MCKINLEY COURT ...
a new student housing and activities center for Ball State University, Muncie, Indiana

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spring 1980
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FORWARD

My initial interest in doing a new student housing and activities center for Ball State University was brought about by a basic dissatisfaction with those places on or near the university campus where students can interact socially with one another on a variety of different levels. This basic dissatisfaction coupled with the severe shortage of student housing which has existed now for several years at Ball State was used as the basis for this thesis project.
ACKNOWLEDGEMENTS

Immediate thanks must go to my studio critics Robert Fisher, Paul Laseau and Sonny Palmer, who gave criticism and guidance to this work. I would also like to give personal thanks to Jack Wells and Dave Hermansen as well as my colleagues Bill Payne, Bruce Race, Ed Welling, Dave Cole, Mark Prange and Cindy Nichols for their criticisms and support throughout the last year. And finally I dedicate this work to my loving parents, who made this all possible.
ABSTRACT

This thesis project is a new student housing and activities center for Ball State University located in Muncie, Indiana. It contains housing for approximately 250 students as well as student activity and commercial square footage. The total facility is approximately 230,000 square feet. This thesis project is a product of my imagination and was not done in conjunction with anything the university has planned for the future, however, it is assumed that this complex would be built by the university as opposed to some other outside group.

This book is organized in such a manner that the reader will be able to see the solution to this thesis project from the outset while the more detailed information that helped shape the solution can be found in an appendix at the end of the book. The presentation of the solution to this thesis includes such things as schematic design, design development, and the final design documentation. While the more detailed information found in the appendix includes such things as the site analysis, program, and building types analysis.
INTRODUCTION

As I have mentioned earlier, the concept for this thesis project stemmed from a basic dissatisfaction with those places on or near the Ball State campus where students can interact socially with one another. For the last 9 months I have spent a lot of energy trying to alleviate some of the social and environmental deficiencies that exist at Ball State University. It has been my major objective to design a subtle yet exciting facility that will act as a focal point for the campus, tying the university together. I feel this important element of any university is currently lacking at Ball State.

The Ball State campus basically consists of two parts. There is the older part of campus to the south and the newer expansion of the university to the north along McKinley Avenue which has become the major vehicular and pedestrian core connecting the two parts of campus. After a careful examination of the university it was decided that the site on the west side of McKinley Avenue between Petty and Berywn Roads would best meet the needs of this project. By picking this site I was able to respond very strongly to McKinley and the development of the new quadrangle formed by the College of Architecture, the new College of Business and Braken Library across the street as well as taking advantage of another strong pedestrian corridor that passes diagonally through my site which acts as another link with the older part of campus. The final design solution absolutely recognizes this diagonal circulation path through the site.

The siting of the building was determined by a couple factors. First, it was my desire to preserve as much of the site as possible which would include the preservation of the residences that already exist on the site.
Secondly, from an urban design point of view, my building wanted to be as close to the corner of McKinley Avenue and Petty Road as possible due to the fact that this corner is a very high activity node. By placing the building as close to the corner as possible I was able to reinforce the linear movement along McKinley as well as take immediate advantage of the existing diagonal circulation to draw people into my building.

There are a number of other factors that have had a definite influence upon the solution to this thesis project and will be addressed in the schematic design and design development sections of this book.
SITE ANALYSIS

In analyzing the site for this project, I was forced to consider a number of design goals such as: circulation, enclosure and indoor-outdoor relationships. In addition to these many of the usual site analysis criteria such as: views, circulation, environmental impact, noise, existing structures, etc. were evaluated.
SCHEMATIC DESIGN
SCHEMATIC DESIGN

I think it is important to say that this thesis project and the development of its concepts took a long time in coming. Largely due to the fact that I took basically two different building types (student housing and a student activities center) and combined them into one.

First of all one might like to look at a variety of different component connections. For example one might look at the various ways one student room might connect to another; one apartment to another; the ways in which the student activities center might act; and finally the way in which the student housing connects to the student activities center.

After looking at these different alternatives it was decided to develop one schematic design treating both the student housing and the student activities center as a loop stacked one on top of the other. What was developed was a solid ring of housing above with the commercial and student activities below forming interior courts at the corners and one large interior open air court yard in the middle.
COMPONENT CONNECTIONS

STUDENT R.M. TO STUDENT R.M.
- SINGLE LOADED
- DOUBLE LOADED

APARTMENT TO APARTMENT
- LINEAR ATTACHED
- LINEAR DETACHED
- LOOP
- PODS

STUDENT ACTIVITIES
- LINEAR
- PODS

STUDENT HOUSING TO STUDENT ACTIVITIES
- ATTACHED
- DETACHED
- DECENTRALIZED ATTACHED
- CENTRALIZED ATTACHED
CORNER - HIGHEST DENSITY OF PEDESTRIAN FLOW

DEVELOP POTENTIAL FOR CIRCULATION DOWN PETTY

MOVE IN AND OUT OF COMPLEX

POINTS OF CHOICE

VERTICAL CIRCULATION FOR HOUSING AND LOWER LEVEL PARKING

THROUGH LANDSCAPE TO SOUTH

DEVELOP POTENTIAL FOR CROSS SITE CIRCULATION

Circulation
interior courts become nodes of activity
interior pedestrian street links between nodes

footprint
space relationships
functional organization
DESIGN DEVELOPMENT
DESIGN DEVELOPMENT

During the development phase of this project there were many significant changes made, however, the basic organization of the building remained the same. The overall concept went through a series of refinements until I was able to make a very playful statement about the functions of the building, the users and the environment surrounding the building.

First of all it was decided to eliminate the interior courts that occurred at each one of the corners and combine them into one large enclosed interior court space. In order to create some excitement and contrast to the solid ring of housing that occurs above, a ring on the ground plane was rotated 45 degrees to it and broken up by the functions that occur beneath the housing. In addition to this, a square was rotated 45 degrees to the housing within the interior court, forming a series of terraces spiralling down through the scheme. All of these decisions were made independently during this phase, but in actuality, the scheme did not come together until the final stages of the design.
MID QUARTER REVIEW

Laseau: Function on north end of court, what is it? Need to make decision quickly on commercial. Where are openings to commercial? Where are openings to court? Are you going for a solid court feeling with punched openings?

Palmer: Got some good things going. With large structural bay you'll have large columns reconcile how grids meet (units on corners may be different) Adjustments need to be made in structural system to hold it together.

Fisher: Whole experience of movement through building may be recognized in housing (stairs and elevators turned at 45 degrees to relate to major circulation) Cafeteria interrupting 45 is now blunt.

Palmer: Structure will tie everything together.

Fisher: Corner to southwest may open up to relate to area.

Palmer: Must set back from street at least 50' according to the university.

Laseau: Basically a nice building that needs refinement. Character of housing—feeling like a monolith or light weight structure (helps to determine a lot details—helps to establish detail.)
FINAL REVIEW

Laseau: -what are the advantages of the stairs, both on the main level and for the housing. especially up above - how does it help? - add to the experience of it all? - how do elements that stick out say anything? - opening to southwest, house - is it ok?

Palmer: - terraces have possibilities. - that supports Laseau's comment that "it wants to go somewhere." - change orientation, let it open up. Great because it is to the south. - walls around ping pong area?

Laseau: - group services - multipurpose is on lower level, snack area with cafeteria - this works with U plan.

Palmer: - concept; donut on top, solid on north side - don't open up northwest corner as much - on north commercial he agrees with the uses, also works for U plan idea.

Laseau: - snack might be on the lower level to draw commercial business.

Palmer: do you need separate snacks and cafeteria?

Fisher: "pinwheel that steps around" interim deck has green, is outside above and enclosed below open to the south pinwheels up through the building could relieve you of having all these functions on one level
F. Palmer: - started with strong concept - it has lost all little, step back and evaluate it. All the elements are there.

F. Fisher: - if you add pinwheel levels it might change a lot of things - examine the implications.
- build a model... to a purpose...
  decide what you need to learn from it before you do it.
- serrations might be the answer
- has a lot of potential
STUDY MODEL PHOTOGRAPHS
FINAL DESIGN DOCUMENTATION
SITE INFORMATION

The site itself is not owned by Ball State University but is located adjacent to university owned property approximately in the middle of campus. Ball State University itself is located in a residential area about one mile northwest of the business center of the city on 945 acres.

The physical make up of the site is given by the soils data taken from the SOIL SURVEY OF DELAWARE COUNTY, INDIANA, published by the U.S. Department of Agriculture, Soil Conservation Service, listed below.

Soils Data:

The soil of this site is of the Morley Silt Loam series with a 2-6% slope. Surface layer is of a medium texture and the subsoil is of a moderately fine texture.

A representative sample shows a profile of:

- 0-7" Dark grayish-brown silt loam
- 7"-25" Firm silty clay
- 25"- Clay loam

Morley Soils:
1. Natural fertility low (low in organic matter and low in phosphorous and potassium)
2. High moisture capacity
3. Slow permeability
4. Slow runoff
5. Erosion can be a major hazard
6. Well suited to vegetation native to the county
7. Moderate frost heave potential
8. Shrink swell potential: 0-7" low
    7-25" high
    25-60" moderate

Suited to:
1. Openland and woodland wildlife
2. Grasses and legumes
3. Wild herbaceous upland plants and hardwood
4. NOT SUITED TO CONIFERS

Engineering Interpretation:
1. Roads - cut and fill needed, subject to frost heaving; plastic clay.
2. Embankments - fair stability and compaction; slow permeability; MEDIUM TO HIGH COMPRESSABILITY: clay subsoil.
INTRODUCTION

Ball State University is a state supported university whose primary mission is to provide opportunities in higher education for citizens in the state of Indiana. The university is located in the city of Muncie, Indiana which is approximately 56 miles northeast of Indianapolis, the state capital. The city has a population of approximately 80,000 people with about 17,000 of those being students at the university. The city of Muncie is served by plane, train and bus; the campus, by city bus.

As I mentioned previously, Ball State University is situated in a residential area about one mile northwest of the city's CBD on 945 acres. The entire campus consists of some 36 academic, administrative and service buildings; nine residence halls (which contain some 34 separate dormitories); six apartment complexes; five buildings for auxiliary services; and approximately 40 houses in the immediate vicinity of campus which are used for faculty and staff offices.

Ball State University, with its 17,000 students, represents approximately 21% of Muncie's population. It is essentially a community within itself, however, it lacks the amenities that could make it a totally self-sufficient community. This is something the university might like to look into with the growing energy problems we will be faced with in the future. Aside from what is known as the University Village, located reasonably close to the southern end of campus and within walking distance of all university facilities, there are no other commercial areas that are readily available to the Ball State students without the use of an automobile. Muncie's CBD to the southeast of campus has been suffering greatly as the merchants have been
moving out to the more modern shopping malls over the past several years. It along with the Muncie Mall to the northwest of campus is about a ten minute drive from the university. Somewhat closer to campus but extremely limited in terms of its commercial facilities is the Northwest Plaza which is about a five minute drive from some parts of the university. Virtually all of the commercial areas in Muncie require the student to get in a car and drive in order to use them. Besides this fact, the large majority of commercial facilities in Muncie are geared towards Muncie residents and not Ball State students.

In addition to the lack of places on or near the Ball State campus for students to interact socially with one another, there is also a shortage of on-campus housing. Ball State University provides housing for approximately 7000 of its 17,000 students in Elliot, Wagoner, Woodworth, Dehority, Studebaker, Noyer, Lafollette, and Johnson complexes, however this does not include married student housing. With an increase in enrollment over the last several years there has also been an increase in the demand for on-campus housing which the university has not been able to meet. Each fall quarter the residence halls are full and often times over crowded. Study lounges have become living quarters for 6 to 7 students at a time and these conditions will sometimes last well into the winter quarter. Those students who are not able to find housing on campus are forced to rent housing off-campus which is more times than not substandard and very high in price.

These problems cannot be solved over night. However, In an attempt to elleviate the problems I have just discussed, I am proposing a new student housing and activities center for Ball State. The facility is to include housing for approximately 250 students,
and some commercial facilities along with some student activity spaces. It is my hope that such a facility will start to alleviate some of the social and environmental deficiencies that now exist at Ball State.
USERS-STUDENTS

McKinley Court... A new student housing and activities center for Ball State University if written to indicate priorities should perhaps be: McKinley Court... a new Student housing and activities center for Ball State University, for its functions, purposes and priorities are directed to the end of providing a student "place."

McKinley Court is to be as student oriented as possible and as such should appropriately convey this message to the student community.

I think I can safely say that we could divide the student body up into three categories of students: collegiates, scholars and non-conformists. The Collegiates, perhaps the largest group of students, are socially motivated with heavy interests in extra-curricular activities with a passing interest in academics. The scholars on the other hand are motivated solely by intellectual desires while the non-conformists tend to be self-oriented, anti-institutional, liberal/radical. All these student types will be involved with the facility to varying degrees. However, there are some things these students all have in common, they all want to organize, socialize, entertain, dine and be entertained. This facility must provide for such gatherings. You have the bedrooms and apartment units at the micro scale and the commons or student activity spaces at the macro scale. The commons areas should be of a broad variety of scales and privacy to encourage spontaneity and provide for recreation, meetings social activities and minimal courtship rituals, i.e. out-of-the-way eating, studying, conversation, etc. The proposed project would serve not only those students living on campus but commuters as well.
The staff at Ball State University, like most universities consists primarily of women in clerical positions: older women who have raised a family and have returned to the work force, wives of students and students themselves. Men generally hold administrative positions. Along with these you also have your staff craftsmen such as janitors. Staff members run on a very rigid schedule with most of them working from 8:00am to 5:00pm with an hour off for lunch and two 15 minute breaks, one in the morning and one in the afternoon. The staff's involvement with this facility will primarily be during the day for lunch and occasionally in the evenings for other affairs.
Of all the people at Ball State University, the faculty will probably be the least involved with this facility. Time is their most limited commodity. The average faculty member will work on the average about 60 hours a week. Their activities and responsibilities spread out over a wide range of time consuming tasks: instructor, researcher, committee members, senate members, department members as well as community liaisons-activists-consultants-confidants. Actual faculty member-student contact is between 10 to 20 hours a week, however, some may to three hours is needed for preparation and testing for each one of those contact hours. Due to the limited time of the faculty members this facility must be convenient for them to use otherwise they will most likely not use it. Faculty involvement with this facility will primarily be in the form of luncheons and evening dinners as well as educational seminars and workshops.
PARKING NODES