ARCHITECTURE

AT RICE UNIVERSITY

designates a series of reports on thoughts and investigations from the Department of Architecture of Rice University. It is published in the belief that the education of architects can best be advanced if teachers, students, practitioners and interested laymen share in what they are thinking and doing.

#13

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THE RICE DESIGN FETE
an experiment in experience

MAURICE MILLER, Photographer
CORYL LaRUE JONES, Editor
The Rice Design Fete is an experiment in experience in which outstanding practicing architects are brought back to school and architectural students are involved in professional design responsibilities. This is a process of design dynamics in which research and emotional drive are combined to produce architectural solutions for environmental problems.

The concept of the Rice Design Fete was devised by two men: William W. Caudill, Chairman, and Bill N. Lacy, Associate Chairman, of the Department of Architecture, Rice University. Both men believed that a combination of architects and students working together on a university campus could produce imaginative and creative solutions for real problems. The purpose would be architectural research on specific building types with special program requirements and unusual problems. Top architects and students would be invited to come to the Rice campus for an all work, no lecture conference in an all-day, all-night two week session. In architectural jargon, this is a charrette. This technique has been successfully utilized by practicing architects both by choice and from necessity, and it seemed logical to try the dynamics of charetting in research.

Bill N. Lacy successfully engineered the first two design fetes, 1962 and 1963. After the first two fetes, a biennial objective was set because of the extreme energies needed for initiating, programing, staging and publishing the results of the fete. It takes one year to stage and document a fete, and one year to recover.
Educational Facilities Laboratories, Inc., of New York City, sponsored the 1962 fete to study facilities for two year community colleges. The publication, TEN DESIGNS: COMMUNITY COLLEGES, documented the architectural solutions presented by the ten architects, 50 students and their consultants. The second fete was sponsored by the Office of Civil Defense, Department of Defense, Washington, D.C., to investigate the feasibility and economy of incorporating protection from fallout gamma radiation in industrial buildings. The publication, INDUSTRIAL ARCHITECTURE...FALLOUT SHELTERS, included both design results and cost estimates for construction prepared by the five architects, 30 students and an entourage of consultants.

Both research publications presented conceptual, factual and technological material for reference for an intended audience: school designs for school personnel; industrial designs for industry and management. Both publications showed the quality and quantity of visionary, yet realistic design which can be produced in a two week period of intense activity, but neither presented evidence of how the results were accomplished. This report is for persons interested in architectural research and architectural education who wish to examine the fete as a learning experience and as an approach to research so they can understand the depth and intensity of involvement created in an atmosphere of tensions and pressures of this research charette. An architectural charette is more than much work in little time. It is an experience of complete saturation and undivided interest. Amazingly enough, humor plays a tremendous part in such an atmosphere, because the pressures can only be abated by moments of humor and final accomplishment. These moments were recorded by Maurice Miller, a Houston photographer, and presented here for those persons interested in the process as well as the results.
PRINCIPLES OF FALLOUT PROTECTION

- Time
- Distance
- Material
The operation and orientation of each fete is similar. Top specialists write an architectural program. Architects are brought in from various regions and presented with individual programs which include building requirements, climatological data, plot plans, character sketches of personnel, indigenous characteristics, and product data. Each architect has a team of four to six students, one of whom serves as job captain and liaison between team and administration and he is in charge of team logistics. Consultants are available on request according to individual needs. There are no restricting guidelines on architectural style, technique, or similar design determinants. Participants are encouraged to seek new concepts in architecture, construction methods, materials and processes, even for the processes of the function to be housed in the architecture. Each is encouraged to formulate directives on purchase of land, zoning or antiquated building codes. The climatological data and architectural program are taken from case studies done by the climatologists and program authors. The locations and "clients" are somewhat universalized to assure solutions of maximum flexibility. The goal of each architect is solution of the problem and presentation on the final day, the tenth working day of the fete, to an audience of the other participants, consultants, and special guests.

This report is focused specifically on Rice Design Fete II with its five carefully defined problems: five manufacturing plants, each in a different section of the nation, each reflecting a different manufacturing process, but containing a common factor of protection from gamma fallout radiation. Each of the five participating architects had a team of five students. The students were representatives from ten schools of architecture in the Southwest. The architects drew straws for programs and sites upon their arrival on Sunday, June 2, 1963, and commenced work immediately. On Monday they received orientation from the professional adviser of the Office of Civil Defense, the program author, and the structural consultant on shelters. Monday afternoon each team met with the advisers to discuss their program, make adaptations where necessary, make revisions for flexibility, growth, and review problems inherent in the technical criteria. The mechanical, electrical, and structural engineers visited the labs later in the fete on an impromptu-as-needed basis as the work progressed.

During the two weeks, the architects and students lived and worked together — working in the facilities of the department of architecture, living in a campus dormitory, and dining in the Rice student center. Since the consultation and discussions were by conversation rather than lecture, the coffee to go with the consultation was provided in the lab and library-lounge on a 24-hour basis. The only breaks were prank breaks and short excursions in and around Houston, including a moon-lit luau on the beach.
The hierarchy of each team was established the first day and duties assigned accordingly. The personality of each architect influenced the work of his team. He taught by example only. The work of each team could be discerned by its technique and media — from ebony pencil, crayon, pastel and chalk to felt pen and India ink.
The 'critical path' of a problem in charette is not an orderly tree of activities. It has a beginning, a purpose, and a conclusion. Only the sponsor oriented program is prepared prior to the conference, and the professional man hours during a fete is co-ordinate to the work produced. An estimated 8,000 hours was logged by 35 participants in two weeks in the second fete. The total cost for construction of the five plants was estimated at $3,961,000.

The path the first day — orientation. The second day — program revisions with consultants. Third day — concepts and schematics of site, circulation and function. Fourth and fifth days — study models and proposed plans. Sixth day — cold coffee (it is Saturday). The second week? The first week over — reorientation, crystallization of concepts, discarding the impossible for the merely impractical, for the visionary with the pragmatic touch, then the projection of reality and presentation. The schematic drawings and charts are pinned to walls, hung from ceiling fixtures, consigned to waste baskets, or just left on the floor.

Each student is encouraged to develop his own concepts for the design just as the architect presents his own. The suggestions are accepted or rejected according to the dictates of solution. It is paradoxical for both students and architects to deal in this type of cross-examination and self-criticism. The architects often expect a placid hero worship from students, because, after all, the architect is selected because he is tops in his field. The architect is often rather rudely awakened when his students display a firm grasp of the design problems, but the architect is also confronted with some rather dilettante designs because the students' architectural creativity has not been dulled by the dollar, rained on, nor air conditioned.
The learning experiences for the students hinge on the means of arriving at the architectural solution and the means of communication between architect and student. In the final count, the presentation material for each team numbers countless studies, progress charts, site plans, floor plans, flow and systems charts, construction and working drawing details, perspective sketches, preliminary cost estimates, growth concepts, responses to climate, advice to clients and explanation of the rationale for the program adaptations. In the design sequence each student has many diverse activities and responsibilities:

- Programming from a client-presented orientation, research on an experimental program, new study techniques, new approaches.

- Informal consultation with architects, engineers, climatologists, program specialists, psychologists, sociologists, graphic artists, news personnel, and other advisers.

- Development of work from preliminary stages to presentation drawings which must illustrate the best in architectural design for a critical audience of professionals and laymen.

- Determination of the type and number of items to fulfill the needs of the client-sponsor.

- Work with students from other schools of architecture.

- Work in a variety of presentation disciplines, techniques and media in context with the operating procedures and office routines established by each architect for his team.

- Design by deduction from climatological data, product flow diagrams, and personnel sketches.

- Writing specifications, making cost estimates, and working drawings.

- Research in new building technology, integration of mechanical and structural systems, use of new materials, development of new concepts to solve new architectural problems.

- Building models showing materials, construction, detailing, site planning, and growth.

In summary, the plagiarism is removed from the research. The teaching and learning methods are those of experience by association and activity.
Ac

This is Goody Week.

CBH.
The humor of the tired mind often becomes a stronger stimulant than coffee or inspiration or the pressure of a deadline. The humor is a tool for alleviating the pressure in the overall emotional structure of the conference.
Every time I fly it a damn thing breaks off.

My T-Square's stuck!

Funny... That head wasn't there last night.

Now, you sure you get that?

Now as I understand it... you are to be my guest.

You can't get a train through a 2' door!

Even get a smaller rain!

That's right, John! Your serve is much better now.
Continuously compress

Tension.

I don't like it if it weren't so ugly.

You wanna be somebody else?

Do you draw a tree?

How's the party?

This is bad class room space.

You spell "PF"? How do you spell "PF"?

Banks, college, plants...

I always draw the johns.
The design concepts are usually not established till mid point of the conference. It is at this time that the outline is made for the type, number and technique of the final delineations and model or models. During the second week, the site models and schematic models are converted to large scale finished models which are often complemented by detailed models showing sections or construction components. Necessity often dictates new techniques and new technology. The results are often ingenious.
During the all night stand before the presentation, all people do all things. The presentation boards emerge from the heaps of studies, the models sprout trees, the paint dries. Specifications are written for design concepts, materials and mechanical and structural systems. During this night-before, the office staff works getting out the commentary, writing up news coverage, making travel arrangements, locating lost articles, and helping erect the exhibit for the final presentation in the Grand Hall in the Rice Memorial Center.
The hourly countdown terminates in the presentation. Only the excitement of the presentation, the quizzing by members of the audience, the physical exertion of presenting the material keeps the participants cognizant of the activities. If the presentation were a jury of evaluation and criticism, the participants could not be more relieved to have it over. After the presentation, the end of nervous energy, the trip home for the participants, and the charette of publication preparation for the administrators.

This is a candid coverage of an experiment in experience, the Rice Design Fete.
CREDITS AND REFERENCES

Copies of the Rice Design Fete I publication, TEN DESIGNS: COMMUNITY COLLEGES, may be obtained free of charge from the following:

Department of Architecture
Rice University
Houston, Texas 77001

or

Educational Facilities Laboratories, Inc.
477 Madison Avenue
New York, N.Y. 10022

The activities of Rice Design Fete II were the topic of this pictorial essay. To credit and identify the participants portrayed, the reader is referred to the publication, INDUSTRIAL ARCHITECTURE... FALLOUT SHELTERS, which may be obtained by requesting Technical Report, TR-21, from the following agency:

U.S. Army AG Publication Center
Civil Defense Branch
2800 Eastern Boulevard (Middle River)
Baltimore, Maryland 21220

The publication staff for both books was Bill N. Lacy, editor, Charles Schorre, art director, Maurice Miller, photographer, Coryl LaRue Jones, research associate.
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Coryl L. Jones, Editor of the Series
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