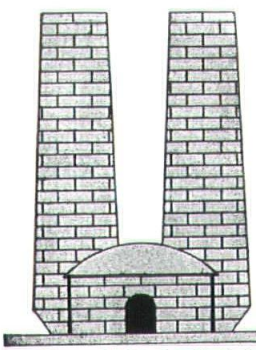

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## OUR CITY'S TOMORROW — THE NEED FOR PLANNING

(Continued From Page 7)

been set back the specified amount to provide for the anticipated widening.

There is presently being completed a master plan for parks and recreation for Salt Lake City. In light of the increasing population growth and diminishing open areas in Salt Lake City it should be with a sense of urgency that everyone concerned with recreation approach the problem and immediately take steps to provide a solution. For example, Salt Lake City needs to acquire the following additional acreages in order to be adequate for the year 1975 according to National Recreation Association standards: 150 acres for playground use, 225 acres for play fields, 282 acres for golf courses and 627 acres for parks, parkways and other miscellaneous open recreation. Adequate swimming facilities would necessitate five additional indoor swimming pools, twelve additional outdoor swimming pools, totaling 108,000 square feet. Other recreational facilities are equally needed. Convenient location as well as amount of recreational facilities must be considered. There should be a major playground within a half-mile of every home and one acre of playground should be provided for each 800 people. This standard will provide for adequate facilities for the youngsters who have to walk to their places of recreation. A play field to take care of the needs of both the young and old should be within a mile of every home and again should be on the basis of one acre for each 800 of the present and estimated future population. Parks, golf courses and other specialized recreation facility acreages also must be provided in large amounts in order to approach national recreation standards.

Salt Lake City is presently in a turmoil concerning the proposed location for a number of large public buildings such as the Federal Building, a city and county library, public office buildings, civic auditorium, etc. These buildings should be located in accordance with planning procedures and in coordination with all of the other elements of the master plan. In 1943 a special planning study was sponsored by the Board of City Commissioners of Salt Lake City and with the cooperation and assistance of the National Resources Planning Board as a part of a cooperative post-war plan program for the Wasatch Front area of Utah. It included a fine Civic Center in the vicinity of the present City and County Building. Had there been some success in the implementation of the proposed plan, Salt Lake City would not be in the dilemma that it is presently regarding the location of public buildings. It may be noted here that this is true also with other elements of the proposed 1943 City plan that were not followed. Because the plan was not followed nor was it revised to meet changing situations, it has become outdated and has lost much of its validity and a great deal of its usefulness.

Planning is charged with the responsibility of drafting and administering an ordinance regulating the subdividing of land. The existing ordinance is seemingly adequate to control subdividing in Salt Lake City. It provides that all subdivisions be given approval by the Planning Commission prior to their acceptance by the City Commission. The lot sizes are controlled and all street improvements are required to be installed according to specific standards before approval is granted. In some planning regions an additional requirement is imposed on the subdivider which might be good for Salt Lake City to adopt; the subdivider provides a stipulated percentage of all open areas or an equivalent amount of money to be used for recreation purposes within the subdivision.

Our City's tomorrow — what will it be? That depends upon the caliber of the planning and the effectiveness with which the plan is accomplished. These in turn are dependent upon the will of the people and the degree to which they manifest a desire to have a well-ordered city in which to "live the good and full life."


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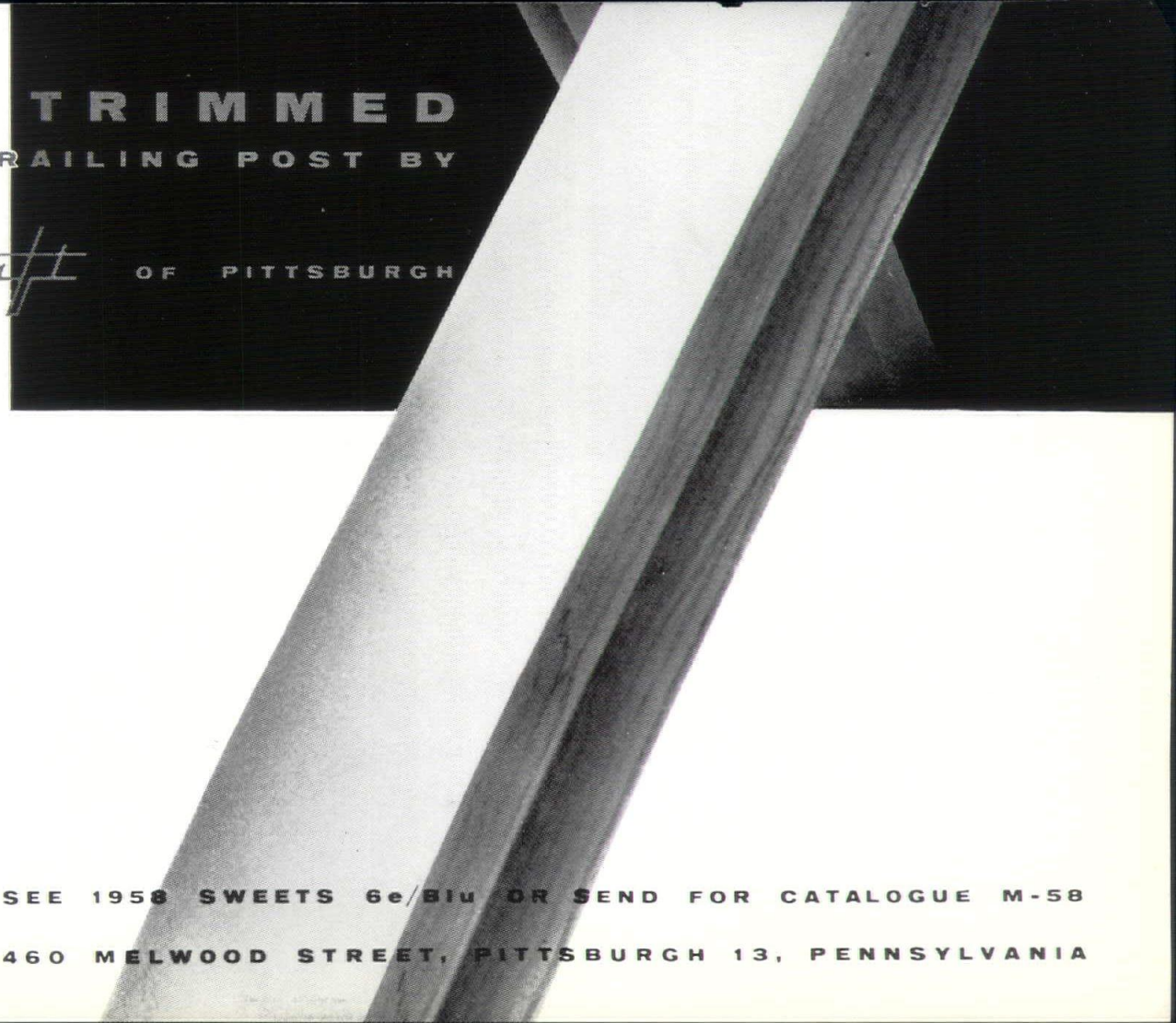

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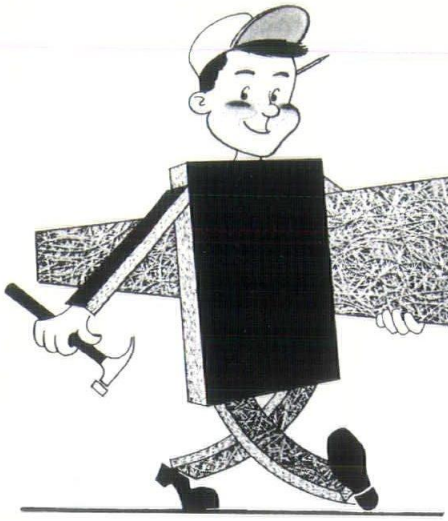

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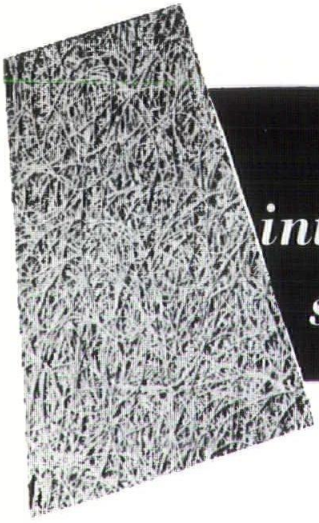

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## THE RELATIONSHIP BETWEEN ARCHITECT AND CONTRACTOR

By LEWIS A. REDGATE — Architect

Little has been written, from the viewpoint of an architect, on the subject of the administration of construction and relations with general contractors. This may be in recognition of the fact that it is impossible to learn how to supervise or superintend construction by studying books. Of course, the same thing may be said about most of the other divisions of architectural practice. All that a book on the subject of architectural practice can do is to give hints as to the successful procedures and to warn of pitfalls. The learning must come from doing. Unlike design however, experience in the administration of construction cannot be secured in the schools. It is even difficult to get it in the office of another architect. Most of this valuable experience can be secured only under situations in which one must carry a heavy responsibility: It is especially worthwhile, therefore, to pay attention to admonitions and to attempt to profit from the experience of others in this field.

Most of the secret of success of many an architect's relations with contractors results from a conscious or unconscious understanding of human nature or practical psychology. An important generalization in this field is that strictness and even severity, on the part of those in authority, will be accepted by most persons if they believe the person in authority to be just. Simply the knowledge that equally severe treatment is rendered to all persons in the same position often induces contractors willingly to accept high standards established by the architect. Most contractors (even in this day of commercial attitudes) will still react to appeals to their pride in their work. It is a good policy to assume that the contractor wants to do a good job — at least, until such time as he may demonstrate otherwise. To be safe, on the other hand, one must be watchful, and if the contractor is found to be bent upon giving as little as he can, unusual measures may be necessary. Fortunately, since the better contractors wish to establish reputations for quality work, cooperative attitudes are often possible.

Once standards have been established for a building project, they should be maintained as consistently as possible until the job is finished. Since absolute consistency is impossible, allowance for some slight lowering of standards during the progress of the job should be made at the outset. To raise the standards after they have been once understood cannot but cause serious dissatisfaction. A realistic approach in the final standards of acceptance, on the other hand, may leave the contractor happy because he has saved an expense he has counted on meeting.

Most contractors also will react favorably to honest attempts to save them expense. This should never be done, of course, when it results in detriment to the building. Sometimes minor substitutions of materials may be permitted (always with the knowledge and consent of the owner), but if the saving is sizable, the contract price should be changed as a result. Hints by the architect as to efficient methods of securing desired results may be appreciated by the contractor. Furthermore, promptness in the checking of shop drawings, the expediting of needed drawings, and the prompt issuance of certificates of payment most certainly will be given favorable notice by the contractor.

W. L. Bowman in The Brickbuilder, concerning an architect's liability to the contractor, says the following:

> "An Architect's duty to a contractor consists chiefly in giving honest and fair estimates of work done or certificates for payment at the proper time; reasonable, honest, and timely decisions on all matters within his scope, either as agent of the Owner or as an arbitrator; and written orders for alterations, additions, extras, or omissions, only when he is authorized by the Owner to give such orders. A failure on the part of an Achitect to perform these duties, except perhaps his failure as an arbitrator, creates a liability to the Contractor."
>
> "For a general statement it may be said that a nonfeasance, which is the neglect of an architect to do some act which he was bound to do under his employment, the Architect is not responsible to others than his employer. When, however,

(Continued on Page 14)

## THE RELATIONSHIP BETWEEN ARCHITECT AND CONTRACTOR

(Continued From Page 13)

the Architect does a lawful act or his duty in an unlawful or improper manner, he is always responsible to the employer and often to the injured party."

This statement by Bowman might seem to be rather loose and, at the same time, rather sweeping, but, upon giving it considerable thought, one realizes the accuracy of its contentions.

There is probably no means so effective for happy relations between the architect and the contractor as a sincere feeling of friendship. When all are men of good will, there is no reason why the architect should not be friendly with both the contractor and the owner and still serve as judge between them. The architect should avoid accepting gifts from the contractor, but should not hesitate to permit the contractor to give him a sincere recommendation to other prospective clients. Such favors may be reciprocated. Making known the fact that a contractor's name appears on an architect's restricted list of those eligible for important work is the most effective recommendation that can be given.

An architect or an engineer administrating a construction contract is often in a position either to help or seriously to hurt the contractor financially. Upon acceptance or rejection of questionable materials or workmanship may depend the question of whether the contractor will make a profit or suffer a loss. Specifications cannot be written with sufficient definiteness for all branches of the work to remove all questions as to the acceptability of materials and workmanship. In no division of architectural practice, therefore, is there a greater temptation for dishonesty than in the administration of construction. Even fundamentally honest contractors may be tempted to attempt bribery, if it appears that in no other way can fair treatment be secured. The foregoing paragraph opens up avenues of exploration which it is considered are not in the scope of this brief article, however, unfortunately for our profession, such cases have occurred.

(Continued on Page 19)

## THE MUSEUM OF FINE ARTS OF HOUSTON

**MIES VAN DER ROHE — Architect**

This project is an addition to the existing Museum building, and is the first construction stage in a proposed master plan for the museum. The new building encloses a court on the north, formed by the two wings of the existing building.

Storage and service facilities, studios for the Museum school and minor exhibition space are provided in the basement. The main floor is primarily a large exhibition hall for the Museum. The stairs at the east and west sides of the hall allow circulation to the basement and to second floor mezzanines, also used as exhibition space, that lead to the existing second floor galleries and will connect with the future second floor. Circulation connections have been provided in the basement and on the main floor to public and administrative spaces. The raised terrace on the north forms the new main entrance to the Museum. The east and west entrances are for the Museum school and receiving, respectively.

The basement and main floor construction is flat slab reinforced concrete construction, and the superstructure a welded structural steel frame. The roof is supported by four 82-foot-long, 5-foot-deep plate girders above the roof plate. This system allows a column free, flexible exhibition hall, approximately 10,000 square feet in area. The ceiling height on the main floor is 30 feet. The building is enclosed with neutral gray tinted plate glass in steel bar frames supported by steel wide flange mullions on the north, east and west, except for the outer bays on the north which are brick. Other materials used include Roman travertine for the entrance stairs and terrace, green Venetian terrazzo for floors and interior stairs and plaster for ceilings and major walls.

General lighting for the main hall is from the perimeter of the ceiling and outlets for supplementary exhibition lighting are provided in the floor and ceiling. The building is completely air-conditioned.

The proposed garden will provide the Museum with an outdoor space for the exhi-

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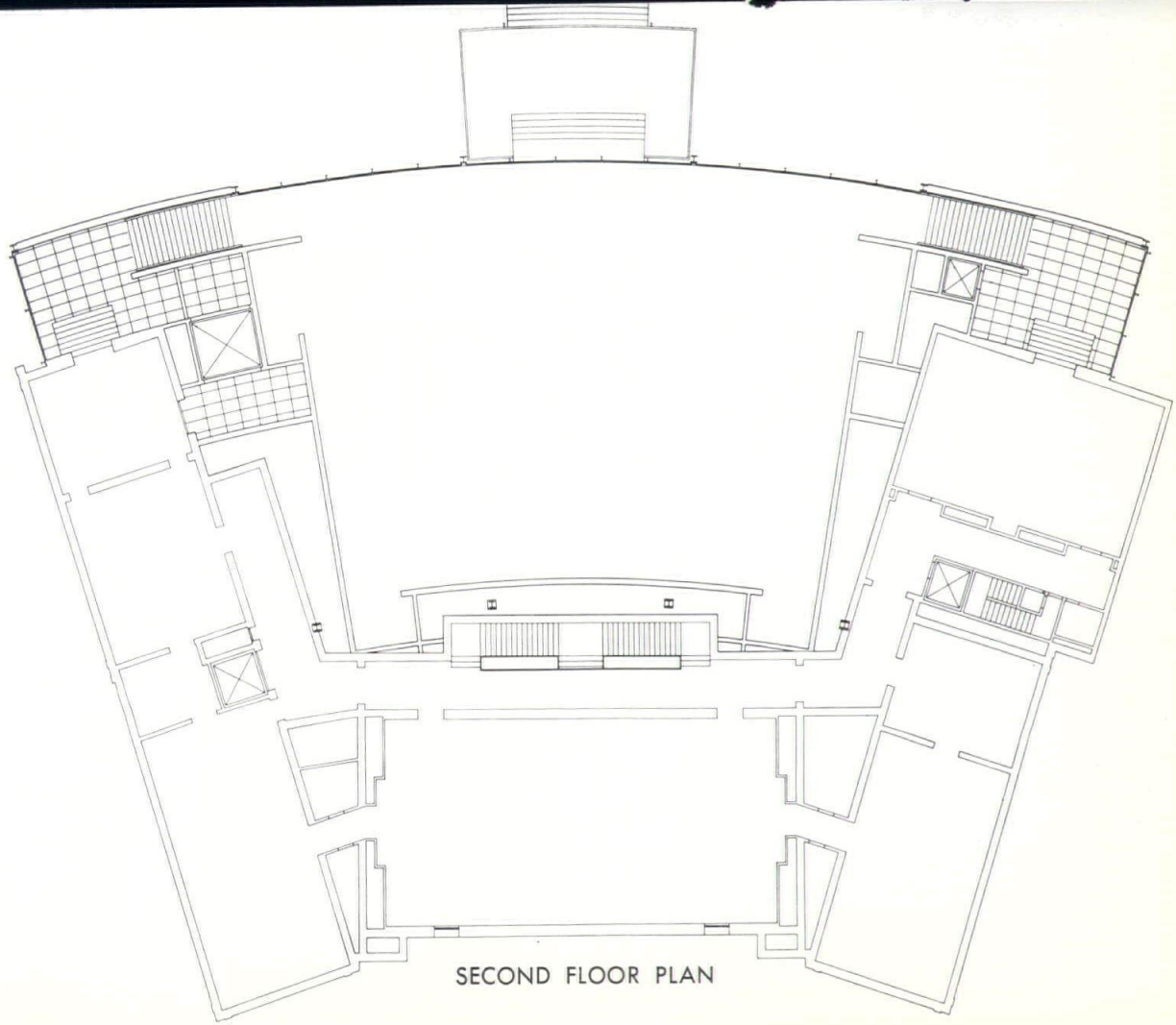

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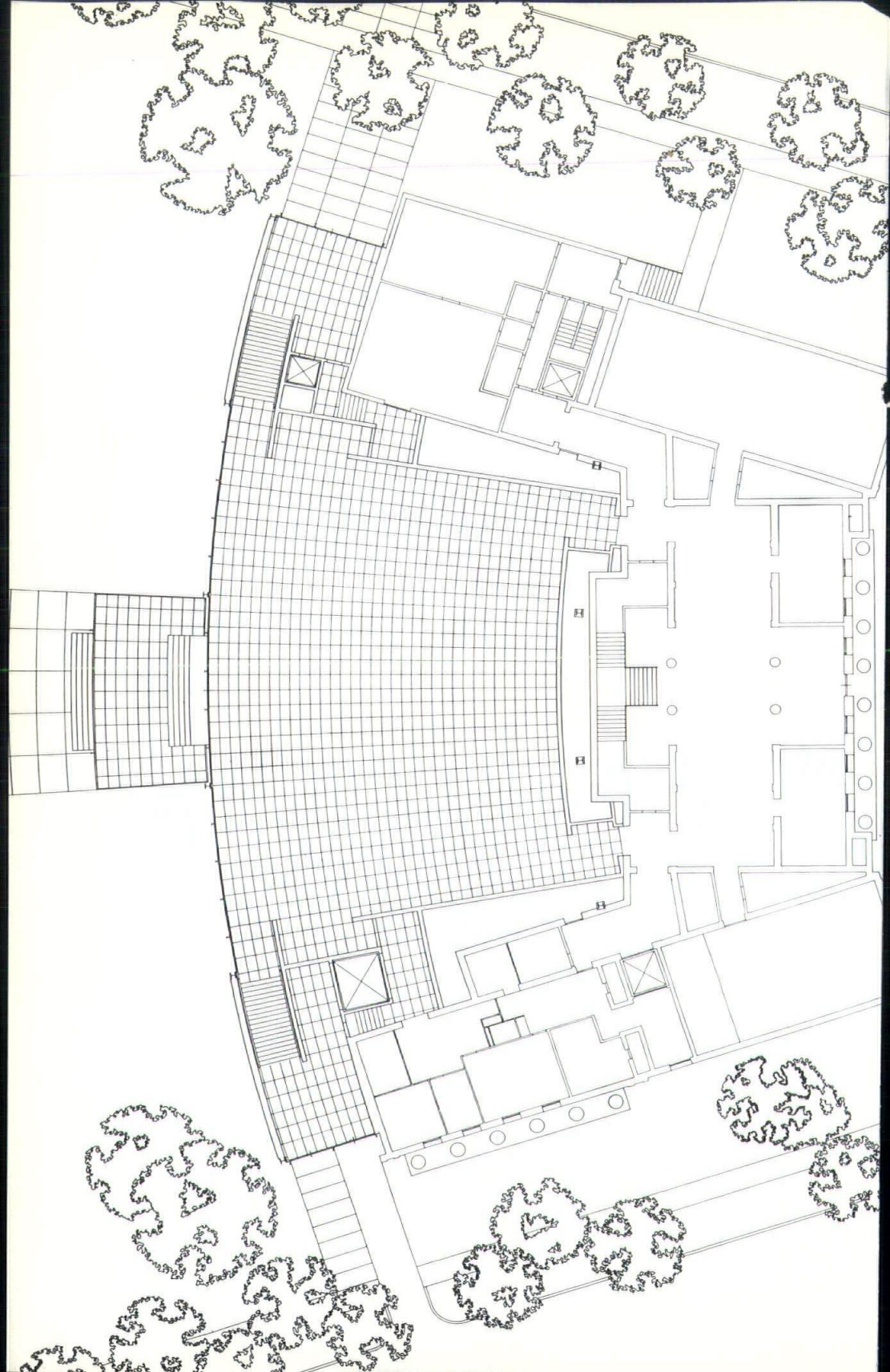

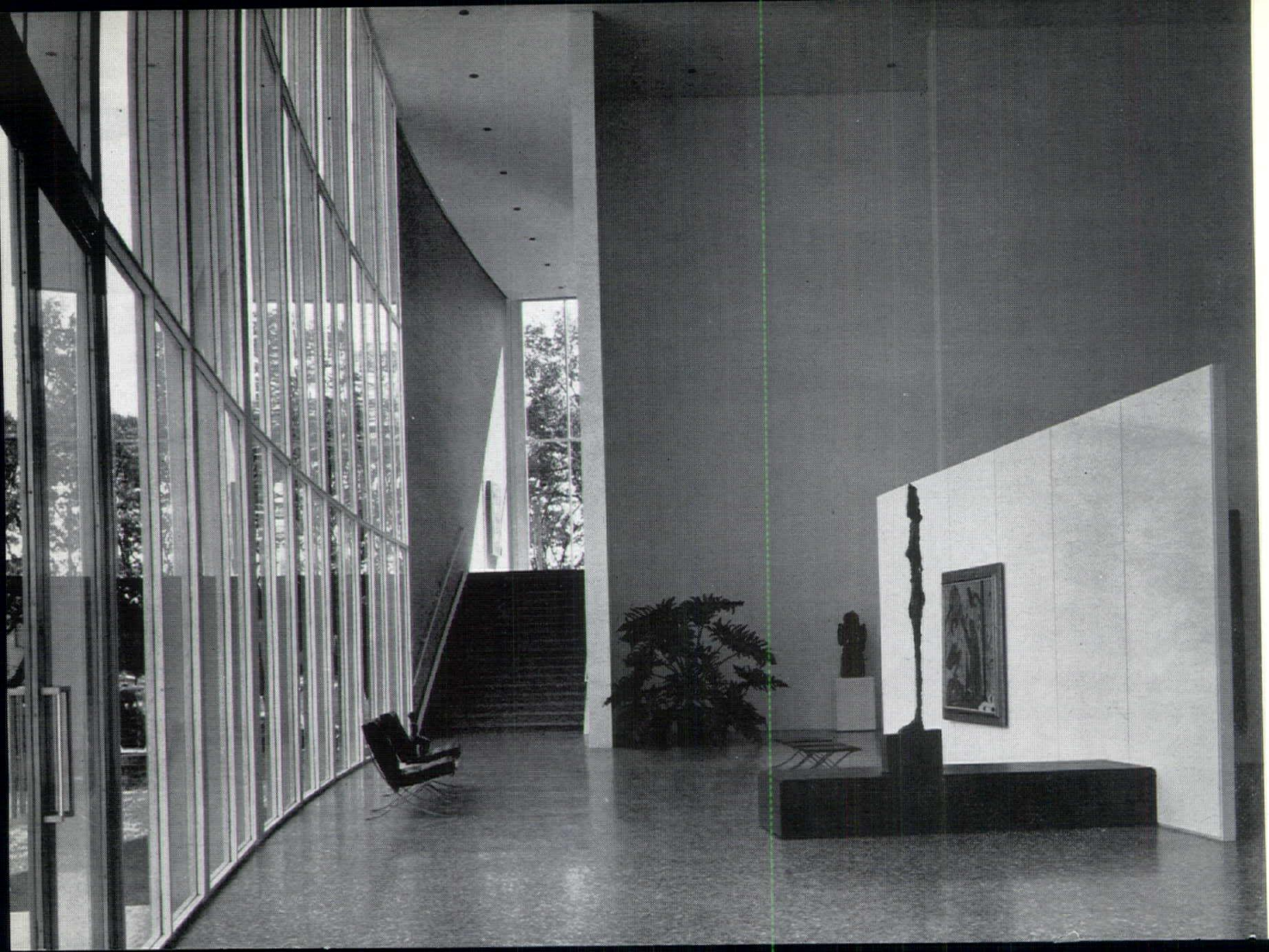

MUSEUM OF
FINE ARTS

HOUSTON, TEXAS

MIES VAN DER ROHE
ARCHITECT.

## THE RELATIONSHIP BETWEEN ARCHITECT AND CONTRACTOR

(Continued From Page 14)

We have not, so far, commented upon the construction organizations which, in the opinion of the writer, seek to secure unto themselves the mantle of the master builder of the Renaissance period. I am referring to the so-called "contemporary package builder" who cuts across the traditional system of construction where the responsibility of the building is divided between two individuals: the architect who interprets the owner's wishes into plans and specifications, and the contractor who constructs the building from the plans and specifications.

This traditional system is still not universal even in the United States, and is less universal in parts of Europe (France, Belgium), although in England it is quite universal.

An interesting contrast or comparison could be drawn between the master builder of the Renaissance and the Twentieth Century "package builder." However, it is not within our province at this time.

Finally, it would seem advisable to restate certain specifics which should guide the day-to-day mundane relations with contractors:

1. To assist in securing the building designed by the architect with a more complex involved project, it is recommended that full-time architectural supervision be provided with the cost of the clerk of works (hired by and under the supervision of the architect) reimbursed by the owner.
2. The architect should clearly define between contractors: Name the general contractor as such and refer to sub-contractors as contractors.
3. Clarify which governs in case of discrepancies — by stating whether drawings supersede specifications or vice-versa.
4. Make clear that no addenda or bulletin will be issued during the immediate period before bidding, say 72 hours. This will eliminate much confusion.
5. Set bidding time during the late afternoon or evening unless other time is requested by the owner.
6. Make clear who will do the clearing up of debris. Also make it clear as to who will be responsible for providing temporary water, electric power, etc.
7. One way to eliminate trouble after bidding is to have the general contractor list the various of his sub-bidders. This list need not be read at the bid opening, but will provide control over the sub-trades.
8. Specifications, whenever possible, should be organized to avoid jurisdictional disputes. However, the total responsibility should be placed squarely in the hands of the general contractor.
9. Where separate plumbing, heating and electrical drawings are provided, these drawings should carry all the details and be complete for the particular trade.
10. In the administration of a job, deal with the general contractor on all matters. Do not get bogged down in individual dealings with each individual sub-contractor.

*Bibliography* —

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---

## THE MUSEUM OF FINE ARTS OF HOUSTON

(Continued From Page 14)

bition of sculpture. This garden will be entered from what was formerly the main entrance to the Museum. A raised terrace similar to the one at the new main entrance forms the connection between the building and the garden. A reflecting pool forms the limit of the garden at the south end and low walls enclose the space on the east and west. The garden has been planned in such a way that the large trees on the site will not be disturbed. Roman travertine is planned as the material for the paved surface and the garden walls.

## Ray Robinson *says*

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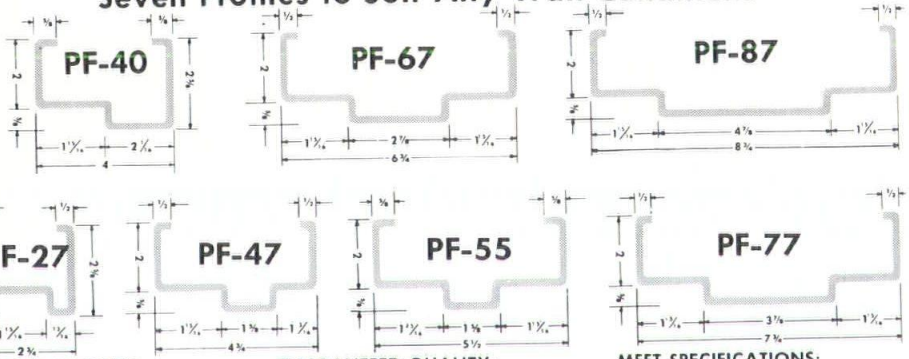


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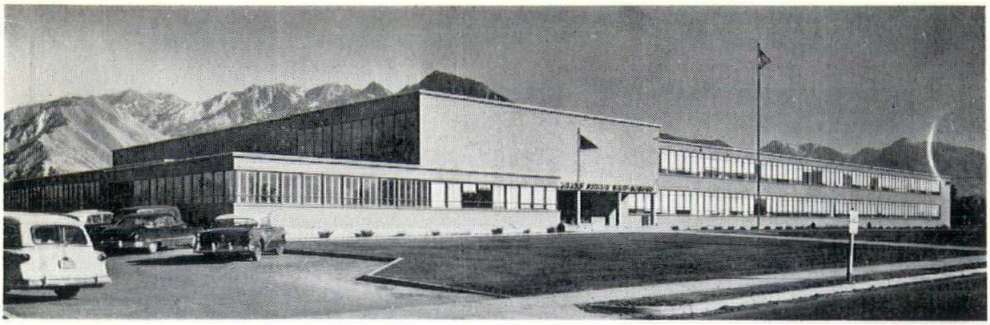

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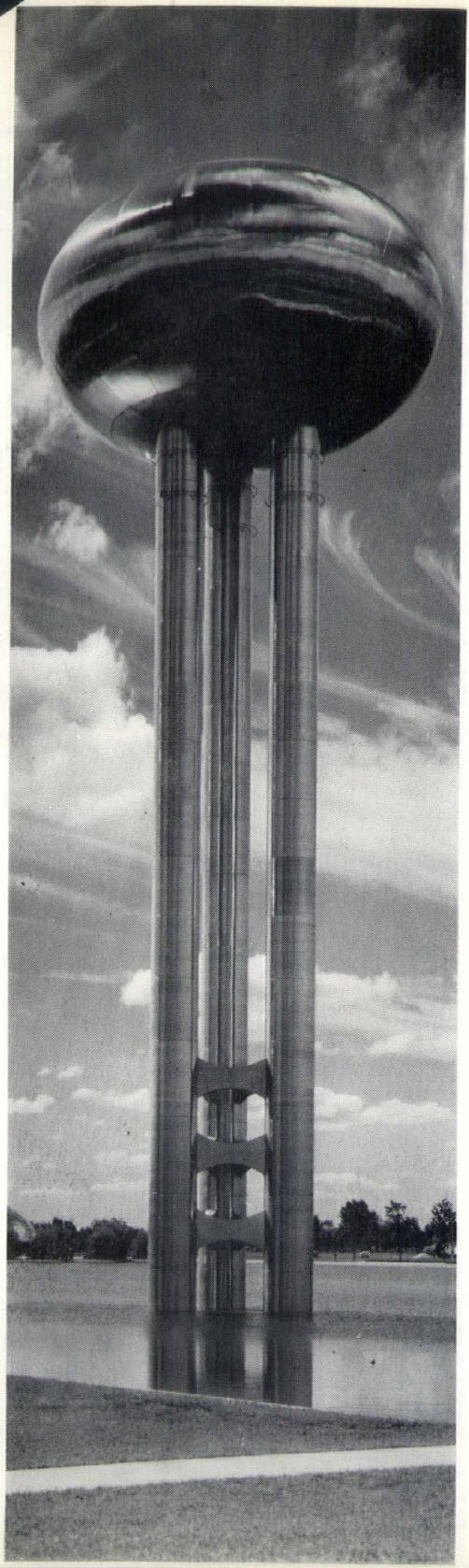

AUG - SEPT 58



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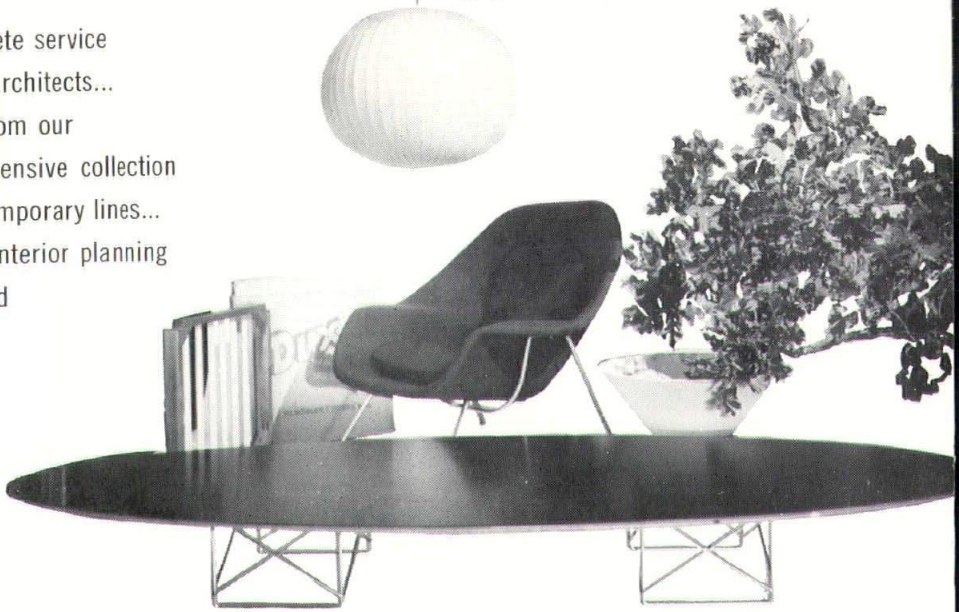

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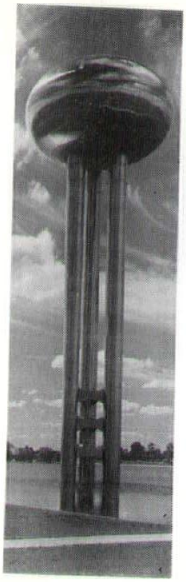

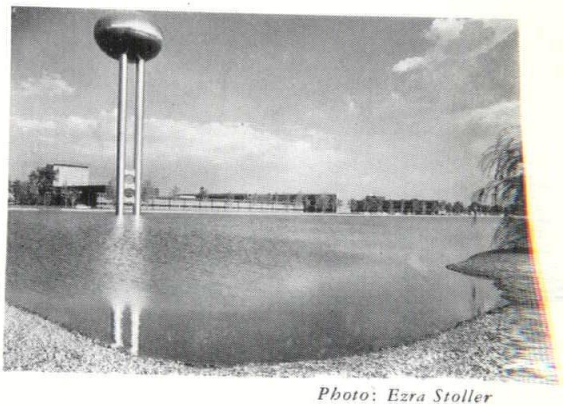

*Photo: Ezra Stoller*

**THE COVER:**

**ARCHITECTS DESIGN WATER TOWERS**

*Eero Saarinen and Associates*

Architects designed this handsome water tower for the General Motors Technical center, Detroit, Michigan.

The tower itself is made of type 302 stainless steel plate. Elipsoid in shape supported on three legs it stands 138′ tall and has a capacity of 250,000 gallons.

At the rear is the aluminum sheathed G. M. styling center partially screened by a 115-foot water curtain along the west side of the artificial lake.

## EDITORIAL

Critical evaluation of Utah Architecture, since that is what we care about the most, is almost wholly lacking. Some buildings are published, many are not. The bad are accepted along with the good and no one cares unless the air-conditioning doesn't work. Part of the fault lies within the pattern established by national publications. These have a certain orientation toward circulation and thereby suffer the pressure of public whim. However, the real fault; more poignant, more disastrous; comes from accepting the business side of Architecture as more important than the Architecture itself. No matter how good the business reputation may be, a bad solution is still a bad solution.

Not the public, not the magazines, not even the professional journals or societies can be expected to take responsibility for that which Architects build.

It is assumed that self-criticism or discipline is instilled within the architect during his school years; and that experience sharpens his faculties, gives him direction, discernment and confidence in his own judgment. Lacking self-judgment, it is easy and thoroughly fashionable to direct criticism against others; say, the government. For example, violent controversy rages over the extension of the East front of our nation's capitol (too much money is the cry); but, more damage is done in our city through the addition of store fronts, hooked together like trains and strung out along the approaches to the city, than a dozen remodelings of the nation's capitol. This anachronism should be kept in perspective. It doesn't merit the full attention of the Body Professional. Rather, we should focus our attention upon that which is new and important for our times; and judge each building by its contemporaries, not only in Utah but the rest of the nation as well.

Being physically isolated by the Rocky Mountains on the East and the great Salt Desert on the West, we plead lack of knowledge, but alas in this era of rapid transportation and mass communication such isolation as exists is only present in our minds.

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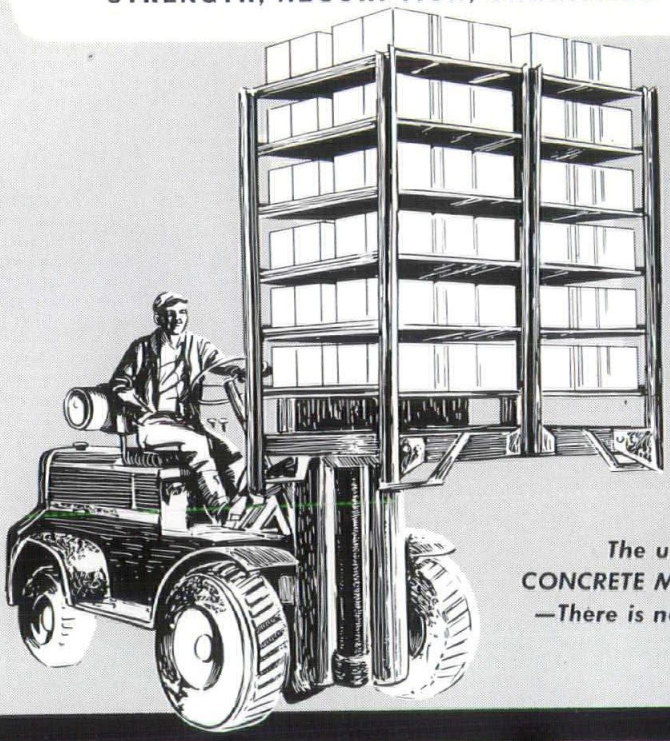

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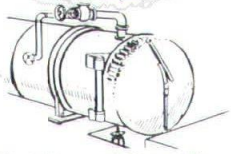

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## THE ARCHITECTURAL AREA AND VOLUME OF BUILDINGS

Reprinted from A.I.A. Document No. D-101
(Formerly 239), 1958 Edition

**Statement of Purpose**
**Establish definitions for architectural area and volume of buildings**

### ARCHITECTURAL AREA OF BUILDINGS

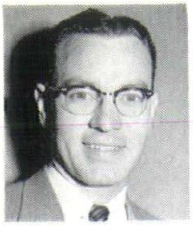
The *architectural area* of a building is the sum of the areas of the several floors of the building, including basements, mezzanine and intermediate floored tiers and penthouses of headroom height, measured from the exterior faces of exterior walls or from the center line of walls separating buildings.

Covered walkways, open roofed-over areas that are paved, porches and similar spaces shall have the architectural area multiplied by an area factor of 0.50.

The architectural area does not include such features as pipe trenches, exterior terraces or steps, chimneys, roof overhangs, etc.

### ARCHITECTURAL VOLUME OF BUILDINGS

The *architecture volume* (cube or cubage) of a building is the product of the total areas defined above and the height from the average depth of footings to finish floor, floor to floor, to the average height of the surface of the finished roof above, for the various parts of the building.



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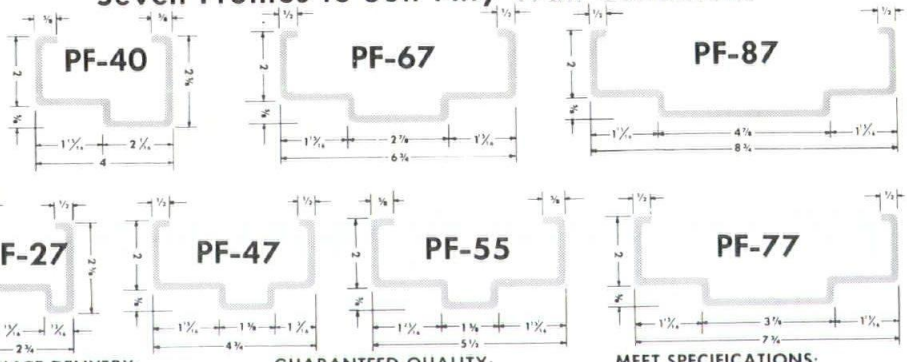


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## THE RELATIONSHIP BETWEEN ARCHITECT AND CLIENT"

**By Lewis A. Redgate — Architect**

In writing an article of this type one can paraphrase the A.I.A. Document No. 330 and write an intelligent article on the following lines:

The profession of architecture calls for men of the highest integrity, judgment, business capacity, and artistic and technical ability. An Architect's honesty of purpose must be above suspicion, he acts as professional adviser to his client and his advice must be unprejudiced; he is charged with the exercise of judicial functions as between client and contractors and must act with entire impartiality; he has moral responsibilities to his professional associates and subordinates; he is engaged in a profession which carries with it grave responsibility to the public. These duties and responsibilities cannot be properly discharged unless his motive, conduct and ability are such as to command respect and confidence. Planning, technical guidance, advice and counsel constitute the service of the profession. Given in verbal, written or graphic form, they are rendered in order that buildings with their equipment and the areas about them, in addition to being well suited to their purposes, well planned for health, safety, efficient operation and economical maintenance, and soundly constructed of materials and by methods most appropriate and economical for their particular uses, shall also have beauty and distinction. An Architect's relation to his client depends upon good faith. Before undertaking any commission, he should explain the exact nature and extent of his services, and of his compensation therefore. Where a fixed limit of cost is established in advance of design, the Architect must be given freedom in determining the character of design and construction needed to meet as nearly as feasible the cost limit established but should not be understood to guarantee the final cost which will be determined not only by the Architect's solution of the owner's fixed requirements, but by the fluctuating conditions of the competitive construction market. It is an important duty of the Architect to keep the owner informed during the progress of the work, as to the probable cost of construction involved. An Architect should consider the needs and stipulations of his client and the effort of his work upon the life and well being of the public. An Architect may offer his services to anyone on the generally accepted basis of commission, fee, salary, or royalty, as Architect, consultant, adviser, or assistant, provided that he rigidly maintains his professional integrity. An Architect should not make use of services offered by manufacturers, suppliers of building materials, appliances and equipment, or contractors, which may be accompanied by an obligation detrimental to the best interest of the client.

However, my reason for accepting the invitation to write this article is, as I view it, to write an article interesting to the less sophisticated readers of this magazine who might, in the future, retain an Architect in professional capacity, and will (I hope) find something in the article which will assist them in their selection of, and relations with, their Architect.

Choosing an Architect should take some time and thought on the part of the Client. It is not a cut and dried system similar to competitive bidding for contractors.

Architects are professional men licensed by the State only after a long, arduous period of education and training. Because of this, the Client can assume Architects share a basic competence to do the job. Individual differences are a matter of talent and experience — factors which must be weighed by the Client in relation to his needs and desires.

A few words of guidance to the Client on the selection of an Architect would seem appropriate.

1. Ask the Architect you are considering to submit a letter setting forth his qualifications and experience, also, photographs of his past work.
2. After reviewing the documents previously submitted, arrange a personal interview with him and allow ample time for the interview. Discover whether you and he are compatible as it is essential that you get along well personally, and that you have confidence in him.

(Continued on Page 19)

## EXCERPTS FROM A TALK ENTITLED "ARCHITECTURAL VARIETY WITH CONCRETE CONSTRUCTION"

**Given to the Joint AIA Producers Council Meeting, September 17, 1958**
**By Chris Pickett, District Structural Engineer, Salt Lake City District Portland Cement Association**

The Portland Cement Association is a national organization to improve and extend the uses of Portland Cement and Concrete through scientific research and engineering field work. The Association was established as a non-profit organization in 1916. It is supported voluntarily by more than 70 member companies which produce a major proportion of the Portland Cement used in the United States and Canada. Our activities include research, product development, technical service, education and promotion. All of our services are available to Architects, Engineers, and Cement Users without charge or obligation. Our comments today come under the heading of education or promotion, according to whether you are talking or listening.

Pier Luigi Nervi has stated that: "Reinforced concrete is the best structural material yet devised by mankind. Almost by magic, we have been able to create 'melted stones' of any desired shape. . . ."

What does this mean to you, the architect? Why is concrete a logical building material? I would like to suggest three reasons: 1. Versatility. 2. Economy. 3. Durability.

Is concrete a versatile material? Yes. It frees the designer from the regimentation that is always present in a factory-made product. The architect can follow a module or not, as he desires, although I must say that I feel that the module is the best thing that has happened to architecture in our time. The designer is free to choose any size, shape, color, or texture that he desires, and he can include them all as an organic part of the structure. The architect is given an infinity of variety which is only limited by his imagination at one extreme and logic at the other. Look at some of the architectural designs that has been accomplished with concrete. We have the oriental delicacy of Minoru Yamasaki, the fanciful works of Frank Lloyd Wright, the raw-boned, muscular buildings of Louis Kahn, the cool precision of Mies and Breuer, the fantastic shapes of Gaudi of Spain, and the somewhat abstract forms of Corbusier. In pure concrete work we have Torroja, Candela, Nervi, and our own Salvadori and Tedesko.

Francis Bacon once said, "Leave enchanted palaces to the poets, who build them at small cost." Perhaps Bacon could not foresee the Architecture of today, because we are building many such "enchanted palaces" using the materials which science and nature have given us; glass, steel, plastics, and versatile concrete.

Is concrete an economical material? Yes, that too, but as with any other material you must apply it with logic and forethought. It has been suggested by the editor of the British magazine "Concrete and Constructional Engineering" that the most economical solution, which is usually the simplest and is often by far the most beautiful is often ignored because it is "out of style." Clients, according to this writer, are often called upon to spend more money on alternate forms or structures that are dictated by fashion. That brings up that ugly word "style." In order to achieve an effect, the cause is often lost. I feel sure that the vast majority of Architects in this country do not consciously follow a "style." Many Architects and Engineers ARE trapped, however, by complicated detailing which is contrived solely to reduce the use of materials and which instead gobbles up the building in labor and wasted materials. An objective of our educational program is to reduce design costs and eliminate expensive details. We expect to help accomplish this in the near future with structural shortcuts and design aids. We solicit your help in this mission, not only in impressing the importance of simplicity of detail upon your young draftsmen, but upon the bidding contractors as well.

Is concrete a durable material? I believe that characteristic goes almost without saying A good example is the Leland Stanford, Jr. Museum in Palo Alto, California which was built late in the 19th Century. This was one of the first important reinforced concrete buildings in this country. Architect E. L. Ransome used old wire cable

and hoop iron to reinforce the concrete, yet it came through the earthquake of 1906 almost undamaged, and is still, to the best of my knowledge, in good condition. Concrete is a byword for durability and strength, but take warning: Continuous research, by many different agencies is bringing forth new concepts in specifications, mix design, and quality control which are being overlooked by a surprising number of architects, engineers,and builders. As a matter of fact, many are forgetting some of the old-fashioned rules that still apply. The Portland Cement Association feels that one of its main purposes is the continual improvement of the quality, and thus the durability, of concrete. We ask you, the architects and engineers, to take advantage of our many publications, films, and reports in reviewing your specifications and designs to make sure that they are up to date and effective. Beware of copying grandpa's specifications.

## ARCHITECTS MUST HAVE A REAL STORY —GOOD ARCHITECTURE THRIVES ON SHARED KNOWLEDGE

**By Douglas Haskell,**
**Editor of Architectural Forum**

Sweet is the sound of one's own name in publicity. Architects, whose well-considered professional ethics forbid advertising, are naturally hungry for this kind of honey. And the makers of Modernfold doors are to be specially congratulated for a scheme that looks architect publicity to *industry* advertising, because this opens a legitimate door for architects into newspapers previously hostile.

But being able to open the door does not of itself assure that architects will get full benefit. Mere mention of one's name, or of the chapter, may produce congratulations from friends but this is a social rather than a business pleasure.

Nothing really gets accomplished, we know, by a story in either a magazine or a newspaper unless it stirs the reader who is the ultimate ruler. In order to benefit, a professional must be identified vividly with a story that gains the reader's genuine interest. If bored, the reader can turn away at once to *Life* magazine, or to TV, or to his son's homework. Think of your own reaction when confronted with special sections on oil development in the Sahara or fashions in Newfoundland.

Now it is a tough fact but true that few newspaper readers think it is hot news that every building has or should have an architect — important as this is to us. But most readers have a lively existing interest in their own city as a city; they love to read about their town as a town with a future. Basing itself on this, the Philadelphia AIA chapter made a whacking success some years back with a big show in Gimbel's which encompassed detailed models and full-size mockups of what Philadelphia's downtown might look like under intelligent planning and architecture. More recently chapters in Tulsa, Kansas City, Denver and other cities have variously repeated it. The newspaper angles that are developed would fit very well into the Modernfold type of program.

Then again ours is a business civilization, and the road to high design leads very often through a business interest. A detailed success story of just how an architect proved to a client that a plaza or open space would pay off by making the place attractive is just as interesting to readers in towns of 50,000 as it is in New York. And the contrary story is equally good, for if such open space does not *always* pay the individual building investor, perhaps the town itself should offer incentives through clever zoning measures — which only architects are trained to envision and put forward for the benefit of their city.

Let me tell you a secret: many a smart architect is studying the building economics stories that are a special feature in *Architectural Forum,* translating the issues into local terms, and selling his story successfully to editors in the public interest. (How to finance schools is an example.) If anyone wants to know more about how this is done, write me. We'll gladly answer. Such stories do not, of course, replace the showing of good building projects in the newspaper. They are an extra.

There is yet another factor that is important. In city after city the door-opening cam-

(Continued on Page 20)

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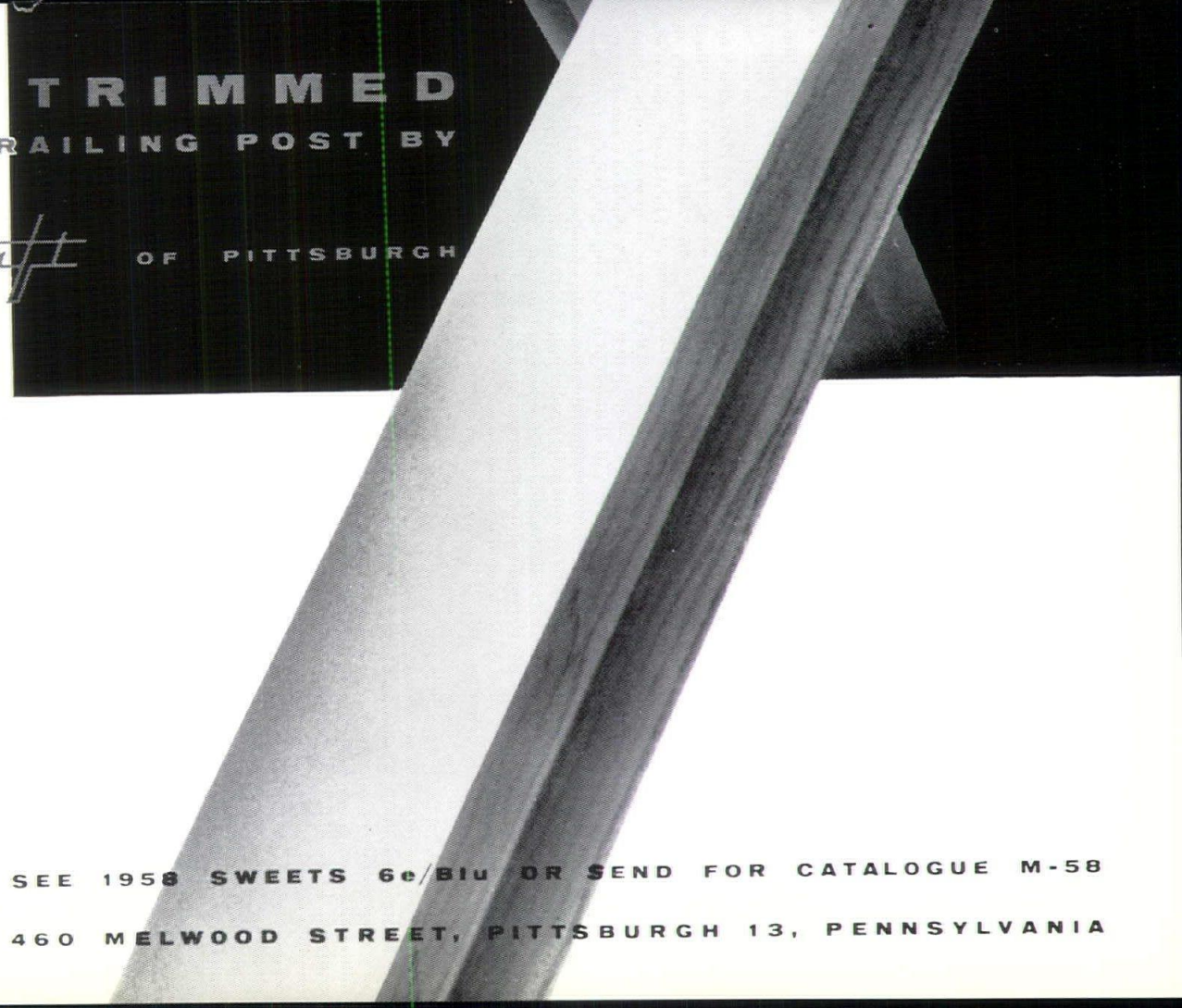

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NEW

## LONG-RANGE PLANNING AT THE UNIVERSITY OF UTAH

**Martin Brixen A.I.A. — Director**
**Department of Planning and Construction**

Several factors have contributed to the problem of increasing enrollment now facing Utah's (and the nation's) colleges and universities. Of primary importance are the following:

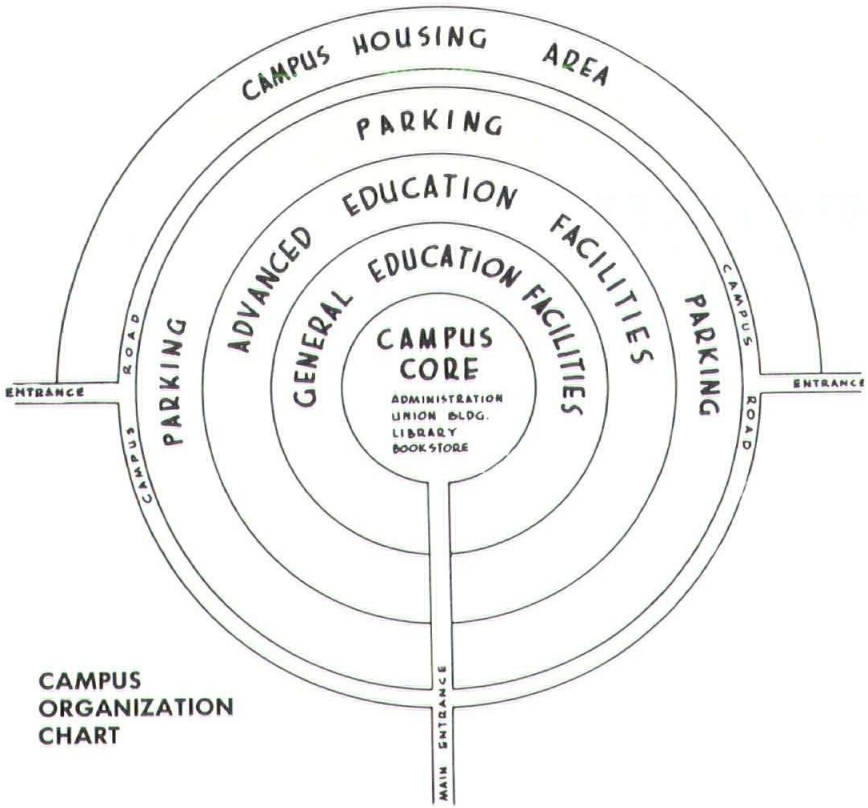
1. The increasing number of births in the State. Today, in Utah, two children are born for each child born during 1940, and last year more than 26,000 live births were recorded.
2. The impending increase in the number of high school graduates brought about by the rising birth rate.
3. The increasing proportion of college-age youth attending college. In 1930, 17% of Utah's college-age population attended college and by 1950, this figure had grown to 51%.

On the basis of the above and other factors, it has been estimated that enrollment at the University of Utah will rise to nearly 18,000 students by 1970, or roughly double the present enrollment. It is interesting to note that the 1970-double enrollment figure has been accepted as a planning standard in several of the nation's universities.

To cope with the many problems of anticipated campus expansion, the University of Utah established, in 1956, a division known as the Department of Planning and Construction. The general responsibilities of the Department were to be three-fold:

1. To develop a master-plan for campus growth.
2. To program new buildings at the University.
3. To over-see the University's construction program.

As the University of Utah is a State-owned institution, its construction program is ac-




**CAMPUS ORGANIZATION CHART**

ually administered by the Utah State Building Board. Because of the complexity of the University's program, however, a close working relationship exists between the two.

The first step in developing our campus master-plan was to survey the existing facilities at the University. Each department head was asked to complete a questionnaire listing the number of students served by the department, the number of personnel in the department, and the actual square footage used by the department. In addition, each department was asked to estimate its 1970 space requirements, based on an expected over-all enrollment of 18,000 students at the University. On evaluating the questionnaires, it was found that some departments anticipated little growth, if any; many expected to double; a few, particularly certain sciences, expected to nearly triple in size.

With this information in hand, the second step was to examine the existing campus building pattern (see illustration). Certain portions of the campus, particularly the areas surrounding the main loop, were already built to maximum density. It will be remembered that in 1948, the University acquired some 300 acres of Fort Douglas and with the buildings thereon, which were of great value in helping to accommodate the post-war surge of veterans on the campus. The buildings, most of which were temporary wooden structures, had now become a liability, however, because of excessive maintenance costs. Many related activities were sprawled over the campus, now near- 450 acres, in both permanent and temporary buildings. In view of this, it was decided that the campus should be reorganized into zones of function for immediate and future development, utilizing all of the land now controlled by the University.

Our third step was to devise a concentric ring-zone plan (see illustration) as a schematic guide for this reorganization. In developing the schematic, we attempted to incorporate the following general principles:

1. Organization of related activities.
2. Separation of pedestrian and automobile flow patterns.
3. Separation of campus and off-campus automobile traffic.
4. Flexibility to accommodate limited growth not now anticipated.

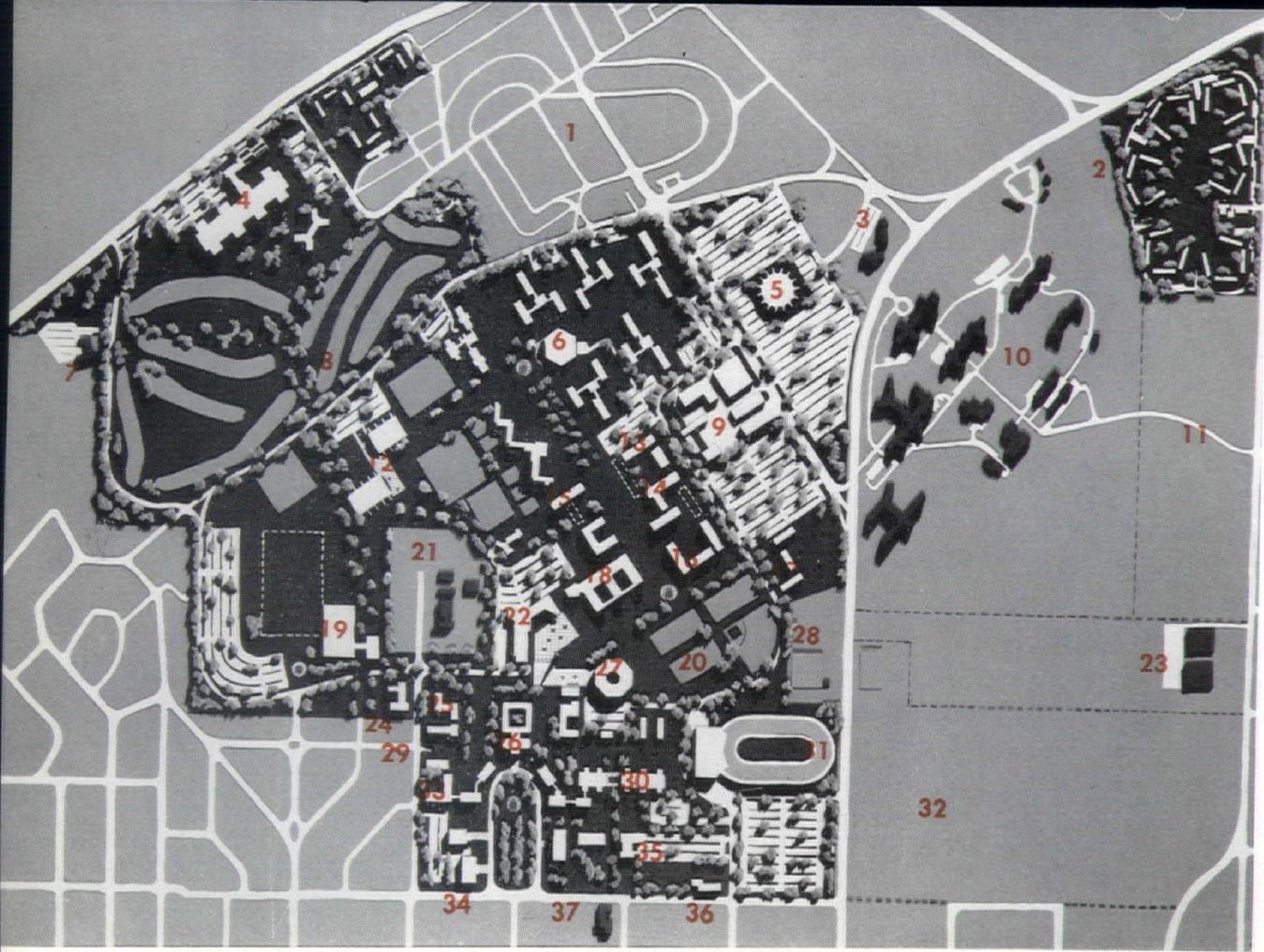
The schematic locates those elements serving the great mass of students — the Student Union, the Library, and the Administration Building — in the very heart of the campus. The general education facilities surround this campus core, with the advanced education facilities beyond. The entire teaching complex is then circumscribed by a two-way peripheral road with adjacent parking areas. The housing zone is placed outside the campus loop road.

This schematic envisions students driving to the campus, parking near their "home base" and walking to classes. Parking, in general, is about two blocks from the campus core. Because related activities are placed near each other, the time required to walk from class to class is kept to a minimum. It is recognized that landscape development is important to the success of the scheme; therefore, to interconnect the various zones, we have planned a mall system with numerous arbors for the convenience of pedestrians.

Our fourth step in developing the campus master-plan was to re-examine the existing campus layout in terms of the planning schematic. It should be noted that several new campus buildings had recently been completed or were under construction, when this planning work was being done. Also, a great majority of the older, permanent buildings were in reasonably good condition and could not be ignored. At this point it was decided that future buildings required to accommodate the growth at the University should be planned as 3-story structures, in general, since this was regarded as more or less of a maximum for walk-up buildings. By a process of overlaying scale cut-outs which indicated 3-story future buildings on a plan of the existing campus, approximate land areas for specific building groups were assigned. Certain building groups, such as the College of Engineering, were necessarily relocated because of ground area limitations in the existing location. In nearly all such instances, the vacated permanent buildings were planned for conversion to other use.

(Continued on Page 17)

1. Ft. Douglas Club
2. Cancer Building
3. Temporary Buildings
4. Children's Hospital
5. Ft. Douglas Golf Course
6. Ft. Douglas
7. Annex
8. Salt Lake City Property
9. Temporary Buildings
10. Veteran's Hospital
11. Surplus Government Property
12. U. S. Army
13. University Shops
14. Ballif Hall
15. Sill Center
16. Spencer Hall
17. U. S. Army
18. Union Building
19. U. S. Bureau of Mines
20. Book Store
21. Stadium Village
22. City Reservoir
23. National Guard
24. Kennecott
25. Mines
26. Geology
27. Park Building
28. Field House and Stadium
29. Engineering
30. Mt. Olivet Cemetery
31. Kingsbury Hall
32. Music
33. Library
34. Carlson Hall
35. Hydro Laboratory
36. L.D.S. Institute
37. Red Cross



**PROPOSED CAMPUS**

2. Married Student Housing
3. Red Cross
4. Medical Center
5. Sports Arena
6. Single Student Housing
7. Ft. Douglas Club
8. Golf Course
9. University Shops
10. Veterans Hospital
11. Surplus Government Property
12. Physical Education
13. Business
14. Education
15. Domestic Arts
16. Fine Arts
17. R. O. T. C.
18. Spencer Hall
19. Engineering
20. Intercollegiate Athletics
21. U. S. Bureau of Mines
22. Student Union
23. National Guard
24. Kennecott
25. Mines
26. Administration
27. Library
28. City Reservoir
29. Underground Parking
30. Life Sciences
31. Stadium
32. Mt. Olivet Cemetery
33. Physical Sciences
34. Music
35. Theater
36. Law
37. L.D.S. Institute

(Projects not shown)

Additional Married Student Housing
Fraternity and Sorority
Educational Laboratory School
Faculty Housing

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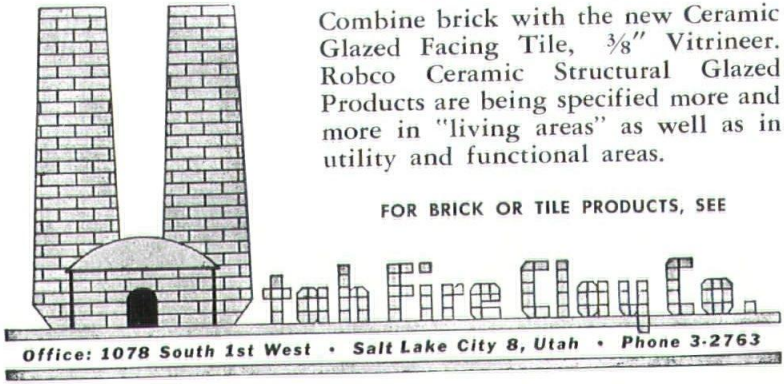


## ONG-RANGE PLANNING AT THE NIVERSITY OF UTAH

(Continued from Page 13)

A study of our campus master-plan (see lustration) will acquaint the reader with ne proposed location of each major build-ng group. Points of compromise between ne schematic and the master-plan as devel-ped will be observed. We feel, however, nat the principles of the schematic have een reasonably well adhered to in our plan. y comparing the existing and proposed mpus plans, one can readily identify re-sed existing roads and proposed new roads. tility mains, in general, will be concentrat-l under the mall system in one primary op. Secondary loops will serve the var-us building groups. Concerning the mat-r of utilities, we are hopeful that a new mpus heating plant will soon be construct-l in the vicinity of the University shops.

Since the thinking behind the planning specific areas may be of interest to the reader, a brief resume of certain groups follows:

Stadium Village, which now houses 300 families in temporary buildings, will soon be replaced by a new married student housing complex, to be located on Sunnyside Avenue west of Highway U. S. 40. This 35-acre tract has been declared surplus by the federal government, and application for its acquisition has been filed by the University. We believe this project is well located even though somewhat remote from the remainder of the campus, because of its proximity to schools, churches, and shopping facilities.

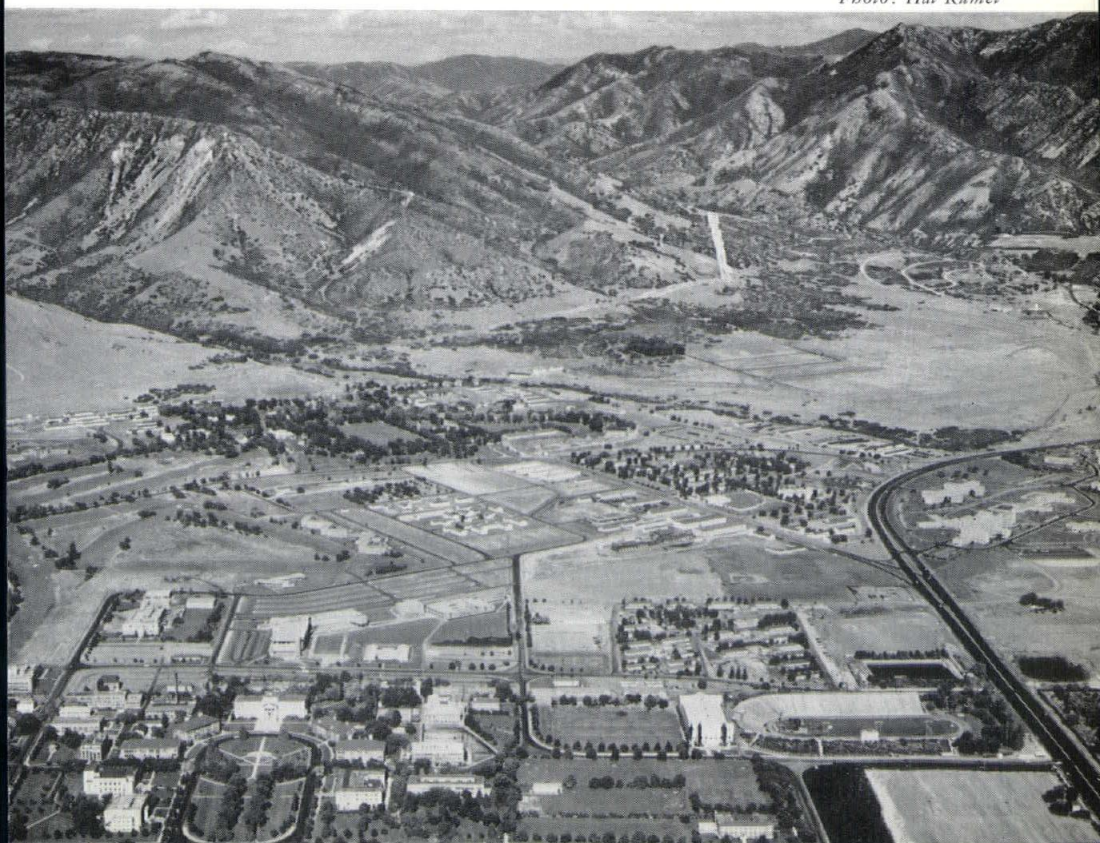
The single-student housing area, which eventually must accommodate 1,000 women and 1,200 men, was placed adjacent to the newly completed men's dormitory. This complex will provide facilities for both sexes in separate buildings to be placed satellite-fashion around a central dining hall - lounge.

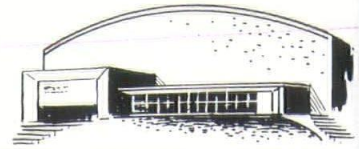
The physical eduction program required

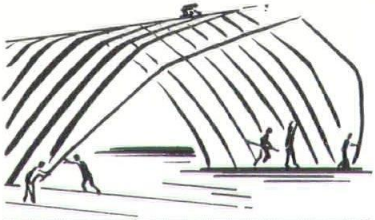
(Continued on Page 20)

View of Existing Campus University of Utah

*Photo: Hal Rumel*







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## "THE RELATIONSHIP BETWEEN ARCHITECT AND CLIENT"

(Continued from Page 7)

3. Visit one or more of his completed buildings with the Architect, and ask him to explain them to you. Talk to the owners and ask their views.
4. For detailed advice in evaluating various Architects, the writer recommends an excellent bulletin, No. 330-57 issued by the California Council of the A.I.A., room 550, 703 Market Street, San Francisco 3, California.

A mild warning on various pitfalls may e of value in selecting the Architect. First, o not use fees as a yardstick for retaining n Architect. Fees cut below the accepted inimum are no bargain and invariably ean attempts at short cuts and reduced rvices which lead to inadequate design nd often, to increased construction costs.

Avoid asking for free sketches before re-ining an Architect. If you want sketches of is work, be prepared to pay for them. Preminary sketches form an important and me-consuming part of an Architect's total rvices and should not be expected to be rovided free.

Avoid seeking the ideal building in the rchitect's previous work. The fewer preonceptions you begin with the better. hoose your Architect first, then make your ecisions with the full benefit of his prossional advice.

If you have chosen your Architect carelly, the result will be a building that is tractive, functional, economical, and exertly planned for many years of use and njoyment, and the remainder of this article ould be considered superfluous. Unfortuately, such is not the case in many stances.

In the opinion of the writer, when an rchitect is retained in the design of a uilding, generally the project is the most nportant happening in an individual ient's life, other than being born or dying, nd if the terminal relations of the two pares concerned are strained, in a great maority of the cases it is because the cost exeeds the client's budget and the client considers the Architect had guaranteed the "Budget Estimates."

The above paragraph presupposes that a written contractural obligation exists between the Client and Architect in conformity with the recommendations of the A.I.A. Therefore, after the Client has stipulated a maximum cost for the project, the Architect upon submission of the schematics or preliminary plans and outline specifications, should also submit to the Client an estimated cost based on the preliminary plans, drawing upon his experience of the cost of similar work, and pointing out that this estimated cost is in no way a guaranteed cost, due to the uncertainty of costs in a competitive bidding system and the uncertainty of labor and material costs in an inflationary economy such as we have experienced since the end of World War II.

As stated before, the preliminaries are the result of a considerable time-consuming study on the part of both the Client and Architect. Therefore, if the client insists on features that push the cost beyond the budget, then it is incumbent upon the Architect to direct attention to this situation, and the owner should realize it is foolish to proceed without revisions. The revisions should not be the omission of a few finishes but a realistic pruning of the project. It is easier done at this time than after the bids are in and too high.

Upon completion of the working drawings, specifications and bidding documents, a final cost estimate should be prepared based on the complete documents. Although this estimate may be quite accurate, the Client must not construe same as a guarantee as it is only the contractor who may guarantee the cost on the basis of a firm low bid.

One final comment, and a most important one, is that in the writer's opinion, perhaps the most beneficial influence in the relations of Client and Architect is confidence in one another. If mutual confidence is present, then seemingly impossible situations can be surmounted to the advantage of both. If confidence is lacking it can only lead to strained relations at the least and a completely unsatisfactory building, unsuitable to the Client's needs at the most.

## LONG-RANGE PLANNING AT THE UNIVERSITY OF UTAH

(Continued from Page 17)

considerable acreage for outdoor activities. It was suggested that these facilities could be used after normal teaching hours by students living on campus. Therefore, the physical education group was located near the dormitory complex where ample open area was available, yet within easy walking distance of the heart of campus.

Certain inter-collegiate activities will be developed near the present Field House and Stadium. It is hoped that a 20,000 seat sports arena can someday be constructed on a triangular tract of land now owned by Salt Lake City. The site is bordered on all sides by major roadways to facilitate the movement of automobile traffic. Inter-collegiate basketball would then be transferred to this arena, so as to free the Field House for other training work.

The Medical Center, which includes facilities for the College of Medicine, the College of Nursing, and a 200-bed teaching hospital, will be constructed as an addition to the present Cancer Building. This major structure, some eight stories above the ground, will eventually be serviced from a by-pass highway connecting Highway U. S. 40 with 11th Avenue, which will run parallel to the east boundary of the campus. This proposed road will divert off-campus automobile traffic to the Medical Center around the campus.

A new University library is planned within the campus core near the Student Union and the Administration Building. The proposed library will probably be a low structure, perhaps two floors below the ground and three floors above, so that students enter at the mid-point. We are hopeful that someday a high-rise element visible from the entire City, such as a campanile, will be constructed near the library as a symbol of higher education.

Because of the uncertainty of future needs for expansion of facilities at the University, a large tract of land east of Wasatch Boulevard will be maintained as a golf course until such time as the land is required for other use.

The importance of long-range planning is perhaps best emphasized by listing the projects now under design or construction at the University of Utah. Imagine the resulting chaos without a master-plan for campus development.

Project, Architects and Estimated Cost:

| | |
|---|---|
| Medical Center — | |
| Ashton, Evans & Brazier | $10,000,00 |
| Engineering Center — | |
| Dean L. Gustavson Assoc. | 4,000,00 |
| Education Center — | |
| Lowell Parrish | 1,250,00 |
| Married Student Housing — | |
| Scott & Beecher | 3,060,00 |
| Student Dormitory — | |
| William F. Thomas | 1,850,00 |
| University Bookstore — | |
| Woolley & Mohr | 435,00 |
| Memorial Theater — | |
| Burton & Barker | 1,500,00 |
| Park Building Addition — | |
| John Clawson | 60,00 |

JEAN MAUNOURY, Honorary Fellow of the Institute, architectural custodian of Chartres Cathedral and an outstanding French architect, died in an automobile accident recently. (Reprinted from memo No. 191.)

## 1960 CONVENTION

(Reprinted from memo No. 191)

San Francisco has been approved as AIA 1960 convention city. The original plan to hold the convention at Denver had to be postponed because of the uncertain completion date of that city's new Zeckendorf hotel

## ARCHITECTS MUST HAVE A REAL STOR —GOOD ARCHITECTURE THRIVES ON SHARED KNOWLEDGE

(Continued from Page 9)

paign of New Castle Products, Inc., ha worked well, because Producers' Counci thought it was worth their money to ad vertise their products to a broader publi The fact that the architects have willingl gone along shows that they feel it is easie not harder, to get good products accepte when building clients know about the too. Good architecture thrives on such arch tect - industry collaboration and share knowledge, and architects thrive too.

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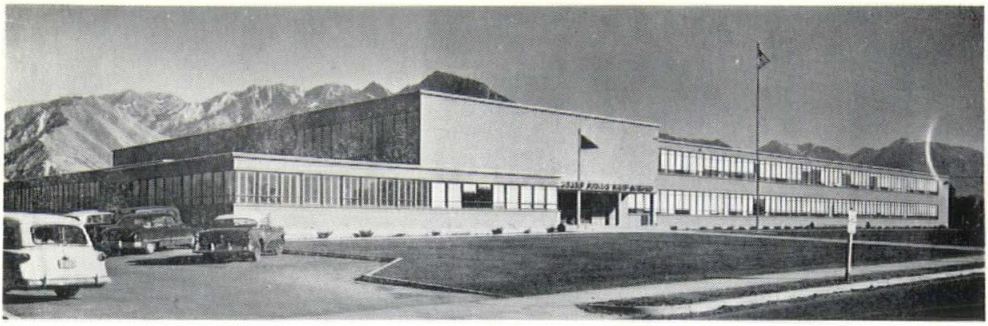

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