THE COLLEGE FACILITIES THING, IMPRESSIONS OF AN AIRBORNE SEMINAR AND A GUIDE FOR JUNIOR COLLEGE PLANNERS.

BY: REED, BOB H. HARPER, WILLIAM A.

AMERICAN ASSN. OF JUNIOR COLLEGES, WASHINGTON, D.C.

IN THE SUMMER OF 1967, THE AMERICAN ASSOCIATION OF JUNIOR COLLEGES CONDUCTED AN "AIRBORNE PLANNING TOUR FOR NEW JUNIOR COLLEGES," SUPPORTED BY A GRANT FROM EDUCATIONAL FACILITIES LABORATORIES. THE TOUR INCLUDED VISITS TO 19 COLLEGES AND UNIVERSITIES WHOSE BUILDINGS WERE CONSIDERED ARCHITECTURALLY OUTSTANDING IN SOME WAY. TOUR PARTICIPANTS WERE TEAMS OF PERSONNEL FROM 16 INSTITUTIONS, EACH TEAM CONSISTING OF AN ADMINISTRATOR, A BOARD MEMBER, AND AN ARCHITECT OR DESIGNER. THE INSTITUTIONS VISITED REPRESENTED SMALL TOWN, URBAN, AND SUBURBAN LOCATIONS, EACH WITH ITS PARTICULAR BUILDING NEEDS. ILLUSTRATIONS, WITH DESCRIPTIONS OF NOTEWORTHY STRUCTURAL POINTS, ARE INTENDED TO HELP OTHER ADMINISTRATORS IN PLANNING THEIR NEW OR RENOVATED CAMPUS FACILITIES. THIS DOCUMENT IS ALSO AVAILABLE FOR $2.50 FROM THE AMERICAN ASSOCIATION OF JUNIOR COLLEGES, 1315 SIXTEENTH STREET, NW., WASHINGTON, D.C. 20036. (HH)
THE COLLEGE FACILITIES THING

Impressions of an airborne seminar & a guide for junior college planners

BY BOB H. REED AND WILLIAM A. HARPER
Planners of the scores of new community junior colleges that will be going up in the next few years have an opportunity to profit from the work of others. Institutions that are adding to or renewing existing facilities can also benefit from the experiences of colleges and universities which have had the course. While it is unlikely that the designers of any new college would duplicate the campus or another, they can take advantage of fresh and workable ideas that have been built into some of the country's outstanding educational complexes.

With this notion in mind, as well as a general concern for providing assistance in facilities planning to new community junior colleges, the American Association of Junior Colleges in the summer of 1967 conducted its “airborne planning seminar for new junior colleges.” The tour was supported by a grant from Educational Facilities Laboratories. E.F.L. has pioneered the cross-country tour idea for college planners.

The AAJC fly-in was somewhat different from previous tours in that it brought together teams of individuals from sixteen institutions that were in the early stages of planning and design. Each team consisted of a college administrator, a member of the board of directors of the college, and a representative of the architectural firm engaged in designing the campus. Thus, key members of the planning team could compare notes and ideas on the spot.

The schedule called for visits to nineteen college and university campuses—and the School Planning Laboratory at Stanford University (a joint project of Stanford and the Department of Architecture of the University of California, Berkeley, supported by E.F.L.). There were two unscheduled stops, one at a suburban shopping center in Dallas, Texas, and the other at the “instant” campus of Cypress College near Los Angeles. Some of the tour participants felt that the shopping center had some of the facilities characteristics that ought to be found in a good community college.

Seminar participants came from a variety of situations—small towns, urban centers, and suburban locations. The schedule included visits to institutions that represented design and planning problems relevant to the varied interests of the members of the tour.

It is difficult to tell what impact the seminar will have on the planning that will be taking place in the communities represented by the participants. Certainly there was rare enthusiasm, much note-taking, and many brainstorming sessions as the administrators, architects, and board members attempted to analyze what they had observed at the end of each day. At least one participant stayed up most of one night to sketch out a plan for his new college.

The airborne seminar was an outgrowth of a national facilities information project of the American Association of Junior Colleges. The project, also supported by Educational Facilities Laboratories, was established as a service to the many new institutions that are being established, as well as for existing colleges that are engaged in facilities expansion and renovation.

While the airborne tour is history, the impressions and facts gained from the seminar may be of assistance not only to those who participated in the activity but, hopefully, to planners of other new colleges as well. What follows is an effort on the part of the Association to record some of the impressions, observations, and facts about the institutions that were visited. Perhaps this report will serve as a guide for others interested in touring college and university facilities.

Edmund J. Gleazer, Jr.
Executive Director, AAJC
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Get Land, Lots of Land—But If You Can't, Go Up
If you can get land, get land. It's the cheapest investment you can make.

If you don't use it, you can sell it and make money. Don't use glass bricks. You'll have to knock them out and put in concrete. They are fascinating to kids. Escalators cost no more than elevators and they move people faster. Location of college in a slum can pull the area up—but often the people move to worse slums. Flexibility in a building is related to imagination. You can find ways to make it more flexible. Look for dead space. Use it. A building is nothing more than a machine. Nobody has designed a machine for such a program.

FASHION INSTITUTE OF TECHNOLOGY, NEW YORK

As the above comments of officials and planners of the Fashion Institute of Technology in New York City would suggest, the college provides many lessons for communities interested in establishing institutions of higher education in the heart of a city. Buildings must be vertically planned, taking advantage of air space. Land is at a premium. Facilities must be planned so that every bit of space is utilized. Ways must be found to move people rapidly from floor to floor. Yet, the surroundings ought to be attractive and comfortable to afford the best possible learning situations.

The Fashion Institute of Technology is a specialized college serving the garment industry, and is located at the heart of that industry. A part of the community college system of the State University of New York, F.I.T.'s present campus was begun in 1958. The college now occupies some 300,000 square feet in a nine-story building, and accommodates 1,250 full-time students and 2,500 part-time evening students. A master plan calls for expansion by an additional 800,000 square feet, which will enable the institute to more than double its capacity.
New York is the laboratory for F.I.T.—world renowned for its unusual program and product. Educational programs are designed in close consultation with the fashion industry. The college utilizes the most sophisticated and modern equipment available in its teaching. Its laboratories—weaving, textile design, printing and dyeing, pressing and sponging, cutting and pattern making, sewing and others—make clear what the institute is all about. Students can make instant socks on one machine. And they have contracted to supply certain goods to other public establishments.

The long-range plans call for the Fashion Institute to take over an entire block. Not only will the college prepare young people for the fashion industry, but it will become a landlord in a high-rise building that will include apartments sitting atop levels that will house the college facilities. This college will offer recreation facilities for its students, housing, and commuter lounges—all the things that make for a situation conducive to learning.
THINGS TO SEE AT F.I.T.:

- Some of the most outstanding teaching laboratories in the world for a specialized industry
- How to cope with a congested situation by use of a high-rise facility
- Use of escalators to move students and faculty from floor to floor, from top to bottom
- Utilization of closed-circuit television for demonstration activities or for piping in visuals from other parts of the city
- Use of computers in a traditionally handicraft industry
- Classrooms large enough for conversion to laboratories if and when required
- Attractive lounge and dining areas
- Use of the roof of the building for outdoor social functions
- Specialized auditorium with ramps for modeling.
Oakland Community College, serving the large suburban Detroit community of Oakland County, Michigan, now has campuses in three locations. In operation since 1966, the college presently enrolls more than 4,000 students. While two of the campuses—Highland Lakes and Auburn Hills—are in temporary facilities, the third unit, Orchard Ridge, now occupies brand new facilities. This report deals with the Orchard Ridge Campus.

To appreciate the design of the campus, the nature of the instructional program must be understood. It is unusual, even in this day of technological advancement. Breaking with all tradition, the college uses an instructional systems approach to teaching and learning in tutorial laboratories. Students learn at their own pace through use of programmed learning devices. Instructors prepare much of the material that their students learn from and they provide individual and group assistance to students as they proceed with the learning process. Oakland's philosophy is that the students should "swim in the pool of knowledge," that teachers should not come between the learner and the pool.
college campus the radical instructional departure of this "learner-centered" institution. The campus is striking—the buildings have unusual modern shapes—but it is identifiable as a college campus. It complements, rather than detracts from, the beautiful but rugged wooded terrain that comprises its setting. The design, according to the architects, was to suggest a "point of arrival."

The tutorial units surround a raised plaza, under which service facilities are located, and which connects to the learning resources center. In former days, the center would have been known as the library. Buildings are constructed of medium dark brick and rough form concrete. Windows are of tinted glass and require no drapes or shades.

The 149-acre site is set well back from the busy suburban highways, with a handsomely landscaped driveway leading to the buildings themselves. A 3,000-car parking lot immediately marks the institution as a commuter college.

The eleven buildings on the campus include six instructional centers which house learning laboratories and small assembly areas. There are no classrooms in the usual sense. A fine arts building includes large assembly areas for theatrical and choral presentations, and facilities for art and music courses. The commons—which serves as a student center—contains four large assembly rooms, each with a capacity of 200, a bookstore, snack bar, dining areas, recreation room, and cafeteria. Another building houses administration and the power plant.
THINGS TO SEE AT ORCHARD RIDGE:

- Reflection in all facilities of the systems approach to learning
- Nontraditional design and use of space—study carrels, learning laboratories, and assembly areas rather than classrooms
- Adaptation of design to the setting of the campus
- Striking architecture in shapes, forms, and angles
- Use of one element—brick—to good effect in construction and design
- Flow of spaces from area to area and floor to floor by means of open stairways and lack of intervening walls
- Computerized library services
- Widespread use of carpeting
- Use of a plaza to tie the campus together
- Attractive graphics system (directional signs).
This college has never had a new building. It has operated in dribs and drabs, basements and storefronts. They operate from 8:00 a.m. to 10:00 p.m. every day of the week except Sunday. If we have a telephone booth, we use it for a classroom. We are going to get adults even if they have only a fourth grade education. This community college is too important to the city of Chicago to let anything stand in the way of its development. We'll reverse the cycle in the city—bring the whites to where the Negroes are.

Chicago City College in 1967 did not have new or unusual facilities, as the above comments suggest. The fact that this institution is one of the largest in the country is significant in itself: this junior college system enrolls about 33,000 students in eight different locations. The popularity and usefulness of the junior college idea is dramatically illustrated by the fact that Chicago area citizens have for years taken advantage of courses and programs offered by the system despite the fact that facilities leave much to be desired. Most of the campuses are in old high school buildings and one in the famous Loop section is in a former office building. Recent changes in junior college development and planning in the state of Illinois have removed most junior colleges from the aegis of local school boards. As a result, Chicago City College is proceeding with plans for the creation of new campuses embodying new concepts of education and community action.

The college, for example, is planning new facilities in semi-commercial areas with an aim to reversing the racial cycle in this metropolitan center. They will be built in areas deliberately to attract a mix of Negro and white students and, in fact, to draw whites back into communities that have become predominately Negro.

Two new campuses have been authorized, and much of the design work has been completed. One of them, the Wilson Campus, is being charted as a "sidewalk campus" which will invite residents and students to walk in and use ground-level community facilities. The intention of the architects and college planners is to design Wilson as a prototype urban campus which will be a community center as well as an educational complex. The other campus being planned is for the Loop College, which will be built in an area known as the Illinois Central Air Rights. This means the high-rise campus, consisting of a single building, will be constructed over the tracks of the Illinois Central railroad. Other campuses may be built over freeways; there may be a library-college. Buildings in most areas will be high-rise since land is at a premium.
Construction Will Never Be Finished
We will never finish construction of this campus in the normal sense. Enrollment projections? How do you reconcile a wall around the campus with wanting to be good neighbors? Why do you isolate the faculty from the students by putting them in a tower? We made a mistake on our food service needs by projecting them on the basis of statistics on dormitory-type campuses. This is a commuter campus. It's difficult to bring about a social mix. Students in Chicago have ethnic cohesiveness. They've grown up with it.

The Chicago Circle Campus of the University of Illinois represents an effort to bring the offerings of the university to the people in this metropolitan center. It is a commuter campus—and its planners believe that it is realistic to say that it probably never will be completed in the normal sense. Planned for an ultimate enrollment of 23,000 students, its administrators now believe that enrollment projections will go up and up in the years ahead. Located just west of the Loop in the center city, the complex of first-phase buildings occupies 40 acres. The entire campus consists of 106 acres, surrounded by the sights and sounds of the big city.

Architectural Forum notes: “The strength of the environment at Chicago Circle is in part the strength of rough-cut granite and coarse-textured concrete, of big spaces and massive forms, of long straight lines and uncompromising intersections. But beneath and beyond all this, it is the strength of consistency achieved without conformity.”

Buildings are clustered around a great open area, a raised plaza. Beneath the plaza is the lecture center, with stairs joining the lecture areas to the upper level and forming an amphitheater. Traffic circulates on two levels, the upper level consisting of solid granite structural slab construction, and ramps which bring pedestrian traffic from parking lots and subway stations outside the campus itself. A faculty and administrative tower, twelve stories high, overlooks the scene from one edge of the campus.
Clusters of classrooms are located around the upper level, with walkways leading to each cluster. Below is the lecture center, around which the design of the campus revolves. The center contains twenty-one separate halls ranging in capacity from 75 to 500. Typical lecture rooms are arranged around a core where rear-projection equipment is or can be installed.

The engineering and science laboratory is another striking example of balance without conformity. Containing seven bays, the building is three stories high, and its roof is supported by freestanding columns. This building serves as a gateway to the campus, with walkways passing through and onto the main part of the campus.

The faculty tower is encased in a kind of concrete and glass cage, with offices and seminar rooms built around the perimeter of the building and the core housing central services. Typical floors of the tower have private offices along the perimeter, clerical spaces and seminar rooms in the central core. An elevated walk penetrates the base of the tower.
THINGS TO SEE AT CHICAGO CIRCLE:

- Rise of a complete new campus from a congested downtown big city
- Unusual design in terms of materials and sizes of buildings
- Planning for traffic circulation through elevated pedestrian expressways. Leads to subway station overpassing all vehicle traffic
- Well-planned lecture halls and laboratories
- Landscaping
- The great plaza and amphitheater
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Ours is a story of growth and change. Team here means team teaching rather than athletic teams. It is foolhardy to put in sophisticated audiovisual media without considerable technical backup. Within five years, we will be preparing junior college teachers. Bug-house square provides weekly opportunities for students to air complaints. There is a desperate need for more student-centered space because this is a commuter college. We like the "beehive."

Despite the change in its name, Northeastern Illinois State College—formerly known as Chicago Teachers College North—continues to be dedicated to the preparation of men and women for teaching, principally in the elementary and secondary schools (though the college planners, cognizant of the rapid development of junior colleges in Illinois, expect in the future to help meet demands for teachers in the two-year junior college field).

In looking at facilities on this campus, the observer should base judgments on the college’s orientation to the education and training of teachers. The college is located in an older residential section of Chicago—and is a commuter college. Its facilities and general layout have some of the characteristics of the typical community junior college.

The campus is dominated by the “beehive,” the faculty administrative tower, which also sets the design theme. While the other buildings in the complex are generally simple in design, the elongated hexagonal shape of the six-story office unit gives the impression of a honeycomb, and thus adds a dramatic flavor to the overall design. The honeycomb motif reappears throughout the buildings in the shapes of the classrooms and corridors. The hexagon theme is also carried out in the physical education area, and even in its swimming pool.

Arranged around a series of landscaped courts and gardens, the college consists essentially of eight units under a continuous roof. In addition to the office building, it includes a library, lecture halls for groups of between 90 and 150 students, a 750-seat auditorium, a student center, and the physical education area.
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NORTHEASTERN ILLINOIS STATE COLLEGE, ILLINOIS

"Honeycomb"
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Arranged around a series of landscaped courts and gardens, the college consists essentially of eight units under a continuous roof. In addition to the office building, it includes a library, lecture halls for groups of between 90 and 150 students, a 750-seat auditorium, a student center, and the physical education area.
The library is a comfortable place, situated on two levels. The mezzanine, or second level, has recording and listening rooms. The main library area is separated by dividers which provide for privacy. A courtyard provides an outdoor reading area. Similarly, eating facilities for faculty and students are arranged in a split-level cafeteria.

Hallways contain carrels for "instant study." Northeastern did not invent the multimedia approach to teaching, but the institution has put the concept to effective use throughout the campus. In the auditorium, for example, a multiscreen communications system coordinates the use of slides, motion pictures, large screen television, and other audiovisual devices. Classrooms are more than adequately equipped for use of audiovisual media.

Flexibility is a keynote of the classrooms. Folding partitions make it possible to change the size of a room quickly. Laboratories make use of specially designed equipment, and are planned for comfortable efficiency.
THINGS TO SEE AT NORTHEASTERN:

- The honeycomb design—departure from boxlike rooms and buildings
- Openness resulting from use of courtyards and glass window-walls
- Swimming pool flush with the floor
- Comfortable dual offices for faculty in the "tower"
- Effective planning and use of multimedia
- Distribution of study carrels in corridors and the library
- Multipurpose auditorium unusually well equipped for audiovisual communication; audience responder units
- Flexible classrooms made possible by operable partitions
- Spacious eating areas
- Well-planned laboratories.
The Living Room

EDWARDSVILLE CAMPUS SOUTHERN ILLINOIS UNIVERSITY, ILLINOIS
What spaces really make up a university? You've got to be prepared for change. You need a living room—and a den—on a commuter-centered campus.

This is the best science laboratory I have ever seen. The library reflects in the arrangements of books the divisional philosophy. They gave a lot of attention to provision of free space. A great example of how good landscaping can contribute to a campus. We thought this auditorium might be the end of the road, so we tried to make it extremely flexible. It represents a workable compromise.

Here is another commuter campus, but different in that it is located in the country. It is close to many small towns, and only twenty-five miles from St. Louis, but nevertheless removed from the bustle of big city life. The “it” is the Edwardsville Campus of Southern Illinois University, one of the most rapidly growing institutions of higher education in the country.

The architecture at Edwardsville blends into and complements its setting, the rolling farmlands and wooded valleys along the bluffs of the Mississippi River. There is a symmetry in the buildings without sameness. Variations in heights of buildings and in textures and colors of construction materials provide aesthetic appeal. The use of towers in construction gives vertical relief to a basically horizontal situation. The brick towers house all of the fixed, supporting areas, including stairs, rest rooms, elevators and mechanical equipment.

Further contrast is brought about with the use of dark brick in the towers and precast concrete for the horizontal walls of the structures. The long free spaces house the active functions. Large expanses of grey glass add to the blend.

The buildings sit around the edges of preserved open spaces, which provide a courtyard effect, with pedestrian walks crisscrossing and leading to and from the various structures. The large parking area outside the campus is broken up by landscaped mounds.

Recognition of the commuter nature of the Edwardsville Campus is best expressed in the university center—a center for student services. Major access is provided from all four sides of the structure to a central two-story lounge “hub.” Off the skylighted hub on the first floor are the university store, music and reading lounges, main ballroom, and student activity offices. The second floor holds additional lounge space, and a table-service restaurant. On the lower level, which opens out onto a terrace, are snack bar and dining facilities, as well as bowling and other recreational spaces.
The communications center, another important landmark, is at once a classroom, a lecture hall, a theater, a movie hall, and a concert hall. Facilities and electronic equipment for television and radio transmission, audiovisual presentations, and data processing are a part of this plant. The core of the building is the theater which has a capacity for 400 persons, with an open stage partially enveloping the audience.

The library occupies its proper place of importance in relation to other facilities. As with other key structures, openness characterizes the building. The four-story building has a skylighted, open center bay. At the second level, four corner bays serve as reading spaces.

The other major units are the classroom building and the science building. In the former, classes are taught in two identical wings, offices are housed in another wing, and still another accommodates a central entrance and lounge area. The science building brings together all laboratories of the various scientific disciplines—thirty-two laboratories for twenty-four students each, on four floors—plus a variety of preparation and lecture rooms. The most interesting feature about the science building is that all laboratories are completely interchangeable among the various disciplines. A new system of laboratory furniture components was expressly developed for this purpose. A system of individual equipment storage "tote trays" was also developed to triple the use of each lab by speeding change of equipment.
THINGS TO SEE AT EDWARDSVILLE:

- A commuter college designed for a country setting: architecture that complements the setting
- Further emphasis on the commuter through the spacious, comfortable, and attractive university center
- Versatile "compromise" for communication arts and technology
- Flexible, interchangeable science laboratories
- Preservation of open space, topography, and native vegetation
- Free-flow, unrestricted, open library
- Fixed spaces contrasting with free spaces throughout the complex of buildings.
Here, once again, is an example of the reach-out to people in the big city. Forest Park Community College is a part of the phenomenal St. Louis-St. Louis County Junior College District which began in 1963 and now serves more than 16,000 individuals. The other two campuses, Florissant Valley and Meramec, are in suburban locations, where construction of permanent facilities is underway.

Located near busy U. S. Highway 40, Forest Park is a downtown campus that blends interestingly into the metropolitan surroundings. The present building, which represents Phase I of the campus plan, is an elongated structure, somewhat austere in appearance, which relates interestingly to the busy city traffic corridors of its neighborhood. Red brick is the predominant material, with some relief provided by the glass of the windows. A focal point of the campus is a plaza at the main entrance which serves as a mixing area and amphitheater.

Because of its restricted downtown site, the building rises five stories with classrooms and faculty offices on either side of long corridors. Laboratory space is located on top, and large lecture halls with heavy traffic at the bottom. The vertical hierarchy of activities minimizes traffic on stairs. The teaching units move out in opposite directions from the central focus. They are 180 feet long, and are serviced by circulation and utility towers at each end. The towers also give the structure an identity of its own.

In recognition of the importance of counseling in the comprehensive college, areas for this purpose are located throughout the building. The campus library and administration offices are located opposite each other and form the horizontal focus of the campus. The library is on two levels with a mezzanine area and clerestory natural lighting. The college is equipped for programmed learning.

THINGS TO SEE AT FOREST PARK:
- Good use of restricted site
- Imaginative library plan
- Planning for proper traffic conditions in a vertical situation
- Well-planned science laboratory space
- Decentralized counseling centers throughout the campus
- Organization of teaching space by function rather than department
- Relieving monotony of long corridors by proper lighting
- Flexibility in space planning
- Well-dispersed lounges.
Sunday School Approach with a New Look

Loretto Hilton Center for the Performing Arts is on the campus of Webster College, a four-year institution that made headlines when it broke away from its church-related tradition (Roman Catholic) to become a secular college. It is a women's school, with emphasis on liberal arts education and specialization in fine arts and teacher training. Webster is located in a pleasant suburban area.

The recently constructed center represents an exceptional if not unique approach to multipurpose design. While multipurpose planning is not new, and in fact has been described as the old-fashioned Sunday school approach, the Loretto Hilton Center has carried the concept a step further than most institutions. Architectural Record notes: "What is new and noteworthy about . . . the center is the degree of sophistication with which the concept has been designed."

Changes in program at Webster necessitated creation of new facilities for theatrical and musical productions as well as new instructional facilities in the fine arts. It became apparent that cost and availability of space would prohibit establishment of separate buildings and it was decided that a compromise would be to combine the new requirements in one structure.

The center, which has all the outward appearances of a concert hall or theater, accommodates at least twenty-one different functions. A variety of staging situations can be obtained and, fully opened, the hall provides seating for 1,000 persons. Mechanically operated, soundproof facilities can be quickly put in place to seal off space for lecture areas or classrooms. When the partitions are open, these serve as galleries for the main theater. Three such rooms—two of the same size, one larger—can be set up. Attached to the partitions, which slide into the floor and ceiling, are chalkboards and screens.

The auditorium serves as a concert hall or theater for community performances as well as college activities. The lobby of the building serves a dual purpose as a reception area and art gallery.

THINGS TO SEE AT LORETTO HILTON:
- Acoustical planning in a multipurpose divisible building
- Lobby-art gallery
- Various types of stages
- Mechanically operated partitions
- Offices and dressing rooms below the auditorium
- Simultaneous activities with acoustical separation.
EL CENTRO COLLEGE

DALLAS COUNTY JUNIOR COLLEGE DISTRICT, TEXAS
Nobody knows the troubles we've seen. You outsmart yourself if you just zero in on the top 10 per cent—the other 90 per cent are going to be around. We hired an architect on April 5, had plans for bids by May 5, opened in September. We didn't know what might be under the facade of the old building. Can you have a classy college image in an old department store? The student lounge looks like the inside of a Braniff airplane.

**Department Store College**

The comprehensive community college concept has often been likened to an educational supermarket or a department store, where students can shop for what they want, where there is a wide choice of options for study and training. If there is any validity to that concept, then the notion of converting a former department store into a community college makes good sense.

That, of course, was not the reason for the establishment of the first campus in a projected Dallas County, Texas, junior college system in a former department store. Behind the action was the need felt by the community to get a college started as quickly as possible in the best possible facilities available, and the downtown store building seemed to meet the criteria. It became El Centro College.

The store was completely remodeled to house typical programs of a comprehensive community college, anticipating an enrollment of 2,000 full-time equivalent students. Results of the quick-but-careful planning are attractive, efficient facilities which give Dallas a head start on its proposed seven campus community college system. The department store college is actually three adjoining buildings, ranging in age from about 50 to 75 years. Beyond the not-unhandsome exterior of the building, one enters a bright lobby-reception area equipped with modern lounge furniture and handsome lighting.
On the ground and basement floors are housed a student center—which includes the bookstore, cafeteria, lounge, and recreation areas—plus student government and organization spaces. Some classrooms, as well as the library, instructional media center, health center, counseling center, and campus administration offices are located on the second floor. The third through eighth floors include the faculty offices, laboratories, and remaining classrooms. The ninth floor is used for district administration offices. The facility includes thirty lecture rooms, most of them seating from forty to fifty students, with three seating from 100 to 200. There are also twenty-six laboratories or combination lecture-laboratory rooms, most of which accommodate from twenty to forty student stations.

The college is well equipped and furnished. The library, for example, has an automated system for handling services. Instructional media are carefully integrated with the library.
THINGS TO SEE AT EL CENTRO:

- Well-planned spaces for student extracurricular activities and recreation—attention to the commuter student
- Automated library system
- Appealing interior design, particularly in reception area
- Efficiently organized bookstore
- Handling vertical circulation with old elevators and student operators
- Planning that results in maximum efficiency and comfort in a difficult remodeling situation
- Graphics system for campus circulation.
We cannot afford the luxury of wasted space. There must be flexibility.

There's something for just about everybody here. This is a truly multipurpose junior college.

We really got our money's worth. The forum concept for large-group instruction has worked well. It's not every campus that has a working oil well.

We are just as proud of our vocational graduates as we are of our academic graduates.

Orange Coast College, while it is not a new campus, is one that still has much to offer planners of educational facilities looking for good design and planning ideas. The college is one of two campuses that presently make up the Orange Coast Junior College District, located in the most rapidly growing county of California, and the fastest-growing section of that county. Master planning calls for enrollments totaling 10,000 students on this campus—which is located a few miles from Los Angeles.

Orange Coast is probably one of the most comprehensive junior colleges in the country, offering a huge array of technical and semiprofessional curriculums as well as the traditional liberal arts offerings. A student can learn petroleum technology, for example, by actually working with an oil-drilling rig, or he can build a house and sell it in the building construction program, or get the bugs out of a balky automobile engine through various auto mechanics courses.

The college occupies a 200-acre site, which was once an Army base. Though a few of the old Army installations are still in use, there is very little on the campus that does not identify it as a college. A sort of open-air complex, the campus is well landscaped with trees that offer protection from sun and wind and give human scale to large open areas. There are now about thirty-one different structures—with eight new buildings being planned.

Orange Coast College pioneered the "forum" concept of education, where large-group instruction can be carried out efficiently and effectively. Large lecture halls, one for the sciences, make wide use of audiovisual aids in the instructional process. The "forum" concept has resulted in obvious economies in terms of space utilization and teaching requirements.
The college also boasts a handsome auditorium for both institutional functions and community use. Plays, concerts, and meetings are conducted in the auditorium. Acoustics are outstanding.

The gymnasium and other physical education facilities are important features of the campus. There are two stadiums and two swimming pools—one for beginners and the other for advanced students.

Data processing is an important curriculum at Orange Coast, utilizing sophisticated equipment and teaching techniques. Machines can be easily maintained through a modular floor plan that allows easy access to equipment.
THINGS TO SEE AT ORANGE COAST:
- Large-group instruction via the “forums”
- Well-equipped occupational education laboratories and shops
- A working oil well
- Excellent physical education facilities
- Community-centered facilities
- Attractive courtyards and other spaces for “mixing”
- Excellent acoustical treatment of the 1,200-seat auditorium
- Decentralized food service (snack bars).
Dead Level Site and White Hot Sky
What do you do with a dead level site and a white hot sky? We were asked to design for change and growth. Not buildings but space. Not space but environments. Nice beefy concrete. Don’t marry a method, or make it a ritual or a religion. The expression audio-learning is more suitable than audio-tutoring. The architects had an opportunity to be inventive.

Golden West College, opened in 1966, is the second campus in the Orange Coast Junior College District. The complex is located on a 122-acre site in north Huntington Beach and is in dramatic contrast to its sister campus in terms of design and layout—though its educational program is similar to that of Orange Coast.

The architecture was developed to blend with the flat terrain and the “white hot sky,” and, more importantly, to allow for continuous growth. Thus, a plan was evolved whereby new structures can be attached to existing units without disrupting the architectural plan.

This campus can double or even triple in number of units as the years go by and educational needs of the burgeoning county expand. The architects label the plan the “continuous structure” concept. Coupled with this concept is a modular design whereby all kinds of spaces can be developed within a single area once it is free of bearing walls and fixed equipment. Load centers for mechanical and electrical utilities, all toilets, distribution centers for closed-circuit television, computer links, and future communications or electronic systems, are scattered throughout the campus, separate from instructional buildings, with each center serving 30,000 square feet of building area. This frees educational space of most utilities which make change difficult.

The modular plan is reflected in the continuous, exposed-concrete ceiling with its waffle patterns to which partitions can be attached. Concrete beams protrude from each of the two-level buildings, forming an architectural pattern as well as showing the “continuous structure” idea. Buildings are flat, two-level structures connected by a main street.
Programed learning is built into the instructional program, though it does not dominate the teaching-learning situation. The college makes wide use of latest audiovisual devices for both small and large-group instruction. As at Orange Coast, large-group instruction is provided in a “forum” wired with and programed for a complete array of audiovisual systems. Even the rostrum was “invented” for the special needs of the forum.

In regard to the flexibility of the campus, the architects note: “The spaces programed originally for 1,500 students have changed many times since the planning began—and always these changes have been made in response to new ideas, new needs, new concepts as the educational curriculum evolved. As testimony to the effectiveness and flexibility of the architectural system, these changes occurred not just during the early stages of design, but during the working drawings, through construction, up to the day of opening—and even since then. This relates not so much to the buildings themselves, the structural framework, as to the use of the spaces created: storerooms changed to offices, offices to seminar rooms, classrooms to laboratories. General-purpose rooms have been changed to highly sophisticated teaching facilities by installation of special teaching devices.”

Community orientation of the college is reflected in one building which was constructed as a community service center. This facility is used by civic groups for meetings and other functions.
THINGS TO SEE AT GOLDEN WEST:

- Modular planning for flexibility in use of space
- "Continuous structure" concept of planning and its effect on the architecture
- Placement of utility "load centers" to contribute to flexibility
- Programed learning
- Widespread use of audiovisual aids, particularly in the forum
- Large-group instruction via the forum
- Well-planned student facilities, bookstore, and library
- The community service center.
Cypress might be called the "miracle campus." In seventy-four days, 112 acres of unimproved land were converted into a finished campus including buildings, parking areas, drives, and walks. It was built in response to an immediate need for establishing a second campus in the North Orange County Junior College District, previously served by Fullerton Junior College alone.

There is, certainly, a temporary look about the college. Yet, all the ingredients for learning, teaching, and living are in evidence: buildings, laboratories, shrubbery, courtyards, library, athletic fields, student center, and the inevitable flag pole. The campus complex includes nineteen buildings which were factory-built and shipped to the site for assembly and erection before classes opened in the fall of 1966.

A permanent campus is being planned for Cypress. Meanwhile, students are enjoying life on one of the more unusual campuses in the country.

THINGS TO SEE AT CYPRESS:
- A temporary campus that is both attractive and extremely usable.
The Stately Look

The College of San Mateo was established in 1922, making it one of the oldest in California. It also serves a portion of the San Francisco Bay area. Opened in 1963, the new campus is part of a planned three-campus complex. Some 8,000 day students, plus 12,000 evening college students, are currently enrolled and many more persons in the San Mateo area are served through television and community education programs.

The program of the college is comprehensive, with a lower-division transfer program, a full range of occupational education courses, an evening college program for adults, community education, and community service activities. Community education includes short courses, forums, lectures, concerts, planetarium programs, and field trips. Community services include recreation and civic center meetings. In addition, the college houses the county historical museum.

The college is one of two junior colleges in the country (the other also is located in California) which maintain their own open-circuit television stations. In addition to cultural and informational offerings, the San Mateo station conducts a College of the Air.

Located in a hilly section, the college overlooks the north San Francisco Bay area. Original contours of the site were changed by grading to provide plateau areas for the major buildings, together with a series of east-facing terraces for physical education and community recreation fields and courts.
The architecture can best be described as stately, dignified, clean. The campus plan places chief educational structures along a north-south axis provided by the main pedestrian mall. A second mall, running east and west, connects the fine arts center with the library. Twenty-eight buildings form the campus complex, many of them built around central courtyards that provide additional usable space and shelter.

San Mateo is a spacious campus. There is no sense of congestion here. Buildings are constructed of thin-shell concrete forms, which suggest traditional collegiate dignity. Pierced-masonry sun screens for the library are among features which give distinction to campus focal-point areas. Roof forms, making use of hyperbolic paraboloids and folded-plate design, add to the distinctiveness of the architecture. Variety is also achieved by fountains, rising from tranquil pools, and by colonnaded shelters.

Among major units are these: the large student center; the gymnasiums, the larger of which is also used as an auditorium; the science center with central lecture rooms, two laboratory wings, and a planetarium; an academic center housing modern data processing equipment; vocational arts and technical centers; and the engineering and electronics center.

All programs, whether transfer, terminal, or community service, may use the television and audiovisual facilities of the college, which are centered in the library. Both closed-circuit and open-circuit TV capabilities are fully developed, so that each classroom and laboratory can be served by programs from the instructional materials center.
THINGS TO SEE AT SAN MATEO:

- Architectural unity of the campus design
- Good sites and orientation for buildings on a spectacular hilltop
- Open and closed-circuit television capabilities
- Data processing center
- Planetarium and science center
- Spacious student center
- County historical museum on campus
- Physical education facilities for community as well as college use.
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