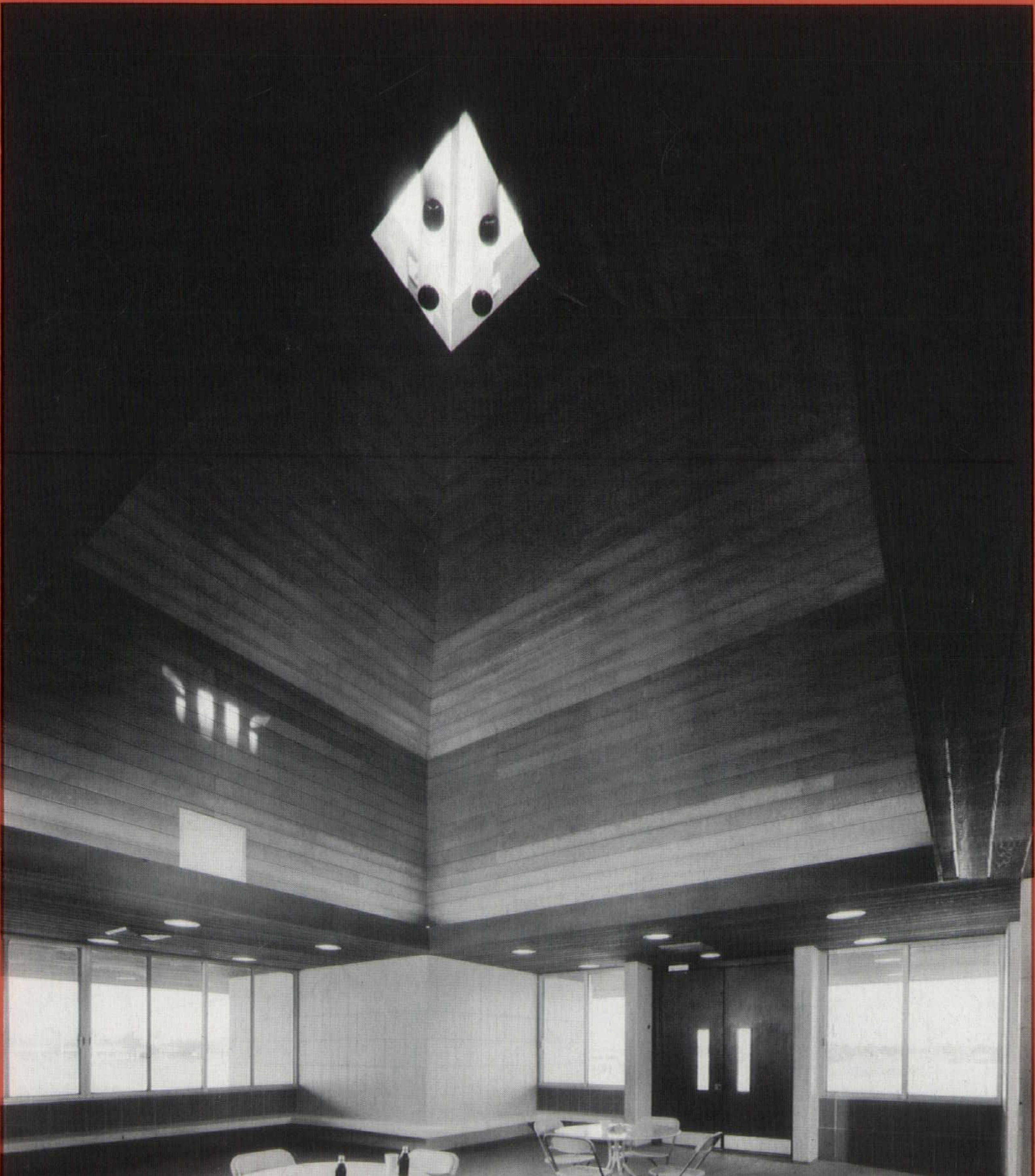
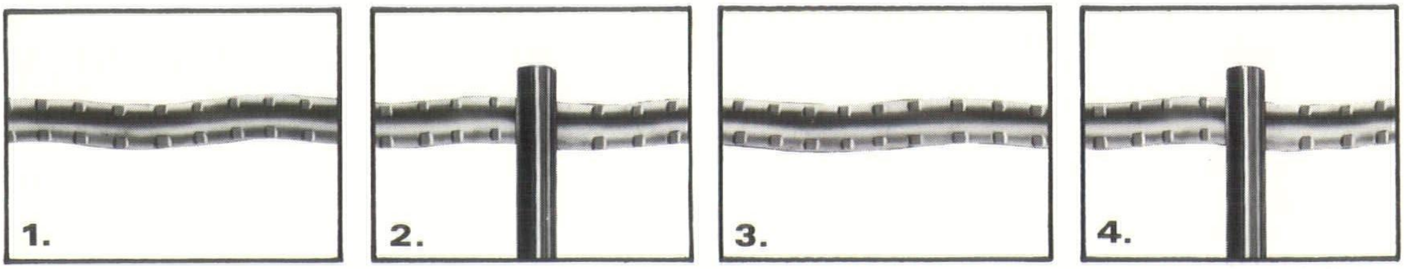
The Louisiana Architect



JULY-AUGUST, 1971

Programming, Architects Home, High School, Problem Sites, Park Building



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And perish the thought of taking away your wife's washing machine. Get her an electric dryer instead.

The Louisiana Architect
Volume X *Number 4*

WHAT'S IT ALL ABOUT ?!

Well it's about the '71 LAA Convention!
It's about interesting speakers!
It's about booze and babes and games of chance!
It's about small office potential!
It's about lots of prizes!
It's about breakfast in bed!
It's about Honor awards!
It's about a country style cookout!
It's about interesting architecture!
It's about wives attending free!
It's about a country fair!
It's about a visit with National President Bob Hastings!
It's about a trip to Mexico City and Acapulco!
It's about Golf and Irish Coffee!
It's about seeing old friends and making new ones!

IN THIS ISSUE

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About Architectural Programming

You Can't Give the Answer Before You Know the Question

by Rudolpho J. Aguilar, PH.D.

Architectural Programming can be defined as the acquisition, sorting, processing, organization, analysis, and retrieval of the total information required to plan, design, coordinate, and construct a building or group of buildings.

This information handling phase that must precede even the most preliminary design effort, is of fundamental importance to the success of every building project of any consequence.

In order to produce a satisfactory design for a private residence, for example, the architect must understand the needs of each member of the family, their life styles and innumerable details about their individual preferences. The problem is magnified manyfold in the programming of large and complex buildings or groups of buildings. In fact, in these cases, the most crucial, creative, and physically and intellectually demanding design phase may very well be the programming task.

From the points of view of economics and architectural programming, buildings can be classified into two broad categories:

1. Those which are constructed for reasons other than financial. In this category fall most institutional and governmental buildings, educational plants, libraries, museums, etc.

2. Buildings which are developed primarily for investment purposes, such as office buildings, speculative housing, stores, parking structures, hotels, motels, movie houses, warehouses, buildings which combine several of these facilities and, in fact, probably 80% to 90% of all structures financed by private enterprise.

The programming of facilities in the first category, the noninvestment type, demands extensive consultation with the future users, with experts in the fields for which the building is intended, and a search for and an analysis of existing structures of the same or similar type.

Consider for example the design of health facilities. Hospital design is a specialized field which fits somewhere between categories 1 and 2. It requires continuous innovation and change in order to keep pace with advances in medicine and in biomedical engineering support equipment and instrumentation, as well as to cope with the social pressure for the quantity and quality of service demanded by an expanding population. Electronic computers are used extensively in hospital design to simulate the flow of patients, doctors and support personnel through each of the hospital's departments in order to establish criteria for design elements such as the number of beds, nurses stations and examining rooms; number, location, and size of operating rooms; scheduling policies for patient appointments (specially needed in charity hospitals); outpatient clinic space requirements; and, perhaps the most important consideration of all, selecting the geographic location of the hospital to serve the community most efficiently.

The programming of buildings planned for investment purposes, those classified under catagory 2, presents the greatest challenge to the architect, for it makes demands not only upon his design talent but also upon his ability as a financial analyst and planner. The typical case is represented by a client who has a tract of land and comes to the architect seeking advise as to what type of facility to build to maximize his return on investment subject to the constraints that zoning, market, environmental conditions and the economy, in general, impose upon his project.

The author collaborated with James E. Hand,[1] in developing a computer optimization procedure which can provide objective answers to the questions that normally arise in architectural investment situations. The input to the program consists of information on market conditions, such as rent schedules, vacancy rates and costs of construction; zoning regulations, such as lot set-back and offstreet parking requirements, maximum number of floors, landscape areas, etc; budgetary information; furnishing costs; cost of soil exploration; professional fees; general building appearance (aesthetic design criteria) and as many other constraints and special requirements as apply to the specific situation.

The program, which is processed in a digital computer, maximizes the expected return from the investment with a mathematical optimization technique called linear programming. The output is not only the dollar value of the maximum expected return but also the optimal building configuration, that is, the optimum area for each type of facility at every floor, and the quality of each space described by the various building costs and expected returns which depend upon the type of materials and workmanship used in the construction of each facility. With this information, the true rate of return on investment can be computed by considering the initial capitalization; the costs of operation, maintenance, taxes, and insurance; the depreciation schedule and as many cash flow factors as influence the venture.

This information is not only fundamental to the owner and to the architect in understanding the financial basis of the building project but also constitutes an excellent source document and supporting exhibit for submission to financial institutions.

To conclude, it may be stated that architectural programming is rapidly becoming the most important phase of client-architect interaction, for it is at this stage that the fundamental decisions shaping the feasibility of the project and its future success are made.

[1]*Aguilar, R. J. and Hand, J. E., "A Generalized Linear Model For Optimization of Architectural Planning," Proceedings, 1968 Spring Joint Computer Conference, Atlantic City, New Jersey, vol. 32, p. 81-88.*

You Can Afford a Home Like I Designed for My Family

by Architect Larry H. Case, AIA

The residence contains 2,098 square feet of floor area, including carport, and was built for approximately $25,000.00, including all built-in's and appliances.

My goal was to design a residence for my family on a very limited budget and produce spatial change, variable ceiling heights, openess, functionalism, privacy, room for expansion and a place to display art and sculpture, an important part of our living environment.

The changes in space were accomplished by changing the directions of halls in order to lead to dead ends at the turns where there are areas to display paintings or prints. The changes in ceiling heights and ceiling configuration help to break up the expanse of a plain ceiling line and feeling of space.

The high ceilings were derived from the four foot deep attic roof area, which also serves as dead storage, and houses all air conditioning equipment and ductwork. The formal living area and Master Bedroom area ceilings are broken up by coffers, which extend up into the attic space, and terminate with lighting fixtures connected to dimmer switches, in order to change the effect of light and shadow of the space below. The floor of the living room area depresses two feet into the earth, and has all furniture built into the sides. This produced a thirteen foot high space in the living area in lieu of the standard eight.

The rows of wide, but narrow-edged, columns bordering the formal living area provide additional wall space each side for paintings and prints, and with a low shelf added in between contribute more display space for sculpture, meanwhile separating the book shelf and cabinet area and creating a large open area combined with the formal dining. The columns, shelves, depressed floor, and cabinets help to give boundaries to each area, but also add space to the usually small closed-in rooms.

The long foyer walls create much needed space for exhibits of paintings and drawings, which provide a time element to adjust from exterior to interior, discard wraps, etc., and become acquainted.

Built-in cabinets and shelving throughout the house provide plenty of storage, leaving room area free of useless furniture, and giving precedence to particular pieces used by advantageous highlighting.

The compact and functional kitchen is located within several steps of laundry, ironing board (which is also built-in), dining room, and family room. Daily meals are served on a bar separating the kitchen and family room. The location of the kitchen and daily chore areas are most important so there is still close contact and control of our family room area.

A large linen and storage closet is centrally located between bedrooms for distribution, and also serves as a toy closet for the family room and children's bedrooms.

The second bath, located between two bedrooms, serves both, as well as providing a powder room for formal living and dining, and the family room.

The Master Bedroom Bath boasts an exterior garden with shower and tub area less roof. The garden is enclosed on all four sides, accessible through a sliding glass door on one side of the walk-in interior tub, shower room. An abundance of mirrors in the bath areas add space and ease in make-up preparations.

The structural walls of the house proper are repeated in the attic area so that a particular area could be cut through at the roof on the wall lines, and then raised to form a clear story additional second floor. The attic space was also designed so that all fascia materials could be cut from eight foot sheets without any wastes, and the flat roof would create a change in the ever-so-common low-pitched roofs. The thick fascia also would tend to retain the one story effect even when a second floor is added by breaking up the expanse of solid two story wall area.

Translucent jalousie windows were placed in each bedroom, admitting light and air with maximum privacy.

The thick, flat roof with dark brown creosote stained cedar plywood facing contrasted against tinted glass and white brick stands by itself among the standard plan of neighborhood development, and exposes an individualism most necessary for a living environment.

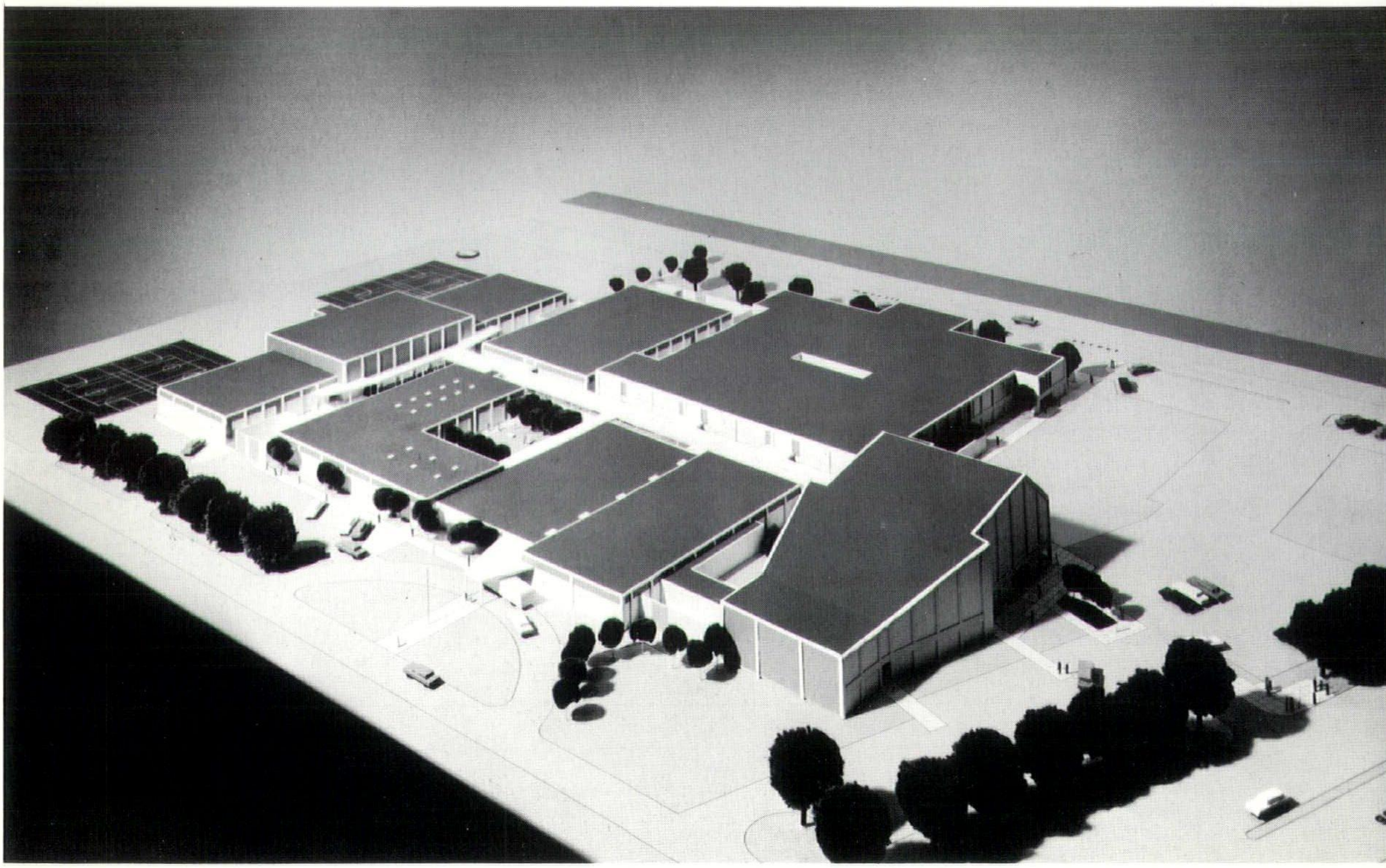
O. PERRY WALKER SENIOR HIGH SCHOOL

Architects
J. Buchanan Blitch & Associates, Inc.
Harold E. Pique, Associate Architect

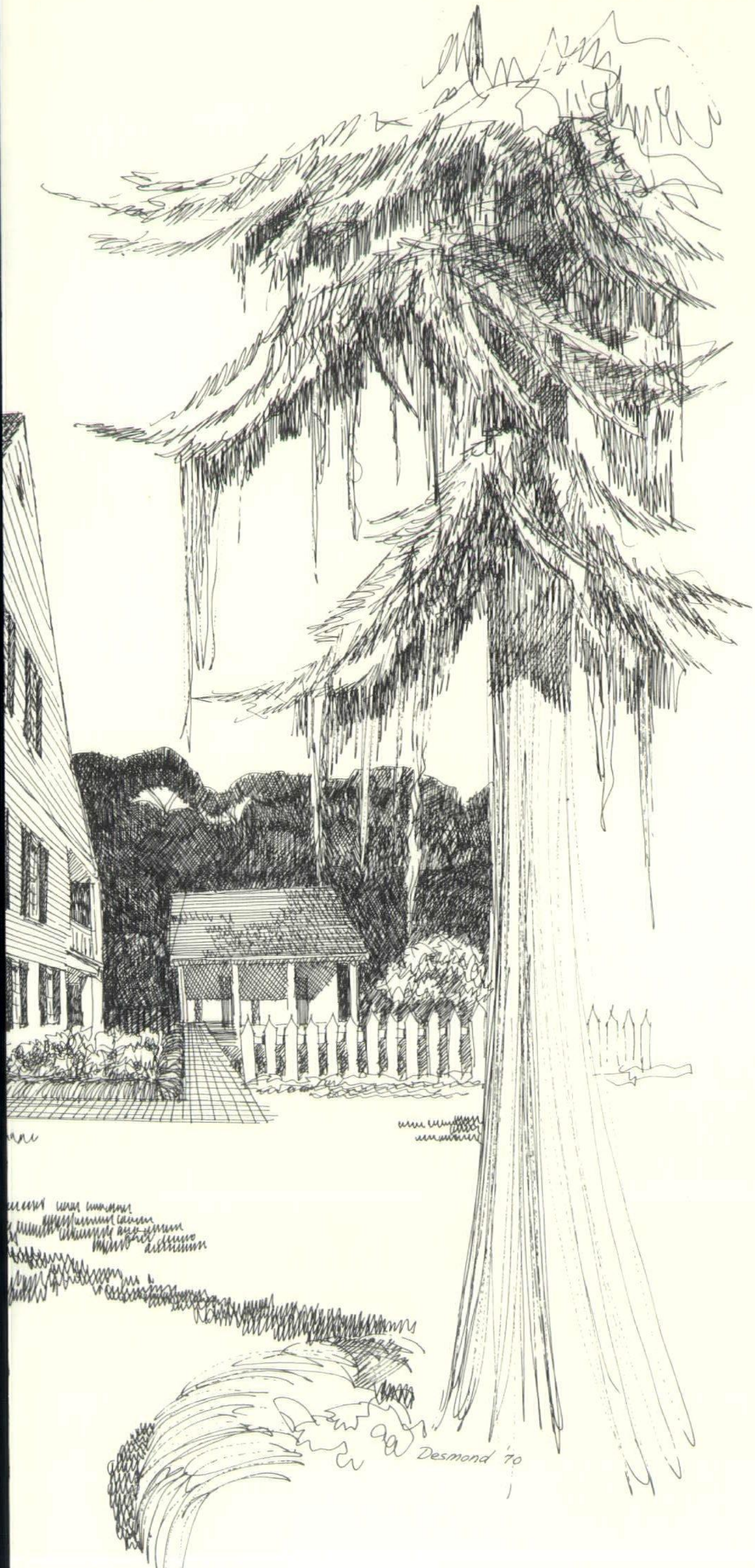
Design architect Fred Schwab, AIA, of J. Buchanan Blitch Associates planned for flexibility and future expansion possibilities. The major factors in the design concept of this inward-looking school were security for the prevention of mischievous intrusion and accommodation to a narrow elongated site.

Teaching spaces include 27 academic and 41 special classes, shops and labs. The auditorium, drama labs, library and gymnasium are planned for community as well as student use. The building is accessible from four sides and can be secured by five steel gates.

The Mall opens onto courtyards with brick paving, benches, trees, and planting. With apparent spaciousness the complex is compact to allow maximum outdoor sports and play area, while retaining human scale in a potentially overwhelming series of structures. Around the mall and the perimeter of the complex(each with separate public access) are the cafeteria, auditorium, gymnasium, library, dramatics lab theatre. Administrative and faculty facilities are centrally located, publicly accessible, and convenient to central mall and classrooms. The first floor of the classroom building has classrooms in clusters of four, some divided by folding walls (remaining partitions are non-loadbearing for ease of future removal if desired). The second floor has specialized teaching spaces: science, practical nursing, and home economics. The walls similar to first floor. The adjoining Auditorium structure seats the entire student body and can be divided into large group instruction spaces, with folding partitions to divide balcony and under-balcony areas into three spaces of 500-student capacity each. Students have access from public transit and the parking area.



Photos by Frank Lotz Miller



THE ACADIAN HOUSE

This house, built in 1765, is now a part of the Evangeline State Park. With the furnishings enclosed, it provides an excellent picture of the life of one of the more affluent Acadians. Still, the construction is simple, direct and even crude. The restored kitchen and smoke-house buildings with the nearby flower gardens attest to the perseverance and ideals of the Acadians who settled a difficult land.

Legend has it that Louis Arceneaux, the builder of this house, was the prototype for Gabriel in the poem "Evangeline"-Longfellow's romantic account of the Acadian experience.

John Desmond, FAIA

SOLUTIONS TO DIFFICULT SITE PROBLEMS

by Pierce M. Meleton, AIA

PROJECT

NEURO—PSYCHIATRIC CLINIC—1970 LAA HONOR AWARD—LAFAYETTE, LOUISIANA

ARCHITECTS: David L. Perkins and Associates

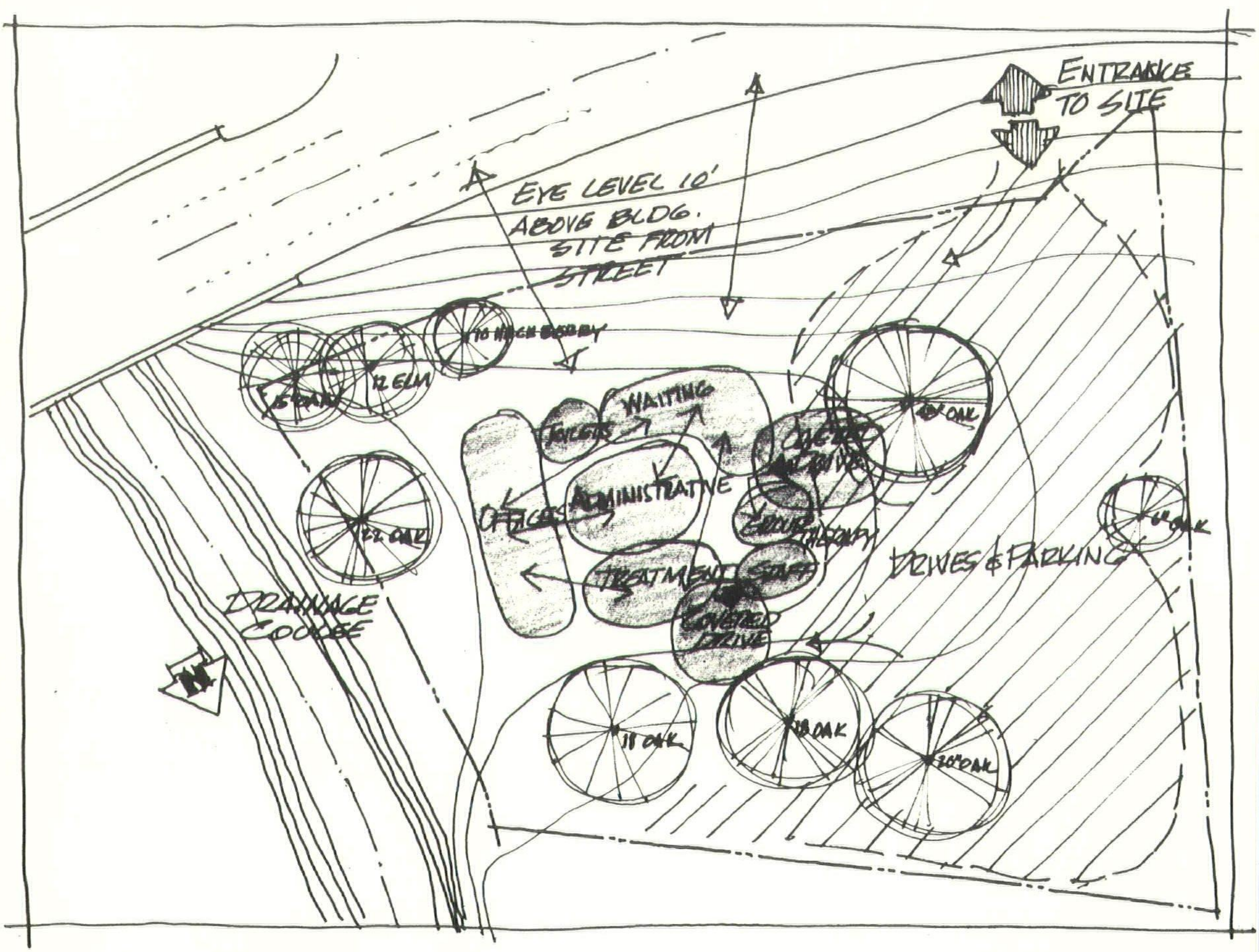
"Solutions to difficult site problems" is not to infer that any site can be adapted to any use or vice versa. It is important when selecting a site to first determine detail requirements for the proposed use, and then to call upon professional assistance for decision making. However, we are quite often faced with a difficult site or a well located site with great potential, but due to its problems, it is available at a savings. This type of lot should be acquired only with professional advice.

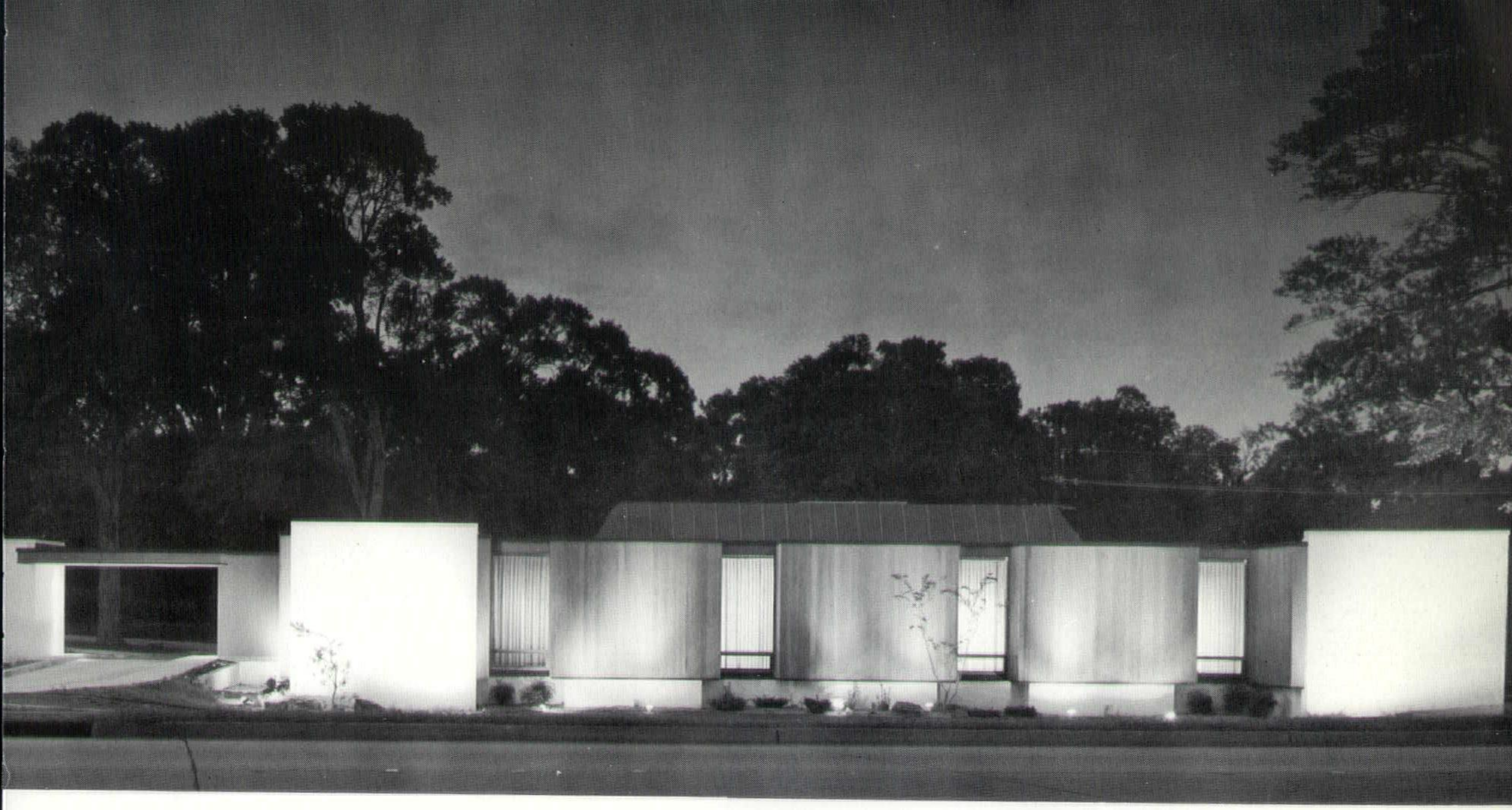
"Any problem, big or little, requires a great humility -- to let it tell you what it wants, rather than your telling the problem how it should be resolved. It will develop from its own inner concept which must be listened to and understood." ---Kiesler

While dealing in a complex of forms in space, the plan begins with two things: the human purpose for which the change is being made; and the pre-existing web of things and relationships which is the site itself. Each site, natural or man-made, is unique and all of its parts have meaning in relation to the whole. The essential quality of the whole must be understood, not only because the site will impose certain practical limitations, but also because it will contain new potentials. Furthermore, a plan however complicated, must maintain some continuity with the site upon which it is placed. A plan necessarily disturbs a site, but it should enhance and not violate it, whether it practices conservative adaptation or bold re-arrangement.

There is an ultimate, more perfect solution to a site in relation to a proposed use. How well we accomplish this is directly related to our knowledge of all the characteristics of the site and the requirements of the human use we intend to place upon it. Therefore, the success of this marriage is dependent upon our total familiarity of the two.

In the analysis of the total design, it is important to thoroughly understand the basic functions and relationships of the use. This phase should not be carried any farther than an abstract schematic diagram of spacial requirements, function, circulation, inner and exterior space relationships, etc., and should not be a total three dimensional preconceived idea of shape or appearance. It is vital that the restructions of the site not hamper this first mental understanding of the use. Here I would emphasize the importance of adapting a use to a site from an "ideal", not through necessary adjustments from a compromise.





It is much easier to relate the human use with the site after becoming completely familiar with the site's orientation, prevailing breezes, contours, tree locations, approaches, noise areas, traffic patterns, utilities, set-back requirements and the surrounding environment. For a complete understanding, a model of the site is invaluable. There should be no preconceived shape or form to restrict a free adjustment and flow into the particular characteristics of the site. There then, becomes dialogue between the human use and the site, and this begins a natural formation toward the solution.

Generally, deep slopes or drops are difficult to handle within a regularly organized space. It is a safe rule to take up such vertical difference in the approach to or spaces between important openings. Level changes may be used to define space by themselves and they add many additional visual possibilities. Building with the natural contours gives a less disturbing feeling, however building directly across the natural contours sometimes is a dramatic method which often clarifies the topographic structure. Below is an approach and solution to an unusual site.

SITE SOLUTION For Neuro-Psychiatric Clinic

After analyzing the site for this project three factors became the primary criteria for site use. First, that the site entrance be located to the far West property line. At the East property line is a deep drainage coulee with a bridge approximately 8 ft. above the site, thus creating a blind exit at this point due to the necessity of a ramped exit, the guard rail of the bridge and the reverse curve of the thoroughfare. Second, the site is 6 ft. below the street level and 10 ft. below eye level from an automobile. Therefore, it was important to raise the building because of the visual importance of the building type and to prevent seeing only the roof. Third, was the necessity of preserving all of the large Oak trees.

Raising the building solved the visual requirement and did not alter the natural contours. The building could then be located in the lower contours and drives and parking areas would be convenient to the desired entrance and exit point of the site at the slightly higher elevation, making possible a natural ramp to the covered building entrances and exits.

We should be sure that the structure and its surrounding spaces are in toto, a complete and balanced composition of functional and visual elements. Just as all buildings have purpose, so do the open spaces that they interrupt.

Photos by Roy Trahan

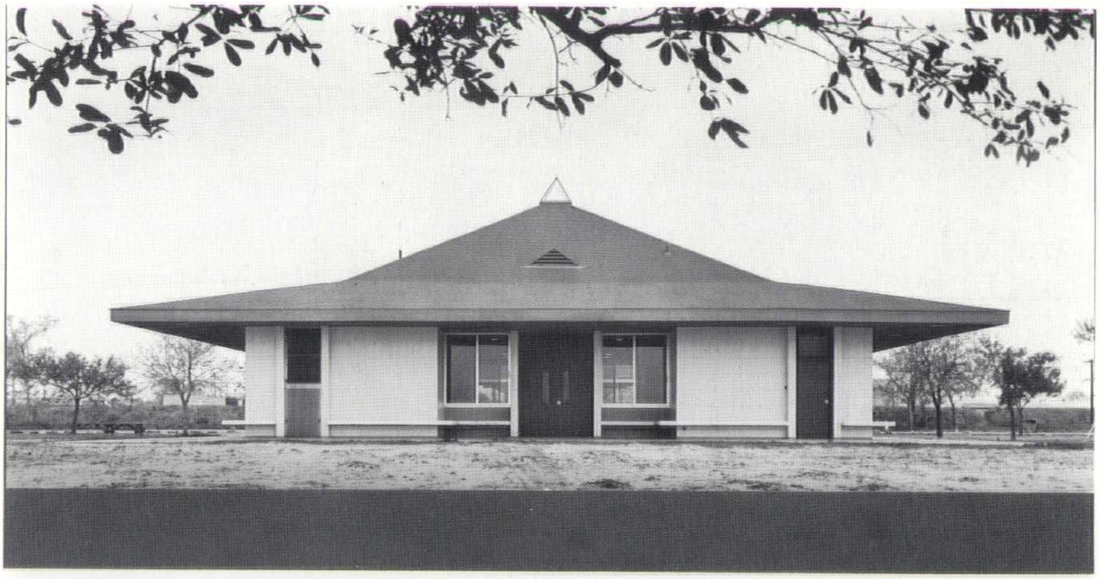
PONTCHARTRAIN PARK CONCESSION BUILDING

Architects: Dent and Hegedus, New Orleans, Louisiana
Contractor: A. J. Toups Co., Inc., New Orleans, Louisiana
Owner: City of New Orleans

The owner wanted to erect a concession building which would serve the users of the recreation area during the day and accommodate teenage and neighborhood functions in the evening hours.

ARCHITECT'S SOLUTION - The symmetrical building is supported by masonry "pylons" at the four corners. The column free glass areas between them allow visual expansion of the interior space in all four directions. The Greek cross shaped central area houses service and eating spaces. Food storage and preparation facilities are located in one of the corner "pylons", toilet facilities in another. The third "pylon" is intended to keep games and vending machines out of sight, while the fourth is reserved for storage and for future office of a recreational supervisor. A ribbon of precast concrete seats follows the outline of the building inside and outside: in the eating area it provides additional seats and on the outside it allows eating and game-watching under the protection of the wide overhang. All interior and exterior walls are of load-bearing glazed concrete masonry units. The wood roof construction provides a spacious loft at the center of the building, while its lines on the exterior are intended to suggest a style of architecture indigenous to the south. The roof is topped with brown asphalt shingles. Soffit, ceiling, fascia, and loft are faced with rigid textured material cedar boards. Vandalproof and maintenance-free materials were used throughout. Concrete block walls are glazed on all exposed surfaces. The special 3/4" thick glazing for all large sliding windows consists of two layers of3/8" thick tempered plate glass with a center layer of plastic aimed to withstand the impact of a golfball. Steel grating-type guards protect all other glass surfaces. All interior and exterior concrete floors have grease-resistant topping with a deep orange color.

Ducts for the forced-air type heating system are sized to allow future addition of air conditioning. Large sliding windows of the main eating space open up to 50% of the window area for cross-ventilation in all four directions.



Photos Frank Lotz Miller

LAA CONVENTION EXHIBITORS ?!

Meet them at the products show Oct. 15th, in Baton Rouge
and express your appreciation for their participation

Acme Brick Company - La. Concrete Products
Amarlite/ Anaconda
American Olean Tile Company
Anderson- Longacre Corporation
Amspec, Inc. (Dow Chemical)
Associated Waterproofing Company
B. R. Blue Print and Supply Company
Buckelew's
Clarence J. DuBos and Sons, Inc.
Cole Cash and Associates
Colonial Hardware Company
Cooper-Weir
Curtin Scientific Company
Elgin- Butler Brick Company
Ero, Incorporated
Executone of Central Louisiana
Doherty-Silentaire Company
Doug Harper
Flintkote
General Equipment Manufacturing Company
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Libby-Owens-Ford Company
Menzie Tile and Terrazzo Company
Moldcast Manufacturing Company
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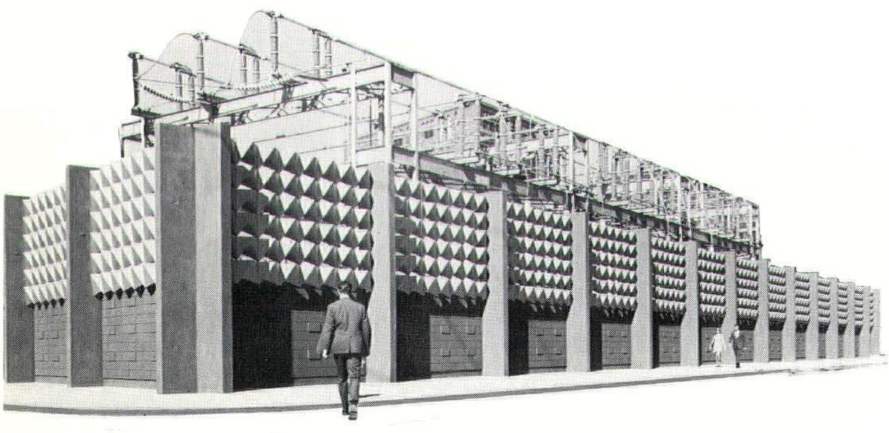

THOSE WERE THE DAYS!

Charles Rowe and Al Saputo at Tulane Circa 1948, Now Saputo & Rowe, Architects, New Orleans, La.
"Don't forget, Charlie, one of those fingers is mine."