Student Activities Center for
Ball State University
Muncie, Indiana

Program Supplement II

2nd Review Jury:
Rosenman
Sappenfield
Fisk

College of Architecture and Planning
Ball State University
Ronald J. Lake
November 13, 1970
I made a major mistake in preparation for this particular jury session, resulting in severe criticism concerning the current state of my design problem.

Since the mid-quarter review, I have concentrated on schematically working out a linear system along McKinley from Riverside to Neely, assuming that closing off this particular section of vehicular traffic would be one of the more immediate steps in implementing the future campus plan concept. This linear concept has great merit and certain advantages over many other basic concepts that are possible for this problem. However, I made the mistake of hanging myself up on this one linear approach, while writing off the possibilities of other different approaches. Also, I not only let myself become unidirectional in approach, but I somehow assumed that the jury would also see inherent advantages in the linear scheme and not question the fact that I gave no indication of considering other alternatives. This is not to say that this particular linear approach is not the best solution, but rather that I did not convince the jury of such, and, more important, I have discovered that I am not thoroughly convinced myself.

Excuses for this sidetrack from a logical design process are unnecessary, except for my own self evaluation and understanding.

Three main reasons for this mistake seem to be:
1) Since I have attended this university for nearly five years, my unusual familiarity with certain situations involving my design
project has resulted in concentrating on an immediate solution to some of the more obvious problems, without due consideration for the impact and future implications of certain very basic design factors.

2) The fact that practically any solution, other than one more self-contained building plopped down among the rest of the existing buildings on campus, is such an improvement that it becomes too easy to pick a direction for the design without making sure that all factors have been considered.

3) Because of the short duration of every other design project I have encountered in this school before, nearly every solution seemed to pop into physical form before the design process led naturally into this step. So I found myself thinking in terms of a particular "building," or "form" as soon as I had worked out a logical relationship between the programmed spaces. (This reason sounds the most like merely an excuse; but, for the most part, I think it had an effect)

Specific Criticism

The main criticism offered by the jury can be summarized as follows:

1) Into physical form too soon.

2) Present status of design problem not convincing and impossible to crit due to lack of sufficient evidence concerning design process and design considerations.

3) Did not present advantages and disadvantages of different alternative solutions.
4) Diagrams were too sketchy and did not relate the intended idea.

5) Think in terms of structure and mechanical systems throughout entire design process, instead of superimposing them on a preconceived form.

6) How will this phase of the design problem relate to the academic spaces proposed for the same basic area.

Also pointed out, was the fact that the water table of the entire campus area is only about 11 ft. below grade, making it difficult to build underground. For example, a pedestrian underpass could not be constructed under Riverside unless the road was elevated also.

Any proposed pedestrian routes under or between massive structures should be carefully controlled to avoid wind problems and dark, undesirable spaces.

Future Course of Action
What I have accomplished to date on this design problem is not wrong, just too unidirectional and the philosophies and design objectives have not been illustrated and presented well. I now plan to review the entire problem with a more open mind, and express my objectives and resulting ideas in a manner more easily assimilated by an individual who is not familiar with my design problem. This will help me arrive at a series of possible alternatives with a convincing process so that I'll have more tangible evidence to use for soliciting crits. More solicited crits would help, also.
PRELIMINARY DESIGN OBJECTIVES
OBJECTIVES

1. Provide space for certain activities that are presently located in existing student center building.

- Committee has been studying problems of existing facility.
- Have decided to add-on instead of building new facility.
- Program was suggested for new facility that would accommodate certain functions that do not work well in present location.
- Program also includes suggestions for spaces to accommodate changing needs of student activities.
- Although the committee's decision to add-on to the existing facility would relieve some of the problems of cramped space, other problems involving relationship to entire campus would remain unsolved.
- New facility would not duplicate existing facility, but would provide activity space with a more logical relationship to entire campus area.
- Not only is the location of the entire facility in conflict with the purpose of the functions within, but the building itself detracts from the effectiveness of the activities within.
- A detailed explanation of the problems involved with the existing student center and the resulting program for a new facility is included in the initial program.
2. Respect campus plan proposal by Perkins & Will recently adopted by administration.

- Plan suggests perimeter vehicular routes with freedom of pedestrian movement within.
- Parking structures.
- Concentration of future academic facilities in central portion of campus.
- Acquisition of certain land areas adjacent to campus.
- One of the major aspects of the system is the proposed academic complex to be located in the center of campus.
- In order to carry out the suggested plan, McKinley and Riverside must be closed off as indicated by the diagram.
- One alternative to this plan would be similar except that Riverside is left open to traffic, with pedestrians separated by an underpass or overpass.
- The plan also indicates use of land surrounding men's gym and football field for recreation purposes.
- This plan is proposed in its entirety for the next ten years, with a student enrollment increase predicted from the present 16,000 to 22,000.
- The concept of this plan is general and could easily change many times as the plan is implemented.
- A new student activity center should be able to accommodate the plan as is, or as it might change.
- A more detailed description of the plan and its progress to date is included in the initial program.
3. Site shall be centrally located and directly related to the proposed academic quadrangle.

- Reasoning behind choice of site:
  - Central location equally accessible by all dormitories and academic buildings.
  - Central location gives facility opportunity to expose its activities naturally to pedestrians going about daily routine.
  - Proposed academic quadrangle will generate even more pedestrian activity (proposed for center of campus).
  - Central area is relatively open, leaving opportunity for freedom of development and expansion.
  - Central location is adjacent to site of future library.
  - The only other area that is related enough to pedestrian circulation to include facilities for student activities is the commons area of the original campus. This area is a natural environment, it has historical significance, and retains a pleasing character of its own. Such an area would take many years to recreate, so it would serve the university best as it is, without further development.
  - This central location is adjacent to a large, uninterrupted section of the proposed inner vehicular loop.
  - Economically, money could be saved by including this facility with proposed development instead of isolating it in a different part of the campus.
4. Facility should contribute to tying the campus together.
   • Development of campus to date consists of separate buildings with little relationship to each other or to the entire campus.
   • The central location and the proposed integration with the academic quadrangle give this facility a good opportunity to at least begin some kind of a structure that unifies the campus and its activities.
   • Provide a means of enclosed circulation.

5. Facility should be easily accessible.
   • Facility should be situated within the natural pedestrian circulation to encourage use and exposure.
   • Facility should be easily accessible from proposed parking structures.
   • Commuters
   • Vehicular access and service.
   • Even though pedestrian and vehicular circulation are separated, the facility should be accessible to both, according to the nature of each particular activity.

6. Facility should relate to natural environment.
   • Since the existing campus environment is dominated by massive building structures with sparse vegetation scattered almost unnoticeably between, this facility should be developed in conjunction with the natural surroundings, instead of applying trees and bushes afterwards.
• Development should respect and take advantage of the existing natural buffer of large trees and thick bushes between the residential area and the proposed location of the site.
• Development should respect and take advantage of significant vegetation already existing on proposed site.
• Since this facility will involve principal circulation patterns, the proper utilization of a natural environment becomes even more important.

7. Facility should relate to surrounding community.
• Facility should maintain a scale that is not objectionable to adjacent community. (Natural buffer helps as mentioned before)
• Community should have convenient pedestrian link to proposed activities.
• Development directly adjacent to residential area should consist of quiet activities (i.e., meeting rooms, formal lounge, art, exhibition, etc.)
• Facility should encourage community-educational relationship.

8. Facility should provide identification.
• This facility should suggest an atmosphere entirely different from the institutional arrangement of the existing buildings.
• A complete variety of activities and environments to appeal to all of the students no matter what their particular interests.
• Physical environment and function of spaces should be controlled by the students as much as possible.

• Environment should be flexible and changeable enough to continually attract all students, faculty, and community.

• Certain areas can be divided into simultaneous seminar activities and later opened up into a large meeting area or dance floor.


• Formal education, particularly the role of the university, is currently being re-evaluated and changing accordingly.

• Even though the educational process has been affected by new technological developments, the basic theories behind the organization of educational facilities have remained the same.

• Students, educators, administrators, employers and many people within the community are beginning to recognize that education must be re-examined in relation to our rapidly changing society.

• Although each proposed approach is established with differing main objectives, they all point to the same general direction -- education must break away from a traditional perpetuation of accepted ideas to a meaningful concern for establishing a system of learning appropriate enough to relate to the present environment and flexible enough to handle future change.
• "To learn is to change" - Education & Ecstasy - Leonard

• Some of the aspects under question are:

  Segmented relationship between "school" and "life"
  time, classroom situation, faculty-student relationship, use of technology, organization from birth to college, physical planning, mobile-learning units, community relationship.

• A basic awareness of these current trends and future changes in the educational process has one most important effect on the initial design of this facility -- the ability to change easily, quickly, and inexpensively to accommodate a variety of functions resulting from changes in the educational process.

• Some current ideas on process and use of technology will have an immediate effect on the initial design.

  For instance:

  • Computers (learning carrels, push-button information, supplement to library)

  • Television (new uses of existing technology)

  • Dissemination of information (large group - small group, individual learning)

  • Relation to rest of educational system.

  • Education for a lifetime - all the time (community)

  • Media (more extensive use of films, educational T.V., multi-sensory productions)

  • Accessibility of learning material (24-hour, natural exposure)

  • Transportation considerations
• This facility should be an integral part of proposed "learning" or classroom spaces instead of completely separated.

10. Facility should accommodate change and growth.

• Facility capable of changing according to both day to day changes in program and long-range changes in educational system as described before. (Objective No. 9)

• Facility will fulfill basic program suggested by committee along with additional functions proposed as a result of these listed objectives.

• Due to a low budget (41,000,000 + $250,000 + eventual increase in student fees) this facility, particularly in the initial stage, will accommodate only the most important functions with a general plan for phasing the additional functions in the future.

-- For this reason the structure, mechanical systems, and materials must be conducive to frequent expansion and change.

• Many various kinds of functions could possibly be "plugged" into this facility at a later date, including academic, and recreational.

• Any student activity, whether programmed or not, should be able to be "adapted to" or "plugged in" in the future.
11. Facility should be an integral part of proposed future development.

• Academic - future academic quadrangle could be almost an "extension" of this facility.

Structured in such a manner that the "academic spaces," whatever form they take by the time they are constructed, could easily fit above, beside, and between this facility. After these spaces are added, the original facility still remains as the primary pedestrian route and distribution element.

• Parking - recognize the possibility of a parking structure as an eventual part of the total structure.

Structural grid that is appropriate for parking and service.

• Library - a facility based on student involvement should directly relate to the proposed library facility.

Students should be able to reach library facility easily from the student activities center and the library acts as a natural pedestrian node or attraction making that area conducive to exposure of different information.

• Recreation - eventually more recreational space will be required and should be somehow incorporated within Student Activity Center.
12. Phasing of the facility could accommodate several different alternatives reflecting needs of the university.

- If the facility is flexible enough to be phased in different stages according to decisions on immediate and future changing needs, the "solution" to the problem becomes more real.

- Problems of budget could be worked out in terms of phasing -- instead of one overwhelming solution proposed as a whole which could result in throwing out the entire idea.

- Structure and mechanical systems and services must reflect a basic simplicity and extreme ease in expansion and change.

- Flexibility in phasing would more easily accommodate changes in the overall proposed campus plan which is, by no means, a stable element.

- Flexibility in phasing makes the facility more "experimental" in nature -- easier to "try out" different educational techniques without concern for failure regarding function of space.

13. Character of facility should stimulate activity, exposure, and participation for and by students.

- Inform student of variety of opportunities and experiences provided by the university environment.
• Provide source of entertainment and intellectual stimulation for students.
• Provide more opportunity for "involvement" by direct exposure to constant variety of activities.
• Even though facility will be directly related to natural pedestrian movement, still it should be a place interesting enough to be an attraction. Hopefully an attraction enough to help alleviate the "suitcase college" reputation.
• "A place for students to bitch and let off steam."

-- Mr. Robert Newton
Administration
Economics
Ball State University
DESIGN FACTORS

• Vehicular service.

Pulls spaces toward vehicular loop.

student offices  art gallery
student programs  exhibition
kitchen  bookstore
vending  computer center

• Primary, enclosed pedestrian route.

Attracts spaces that require visual and physical access.

student offices  information
cultural enrichment  continuous-run
informal lounge  area for sales, drives, etc.
all-night lounge  bookstore
theater  large space for dances, etc.
television lounge  snack bar
vending  cafeteria
exhibition  outdoor activities

• Good view.

Best view will be proposed green space within quadrangle
or preserved natural area near library.

student offices  all-night lounge
student programs office  art gallery
cultural enrichment  snack bar
formal lounge  cafeteria
informal lounge

• Relationship to library.

Pulls spaces toward library because functions are related
or because library is a pedestrian generator.

cultural enrichment  bookstore
art gallery  continuous-run
exhibition  computer center
information  learning carrels
• Of major interest to community.

Pulls spaces toward logical community pedestrian link.

- Cultural enrichment
- Formal lounge
- Art gallery
- Exhibition
- Information
- Bookstore
- Theater space
- Continuous-run
- Learning carrels
- Cafeteria

• Convenient to vehicular parking area.

Pulls spaces toward parking area and future parking structure.

- Student offices
- Student programs office
- U.N. type meeting
- Meeting rooms
- Formal lounge
- Information
- Bookstore
- Theater
- Computer center
- Cafeteria

• Quiet zone.

Pulls spaces towards community side and toward library.

- Student offices
- Student programs
- U.N. meeting
- Seminar spaces
- Cultural enrichment
- Kitchen
- Formal lounge
- Art gallery
- Exhibition
- Bookstore
- Theater
- Computer center
- Learning carrels

• More active, noisy spaces.

Pulls spaces inward toward campus.

- Informal lounge
- All-night lounge
- Television lounge
- Vending
- Information
- Area for sales, etc.
- Main circulation
- Continuous-run
- Outdoor activity
- Large, flexible space for dances, etc.
- Snack bar
- Cafeteria
- Parking structure

• Structure, mechanical services, limited budget.

Pulls all spaces together in some sort of logical relationship.
• Phasing.

Plan existing "negative" spaces for future change and expansion.

• Indoor-outdoor relationship.

Pulls space inward towards campus area.

- informal lounge
- art gallery
- information
- large, flexible space
  for dances, etc.
- snack bar
- outdoor activity

• FUNCTIONAL RELATIONSHIPS

The majority of the spaces defined in the initial program are spaces whose function suggests "short-term" flexibility (daily, weekly, monthly, yearly)

Certain spaces defined in the initial program suggest "long-term" flexibility or expansion --

- U.N.-type meeting space
- meeting rooms
- kitchen
- art gallery
- bookstore
- parking structure
- large theater-type space

Those same spaces of "long-term" flexibility also suggest a more permanent construction (acoustically, projected need for function within, not subject to change as much as other areas, possibly, for some, no expansion will be necessary, but rather replacement.

This "basic difference" between these two types of spaces should be recognized in the structure, arrangement, and relationship of spaces or general areas of activity.
Of all the spaces proposed in the initial program the bookstore would be the main pedestrian draw or node. Future library and Emens and teacher's college building are the main "pedestrian nodes" surrounding the "student activities center." Proposed snack bar could eventually become a main pedestrian attraction. Positioning of these "pedestrian nodes" is critical to design.

**ALTERNATIVE APPROACHES**

- Bookstore and library placed at opposite ends of linear arrangement.
  
  Node at each end offers more exposure of other activities between.
  
  Bookstore located possibly too far north.
  
  Snack bar in the middle -- convenient stopping, meeting place.

- Bookstore located near library and other pedestrian nodes creating super-concentrated area.
  
  Bookstore more centrally located.
  
  Less attraction and interaction for other activities.
  
  Less natural exposure.

- Primary circulation on grade level.
  
  Consistent with existing campus.
  
  Easiest access.
  
  Suitable to various expansions in future.
  
  Below grade good for separation from main circulation, yet maintains visual access.

- A "multi-level" structure or a "concentrated" plan limits desired exposure, ease of access, easy expansion.
ONE CENTRAL BUILDING

CENTRAL COMPLEX OF BUILDINGS

CENTRAL CORE WITH EXTENSIONS

LINEAR DEVELOPMENT

CAMPUS PLAN

DESIGN ALTERNATIVES
STUDENT ACTIVITIES CENTER FOR
BALL STATE UNIVERSITY
MUNCIE, INDIANA

THESIS PROJECT

BOOK II: DESIGN DEVELOPMENT
FINAL SOLUTION

COLLEGE OF ARCHITECTURE AND PLANNING
BALL STATE UNIVERSITY
RONALD J. LAKE
May 12, 1971

BALL STATE UNIVERSITY
DEPARTMENT OF LIBRARY SERVICE
MUNCIE, INDIANA 47306
FLOW DIAGRAM SHOWING POSSIBLE SYSTEM OF ALTERNATIVES DESIGNED TO MEET THE COMPLEX SPACE REQUIREMENTS OF THE UNIVERSITY
BASIC CONCEPTS OF DESIGN

- permanent spaces
- quiet, enclosed activities
- spaces requiring vehicular service and direct access to and from outside

- flexible space
- changing activities
- visual and pedestrian access to main campus area

- main structural unit
- circulation (remains constant amid continuously changing spaces)
- main mechanical systems distribution unit

- points of entry
- outdoor meeting, theater
- enclosed circulation
- outdoor pedestrian circulation
- on grade level
- heavily traveled
- plaza area
- natural environment

"pod" and panel units enclose structure until later additions

- Phasing
  - constructed one building module at a time according to needs and budget limitations of university
  - sequence is also dependent on needs of university
  - since each building module is structurally and mechanically independent, phasing could occur in any desired sequence

- When horizontal expansion is completed, the initial structure is designed to support another identical truss system (two levels)
CEILING GRID 4' x 4'

LONGSPAN STEEL JOISTS
40 LJ 9 75 LBS./LIN FT
48 LJ 15 50 LBS./LIN FT
STEEL JOIST 12 x 3
CONCRETE SUPPORT POURED-IN-PLACE

PRESTRESSED CONCRETE SPAN DECK
FLOOR & ROOF 4' x 20' x 6' UNITS

STRUCTURAL PLAN

SECTION E-E  SECTION F-F
"POD" AND PANEL SYSTEM

Exterior Pod Units
• large enough to eliminate numerous joints
• small enough to be handled by a small crane and transported by truck
• simple bolted connection
• moisture-proof connection
• face material varies according to acoustic, light, aesthetic requirements
• necessary power hook-ups

Interior Panel Units
• acoustic
• non-acoustic
• destructable
• permanent
• completely enclosed
• partially enclosed
• easily moved, manipulated by occupants
• moved, installed by a trained crew
• variety of geometric shapes
• supply of light, flexible material that could be easily cut and manipulated

If the average student or student organization does not particularly want to bother with "designing" an office or exhibition area, it could become a useful exercise for architecture students.
variations on grid system