Columbus Community College
Columbus, Indiana

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1980-81 Architecture Thesis
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Abstract

The Columbus Community College is an educational institution that focuses on energy and providing life-long educational opportunities for all citizens of the community which it serves.

The college consists of roughly 125,000 gross square feet and consists of a theatre, library, lecture hall, administration, three types of classrooms, two types of laboratories, faculty offices, and a physical plant. It has five main departments. In the first phase which are secretarial administration, general business, agriscience, industrial technology, and alternative energy. The first phase will serve approximately 2,000 students, and the second phase will increase the capacity by an additional 2,000 students and 100,000 square feet of classrooms and labs.

The site is a near northeast site in the city of Columbus, Indiana. The most dominating issue of the site are the existing trees which are a few basic varieties with their average total height of seventy-five feet. They cover the entire southern portion of the site, and the northern portion is mostly by berm and open to the surrounding industrial context. The main access to the site is along the southern edge which is state road 46, or 25th street as it runs through town.

The project evolved through a rather intense period of alternate research and design concept thinking. It is a very unique project which is a result of the question which came out of the synthesis and compilation of all the research that was done. This question involves the search for a synergistic and sensibility or perhaps the discovery of some way to have organized chaos.

The plan is very irregular, though every exact angle designed with the "mind's eye" by a continuous placement in the space itself, mainly through general focus of imagination. The scheme is basically a series of smaller buildings which are maintained in a linear fashion along an interior pedestrian street. This street "meanders" its way through the "building" and relies on the magnet approach used in many shopping malls to provide the everyday traffic generation along the street.

Along this street there are four nodes which consist of two types and two orientations. The plaza at the "student center" serves as the major internal oriented node as it is nearest the least desirable industrial context. The open plaza at the other end of the street serves as the major external oriented node as the buildings which frame it split apart to allow two of the existing trees to nestle between them. Between these two major nodes are two minor nodes, one internal which occurs at the center of the street and bridges the two sides together, and one external oriented that serves as the main public "guest" entry.

The facades of the building are based on a concept termed "dynamic synecdoces" which essentially is an ever-increasing rhythmic pattern of the ornament and often the window openings themselves. The "front" image is that of a loggia that is stretching along the entire south facade of the classroom. This facade borrows from the Greek image of a temple as a public building. The interior circulation facades separate the balcony walkways which link the entire classroom clusters from the street and their opening frequency and ornamentation increase as the plaza, or "student center" is approached. The buildings on the south side of the street are lowered below grade one level to allow the sun to penetrate the street space through an "arcade for the sun". The north exterior facade also deals with the increasing rhythms of ornamentation and has window openings that are relatively small due to their northern orientation.

The materials used consist of rectangular glass block, used in a running bond, on the south exterior facade and on the actual classroom facades. Limestone with brick masonry trim is used on the north exterior facades and the student center and the interior circulation facades are painted drywall on concrete block. Limestone panels are used extensively throughout the interior facades at the student center.

The building's pedestrian street is roofed with two different materials. Over the classroom areas the roof is opaque as the light is provided by the sun arcade from the south. Over the most public spaces the glass is glass or clear and the barrel vaults radiate from it down their respective streets.

The basic structure is masonry unit bearing walls which support the balcony walkways as well as the roof trusses at the classroom, and at the student center a column and slab construction is used. The systems which generate from the physical plant are distributed along the system tunnel that runs beneath the interior street to all buildings in the college.

The whole experience of the spaces, both interior and exterior, is meant to be a movement not only through space, but also through time, as the dynamic synecdoces attempts to do. This atmosphere set forth by the informal character of the interior street is to be conducive to the interaction among the students, faculty, and staff, i.e., the community, to relax the formal social attitudes normally created in such an institution.
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Chapter One

Final Solution
INTRODUCTION

This chapter presents the final design solution in its entirety. Before reading this chapter, however, an understanding must be established concerning the subsequent chapters. These chapters are vital to the final design solution.

They offer support and back-up information to explain first the program and the site, in chapters two and three respectively. Then some very important research material is presented in chapter four. Chapter five presents the concepts and sequence of concepts brought about in part from that research. Chapter six deals with the many stages of design and design development as the concepts are realized. Chapter seven shows some remaining weak points in the final design solution which need improvement or a higher degree of resolution.

It is imperative that the information in the supporting chapters at the very least be skimmed over prior to beginning the further reading of this chapter. In the event that the reader does not wish to do so, many of the points from those chapters will be repeated both for explanation and emphasis. For full understanding however, the eventual reading will be necessary.

An honest attempt has been made to keep the book very brief and to the point in order not to cloud the design with an unnecessary verbal burden, yet still provide sufficient information to successfully explain the design solution. Inherently, this chapter is of greater length than that of the supporting chapters due to the myriad of drawings and model photographs necessary to explain the design. It is noteworthy here to mention the extensive use of an architectural model in the design presentation. This was due in part due to the complications of honesty and successfully representing the spaces, both interior and exterior, to the reader as a drawing or a photograph. This will become readily apparent when the model is first shown to the reader. The main reason, however, was to be able to grasp the three-dimensional aspects of the building very quickly and be able to convey the character and feeling of the spaces to the reader with a minimum amount of effort on his/her part.

Let us then begin the explanation of the final solution by discussing some of the site-related issues with the site plan, then take a look at the organization of the building and the spaces themselves through the use of floor plans, then grasp a sense of the three-dimensional space, scale, and character of the building through extensive model photographs.

SITE PLAN

The overall site plan is shown in Plate 1. The most important issue to discuss aside from the location, which is explained rather extensively in the third chapter, is the issue of existing vegetation on the site. As was also mentioned in chapter three the existing trees which cover the entire southern portion of the site are of an average total height of approximately 70 feet, and the canopy around 30 feet from the ground plane.

The response to this valuable amenity was to divide the building just slightly within the tree line so as to benefit not only from the pleasant visual effects on the south side, but also to provide for summer shading of the building and covered areas that are transparently roofed over the pedestrian street. In so doing it was possible to save all but two of the existing trees. Another advantage to this was the ability of the building itself to gently split or tighten up to allow for the existing placement of the trees nearest the building. This will be discussed later in the text.

The main entry into the site comes off of Haw Creek Avenue as this would become a traffic controlled intersection due to the amount of traffic that already exists there. This can be seen somewhat in Plate 1, but perhaps more detailed in Plate 2. This main entry then winds through the trees to a point where the "public" or guest entry road begins. The guest entry then continues itself by terminating in a turbine type parking arrangement on an interior circle with perimeter parking and a drop-off point along the outer circle near the main guest entry.

The main entry drive continues on past the guest drive back to where the main student parking lot is entered. This lot is serpentine in form and makes its way around the entire northern part of the site and the building. It stays separate from the building except where it meets by necessity for the laboratory service drives. In Plate 1 the light gray signifies future addition parking as does the lighter gray along the axis of the plaza which signifies and locates the capability for future expansion of the building. It is hoped to be able to grasp the three-dimensional aspects of the building very quickly and be able to convey the character and feeling of the spaces to the reader with a minimum amount of effort on his/her part.
which pass along the southern side of the site, 25th street. The view of the building through the trees has been carefully thought out and is a key point to keep in mind as we discuss the elevations and images later on in the text.

In regard to the vast expanse of site which seems left over in the northwest portion of the site, there are important functions which take place there. The area is designated as a solar "play-field" in which the alternative energy department within the college has complete control. Such experiments as a solar pond, field of collectors or photovoltaic cells might be contained there. We will look at this more specifically later in the discussion of the floor plans.

An important item to discuss here is the way in which the building relates and reacts to the site and its functional context. It is perhaps easiest to explain this from the inside of the building out. The building concept contains two distinct and polarized types of nodes along a circulation corridor.

The sketch in Plate 3 shows the two types of nodes, internal and external, and the variations of major and minor degree for both types. The major internal node or "plaza" is located at the eastern end of the site which is nearest the most heavy industrial context. This allows an inward emphasis which turns away from the rather undesirable context. At the other end of the building, the west end, is the major external node in which the pieces of the building split apart and allow the site to penetrate the pedestrian street and vice versa. It is at this point where two existing trees are at their greatest impact as the building surrounds the two trees on three sides and strengthens the tie between the building node and the site node at the point where it has the prime viewing spot relative to the "front" of the building and the southern portion of the site. The other two minor nodes, both internal and external happen along the pedestrian street between the two major nodes just discussed and can be seen perhaps most clearly in Plate 4 which shows a site plan of the building and its immediate context.

It is the immediate context of the building which will now be looked at with the aid of Plate 4. The great transition is made with the use of brick pavers and a limestone trio pattern from the turbine and perimeter parking up to the actual steps of the minor external node, which is the "main" entry. Lime stone bollards help to strengthen the definition between parking and paved walk. On the opposite side of the building at the "back" the student parking area, serpentine in form, consists of asphalt pavers with concrete trim and the trim merely becomes more frequent and is of larger area in proportion to the asphalt pavers as the transition is made from the parking area up to the building itself. This transition takes the form of wide sweeping curves which gently narrow down around the entry points between the buildings. Newly planted trees are used here along the arc of the curve to aid both visually in terms of scale and physically with regard to summer shade, though the primary intention is for them to aid in scaling down the seemingly sudden line of exterior facades along the back side of the building.

FLOOR PLANS

The basic concept was to make the Columbus Community College a literal community within itself in reaction to its rather ambiguous site with respect to its location within the city of Columbus and Bartholomew county which it will serve. What this allows is the potential for interaction and one-to-one relationships in an all computer educational facility. In making the College a literal community, all the hallways and long grab corridors normally found in educational buildings were grouped together to form an interior pedestrian street. Along this street then, are placed the classrooms and laboratories on both sides three stories in height with the upper levels linked by balcony walk ways which have their own access to the interior street. To aid in traffic generation along this street "magnets" were used at each end, one being the student center, the major internal node, the other being the site plaza, the major external node and between these two minor nodes one external and one internal as explained before. This is similar to the shopping mall concept of getti ng people moving and the importance of destination in the psychological sense. These ideas are discussed further in chapters four and five.

The arbitrary character is a result of two main ideas, one the idea of synergism and the ability of the whole to be more than the sum of its parts. The other idea of serendipity, or the "incidental" to strengthen the synergism. Together the two ideas in themselves suggest a synergistic serendipity which can be translated as a type of jest which is created at the same time as the problem is developed. The study on the pueblos in chapter four also notes a great amount of influence and the "non-architectural architecture" that it is and much of it recently discovered. The kind of "medieval" flavor about
the way in which the street winds its way along in a result of this search for synergism and the break up of a long expanse of linear space. These ideas are discussed more thoroughly in chapters four and five, but were briefly mentioned here due to their importance in the initial generation of the design.

The floor plan organization can be most quickly understood by referring back to Plate 1 which shows the mass of the building. The round form is designated as the student center, even though it is not in the geometrical center of the building. Around this student center is located: a theatre, a library, a bookstore, a cafeteria, and administrative office spaces. Directly to the east (right) of the student center are two large lecture halls with the ability to expand further if needed.

Back toward the west (left) of the student center along the "double-loaded" interior street are classrooms, of two basic types, and faculty offices except where the building steps away from the street. Where this happens there are laboratories for the various disciplines and at the near end of the street on the north (top) side the physical plant is located adjacent to the alternative energy laboratory. To the direct north and south of the student center there exists the capability for possible future expansion of classrooms and laboratories with the capacity to handle approximately 3,500 students as opposed to the first phase capacity of around 2,000 students.

LOWER LEVEL Plate 5

The lower level plans show the classrooms that are along the southern side of the building which are one level below grade. This was done to facilitate the allowance for sun and light penetration into the pedestrian street by pulling the southern buildings along the street one level below the northern buildings, and in perhaps best illustrated by the through building section in Plate 10. The classrooms are allowed normal entrance and exit along a secondary street which links two of the three sections together, the third having its own due to the separation from the others by the major external node. The classroom walls which face this street, an adjunct of the major street with the exception of its level change, are composed of rectangular glass block used in a running bond in order to borrow light from the daylight street.

A similar corridor on the opposite side of the classrooms which face outdoors is provided for the practical concerns of fire-exiting and those walls are also composed of rectangular glass block in order to borrow light directly from outside and minimize the psychological aspects of being underground.

The other main space to explain here on this level is the service tunnel that runs beneath the main pedestrian street which is directly above at ground level. All the piping, from all services including HVAC, electrical, communications, fire, plumbing, etc., runs along this tunnel and braches off at the bearing walls of the classrooms horizontally to be distributed vertically up the bearing walls. At the student center in all four of the buildings involved, the tunnel branches briefly horizontal from the main and then is distributed vertically up through a distribution shaft.
MAIN LEVEL Plate 6

1 theatre
1a theatre storage
2 library
3 cafeteria
4 curricular advising
9 physical plant
10 rest rooms
11 piazza
11a piazza stage
11b piazza colonnade
12 plaza
13 pedestrian street
15 site loggia
17 typical classrooms
20 lecture hall
23 laboratory

MAIN LEVEL Plate 6

The main level plans show the classrooms now along both sides of the street. All the classrooms at the main level are typical normal usage with the exception of the lecture halls on the east end. The laboratories, though all of identical size in plan, vary from two to three levels all being the same total height. For the more academic labs, there are three floors, and the vocational labs only two due to the necessity of greater ceiling heights.

The student center at the main level consists of the theatre, library, cafeteria, and class scheduling facilities all is separate buildings but linked by the cool-conditioned pedestrian street. The theatre slopes gradually up from this level which enables the storage area to be located beneath the slope along the back half accessed by two large doors on the west wall as shown in plan. The library is three steps up off the main level to allow it psychological importance relative to the other three piazza functions. The library is the absolute symbol of learning and knowledge and is usually the most public oriented building in an educational institution, hence its "pedestal". The cafeteria, on the other hand, is entered down three steps to help diminish its importance as a formal public place and establish its character as informal. The class scheduling area is the fourth function and relative to the other two functions in the administrative building it would be most highly trafficked, hence its first level location.

The entry points are important to explain at this level. The main "public" or guest entry is between the theatre and the first building of classrooms, as shown in Plate 6. There are other entries off the student center plaza that are rather public in scale, but this is merely due to the temporary ending of the street. The main entries as far as the students are concerned are strung along the entire "building" on the north side and are a direct result of the splitting open and pinching shut of the groups of individual buildings along the pedestrian street. A closer look at these will be discussed in the elevation section Plates 23-29. It is also convenient here to note the two existing trees which the major external node surrounds on three sides, an elevation shown in Plate 19.
SECOND LEVEL Plate 7

The second level plans do not readily differ from the main level with the exception of the seminar classrooms fronted by faculty offices. Upon closer inspection of the plan and also the section in Plate 10 it can be seen that some subtle, but important changes occur. The biggest difference is the stepping back of the third story south side classrooms and faculty offices. This allows the further penetration of sunlight over the top of the buildings into the semi-conditioned pedestrian street during the winter season. Accomplished with the use of "an arcade for the sun" it is an issue of energy that is used to the advantage of aesthetics as the section shows.

With the entire first and main level linked by a colonnade, the top of the colonnade wall on the south side of the interior street becomes the handrail for the balcony walkways as the circulation facade is stepped back with the third story. This is somewhat confusing to understand even in the section drawing. A reference to Plate 10 which shows a section perspective helps in further understanding.

At the student center the theatre is relatively similar to the main level except it steps up yet further. The library shows a balcony space with wading stairs and above the cafeteria is the bookstore reached by stairs off the secondary.

Above the class scheduling are the main administrative offices for the president, vice-president, etc. reached by a similar set of stairs, though from off the main street adjacent to the plaza.

Perhaps one other idea to mention here in the use of the balcony walkways to link only the classroom related activities. The student center buildings are linked only on the first level to further underline their inherent difference in function and image relative to the rest of the buildings. The lecture halls are not linked either due to their sloping up floor and the physical plant has no need for them either.
THIRD LEVEL Plate 8

The third level plans show the idea of the sections perhaps the best of all. The faculty offices and seminar classrooms are on the third level north side. The south side is now the roof level and hosts small “sun pocket” areas along the balcony walkway for students to lounge on a less than perfect fall or spring day. Also, and perhaps more importantly, there are three rooftop “classrooms” for classes to be held outdoors and relatively undisturbed during those especially nice days.

It is perhaps of value to mention the glass block that is used not only on the actual classroom façades, but also on the street-side wall of the faculty offices. The extensive use of the glass block is due to the theory of “borrowed” light. The light being borrowed of course, from the interior daylighted pedestrian street.

At the student center the theatre is now at full slope and the projection booth is shown as well as the full effect of the curvilinear wall elements adjacent to the individual entry points. The fire exit stairs can also be seen along the curved exterior wall that serves as a main focus upon entry. Due to this fact the Columbus Community College sign is placed along it across the top.

The library third level is basically the same as the second floor with the exception of the circular overhang above the reception desk two stories below. This overhang incorporates the stairs leading to the third floor and comes but two feet from touching the plaza facade which allows for viewing out. This floor of the library is mainly additional space for expansion as all the student center pieces are oversized to allow for maximum potential flexibility which matches that of the possible future classroom expansion.

The third floor above the bookstores is a low-traffic student/faculty lounge and allows a rather dramatic view of the entire plaza including the plaza side of the theatre stage, as well as down the street. To the rear of this third level is a storage area for the bookstores below and accessed from all levels by a hydraulic elevator. The third level above the administration offices houses the computer equipment for all of the college, both administrative and student memory and terminal hook ups are included.
The roof plan shows the manner in which the street semi-conditioned space is covered. The most noticeable issue is the type of "custom-fit" roofing method used to accomplish this. Upon inspection, it is quite standardized. But before the technical issue is explained, the concept must be understood.

The roof is opaque in some areas and transparent in other areas. The transparent areas are over the more public and pedestrian intense areas which consist of the plazas, the major internal node; the plaza, the major external node; and the minor internal node that serves as the bridge between the two sides of the street. The opaque areas are above the street itself and are important as they establish the contrast for the daylight spaces.

The transparent areas are, of course, glass in which the primary framing runs down the slope and the secondary against it. The opaque areas are steel trusses as seen in the section in Plate 10 and are roofed with standing seam metal panels, the same running as indicative of the primary truss elements. At the student center there are glass barrel vault arches which cover all four of the radiating streets into the plaza and are intersected by a large rotunda-like glass dome. All these elements are supported off of the building walls at the parapet height.

The steel trusses that support the other transparent areas as well as the opaque areas are supported every twenty-six feet by the bearing walls of the classrooms and/or labs. This will be explained more in the structural section.

The roof areas that are not outdoor classrooms or sun pocket lounges are built-up roof with gravel ballast which slightly slopes to drain at roof snappers on the outside walls. In the case of the student center buildings they are flat roofs which are internally drained.
SECTION Plate 10

The through building section in Plate 10 shows the location of all the facades relative to each other. The Greek image of "front" accomplished by the loggia and backed by the southern facing glass block classroom walls. Also the fire egress corridor which services the lower level classrooms is readily seen. The north interior street elevations are actually on the south side of the street. The most valuable point here is the use of the "arcade for the sun" at the second level south side. This arcade allows the sunlight to penetrate the street space by sinking the entire southern classrooms as well as stepping back away from street facades with the balcony walkways.

The main level pedestrian street is three steps off the actual classroom level and is mainly to provide continuous seating along the entire street. Along both sides of the street a continuous colonnade runs the entire length of the classrooms and serves as a unifying link for all the facades, a more in-depth look later on. Below the street at the main level, a systems tunnel runs along the lower level next to the arcade corridors that serve the lower level classrooms.

To the north side of the street are the south or southern facing facades of the circulation walkways. They are less open and airy than their counterparts on the opposite side of the street and actually use their fenestration openings in a unique way as well be explained later. Behind these are the actual classroom facades composed of glass block in order to borrow light from the main space, as explained before.

The north exterior walls are made up of brick and limestone trim with much smaller openings due to the extreme exposure conditions in the winter. The relative window heights can be readily seen and are higher off the floor for the two typical classroom levels, and consequently smaller in size, than the seminar classroom windows that are lower to the floor to enhance the informality of the space, and therefore larger in opening size.

The roof trusses can be seen as well as the manner in which the parapet walls are handled by stepping these down with the slope of the roof to reduce their impact.
STUDENT CENTER  Plate 11

The theatre is shown in full even though the plan as a whole is taken at the main ground level. The entry points are just off the plaza and are emphasized by the two peristyle colonnades to either side of the plaza stage. The stage itself is the theatre serves mainly for repertory productions, but the back wall behind the stage can be opened for rear viewing from the plaza or presentation directly to the plaza. Upon entering, there is a series of steps with a door between the pieces of angled wall. Each entry into the theatre itself serves three rows with the seating being continental style, the maximum capacity of 600 people. The entry steps along the street walls and in a doorway to the fire stairs which cascade down the curved exterior wall which also contains the Columbus Community College sign. One important point to see is the short pieces of angled walls that curve on the theatre side to aid in the acoustical mechanics and sound buffering.

The library plan shows only the first level, but the other two levels can be explained fairly easily relative to this plan. The entry is off the plaza up three steps through a one story peristyle colonnade onto the porcino. From there through a set of double doors the library space itself is entered. The question mark shaped reception desk serves as an obvious metaphor and can be realized from the second and third level balconies. The missing part of the question mark, that being the dot, serves as the card catalogue for the reference material (book stacks) on the first level. The second level is balconied away from the plaza facade and serves as a reading area, the third floor is the same with the exception of the circular extended balcony two stories above the reception desk.

The cafeteria is entered again through a one-story peristyle colonnade and down three steps to where the serving counter begins. The counter curves subtly to the end where there is a special counter for the cashier attendant. The seating tables are placed out into the street except they are one and a half feet below the street level. The food preparation area is at the rear of the building and is serviced by a door adjacent to a service elevator. The entrance to the second level bookstore is off the plaza just to the right of the cafeteria entrance via a wide set of stairs. The second level is also accessed by a small hydraulic elevator lift for the handicapped which runs upward with the systems shaft. The third level is a student/faculty lounge backed by storage for the bookstore below.

The curricular advising is entered through the one story peristyle and through a set of doors just next to the stairs that lead to the second level administrative offices similar to the bookstore. The third level is the computer center for the academic system as well as the administrative system.

TYPICAL CLASSROOM Plate 12

This plan shows a typical size classroom with a capacity of 45 students. One important point to make is the wall material. The wall that contains the door is to the pedestrian street just past the eight foot wide hallway. Rectangular glass block is used to borrow light from this street. The opposite wall is also composed of glass block on the southern facing classrooms and of brick masonry on the north facing ones. The bearing walls that join the walls just discussed are concrete block masonry left exposed and painted.

SEMINAR CLASSROOM  Plate 13

This classroom is for smaller more informal classes and has a capacity of 25 students. There is no other major difference from the typical classrooms other than the fact that they have no glass block walls to borrow light from the street as they are fronted by two faculty offices. The faculty offices then contain the glass walls to add a wall's difference in lighting quality to the spaces. These offices are either on the second level south side or the third level north side, along the pedestrian street.
MUSEUM PHOTOGRAPHS

The model photographs are used extensively throughout this section to illustrate the facades and elevations. Plate 14 is an overall plan of the entire building, shown with the roof off to emphasise the interior facades locations as well. One important theory to expand on before the elevations are shown is the theory of "dynamic" synthesis. This theory represents an ever-changing, ever-increasing rhythmic pattern applied in this case to the ornament on all of the facades, both interior and exterior. The ornament increases in frequency as the student center is approached and peaks in the student center itself. This serves to reinforce the activity in the college and acts as a type of B.K.C. that shows the heartbeat of the street activity. The movement through the building then, along the street, is a movement not only through space, but also through time. Chapter 3 contains more on this subject.

Plate 15 illustrates the south elevation which faces the street through the many tall existing trees on the south side of the site. The loggia serves as a "front" image and borrows from the Great Temple symbol to note this. The ornament increases at the column plinth, base, and capital as the student center is approached. To reinforce this synthesis, the frieze supported by the columns has its cornice and architecture also increase. Or, to put it another way, as the pedestrian moves away from the student center, the ornament "dies-off" gradually.

Plate 16 shows the south night-time elevation and the importance of the rectangular glass block walls that back drop the loggia. Not only does the glass block allow daylight during the day, but it also emits light at night time to produce an image of life as there are as many classes during the evening as during the day.

Plates 17, 18, and 19 show south entry details and the use of the large fan sash glass forms to step down the scale of the entry to the entrance. The other elements discussed before can be more readily seen in these details as well.

The north or "rear" elevation is shown in Plates 20 and 21. Again, both the day and nighttime effect is shown. The north facades are brick masonry with limestone trim. It is of value here to note that the rhythms of the ornament as it approaches the student center. Plate 22 shows a detail that more clearly illustrate this idea.

A section perspective looking down the street toward the student center and plaza is shown in Plate 23. This shows three important issues. One is the use of the main level colonnade to serve as the unifying element in linking the entire building from one end to the other. Two the theory, again, of dynamic synthesis and the rhythms not only of the ornament, but also the facade windows themselves. Three, the differences of the interior street facades is shown, north vs. south, and the use of the "bridge" that links the walkways behind both.

Plates 24, 25, and 26 show the south interior elevations. The plaza elevations show the use of ornament and the one story colonnade to add depth to the plaza. These facades are the actual walls, unlike the circulation facades which are essentially false walls. In these facades the window openings themselves increase in frequency as do the small pediment elements and string courses above the windows do, as well as the cornice along the top. These walls are of concrete block to aid in their heat retention as they serve as mass walls during the winter season. They are covered with drywall and painted as shown. The subtle color scheme used throughout the entire building is to allow for a phenomenon known as "grandstanding" to take place.

That is for the architecture to remain passive in color and let the people provide the color and the activity in the spaces. But the use of subtle colors still allows the architecture to have a character of its own during class periods when relatively few people are in the street, or during the hours of the day.

The north interior street elevations are shown in Plates 27, 28, and 29. The student center plaza elevations are relatively the same as the south side with the exception of the specialty of the library facade. It steps down literally to the entry and is so emphasized due to the balconied off interior floors. The theater elevation is inherently different and boasts a plaza stage for the outgoing student or informal concert. The two peristyle colonnade elements note the entry points to the theater. The classroom circulation street facades on the south side of the street tend to be more open than their counterparts to the north. This is due to the balance of light that is desired in the respective spaces. First, it is lighter due to the fact that it is always in shade and has not such sunlight to wash it, hence its openness. Second, it must be light to allow the sunlight to wash the facade across the street during the winter time. This is accomplished with the "arcade for the sun" along the top level of the south side.

Note again, the use of the main level colonnade to serve as a unifying element throughout, composed of round columns. Everywhere else uses rectangular column sections on the interior.
Chapter Two
Program
PROGRAM BACKGROUND
Community college is an institution which is to be flexible to respond to the immediate needs of the community which it serves: it is also to provide continuing educational possibilities for all people within that community, and at an affordable cost to those most in need. In a sense it only makes sense if you don't use it as the funding comes directly from the community itself in the form of tax revenues.

Open door admissions policy is maintained to allow for all to participate and the professors are freed of any required research duty to allow full dedication to student service and education.

GOALS
The goals represent many different concerns in the form of the community attitude toward the presence of the building and the impact upon its context all the way to the building itself.
1. To design an initial outstanding example for community college facilities in the state of Indiana.
2. To provide a sense of pride and positive feeling toward the community college concept and the Columbus Community College among the students, faculty, administrators, and the community as a whole that provides this base.
3. To respect and improve the high quality of architectural design that has made the city of Columbus, Indiana the "showcase" that it is today.
4. To reflect the educational, social and economic needs and desires of the community that it serves.
5. To be flexible enough to change as those needs change without weakening the concept of the building.
6. To respond to the site location, building form, and orientation with respect to the current energy issues.

GROWTH
The issue of growth is an important one, due to the fact that community colleges are known to double or triple within their first few years of establishment. This is because of the vast market available for life-long educational opportunities. The Columbus Community College will initially serve 2,000 students and must have the flexibility to expand to twice that number, or 4,000 students. This must be accomplished without compromise of the design concept or sacrificing of the existing functions of the college.

BUILDING CRITERIA
The most important issue in this building type is two-fold. First, you get to where you are going, and second, going and what you experience along the way, and second, what you experience once you arrive there and the reaction to regular exposure to the space.

The flexibility in this situation places more emphasis on exterior expansion rather than interior flexibility. Rather than have one large structure with a high degree of interior flexibility, it is more desirable to have a series of smaller structures with the potential of adding more if needed.

The interior circulation should have a campus type atmosphere and yet not be compartmentalized or destroyed by any future additions.

The economic advantage to producing a system to allow for ease of production as well as consistent character is to be made manifest. It would be advisable not to carry this to the extreme to say that every building, no matter what its function, would be built of the same materials and methods, but rather to be aware of the money and time-saving advantages of similar construction.

In response to the energy issue it would be desirable to respond to the inherent climatic and environmental site criteria in an appropriate passive means as far as building orientation, major entrances and exits, etc. are concerned. By the term passive is not meant high-tech passive glazier-ry, but the common sense reaction to the various site conditions inherent to the climate.

EXTERIOR CRITERIA
The access/egress to and from the site should be able to comfortably handle the mass rush periods and yet remain personal enough that the snipping center syndrome is avoided.

The parking should serve two functions. One is to serve the students, faculty and support staff, the other to serve as public guest parking and a main drop-off point. The student lot should have a 550 space capacity and treat the "sea of parking" in such a way to diminish its overpowering scale. The service entries and exits should integrate with the student lot.

The landscaping should reinforce the design concept, aid in providing visual scale to the building, respond to climatic demands and could be used to break up the scale of the parking area. Adequate lighting is important as well as outdoor seating areas and plenty of large expanses of grass areas for student informal activities.
SPACE SUMMARY

The space summary lists the spaces and their respective sizes by required square footage. The individual square footage listed are net areas, and the total areas of the individual spaces are gross areas and include provisions for the following: circulation, mechanical, rest rooms, janitor closets, unassigned storage, and walls, partitions, and structure.

Classrooms: 57,538 gsf

<table>
<thead>
<tr>
<th>Category</th>
<th>Rooms</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminar</td>
<td>10</td>
<td>600 nsf</td>
</tr>
<tr>
<td>General</td>
<td>35</td>
<td>800 &quot;</td>
</tr>
<tr>
<td>Lecture</td>
<td>2</td>
<td>1700 &quot;</td>
</tr>
</tbody>
</table>

Laboratories: 18,333 gsf

<table>
<thead>
<tr>
<th>Category</th>
<th>Rooms</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machines</td>
<td>2</td>
<td>1000 nsf</td>
</tr>
<tr>
<td>Equipment</td>
<td>3</td>
<td>3000 &quot;</td>
</tr>
</tbody>
</table>

Faculty: 4,286 gsf

<table>
<thead>
<tr>
<th>Category</th>
<th>Rooms</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices</td>
<td>25</td>
<td>100 nsf</td>
</tr>
<tr>
<td>Conference</td>
<td>2</td>
<td>250 &quot;</td>
</tr>
</tbody>
</table>

Administrative: 3,772 gsf

<table>
<thead>
<tr>
<th>Category</th>
<th>Rooms</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>1</td>
<td>300 nsf</td>
</tr>
<tr>
<td>Vice-president</td>
<td>1</td>
<td>200 &quot;</td>
</tr>
<tr>
<td>Community</td>
<td>2</td>
<td>120 &quot;</td>
</tr>
<tr>
<td>Curriculum</td>
<td>2</td>
<td>200 &quot;</td>
</tr>
<tr>
<td>Bursar</td>
<td>1</td>
<td>300 &quot;</td>
</tr>
<tr>
<td>Registrar</td>
<td>1</td>
<td>300 &quot;</td>
</tr>
<tr>
<td>Secretary</td>
<td>1</td>
<td>150 &quot;</td>
</tr>
<tr>
<td>Sitting</td>
<td>1</td>
<td>200 &quot;</td>
</tr>
<tr>
<td>Conference</td>
<td>1</td>
<td>400 &quot;</td>
</tr>
</tbody>
</table>

Cafeteria: 5,834 gsf

<table>
<thead>
<tr>
<th>Category</th>
<th>Rooms</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor eating</td>
<td>1</td>
<td>1400 nsf</td>
</tr>
<tr>
<td>Outdoor eating</td>
<td>1</td>
<td>1100 &quot;</td>
</tr>
<tr>
<td>Food prep</td>
<td>1</td>
<td>800 &quot;</td>
</tr>
<tr>
<td>Cold storage</td>
<td>1</td>
<td>200 &quot;</td>
</tr>
</tbody>
</table>

Bookstore: 4,667 gsf

<table>
<thead>
<tr>
<th>Category</th>
<th>Rooms</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales floor</td>
<td>1</td>
<td>1400 nsf</td>
</tr>
<tr>
<td>Lounge</td>
<td>1</td>
<td>800 &quot;</td>
</tr>
<tr>
<td>Storage</td>
<td>1</td>
<td>600 &quot;</td>
</tr>
</tbody>
</table>

Library: 8,050 gsf

<table>
<thead>
<tr>
<th>Category</th>
<th>Rooms</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book stacks</td>
<td>1</td>
<td>2800 nsf</td>
</tr>
<tr>
<td>Reading</td>
<td>1</td>
<td>2100 &quot;</td>
</tr>
<tr>
<td>Librarian</td>
<td>1</td>
<td>100 &quot;</td>
</tr>
<tr>
<td>Check out</td>
<td>1</td>
<td>200 &quot;</td>
</tr>
</tbody>
</table>

Theatre: 11,143 gsf

<table>
<thead>
<tr>
<th>Category</th>
<th>Rooms</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seating</td>
<td>1</td>
<td>3800 nsf</td>
</tr>
<tr>
<td>Support</td>
<td>1</td>
<td>1200 &quot;</td>
</tr>
<tr>
<td>Storage</td>
<td>1</td>
<td>2200 &quot;</td>
</tr>
</tbody>
</table>

Physical Plant: 8,200 gsf

<table>
<thead>
<tr>
<th>Category</th>
<th>Rooms</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machinery</td>
<td>1</td>
<td>6150 nsf</td>
</tr>
</tbody>
</table>

TOTAL SQUARE FOOTAGE: 122,163 gsf initial phase.
SPACE ASSIGNMENT
The Columbus Community College has five main departments which were determined through the results of a feasibility study by the client. Two of the departments are technical related and three are academic related. They are as follows:
1. secretarial administration
2. business (general)
3. agribusiness
4. alternative energy
5. industrial technology

<table>
<thead>
<tr>
<th>Department</th>
<th>General Classrooms</th>
<th>Lecture Classrooms</th>
<th>General Laboratorizes</th>
<th>Equipment</th>
<th>Faculty Offices</th>
<th>Admin Offices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secretarial Administration</td>
<td>2</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>General Business</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Agribusiness</td>
<td>2</td>
<td>8</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Alternative Energy</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Industrial Technology</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

COSTS

The building costs are based on gross square footage. Added to that are percentages of the building costs for fixed equipment of which the total represents construction costs. A further percentage is taken of the total construction cost for determining the cost of movable equipment and the total of all of this represents the total budget for the building.

Due to the various building types involved, costs were determined for each individual building type as to their respective building costs, fixed equipment, and movable equipment, and then added together for the total building related costs.

After this total percentages are taken from it for site acquisition, professional fees, administrative costs, and contingencies to arrive at the total cost.

Classrooms and Laboratories  $6,638,938
Administrative and Offices   $713,576
Library                       700,077
Theatre                      1,123,454
Cafeteria                    400,721
Bookstores                   312,650
Physical Plant               1,352,899
Pragmatic and Contingencies  2,668,875
TOTAL COST                   $14,110,690
Chapter Three

Site
LOCATION

The obvious regional location is shown in Plate 30, that being Columbus, Indiana. Major
interstate highways lead to Indianapolis from Chicago, St. Louis, Louisville (which passes by Columbus),
Cincinnati, and Columbus, Ohio.

Plate 31 illustrates the city of Columbus rela-
tive to Bartholomew county, and Plate 32 the city itself. On all three plates the site is darkened
so that it may easily be understood and seen.

The location chosen for the project was one of
seven sites actually under consideration for the
actual project. It is on the near northeast side
of downtown Columbus and served as the Bartholomew
county fairgrounds until ten years ago. Since then
it has remained vacant and without use. Plate 33
shows the site and immediate context.

To the northeast is a large plastics company,
also a publishing facility, and to
the northwest a lumberyard. An active railway line
is the west boundary of the site and across the
tracks are more light industrial commercial build-
ings. To the south of the site runs the main ac-
cess street, State Road 46, through town it becomes 25th street as seen in Plate 31. Along this street
to the south of it are fast food places and light
commercial, behind this to the south begins a resi-
dential section. To the southeast of the site is
Lincoln Park with softball fields, indoor skating
rink, and other outdoor related activities for a
public park. To the east of the site across a sec-
condary street is a community shopping center which
faces opposite the site. This secondary street
runs to the north and intersects with U.S. Highway
31 as seen in Plate 31.
SITE SPECIFIC INFORMATION

The site drawing in Plate 36 graphically illustrates many of the issues that will be discussed in the following text. The first issues to discuss are the ones that relate to context in a direct way.

The site has a rather hard edge along the north and east boundaries due to the medium to heavy industrial and commercial buildings whose backs face the site. Another hard edge is along the rail line to the west of the site. This becomes a type of hard edge due to the noise and the vibration from this regularly used track. The back of the shopping center to the far east is not really a real factor but does present a hard edge condition. The softest edge is along the southeast portion due to the city park that is across the street. Here, however, the street itself becomes a definite barrier between the site and the park. This must be taken into consideration concerning any pedestrian traffic that might evolve.

The access into the site from this main thoroughfare, 25th street, should come off one of the three existing three-way intersections which already exist along it. This would allow enough traffic or warrant a stoplight as there are currently none on any of the three. The possibility exists for a secondary entrance/exit along Haw Creek Blvd. to the east of the site and perhaps a service road as the design warrants.

By far the most unique feature of the site are the intense grove of extremely mature trees which cover the entire southern portion of the site. The north of the site still has the one mile dirt track used for racing while the fairgrounds were in operation, so there are no trees at all on that half of the site. The mature trees on the south half through, boast an average total height of 70 feet and an average canopy from ground level at 25 feet. So they are quite mature and very healthy trees. As many of the trees as possible should be spared the axe due to their uniqueness and good health. They prove as an invaluable asset for the site and if integrated with the building should prove a pleasant marriage.

All of the normal solar and climate information is illustrated graphically on Plate 36 and is not have to look at it in depth.

The topography is relatively flat (2-6% slope) and there are two basic types of soil, both well drained, the depth to bedrock is 15 feet or greater in all areas.

The site is zoned SU-15 which represents a special use activity and subject to all regulations listed under the applicable section of the zoning code entitled Institutions of Higher Learning, Boarding, Vocational, and Specialized Schools. The accessory uses necessary to the operation of such use shall be permitted, including housing, bookstores, campus uses, and similar activities.

Adequate lot area should be provided for the use contemplated and the site shall be located on a street designated as a secondary arterial or higher. Minimum setback lines are to be 75 feet from any adjoining property line and the maximum height is unrestricted.

There are many important and highly detailed parking requirements in the zoning rules. The more important ones are briefly discussed. For colleges and similar educational institutions there is to be one parking space for every 100 students, based on the maximum number of students attending classes on the premises in a twenty-four hour period. The entrances/exit shall have a 100 foot accel/decel lane if it intersects a main thoroughfare. There are some other regulations for signage that are not of value to mention here.
Chapter Four
Research
There are five basic sources which researched over the nine month period of the thesis project. They are as follows: Camillo Sitte, Pushoko Maki, Christopher Alexander, Werner G. Goebl and Charles Moore. The full source titles are listed in each discussion section and the entire data is given in the bibliography.

CAMILLO SITTE
In his book, City Planning According to Artistic Principles, Sitte takes a retrospective look at the urban places and public spaces existing in Europe at that time. His research was prompted by an disagreement with the "modern" city planning which was happening at that time, especially in the city of Vienna. The book was written in the late 1860's and is yet timely today in its critique of city planning principles.

Sitte traveled personally to almost all of the places and public spaces that he discusses as he obviously valued the actual experience of the place as opposed to merely reading a city map. Perhaps the best way to communicate some of the issues with which he was concerned is to merely list the titles of the chapters in his book. They are in the order as follows:

- The relationship between buildings and places
- That the center of places be kept free
- That public squares should be enclosed entities
- Size and shape of places
- Irregularities of old places
- Plaza groupings
- Layout of public squares in northern Europe
- Meager and unimaginative character of modern city plans
- Modern systems
- Artistic limitations of modern city planning
- Improvements in the modern system

It would not be beneficial to list all the points that Sitte raised in his writings so only those points that are of value to the Columbus Community College project will be discussed. With respect to plaza Sitte points out that everything does not need to be seen at once which he gives the title of a "turbine plaza". The use of colonnades as spatial dividers, the width and depth of plazas cannot be fully realized and the larger the public place, the more monumental the buildings should be that front the plaza are some other points of his. He also believes that there is an inherent difference between the magnitude of the effect versus the actual size with respect not only to plazas, but also to the statues or monument and sculpture within the plaza.

Perhaps his most important observations, though, involve the irregularity and grouping of plazas. The treatment of perspective is very important and he discusses the plaza as a stage set for activity. In the same manner he talks about the importance of the grouping of plazas and the sequence of experience that the approach involves. In concert with these ideas are observations about the concept of symmetry and proportion as being true balance as it was defined in the past, but they have come to mean mirror image of right versus left.

FUMIKO MAI
Formerly one of the five Metabolistas, Maki has become the most successful of them in terms of buildings actually being built. His influence has been important in the U.S. as well as in Japan. Aside from his architectural built work, his written work has reached wide acclaim and penetrated many publications.

His thought of urbanity as evolving when the existence of a building has a positive effect on its surroundings greater than that of the use value of its interior spaces. This urbanity assumes many forms; visual, functional, and symbolic, and can represent many different moods. Maki also talks of the concept of the "city room" which is an urban plaza which has a type of magical feeling and a special sense of place.

Another of his observations is the Japanese notion of double-spectatorship, which in the context of urban plaza discussion is seeing and being seen. In his building for The Central Building for Art and Physical Education at Tohoku University in Japan, Maki seems to ask which is more important, the nature of walking or the walkway itself? In an interview with Architectural Record, Maki is quoted, "I am strongly aware of the way people in the vicinity regard buildings I design. I am much more concerned with the users of the building and the people who will visit or pass by them. And as far as the meaning of the building as architecture, I am unaware of the opinions of those who look at it as architecture alone..." This concern with the definition of architecture as being urban design is important to remember. This is manifested in his terms of design discussion that include City Room, City Corridor, and Community Wall.

Another curious statement of Maki's is his definition of chaos as being "not the lack of structure, but the difficulty of perceiving it". Coupled with this is the use of his open-ended systems concept that he applies to five operational categories, not of importance to mention here.

A direct influence upon the initial stages of this project is Maki's design for Rikkyo University. Some important ideas are the use of linear axis used in a type of arbitrary relativity as shown in
The most pertinent ideas which Alexander brings out is the idea of the pedestrian street, building thoroughfare, and promenade. While none of these are new, they are unique in history. The most popular historical example of all three of these ideas is the covered street in Milan, Italy. The concept of the promenade we have seen in Waikiki with the double spectatorship realization. Other primary concepts discussed by Alexander is the idea of a building as a complex of smaller buildings with a main "central" building as a focus. These ideas will also be seen in Goenner and Wehrle. Along with these primary ideas are notions of secondary, but relative equal, importance. South facing plazas are the most successful and seating should be integrated even if only in the form of stairs, perhaps in front of this "main" center building as most people feel comfortable when their backs are protected and they can look out onto a large open space or promenade space.

It was an incredible discovery by the designer when this source was discovered that seemed to be fit perfectly to the Columbus Community College project. It is of importance to mention that this research took place at the very end of the design development phase. It was felt almost a re-inventing of the wheel attitude promulgated an ex post facto explanation and curious re-evaluation which was annoyingly parallel to Alexander's notions.

J. W. Goenner
In his book, Pueblo Cities of Cibola, Goenner analyzes many different pueblos in the southwestern United States. The research is very new and has had an impact on the design philosophy for the designer in this project. This source was found and thoroughly looked over at the very initial design concept phase. Unlike that of Alexander.

Goenner's ideas can be best expressed graphically and the accompanying plates illustrate. The most revealing aspect of the pueblos discovered by Goenner was the idea of the whole dominating the part, Plate 36, versus the part dominating the whole, Plate 37. In these illustrations can be seen the relationships which exist as one supports the other with full domination. The landscape played an important part in determining which approach was used inherent to the culture and natural barriers for defense reasons. Hence the approach was determined inherent to their need, as was their entire city.

The Indians had no architects, no planners, they merely built as they needed to build and added wherever that need existed. Their houses were an additive process when on open desert floor and a subtractive process when in natural caves and rock formations. Their planning was inherent in their
religious beliefs. The round forms in plan are called "kivas" and are surrounded by the housing. In many of the desert cities where no topography existed, the houses were in multi-levels and each respective level was stacked so that the roofs could be used for viewing the religious ceremonies in the usually large open plaza that the houses surrounded.

Plate 35 illustrates an interesting observation by Goebner. The figure-ground relationship, a purely graphic tool, emphasizes the relationships that were previously discussed quite clearly. They are shown here to illustrate the powerful footprints that their non-architectural architecture produced. Again here, can be seen the idea of unstructured direction resulting in seeming chaos. Remember though, what Nakis' definition of chaos was, "not the lack of structure, but the difficulty of perceiving it..." Goebner proves this with his analysis, an important hypothesis results as will be seen in Chapter five.

CHARLES MOORE
This American architect has had considerable influence on the personal philosophy of the designer. His informal approach, loose and relaxed, is based a great deal on fantasy. Far from lackaesthetic in his attitude of his work though, he is on the contrary quite serious. Though not many specific ideas can be discussed concerning his influence, due to the overall affect on attitude, there are a few important to mention.

First, the concept of layered space and layered facades, second his notion of the geodes, a much used analogy, and third the doctrine of Immaculate Conception. In the periodical architecture and Urbanist Moore is quoted concerning the latter, "Another doctrine I have toyed with, so far with incomplete success, is an attempt to call the doctrine of Immaculate Conception. The idea is that if two or more plans or shapes or systems can crash into each other so as to achieve some serendipity, to gain energy from the collision, rather than to be killed or destroyed by it, then a new device for designing would be at hand. I have been enthusiastic, given the typical situation on raw land where there is little basis for deciding about the shape of a new building (or worse, a group of buildings by several architects) about the possibilities of inventing a past, a set of ephemeral footprints against which new buildings might collide. The results remain untested."

Or do they? Not now, they have been tested and proven with the Columbus Community College to indeed manifest a new tool for designing. Notice here also Moore's concern for a series of smaller buildings as Nash and Alexander are recalled and the pueblos are in even greater light.

The research involved a search out of mere curiosity on behalf of the designer. The payoff from the research has been invaluable and served as additional stimulus for the continued interest in the project throughout the thesis year.

This chapter has been concerned with the research itself. In the next chapter these research ideas will manifest themselves in the design process. As was previously stated, this research was not all done at the same time, some of it before the project came during, some after. In light of this fact the design concepts will now be shown in Chapter Five. It should become very apparent when and where the research was applied and in particular which source it was.
Chapter Five
Concepts
GENERAL CONCEPT

The desire of the designer is to search out a type of graphic as shown in Plate 39. The idea that
the whole is greater than the sum of its parts is
very intriguing and has almost literal application
when combined with Alexander's building complex
idea, Maki's sense of scale, the provincial city,
Sltte's irregular plazas and of course, Roer's
doctrine of Inmaneate Collision. Along with this
synergism, the concept of serendipity, or the ac-
cidental, finds a perfect match in the combinat
form of a random idea springboard for the genera-
tion of other ideas. As will be shown, this was
indeed what happened.

Another generating idea was the designers' inter-
est in the definition of chaos according to Maki,
"not the lack of structure, but the difficulty of
perceiving it...". Coupled along with this initial
stimuli, was the designers' recall of an old cliche;

Chaos breeds life, order breeds habit.

And habit breeds boredom, and boredom is hardly desir-
able in any design, let alone that of a community
facility. So the question is then, is this;

Chaos breeds life, order breeds habit.

Is there a possibility for Organized Chaos?

The basic concept then, was definitely influenced
by this non-metrical question in a very important
manner. Remember Maki's definition of chaos...

These three ideas then all come together to
state the design statement for the Columbus Com-
monity College as: the search for organized chaos
through synergistic serendipity. This question was
answered and answered successfully, in the end. To
show the many different avenues explored over a
relatively short five week period, whole pages of
sketches and doodles have been used. It would be

SYNERGISM Plate 39

a very laborious and somewhat confusing process to
try to explain these in written form. So the more
graphics alone can tell the story in a much quicker
and perhaps better way. Plates 40 and 41 show the
plan concept generation and initial result and
Plate 42 shows some initial elevation concepts. The
last Plate, 43 shows some of the design develop-
ment ideas of the final elevation studies.

The final concept illustrations are Plates 44
through 49 and show the graphic composition, scoring
and circulation, entry and enclosure, linear and
nodal concept, structure as order, and finally the
systems integration. The concepts are in graphic
form and are the actual concept diagrams to the
final design solution presented in Chapter One.
Bibliography


