IUPUI CAMPUS

Boundaries:

The IUPUI campus encompasses much of the area that has been zoned UQ1: University and University related use. To the northwest of campus are located several institutions (V.A. Hospital, Wishard Memorial Hospital, et. al.) which are closely linked to the medical portion of IUPUI. White River bounds the eastern side of campus, separated by a green belt. Blighted, low income housing and industry round out the perimeter. Land uses outside the UQ1 boundary are zoned to stay the same - but much upgrading is planned.

Vehicular Circulation:

IUPUI is crossed by several of Indianapolis' major vehicular arteries.* As previously mentioned, Indianapolis is best perceived in scale and context from a car seat. IUPUI is similar in that one first perceives the campus from the street. The Michigan Street entrance is a stronger sequence as a result of arrival from the downtown and the proximity of university facilities to the street.

*Traffic Volume/Daily Averages 10
Michigan St..................10-20,000
New York St..................10-20,000
Indiana Ave..................0-10,000
10th St....................10-20,000
White River Pky..............20-30,000
Agnes St....................0-10,000
Blake St........................0-10,000
West St.....................10-20,000
Washington (South, not illust.)30-40,000

Isolation:

As a result of the heavy traffic on Michigan and New York Streets and Agnes Street, the campus is physically separated by noise and distance. The automobile, though, is not the only reason for the separation of campus facilities. The Medical Center and quadrangles are the historical heart of the campus. Although infilling has occurred, the Med. Center still retains its 'pastoral' images with a diversity of textures and materials found in the buildings and grounds.

On the other hand, the more recent buildings on campus which house the majority of classroom spaces are also a rectilinear grid, but are all of the same materials: brick, concrete, and limestone and are open to the urban forces as a result of somewhat hap-hazard and loose planning.

The only remaining visual link remaining between the two main halves of campus is at the intersection of Agnes and Michigan which is all but destroyed by 6 lanes of constant traffic. The need to overcome this separation is best summed up in the following statement:

Perhaps the most important is the integrity of the pedestrian: Universities have always been the domain of the pedestrian whose freedom to move in any direction, following the dictates of his own intellectual, interdisciplinary and social patterns, is basic for our traditions of personal growth.
The Existing and the Planned Campus:

Let us quickly review the site analysis so far and place the critical issues in perspective:

a.) Main urban campus in a large regional center.

b.) Surrounded by various resources and mixed land uses.

c.) Part and parcel of vehicular oriented context.

d.) The campus, itself, is split and compartmentalized by vehicular boundaries as well as varied planning approaches within the campus.

**e.)** A recognized need to unify the campus and to offer an image, i.e., sense of arrival at IUPUI.

This was first demonstrated by the Woolens Assoc. Master Plan (1973) and has been adapted by Edward L. Barnes, the current master planning architect. This basic concept utilizes contiguous, flowing quadrangles in an effort to reinforce a link between the Med. Center, through classroom buildings, and to Military Park. This general direction reinforces a pedestrian link through campus, further strengthened by second level corridors that enjoin the majority of university facilities. This feature is also intended to help de-emphasize vehicular barriers.

Comment:

The Master Plan still fails to adequately respond to some of the aforementioned critical issues. Raising the Business/Spea upon piloti to allow contiguous quadrangle facilitates a physical connection. The actual view from University Hospital extends only to the plaza. Therefore, the "arcade does not enhance the view into the 3-sided plaza. The same experience can be had from any where north of the plaza.

As a result of a very slight elevation change from Michigan Street perpendicular to the library, a parking lot located in between, and a lack of visual buffers to isolate the plaza, the space is unrecognizable as the start-up of a major pedestrian quadrangle sequence.

Finally, as mentioned before, the arrival at campus is perceived by auto as the recognition of the physical mass of campus. Conversely, the campus is to be identified by the pedestrian as enclosed greens. The need for separation of this quality is not clear because of access into the plaza afforded to both vehicle and pedestrian.

Resolution:

It is appropriate (and traditionally has been so) that the Student Union is the focus of the university. With set back restrictions fazed through a variance, the Student Union could be the physical mass that "steps out" to greet arrivals at the end of a rhythmic progression of university buildings. On the other hand, the facility will enclose the main quadrangle thus offering a focused entrance into the primary quadrangle for pedestrians and truly function as a recognizable beginning of a larger order of similar spaces.
Climatic Data:

Indianapolis is situated on mostly level or slightly rolling terrain with elevations ranging from 700 ft. MSL at White River to 860 ft. MSL at the fringes.

The climate is continental with rather warm summers and moderately cold winters. Recent trends have ushered in unusually severe winters.

Rainfall of an inch or more in 24 hours occurs on the average about once a month. Snowfalls of three inches or greater occur on the average about two or three times during the winter.

The average freeze-free period extends from April 23 to October 22.

Soil Analysis:

With the exception of west and southwest campus (especially those areas contiguous to White River), most of the campus consists of fill varying from 0 to 5 feet with firm sand and gravel below.
UTILITIES:

Water:

Water service around the new Student Union site is adequate. The exact location of a tap is a decision made by the Water Company, but it is known that the Water Company does not like to tap into a main. Therefore, it is likely that water service will originate somewhere along the six inch branch running parallel to the west facade of the Business/Spec building. Water pressure is adequate for three floors, but construction above this level will necessitate a fire pump.

Electric/Signal:

Electrical power enters the campus at two sub-stations at the north and west extremes of campus. These sub-stations accept electricity at 13.8 kw and step it down to lower voltages for transfer throughout campus. The conduit is encased in concrete duct which also accommodates signal conduit. All ducts are pitched for positive moisture drainage. Turns are accomplished with vaults. The tops of the vaults are located 3 to 5 feet below grass and are accessible by grates. New service ducts are installed at 90°. Ducts run from a vault to a sub-station without the confines of a facility where the electricity is stepped down to usable levels. New service will ultimately originate from the vault at Agnes and Michigan or the vault at Blake and Michigan.

Steam:

Steam for heating or cooling purposes originates either from the IPALCO Station located to the southeast or from the IUPUI Power Plant to the north. New Service (if used) will either originate from the vault at Agnes and Michigan or the vault at Blake and Michigan.

Combination Sewer:

Although the new Student Union site is surrounded by combo-sewer lines, there are several considerations that narrow selection possibilities. The IUPUI system is overloaded by 50%. In particular, the mains located in Agnes and Blake are terribly overloaded and forced the installation of check valves and pumps in all serviced facilities. The best choice for sewer service is to tap into the 1'10" x 12'9" main located in Douglass Street to the east of the site.

Gas:

Gas lines are located in North, Bright, Blackford, and New York Streets. At present, none of the facilities contiguous to the site are serviced with gas.
Conclusion:

This site analysis has emphasized the rationalization of site selection and the forces – urban, environment, and physical – that act upon it. In conclusion, it would be helpful to quickly state the goals and objectives developed and mention other forces seriously studied, but not graphically developed.

a.) Through the location of the new Student Union, strive to create a focus and image for IUPUI

b.) Strengthen the connection of the separate portions of campus.

c.) Utilize all forces acting upon the site to the fullest, positive extent

* Variety of building and grounds material throughout campus and contiguous, related facilities

* Entrance sequence onto plaza (to be quadrangle) from existing facilities

* People gathering points
Program

Introduction:

This program has been assembled for use as a design tool in the design of a student activities center at Indiana University/Purdue University at Indianapolis. The general categories of this program include the definition of aesthetic, socio-physical, and functional requirements of this facility.

This program is unique for it includes administrative functions under the office of student services as well as traditional student union functions. This program is also distinguished by urban, commuter, and master planning criteria responses.

In essence, the reader may expect to find a thoroughly defined model for a Student Union that is influenced by the specific issues found in the urban university campus within the Indianapolis context.
BACKGROUND

Building Type History:

The Student Union as it exists today is a relatively new concept. The invention of its earliest ancestor is shared by Oxford and Cambridge in 1815, when students of both universities formed debating societies. In following the Cambridge Organizations development, a facility was eventually built in 1866 specifically to house the debating society. This building was somewhat multi-functional (as are the unions of today) in the sense that it housed a reading room, lounge, dining, bar, committee rooms, billiards, and smoking rooms. The closest link, though, between these earliest unions and today's facilities is in the founding purpose: as social gathering centers that "cut across college lines."17

The next important development did not occur until 1919 at the University of Toronto. The actual precursor of the Student Union in Canada and the U.S., the Y.M.C.A., was attempting without success to satisfy the mounting social needs of the university student. The University of Toronto, in response to this demonstrated need, built Hart House for a budget of $2 million. Hart House had several unique features that distinguished it as a milestone in the student union evolution.

- Unprecedented range of facilities
- Design to serve all of the Academic community
- Introduction of union 'wardens' position
- Programming conducted by committee of facility, alumni, and students18

Houston Hall, Pennsylvania was the first student union to be built in the U.S. in 1896. It's physical significance is little for it lacked the foresight to include the diversity of functions to be found in Hart House — but it's purpose was most significant: "To provide for all students or various departments a place where all may meet on common ground."19

A most distinguishing and unique feature of the U. S. Union did not come about until the thirties. During this decade, the development of the community recreation center was initiated. This lent stimulus to the universities to program their new student union facilities in a similar fashion. As a result, the social and recreational programs became a part of a direct, on-going program rather than an accidental by-product of the activity of student clubs.20

It is also important to note that through the evolution of the U. S. Union, the image of this entity became more of a physical notion than did it's foreign counterparts. Today this might be questioned as a dying relief in the face of Berkley and other campus conflicts of the sixties.
Scope:

The scope of this program is to effectively deal with all the criteria necessary for a full realization of the student activities center. To achieve this end, the most pragmatic criteria for individual space performance must be complimented by the most theoretical levels of Urban Campus Planning notions. The success of this program will determine the level at which the designer will be able to evolve this project. Therefore, it is with the intent of becoming the most possibly complete design tool that this program is assembled.

Goals and Objectives

The goals and objectives of a design process are two-fold in value. They can set a level of achievement that the designer expects to attain, or, looking in reverse they can be a measure by which the designer may gauge what has been learned. Therefore, these goals and objectives are laid out in no particular hierarchical order for they are all high standards and will lend meaning to this thesis as the design process evolves.

- Strengthen interaction among the members of the academic community
- Develop a facility that successfully addresses the Student Union's purpose on an urban campus
- Reinforce the unification of major factions of the campus
- Provide a "living room" for the IUPUI campus
- Successfully address through the student activities center all facets of student life at IUPUI: Consumer, commuter, and scholar

- Improve communication networks between the student body and the university
- Develop a strong focal point for the campus
- Promote the notion of arrival at IUPUI
- Reinforce the master planning concepts of the university
BACKGROUND

Project History:

The history of this project is not a long one for IUPUI only came into existence through the 1969 merger of Indiana and Purdue Universities campus in Indianapolis. Four years later, IUPUI documented the University's growth, its present status, and directions for the future in the report IUPUI Goals and Objectives 1973.

At this point in time, the committee reasoned that IUPUI's presence could be a strong influence in the Indianapolis community. This influence would manifest itself through the academic, cultural, and physical development of the University. There was most definitely the opportunity to complement the community and at the same time, project it's (IUPUI) image on Indianapolis.

The report focused in on this projected growth of IUPUI's physical facilities, placing a new Student Activities Center at number two on the developmental priority list and predicted it's materialization between 1973 and 1975. Planning for a second phase was to be in 1977.

Unfortunately, funding has been a major impasse in the realization of this facility as well as has been the continual pressure to provide more classroom space.

The IUPUI student body is presently at 20,000 students making it the third largest university in the state of Indiana.* The university's impact on and interaction with Indianapolis is unquestionable (see site analysis for further discussion). The university, though, is still physically diffuse in that it lacks a focal point for interaction with the community and a center for student identification and social interaction.

Therefore, this thesis was conceived on the basis of fulfilling needs that are of paramount importance to IUPUI, it's student body, and Indianapolis.21
**Users:**

There are many identifiable users of the Student Activities Center. A wish expressed by several administrators is that the new facility will cater to mostly student needs. In essence, not only "To be regarded as exclusively a student preserve, but as a link between members of the academic community...."

This will be a major design consideration that will be tempered by the needs of other users of the Student Activity Center.

The following is list representing the potential users of the Student Activities Center:

1.) Students
2.) Faculty
3.) Administration
4.) Staff
5.) Community
6.) Visitors
7.) University sponsored seminars
8.) Audiences, assemblies
9.) Pedestrians enroute

**Participants:**

The following persons, through interviews and forwarded information, aided in the development of this program:

Robert Baxter, Assistant to the Vice President, IUPUI

Michael Wagoner, Director of Student Activities, IUPUI

John Gebhur, Director of Physical Facilities, IUPUI

Dr. Manon, Dean of Student Services, IUPUI

Dr. Beyerl, Vice President for Student Affairs, BSU

Maurice Mann, Director of Campus Planning, BSU

Robert Fisher, Thesis Professor, Ball State University College of Architecture and Planning

Dr. Bruce Meyer, Thesis, Outside Critic, Ball State University College of Architectural and Planning

Bob Welch, Department of Metropolitan Development, Indianapolis

Mrs. Mathew, Archivist, IUPUI
Student Services:

The IUPUI student body requires a number of services beyond the academic spectrum. The new student activities center needs to provide the opportunity to consolidate these functions within its walls for ease of access by students as well as allowing for more efficient operation of these departments. Although the Office of Student Services places special emphasis on the undergraduate, it is committed to development of programs that are useful to all students and departments of IUPUI.

Among the general objectives of the office are the enrichment of extra curricular opportunities, improved communication with faculty and administrators, and facilitation of student growth in terms of the individual's personal potential.

Annotated from Master Plan for Development 1976 - 1986
Function
Dean of Student Services

Users
Students
Administrators
Faculty

Activities
Administration of Office
Office Meetings
Appointments

Component Space(s)
Office/Dean.............................200
Office/Assoc. Dean of Student Services..175
Office/Assis. Dean of Student Admin....175
(3) Secretaries.........................290
(1) Receptionist.........................150
(2) Student/Clerical....................120
Work-Storage............................150
Conference..............................250

Total 1460 S.F.
Function/dept. of Student Development
Counseling Center

Users
Students
Faculty
Counselors

Activities
Student Counseling - Career and personal
Administration of office

Component Space(s)
Office/Director.........................175
Assistant Director....................150
(4) Professional counselors.........500
(2) Secretaries.........................200
(1) Secretary Recep...................200
(2) Student/Cler.......................120
Work Room/Storage....................150

Total 1495 S.F.
Function

Office of Student Activities, Dept. of Student Development

Users

Students

Faculty

Administrators

Activities

Administration of Student Activities Office
Liaison between Administration and Student Organizations

Component Space(s)

Office/Director.........................175
Office/Ass. Director...................150
Secretary/Recep........................150
Student/Clerical.......................60
Work/Storage.........................150

Total......685 S.F.
Function
Office of Student Placement, Dept. of Student Development

Users
Students
Faculty
Administrators

Activities
Career Counseling
Communication with employers, high schools

Component Space(s)
Office/Director .................. 175
Assist. Director .................. 150
(6) Counselors Education ........ 125
Lib. Arts ........................ 250
Health ........................... 250
General ......................... 125
(9) Secretaries ................... 720
(2) Receptionists .................. 300
(2) Student/clerical ............. 120
Work/Storage .................... 300
Conference ........................ 150
Total 2665 S.F.

Performance
Accessibility
Natural light
Audio control between counselors critical

Equipment
Furniture
Worktables
Filing Cabinets
Function
International Office, Dept. of Student Administration

Users
Students
Administrators
Faculty

Activities
Counseling
Administration of Office

Component Space(s)
Office/Director of Programs...........175
Office/Director of Services...........175
(2) Student Advisors...............300
(2) Secretaries.................180
(4) Student/Clerical.............240
Work Storage.................150

Total....1220 S.F.
Function
Office of Financial Aid, Dept. of Student Administration

Users
Students
Faculty
Administrators

Activities
Student Counseling
Monitoring use of funds

Communications
Administration of office

Component Space(s)
Office/Director..................175
Office/Ass. Director..........150
(6) Professionals..............750
(10) Secretaries.................800
(2) Secretary/Recept...........250
(10) Student/Clerical...........600
Work/Storage..................400
Conference....................150

Total..................3275 S.F.

Performance
Accessibility
Natural light
Audio Control between Counselors imperative.

Equipment
Furniture
Work Tables
Filing Cabinets
(8) Computer Terminals
Function
Office of Admissions

Users
Students
Faculty

Activities
Administration of Office
High School recruitment/Applications
Analysis/Academic Performance

Component Space(s)
Office/Director..................175
Office/Ass. Director..............150
(3) Professionals..................375
(10) Secretaries...................800
(2) Sec./Recep.....................250
(5) Student/Clerical...............300
Work/Storage.....................400
Conference.........................150

Total.................2600 S.F.

Performance
Open, informative atmosphere
Audio control between counselors critical
Natural Light

Equipment
Furniture
Worktables
Filing Cabinets
(3) Computer Terminals
Function
Offices of Student Services, Shared Spaces

Users
Administrators
Staff

Activities
Record Clarification
Meeting/Seminar/Conference
Photo-Copy
Materials in Storage-Retrieval

Component Space(s)

Shared Facilities:

  Photo Copy Machine..............100
  Materials Storage..............200
  Conference......................200

  Total........400 S.F.

performance
Immediately accessible to all offices, sharing facilities
Natural Light
Student Access is not necessary

Equipment
Photo copiers
Conference Furniture
Storage Files
Child-Care Center
(Student Services)

The Assistant Dean of Student Services is Director for the Child-Care Center. One of the most important objectives of the center is to give the children a sense of belonging. This feeling can be enhanced by bringing the child and parents together in the new Student Activities Center. It will also give the parent the opportunity to make a single stop before and after classes.

Function
Child Care Center, Office of Student Services

Users
Students
Children
Administrators

Activities
Drop off/pick-up of children by parents
Indoor and outdoor activities
Adult-Supervised Children Activities
Play and learning
Children's Food Service (Snacks)
Naps

Component Space(s)

Administrative/supervisory:

Directors Office.............. 125
Recep./office.................. 125
Receiving...................... 100

350

Play/learning areas:

General area.................... 200
Block Alcove.................... 75
Manipulative area.............. 150
Doll and Dollhouse............. 150
Art Area......................... 150
Tutoring Booth................ 250
Cubicles (coats, etc).......... 90

150

Storage.........................
Crib Room...................... 200

Support:

Kitchennette................... 50
Toilets........................ 50
Employee Room................ 150

250

Total.................. 2215
Performance

Outdoor areas positive if it can be arranged

Natural light critical

Controlled interaction between children and students is positive

Space should be appropriately scaled down from larger open spaces

Should have immediate exit

Equipment

Adult:
Desks/chairs
Coat racks
Employee lounge furniture

Children:
Toys
Furniture (see Component Spaces)
STUDENT ORGANIZATIONS

These organizations fall into three general categories: Student Government, Student Publications, and Student Clubs and Organizations. The Student Government is the Primary Representative of the Student Body in the University and should be plainly visible and accessible to all students. Interaction and communication is essential.

The student publications are the primary voice of the Student Body. Through The Sagamore, the newspaper, students are kept informed of activities and events which directly or indirectly affect them. The Genisis, a student literary magazine, offers a medium for University as well as local talent. Both publications must be accessible for student body input.

Student clubs and organizations comprise that part of college life which is not found in the classroom. These groups must be available to students and at the same time, allow for the organizations to meet and function in their own domain.
Function
Student Assembly and Student Activity Board, Student Government

Users
Student Government
Students

Activities
Government, Committee Meetings, Assembly
Administration of Offices

Component Space(s)
President.........................150
(3) Officers......................375
Secretary.........................125
Reception.........................125
Work/storage......................100
Conference.........................100

Total........975 S.F.

Performance
Very accessible by students
Should have prominent position
Easily recognizable
Natural light

Equipment
Furniture
Work Tables
Filing Cabinets
Function
Black Student Union, Student Government

Users
Officer
Students

Activities
Union, Committee Meetings
Administration of Office

Component Space(s)
President..........................150
(2) Officers.........................250
Sec./Recept........................250
Conference..........................100
Work/storage.........................100

Total..... 850 S.F.
Function
Student Publications: Sagamore

Users
Staff
Students

Activities
Administration, Publication of issues
Staff Meetings
Interviews

Component Space(s)
Office/Editors.........................300
Receptionist/Sec......................300
Business Office.......................350
Work Room............................600
Photo Supplies/Stor..................250
Darkroom.............................300

Total........1900 S.F.

Performance
Very accessible to students
Should be recognizable
Natural light
Dark Room and Storage/Light control

Equipment
Furniture
Work Tables
Dark room equipment (2 stations)
Filing Cabinets
Function
Student Organizations and Clubs

Users
Groups/individual student(s)

Activities
Organization Meetings
Administration of Organizations

Component Space(s)
(2) suites of (10) offices @125 ea...2500 S.F.

Performance
Natural light
Active Offices - should be located near activity

Equipment
Furniture
Filing System

Function
Student Copy Room

Users
Student Organization
Operator

Activities
Photocopy

Component Space(s)
(1) copy room.................150 S.F.

Performance
Accessible to all student organizations
General student population will use other facilities

Furniture/equipment
Photo-copier
Desk/chair
Pass-thru with security screen
Lounge/Study/Multi-purpose

Aside from food services, the lounges and lobbies are the most actively used spaces to be found in the Student Activities Center. They are open to circulation routes and adjacent spaces, thus lending spaces for the interaction, orientation and various other functions. In this sense, all of these spaces should be multi-functioning.

There are also specific demands and criteria that these spaces must meet. The ultimate efficiency and successfulness of the Student Activities Center is dependent upon how well these areas lend themselves to specific functions. In some cases, the ambiguous one such as relaxing between classes. On the other hand a dance requires certain functional criteria.

These functions are broken down into specific areas for identification and sizing, but they will inevitably overlap and act as a sequence within a hierarchy of needs.
Function
Main Lounge

Users
All categories; specifically students

Activities
Lounging Study
Passage thru Snaking
Informal Meeting Relaxing

Component Space(s)
Lounge..................4000 S.F.

Performance
Identifiable as "living room" of campus
Encourage needed relaxation
Social Interaction and Social Anonymity
Natural light is Optimum
Diverse seating arrangements
Orientation, Focal Point for Facility
Circulation = Activity = Circulation

Equipment
Various Lounge Furniture
Planters
Lamps
Function
Lounges

Interface

Activities
Transcience
Short Stop, Waiting
Study
Relaxing

Component Spaces(s)
1200 S.F. to be used as required

Performance
Circulation with Spatial Transition
Secure seating for people watching
Natural lighting optimum
Act as links to diverse functions

Equipment
Various lounge furniture
planters

Function
Commuter lounge

Users
Commuters Specifically
All Categories

Activities
Waiting for Rides

Component Space(s)
Included in interface lounges

Performance
Outdoor views to pick-up area
Space can and should move outdoors

Equipment
Various lounge furniture
Concessions
**Function**

Information/control desk

**Users**

All categories

**Staff**

**Activities**

Lost & Found

**Directions**

Information

Emergency Messages

Tickets

**Components/Space(s)**

Counter Enclosure .................. 150

Ticket Booth & Office ................ 100

Total ........ 250 S.F.

**Performance**

Easily recognizable upon arrival

* Located in or adjacent to main lounge

**Equipment**

Counter with Security Screen

Office enclosure with ticket window

File Cabinets

Map Space
Function
Commuter locker area

Users
Commuters specifically
All Categories

Activities
Drop off possessions before and after classes,
Appointments

Component Space(s)
Locker Area.........................800 S.F.

Performance
Area to be visually controlled
Must be adjacent to circulation, i.e., on the way
Clearly lit

Equipment
Lockers, various sizes
Organizer shelves

FUNCTION
T V Lounges

USERS
Students
All categories

ACTIVITIES
Watching T. V., Informal discussion, study, relaxation.

COMPONENT SPACE(s)
One area............600 S.F.
Atmosphere conducive to escape natural light is distraction.
Concessions

EQUIPMENT
(2) Super Screens
Vending Machines
Various lounge furniture
FUNCTION

Multipurpose Rooms

USERS

Most categories Group/Public
(see University Facilities Use, "Qualifications")

ACTIVITIES

Dining        Storage
Lecture       Discussion Groups
Lounge        Meetings

COMPONENT SPACE(S)

(1) Large area.....8,000 S.F.
(capable of division)

Internal Flexibility is critical,
(space, lighting, acoustics)
Shut down of some spaces with
continued operation of others.

Natural Light (controlled)

EQUIPMENT

Partitions (must be concealed when
not in use)

Large and small group furniture screen

FUNCTION

Study/Tutor rooms

USERS

Students
Faculty (Tutors)

ACTIVITIES

Study Groups
Tutoring
Music Listening

COMPONENT SPACES

6 booths @ 250=1,500 Total=1,800 S.F.
Control Point  300

PERFORMANCE

Removed from active areas and
circulation.
Acoustic privacy is critical.
Visual control at equipment dispensing
point.

EQUIPMENT

Booths:
  Furniture
  Signal Equipment

Control:
  Counter with pass-thru, storage
The student activities center acts as an extension of the classroom. It must also become a facility that allows the student to forget about the classroom and pursue relaxing diversions. Games are a popular diversion among students. For venting scholastic tension while others enjoy the competitive spirit.

It is important that these areas allow the student to participate in the game(s) of ones choice in the most optimum manner, for besides the relaxing nature of games, this is an important revenue source of the student activities center and should draw many users.

FUNCTION

Game area control

USERS

Staff manager and assistants

ACTIVITIES

Check out, in equipment control

COMPONENT SPACE(S)

Office/storage.........125
Counter enclosure.......80
TOTAL..................205 S.F.

PERFORMANCE

Visually control all game areas and equipment orient users to game areas.

EQUIPMENT

Counter (with display)
Register
Shelving to store equipment
FUNCTION
Billiards

USERS
All categories.

ACTIVITIES
Participation
Spectator: Close or distant

COMPONENT SPACE(S)
Space ............... 2,900 S.F.

PERFORMANCE
Weight of tables is an important consideration.
Lighting and acoustic distraction to be left at a minimum
Controlled environment (see control)
Clear span critical

EQUIPMENT
(8) Regulation/Slatebed/Tables
(8) Special Lighting Fixtures
Seating-in or adjacent to space

FUNCTION
Table Tennis

USERS
All categories

ACTIVITIES
Participation
Spectators at secure distance

COMPONENT SPACE(S)
Space ............... 2,000 S.F.

PERFORMANCE
Space to be conducive to active sport.
Circulation-Simple, straight forward to same observation adjacent to space.
Clear span is imperative
Visual activity is critical
Controlled environment (see control)

EQUIPMENT
(8) Regulation Tables
FUNCTION
Table Games

USERS
All Categories

ACTIVITIES
Quiet: Active:
Chess Backgammon
Checkers Cards

COMPONENT SPACE(S)
Quiet..................400
Active..................400
TOTAL 800 S.F.

PERFORMANCE
Quiet:
Acoustic privacy necessary for concentration.
Visual acuity at table level critical

Active:
Natural lighting is a plus

EQUIPMENT
Tables (variety) and chairs

FUNCTION
Pin Ball/Vending

USERS
All categories

ACTIVITIES
Participation
Spectator

COMPONENT SPACE(S)
Space.................1,000 S.F.

PERFORMANCE
Conducive to competitive atmosphere
Visual acuity at machines imperative
Boisterous noisy environment is a plus.

FURNITURE/EQUIPMENT
Pinball machines (12)
Shelves for books, cokes, ashtrays, etc.
Foosball (6)
Video (4)
Ari Hockey (2)
Vending (6)
Change machine
CULTURAL AMENITIES

A student activities center has traditionally been the center for the students social growth. Appreciation of the arts is a positive experience in this growth as well as providing a worthwhile diversion from and an extension of the classroom.

The art gallery will provide a definable space and frame work for student work and fine arts exhibition. The more loosely defined exhibition space will allow students and other organizations to display information. It will also be a space in which the student activities center can display traveling exhibitions. The theater will house the performing arts-either university produced or invited companies.

The student activities facility, through these functions, can become the center of the university.
FUNCTION
Art Gallery

USERS
All categories

ACTIVITIES
Passive viewing
Quiet Discussion
Meditation and study

COMPONENT SPACE(S)
Space.........................1000 S.F.

PERFORMANCE
Flexibility
Acoustical privacy important
Security when closed
Flexible service, support systems

EQUIPMENT
Flexible partitions, blocks, shelves
Varied lighting potential

FUNCTION
Exhibition Spaces

USERS
All Categories

ACTIVITIES
Observance
Possible active participation with display
Discussion

COMPONENT SPACE(S)
Space.........................660 S.F.

PERFORMANCE
Flexibility important
Acoustical privacy undesirable
Natural and artificial lighting possibilities
Security not necessary
Located near storage area

EQUIPMENT
Demountable partitions
Task lighting
FUNCTION
Theater and Support

USERS
All Categories

ACTIVITIES
Drama Production
Music Production
Variety Shows
Movies
Lecture Series
Forums

PERFORMANCE
Flexible for all types of activities
Acoustical and lighting
High priorities for all types of performances
Theater will be focus of cultural amenities on campus
*Performance requirements developed from:

Eisner's Theatre Design Criteria
TIME SAVER STANDARD FOR BUILDING TYPES

COMPONENT SPACE(S)

Theatre:
Auditorium (800 capacity)..............5600
Stage house.......................3500

Support:
Lobby (elsewhere)
Ticket Office (elsewhere)
Vestibule................................600
Projection Booth......................200
Spotlight Booth........................400
Stage Workshop........................1500
(4) Dressing Rooms....................400
Storage.................................800
Toilets..................................300

Administration:
Directors Office and
Sec./Recept..........................250

Total........13550 S.F.
FOOD SERVICES

A variety of eating facilities and atmospheres is one of the most important functions of the Student Activities Center. Many students come into this facility with the sole purpose of eating or snacking between classes or to pick something up on the way out.

The eating facilities are even more important as a place for social gathering. Particular attention must be paid to the environment in this respect.

Eating is also an important source of revenue for the Student Activities Center. Providing a variety of dining atmospheres will stimulate continued business as well as planned social gathering.

TYPES

Snack: This is the staple diet of the typical student. The foods are packaged or quickly prepared.

Cafeteria: This is the second greatest of the services in demand. The patron chooses a prepared meal from a serving line.

Outdoor: This dining could be a mixture of either snack or cafeteria. The outdoor dining deck will allow the student to take his meal outdoors.

Private Dining: To accommodate 10-20 persons in a special dinner party. Dinners served - continental, multi-course

Formal Dining: Banquet Facilities for 500 people to be located in multi-purpose space.

Rathskeller: Purely snack type foods in a socially active space. Meals range from hamburgers to pizza.

Kitchen: (all but Rathskeller) 450/meals/hour
FUNCTION

Dining ........ Snack
   Cafeteria
   Outdoor
   Private
   Formal
   Rathskeller

USERS

All categories

ACTIVITIES

Dining
Discussions
Studying
Banquet
Assembly

COMPONENT SPACE(S)

Snack Dining/structured ............... 4000
Cafeteria .................................. 3000
Outdoor ................................... 1500
Private .................................... elsewhere
Formal .................................... elsewhere
Rathskeller ............................... 1500

Total ........ 10000 S.F.

PERFORMANCE

Snack: Natural light important for cheery active space conducive to meeting.

Cafeteria: Natural light important active space - a place to meet others for lunch.

Private: Natural light not required Accoustic and visual privacy important

Formal: Natural light (controlled) Space should be directional for Dinner Speakers.

Rathskeller: Artificial light Intimate, yet active; similar to pub atmosphere.
FUNCTION
Food Services Support........Rathskeller
........Cafeteria
Dining

USERS
Staff

ACTIVITIES
Food Preparation
Food Sales

COMPONENT SPACE(S)
Rathskeller:

Kitchen..........................400
Maintenance......................150
Refrig. Store....................150
Dry Stor.........................150
Serving Area.....................100

Total........900 S.F.

Cafeteria:

Kitchen.........................1200
Maintenance....................500
Refrig. Store...................250
Service Area....................600
Receiving.......................240

Total........2190 S.F.

PERFORMANCE
Clean
Efficient
Similar circulation - straight forward
Clear sight - lines

EQUIPMENT
*Adhere to: Standard for Building Types
Designing Commercial Food Service
Facilities
COMMERCIAL/Public

The student needs to have a book store at a central location on campus at which one can quickly pick up the books and supplies that are needed for classes. The bookstore can also provide items that the student as a consumer needs such as toiletries, medicinals, etc.

The student that has afternoon and evening classes is at a disadvantage because of services in town that may close before one returns home. A post office, hair stylist, and bank machines are located in the Student Activities Center to fulfill these needs.

All these functions must be readily recognizable and accessible for the student.
FUNCTION

Book Store

USERS

All Categories

ACTIVITIES

Purchase of books/supplies/other needs

COMPONENT SPACE(S)

Office/Manager..................250
Office/Ass. Manager.............150
Secretary..........................120
Floor Managers...................150
Sales Floor.......................8000
Storage............................1000
Clerk/Typist......................100
Conference........................300
Charge Desk.......................150
Shipping and Receiving.........600
Lounge/lockers/toilet...........350

Total..................10575 S.F.

Future Expansion...............4000 S.F.

PERFORMANCE

Natural lighting optimum
Reading lighting chest-high
Display Space
4000 S.F. expansion critical

EQUIPMENT

Wall-Shelves and ladders
counters and cash registers
racks
turnstyles
Patron Short-Term Storage
FUNCTION
Hairstylist

USERS
All Categories

ACTIVITIES
Haircut
Conditioning
Facial Care

COMPONENT SPACE(S)
Offices..............................240
Storage..............................150
Shop................................600

Total...........990 S.F.

PERFORMANCE
Informal meeting
Zoning for men and women when needed
display

EQUIPMENT
Chairs
Counter with Register
Partitions
Dryers
Wash Sinks
FUNCTION
Post Office

USERS
All Categories

ACTIVITIES
Posting Mail

COMPONENT SPACE(S)
Space.........................150 S.F.

PERFORMANCE
Easily recognizable
Accessibility

FURNITURE/Equipment
Mailslots
Counter and Security Screen
Shelving
Deck/Chair
FACILITIES OPERATION/ Support

The student Activities Centers administration acts as a coordinator for all activities and space uses with the facility. Therefore, the Director must work in close cooperation with all organizations to maximize benefits to the users. In University organizational flow charts, the Student Activities Centers' administration is listed under the campus business manager. But within the unique framework of this facility, i.e., combination of student activities and services under one roof, the director must work closely with both departments.

The building support staff is the 'back bone' of the facility operation. Although not always visible, this group of individuals is responsible for maintenance as well as quick changes in the facility's flexible systems to accommodate diverse functions.
FUNCTION
Office of Facility Director, Dept. of Business Management

USERS
Staff - Office and Building Support
Students
Faculty
Administration
Private individuals
*see University Facilities use "Qualifications"

ACTIVITIES
Administration of Office, Building Support

COMPONENTS SPACE(S)
Director Office ...................... 175
Office/Ass. Director .............. 150
Secretary .......................... 125
Sec./Recept. ....................... 150
Student/Clerical .................. 60
Work/Storage ..................... 250

Total ................. 910 S.F.

PERFORMANCE
Accessibility
Centrally Located
Natural Light

EQUIPMENT
Furniture
Lockers
Filing Cabinets
Shelving
Dumpster
Loading Dock
OUTDOOR AREAS

The outdoor areas should act as an interface between the plaza context and the Student Activities Center. As noted in the site analysis, much is happening on all sides of the building. A facility that is well integrated into the campus' fabric will respond to the exterior in the form of amenities catering to the pedestrian.

FUNCTION

Ampitheater

USERS

All Categories

ACTIVITY

Lectures
Rallies
Informal Gathering

COMPONENT SPACE(S)

Dish and Stage..................5000 S.F.

PERFORMANCE

Unstructured:
  Seating, orientation must be conducive to spontaneous use to be successful

Structured:
  Stage should be backed by blank wall

EQUIPMENT

Seating should be of paving materials
Building codes

Reference:

The following regulations and codes are applicable to this project and must be adhered to through enforcement by the listed agencies:

With adjustments:


* Official Regulation No. 7
  Adopted by Indiana State Fire Prevention commission

Uniform Housing Code 1976 Ed.
As amended by:
National Electric Code
PBLSD. By National Fire Prevention Agency
Spatial summary

Facility efficiency:

All square footages have not been involved in the program at this point. Unassigned spaces have yet to be added to the total area. As a guide, student centers area approximately 60% efficient. Using this figure as a starting point, the efficiency should be improved by the programs inclusion of janitors closets and adequately sized lounges and lobbies.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Circulation</td>
<td>22.0%</td>
</tr>
<tr>
<td>Mechanical</td>
<td>7.5</td>
</tr>
<tr>
<td>Public Toilets</td>
<td>1.5</td>
</tr>
<tr>
<td>Janitor Closets</td>
<td>.5</td>
</tr>
<tr>
<td>Unassigned Storage</td>
<td>.5</td>
</tr>
<tr>
<td>Walls, Partitions, Structure</td>
<td>.0</td>
</tr>
</tbody>
</table>

Total Unassigned %...40.0%
Program Assigned %...-5.0%

Ratio 35.0%

Thus the efficiency is:
65%/35%
SPACE SUMMARY

Student Services

- Dean of Student Services............. 1460 S.F.

Student Development

- Counseling center..................... 1495
- Student Activities/off.............. 685
- Student Placement/off.............. 2665

Student Administration

- Office/F.A........................................ 3275
- Office/V.A........................................ 1740
- International office.................. 1220
- Registrar......................................... 2190
- Admissions...................................... 2600
- Child care Center...................... 2015
- Shared Spaces/Office of Std. Serv. 400

Subtotal.......................... 20645 S.F.

STUDENT ORGANIZATIONS

- Student Assembly
  - officers/Main office.................. 975
- Black Student Union
  - Officers/office.......................... 850
- Student Publications.................. 1900
- Student organizations & clubs
  - Suite A................................. 1250
  - Suite B................................. 1250
  - Student Copy Room........................ 150

Subtotal.......................... 6375 S.F.

LOUNGE/STUDY/MULTI-PURPOSE

- Main Lounge................................. 4000 S.F.
- Interface lounges...................... 1200
- Information Desk....................... 250
- Commuter lounges (inc.)............. 800
- Commuter locker Area.................. 800
- Multi-purpose Rooms
  - .1 @ 8000
  - .4 + @ ................................. 8000
- TV Lounges.................................. 600
- Study, Tutor/Music
  - .6 @ 250................................. 1500
  - .control.................................. 300

Subtotal.......................... 16650 S.F.

RECREATION

- Billiards..................................... 2000 S.F.
- Table Tennis............................. 2000
- Pinball/Vending......................... 1000
- Table Games............................. 800
- Game Control............................ 205

Sub total.......................... 6005 S.F.
CULTURAL AMENITIES

- Art Gallery................................. 1000 S.F.
- Exhibitions Spaces...................... 660
- Theatre
  - Auditoria............................... 5600
  - Stage................................ 3500
  - Support............................... 4200
  - Administration...................... 250
  ........................................ 13550
  ........................................ 15210

FOOD SERVICES

- Dining
  - Cafeteria............................... 3000 S.F.
  - Outdoor............................... 1500 S.F.
  - Snack................................ 4000
  - Formal Dining (inc.).................
  - Private (Inc.)........................
  - Rathskeller........................... 1500

- Food Services Support
  - Rathskeller........................... 900
  - All other.............................. 2190
  ......................................... 13090

FACILITIES OPERATION/ Support

- Office of Director..................... 910 S.F.
- Facility Support...................... 1750

  ........................................ 2660

COMMERCIAL/Public

- Bookstore............................... 10575 S.F
  (4000 exp. not inc.)
- Post Office................................ 150
- Hair Stylist................................ 990
- BackMachines............................ 135

  ......................................... 11850

OUTDOOR AREAS (Not incl. in total)

- Amphitheatre............................ 5000 S.F.

  ................................................................
  Student Services......................... 20645
  Student Organizations................... 6375
  Lounge/Snack/Multi-purpose............. 16650
  Recreation................................. 6005
  Cultural Amenities...................... 15210
  Food Services............................ 13090
  Facility Operation/Support............ 2660
  Commercial/Public...................... 11850

  ............................................ 92485

  Facility Efficiency @ 65%/35%........
  ........................................... .65

  Total....... 142284 G.S.F.
Cost analysis
COST ANALYSIS

BUILDING TYPE COST:

<table>
<thead>
<tr>
<th>austere</th>
<th>economical</th>
<th>moderate</th>
<th>excellent</th>
<th>grand</th>
<th>superb</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>42</td>
<td>43</td>
<td>54</td>
<td>60</td>
<td>85</td>
</tr>
</tbody>
</table>

*CChosen for similarity in functions

This cost analysis will be based on the value 'excellent.' The new Student Activities Center must be of at least this quality to successfully integrate with the other campus architecture.

COST BREAKDOWN:

Building Cost (142,284.0 x $54/S.F. = 7,427,484.0
Fixed Equipment (15% x bd'g. cost) = 1,114,122.6
Site Development (15% x bd'g. cost) = 1,114,122.6
Subtotal.....9,655,729.2$

Site Acquisition......................0
Movable Equipment (8% x bd'g. cost) = 594,198.7
Professional Fees (10% x cons. cost) = 965,572.9
Contingencies (10% x cons. cost) = 965,572.9
Administrative Costs (3% x cons. cost) = 289,671.9
Total 12,470,746.0$

COST ESCALATION:

January 1979 bd'g. cost = x ($54/S.F. x .9 (Regional Modifier)) = 6,684,735.6
Estimated Escalation/Inflation = x (22 months x 0.01%/mo.) = 1,470,641.8$
*Esc./Inf. Rate = 12% or 1%/mo.

Actual Est. Bd'g. Cost = 1,470,641.8 + 6,684,735.6 = 8,155,377.4$

Adjusted Total Cost = 13,198,638.0$
Building type analysis

Introduction:

The building type analysis is a study in form of the general building type that this thesis is dealing with in a design process, one must attempt to find a fit between the formal composition of a building and its functional and contextual requirements. Therefore, it makes sense to study architecture that responds to criteria similar to that of a new Student Union Complex at Indiana University Purdue University at Indianapolis. In studying the site planning, circulation, spatial relationships, structure, and Part 1 of the following seven buildings, I have considered how these elements of the facilities respond to the following criteria:

a) The urban context, specifically (vehicular traffic, noise, scale, etc

b) Flexibility of the facility

c) Circulation; approach and arrival

e) Structure/technology

It is in this expectation of valuable knowledge that will enable a more fully-realized thesis that I approach this phase of the design process.
TRENTON STATE COLLEGE STUDENT CENTER
Caudill, Rowlett, and Scott

Site:

The building was conceived of as a corridor that linked the center of campus to parking—the most heavily traveled route on a commuter campus. As a result, the two strong triangular volumes of the Part 1 are clearly read.

Circulation:

In response to requests revealed in a survey of the student body and the necessity of the student center to be more than just a corridor, the circulation in the building is intercepted mid-way by a large area that acts as a node upon the corridor.

Spatial:

The Atrium acts as an organizer for all of the spaces within the student center. The commercial functions are located along the movement side of the Atrium while the more socially active functions flow freely and directly into the Atrium. Administration and offices are turned away from the Atrium to reinforce the differing nature of these functions.
Structure:

The concrete column grid and deck allow for flexibility on non-bearing wall movement within. The spanning capabilities of the deck are augmented where the deletion of columns is required.

Conclusions:

The space penetration between the Atrium and perimeter functions reinforces the wholesomeness of the building. The variety of slick materials and colors along the corridor and elsewhere tend to conjure images of a shopping mall. It is also questionable as to whether the circulation between the parking lots and campus is appropriate as a total ordering device for this building. Commuters should be heartily welcome, but should their movement through campus be reinforced at the expense of a meaningful experience within the Student Union?
Structure:

The structure of the slabs is concrete deck overlaying a regular concrete column grid (all insito) with service towers separated by mechanical chases. The exhibition/lounge space is enclosed by a concrete cage, and covered with exposed steel trusses. The three major elements are connected by a parafetted, flat roof.

Parti:

The building is read as three major, regular geometric volumes with minor additions that house service functions.

Conclusions:

The intuitive creation of the living room tends to justify the somewhat rough exterior presented towards the city. The addition of the forty-five degree 'nib' seems totally unnecessary and esoteric.
UNIVERSITY CENTER, CLEVELAND STATE UNIVERSITY
Don M. Hisaka & Assoc.

Site:

The university center was to be located in a two-sided plaza—the third side to be completed later by a classroom building—on a fairly dense urban site which was bounded by a major vehicular street. The third factor, a lack of a major entrance into the campus, was the key to the planning. The university center transformed the two-sided plaza into a quadrangle in the heart of the campus and acted as an audio and visual buffer to the surrounding urban context.

Circulation:

Major circulation is linear; it's completely open to the exhibition/lounge and regularly penetrated by the spaces within the two slabs. The pivotal point occurs at the main entrance from the urban context.

Spatial:

The site planning to a great extent determined the spatial relationships. The slabs were influed quad-side to form a twin to the quadrangle and to fulfill the programmatic requirements of providing a "living room" for the campus. The individual floors of the slabs were opened through the structure into the larger living room. The urban setting thus, was allowed to penetrate into the living room through an opening between the slabs, i.e., the entrance into the university.
STUDENT UNION, STATE UNIVERSITY OF NEW AT STONY BROOK, LONG ISLAND
Damaz, Porkorny, and Weigel

Site:

The center of campus and sports facilities were separated by vehicular circulation with the Student Union Building site enroute. Therefore, the building was conceived as an integral portion of this link. People approach (from campus) the Student Union via a second level pedestrian walk to de-emphasize vehicular traffic, move through the building in linear fashion, and emerge facing the playing fields.

Circulation:

To encourage a sense of arrival and place, one is drawn towards and into the building by a courtyard with a strong vertical element (the main stair tower) which also denotes the pivotal point in circulation. Movement through the building is enhanced by gradual descent (towards playing fields) or ascent.

Spatial:

Spatial relationships and zoning are defined by their location in reference to the courtyard and circulation. The most active spaces such as the cafeteria and student lounge relate to each other and the courtyard equally. Offices, post office, bookstore and post office relate to major circulation which is removed from the courtyard by glass.
Structure:

The structure is composed of a waffle slab on a regular concrete column grid. Derivation from this grid occurs at the perimeter bay to accommodate the decreased size needs of service docks and balconies. Where greater spans are required, e.g., theatre, cafeteria, bookstore, et. al., the deck spanning capabilities are augmented to facilitate columns removal.

Parti:

As a result of the composition of the afore mentioned elements, the building reads as a courtyard scheme within a square, eroded at diagonally opposed corners and rotating on a tower in one of the remaining interior corners.

Conclusions:

The approach towards and pivot upon the tower element as one passes around the courtyard is a dynamic sequence, enhanced by the gradual level change. The dispersement of functions requiring receiving points 'mars' much of the exterior. The tower element, though, is weakened on the interior by the fact that it is solid and circulation is not enlarged to accommodate it's intrusion into the building.
STUDENT UNION, STATE UNIVERSITY COLLEGE
AT PLATTSBURGH, N.Y.
Mitchell/Giurgola Assoc.

Site:

There were three significant criteria that shaped the planning of this building: Major vehicular traffic to the northwest, the main axis of the campus to the southeast, the knowledge that the physical presence of the new building would define a plaza to the southwest. The final form offered a blank wall towards the street while opening itself up to the plaza. The main entrance denotes a job in the main campus axis and an austere wall reinforces it's linear continuation. Finally, the building responds to good views and to expected campus expansion by a 3-sided courtyard.

Circulation:

Major circulation is basically a linear corridor that grows through the main student lounge and ties the entrance and internal focus, an open staircase, together.

Spatial:

The socially active spaces pivot around the main staircase and allow freedom of physical and visual interaction. The bookstore/student lounge portion allows a strong visual link between the plaza and circulation within. The courtyard allows for interaction of functions that are physically far apart as well as directing views towards the open end.
Structure:

The decks are un-exposed waffle slabs overlaying a regular column grid. Columns and sections of slabs are subtracted to allow vertical penetration of space, e.g., main staircase and lounge area. An additional line of columns is added to support a bearing wall which in turn supports steel trusses which allow a greater span in the banquet room.

Parti:

The building is read as an eroded square because the diagonally juxtaposed interior space and its directional nature. If one is in the dining rooms facing the opposing leg, the interior space reads as a courtyard scheme.

Conclusions:

The presence of this building reinforces and enhances the spaces and relationships of the physical campus. Internally, the building reveals its organization through the interaction of all spaces to the main staircase. Externally, it reveals its purpose to the main campus by distinguishing key functions within. The directional nature of the court, though, can be justified only in the context of future planning for it lacks a present reason to display itself to views from an open field.
STUDENT UNIONS' HOUSING, UNIVERSITY OF ALBERTA
A. J. Diamond and Bortonmyers

Size/Circulation:

In addition to students housing, there was a necessity to provide weather-protected links between buildings in response to Alberta's harsh climate. The designers proposed to combine this function with the student housing. The result was an enclosed mall in which pedestrian circulation overlayed vehicular circulation. A concept which saved valuable land area in a dense urban university campus. The mall enlarges at intersections with secondary corridors to reinforce nodes and to facilitate movement to other university buildings. The long block received a 'half-node' mid-way to meet exit requirements and visually shorten the long stretch.

Spatial:

The space relationships are arranged in a reoccurring theme throughout the length of the block with relief provided by the aforementioned nodes. Student housing and shops visually flow freely into the pedestrian mall. Suspended lounges occur where the site requires elevation changes and add to spatial variety. Vehicular traffic is totally isolated from the mall. Access is afforded from the street to some housing by concrete buffered stoops.
Structure:

The structure consists of two opposing housing slabs consisting of in-sito concrete slabs and flattened concrete columns. The pedestrian mall, composed of pre-cast concrete T-Beams, is then laid down through it's entire length. Likewise, the mall roof steel trusses are installed.

Conclusions:

The concept of bringing pedestrian links, commercial, and housing functions together is not new. In this example, it has proved to be very successful in the context of campus planning. There are perhaps not enough cross-passages, thus requiring extreme detours in some cases. Even with the nodes and lounges at elevation changes, movement through the corridor may quickly lose it seeming dynamic qualities.
ROBERT G. OLMSTEAD THEATRE, ADELPHI U.
GARDEN CITY, NEW YORK

Site:

The form of this building was derived wholly from the distortion that occurred from the internal functional relationships and circulation. In essence, it is a building creating space with little relationship to its context.

SPATIAL/CIRCULATION:

The basic volume of a cube was deformed in order to achieve a theater capable of diverse arrangements. Upon choosing a line for the primary axis of the theater, the volume was deformed to accommodate stage house functions and a circulation ring was super imposed upon the axis to define a general arena. The volume was further deformed to mark an entrance. The entry axis was chosen to lead one onto the perimeter of the arena. An outdoor theater was placed upon this axis to complete the formal composition.

STRUCTURE:

The walls are exposed concrete block (face brick on exterior) with piers upon which long-span steel joists bear. The circulation ring is a metal deck and concrete platform resting upon concrete columns. The cat walks, lighting and HVAC are hung from exposed steel joists.
Function:

The auditoria was conceptualized by the designers as a place where the audience could be one of active participation or passive receptivity. The capability of the theater to accommodate diverse seating arrangements demonstrates these two extremes and several possibilities in between.

Conclusions:

In terms of a flexible theater volume, the building is very successful. Undoubtedly there are more arrangements possible which have not been illustrated in this analysis. The derivation of the basic internal spaces is simple and logical. The exterior form fails, though, to convey a meaningful expression of the performing arts.
CALIFORNIA INSTITUTE OF THE ARTS
MODULAR THEATRE, VALENCIA, CALIFORNIA
Jules Fisher Assoc. in collaboration
with Herbert Blau

Concept:

The modular theater is essentially an interior space in which the reference plane (portions or all) can be adjusted vertically to accommodate a given set of functional needs. Plateaus can be formed so that vantage points can be created between elevations.

Spatial:

There are two kinds of spaces - 'served and service'. A space below accommodates the floor adjustment mechanism while the space above accommodates lighting and hoisting equipment. A large foyer facilitates entrance into the theater at two levels. Hoisted above the foyer is a control room from which all systems with the exception of the floor can be manipulated. Corridors surround the volume to facilitate exit and entrance requirements.
Structure/Technology:

The rectangular volume enclosing the theater is a concrete shell. The most important structure in the theater is the vertical floor adjustment system which is operated by a portable compressor. One man can adjust all floor modules within an eight hour time span.

Conclusions:

The variety of spatial possibilities are numerous as a result of the modular floor system augmented with other adjustable space defining equipment (walls, hoists, and lighting). The imposed grid does limit possibilities of visual direction beyond ninety degree angles. It is not impossible to conceive of a next generation modular theater with greater versatility in envelope, visual orientations, and acoustics.
BUILDING TYPE ANALYSIS

Conclusions:

There seems to be several specific characteristics in the analysis of the preceding buildings which have greatly determined the success of these facilities:

a.) The building is only as good as it's main lounge and/or internal focus

b.) Flexibility is subjective to the unique building, eg.:

   * large open space
   * fragmented plan and facade with potential for addition of space, circulation links
   * flexibility of theaters requires the compromise of some facet of performance, eg., acoustics in buildings studied.

c.) In terms of campus planning, the most successful buildings were:

   * integral portion of circulation link
   * completion of campus plan
   * volume with opportunity to define exterior places.

d.) Column and waffle slab offered much possibility for internal spatial diversity

e.) Accumulation of shipping/receiving points is aesthetically good solution

f.) Element to signify entrance important for building and campus focus

It is very important to remember that a Student Union is a multi-function building - to tie all of these functions together and still impart the image of a Student Union is critical.
Footnotes


4 Woolen Assoc., OP. CIT., p. 7.

5 Ibid., p. 1.


7 Woolen Assoc., OP. CIT., p. 4.

8 IUPUI, p. I.2.

9 Woolen Assoc., p. 24.

10 Ibid.

11 Ibid., p. 20.

12 Ibid., p. 4.


15 Ibid.

16 Interview with John Gebhur, Chief Engineer for IUPUI Campus, August 31, 1979.


18 Ibid., p. 135.

19 Ibid., p. 135.

20 Ibid.

21 IUPUI, Goals and Objectives, 1973, Indianapolis.


23 Ibid. Ed. Note: Concept, method, and current statistics in cost breakdown and analysis taken from this source.
Bibliography

PROCESS AND PROGRAM:


SPACE REQUIREMENT REFERENCES:


Jenkins, Jack. College Unions at Work.

Lawson, Fred. Designing Commercial Food Service Facilities.

Ramsey and Sleeper. Architectural Graphic Standards.

BUILDING TYPE ANALYSIS:


