GRADUATE SCHOOL
FOR THE
PERFORMING ARTS

Cranbrook Educational Community
Bloomfield Hills, Michigan

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August 15, 1980

Professor Robert A. Fisher
GRADUATE SCHOOL FOR THE PERFORMING ARTS

ABSTRACT

The Graduate School for the Performing Arts is a proposed addition to Cranbrook Educational Community, which contains Cranbrook Academy of Art. The Academy offers graduate instruction in the fine arts and architecture, providing an excellent setting for a performing arts school. The fine arts and performing arts students, with their common interests, can support each other, building the strength of both programs.

The proposed graduate school offers instruction in music, dance, drama, filmmaking, and professional production. People using the facility are:

- students
- instructors
- administration staff
- visiting artists
- visiting audiences
- service staff

The activities of the users fall into the following categories:

- lessons and classes
- practice
- performance
- study
- office tasks
- reception
- snacks/dining
- maintenance

Numbers of students in each department were determined by requirements for group performances. The total number of students is 288. The number of instructors is based upon a ratio of one instructor per twelve students, or 24 total.

The graduate school has three performing areas. The auditorium will be used most frequently by the music department for recitals and other music performances. It is the assembly area for the graduate school, and has a seating capacity of 300 people.

The experimental theater will be used most by the drama department. It is a flexible theater, allowing many different stage and seating configurations. Its maximum seating capacity is 500 people.

The main theater is planned for major performances of dance, musical comedy, opera and orchestra. Travelling productions will be seen in this theater. Its seating capacity is 750 people.

A major design issue was the existing site. Cranbrook's existing buildings and grounds were designed by the architect Eliel Saarinen. Cranbrook has a standard of design excellence against which any new structure will be evaluated.

A second design issue was the dual nature of the facility. The public function is performance related, while the private function is performance related. These two functions complement and support each other, neither being able to exist independently. A total separation of these two functions is undesirable, although the audience access is contained primarily to the theaters and lobby areas. Students have spaces which are "their own" and yet are easily able to enter the public areas to assume the role of audience member.
ACKNOWLEDGEMENTS

No project of this scope can be completed without the help of many others. Special thanks go to the following people.

Mr. John Gerard, Curator of Collections, Cranbrook Academy of Art Museum, for assisting me in finding site information and loaning me maps from the Museum's collection.

All of my thesis critics:

Robert Fisher, for never-ending encouragement and incisive criticism
Sonny Palmer, for knowing the right time to deliver the right kind of motivation
Paul Laseau, for his knowledge of Cranbrook and help with matching the spirit of the original
David Hermansen, for his knowledge of Saarinen and for accepting the position of outside critic
Rod Underwood, for finding the errors that nobody else could see
Jack Wyman, for his enthusiasm about the project in the final quarter

My friends and fellow students, David Cole, Heather Faulding, Sherry Petersen, Mark Prange, Dick Price, and Cheryl Whitton, each for their special kind of support

Most of all, Mr. Arvo Tapani Tapanainen, who introduced me to Cranbrook and the work of Eliel Saarinen.
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WHAT IS A THESIS?

A thesis for Ball State's College of Architecture and Planning is a three-quarter design project of the student's own choosing. The goal of the thesis year is to develop a strategy for solving a complex problem. This project is completed in more depth and to a greater level of detail than any other student project. It requires a great deal of personal responsibility and creativity, because for the first time no one else is working on the same project.

The difficulties of the thesis year are the tremendous amount of research necessary to reach a solution and maintaining enthusiasm for the project over many months.

This is a very unique type of design effort. Rarely in an architect's career is he or she able to design the problem as well as the solution. The fifth year thesis offers this opportunity. It is an intensely personal project for this reason, reflecting the interests and personality of the designer. This makes the thesis a very rewarding year-long experience.
PROJECT SELECTION

The decision to design a graduate school for performing arts at Cranbrook was made in February of 1979. I had always hoped to do something related to music or the performing arts because of my great interest in that area. Until my first visit to Cranbrook, however, I had not decided upon a specific project.

Late in the winter quarter of 1979 I accompanied Tapani Tapanainen and Ross Adams, two thesis students, to the Cranbrook campus. I was deeply impressed by the beauty of Eliel Saarinen's buildings and landscapes. Since Cranbrook offers no instruction in performing arts, the type of project I had been wanting to do for my thesis seemed to be a very appropriate addition. The art and architecture students there with whom I discussed my idea were very enthusiastic.

The fact that my thesis would deal with Saarinen's work at Cranbrook was important to me. I saw it as both an opportunity and a challenge. I knew that Saarinen's work could provide inspiration and instruction to me for "my part" of Cranbrook. However, the additional issue of relating successfully to such a magnificent site would inevitably increase the difficulty of my task.

So, realizing that my project would be more challenging than the average thesis, I decided to design a new Graduate School for the Performing Arts for Cranbrook Educational Community.
PROBLEM DEFINITION
PROBLEM DEFINITION

PROGRAMMING EFFORT

The program for the Graduate School was begun during Spring quarter, 1979, for Arch. 493, Facilities Programming, with Sonny Palmer. The programming of the thesis was really the process of designing the problem to be solved. First, the Graduate School had to be organized. What types of performing arts would be taught? How many students would be in each performance area? What types of performance facilities would be needed? How would the performance areas relate to each other?

After these questions were answered, the research effort began. Information concerning what kinds of spaces would be necessary and the functional and performance requirements of these spaces was found and recorded. Code requirements and standards were collected.

The program was written from the point of view of a programmer who is not the designer. The information had to be complete enough to give to another person. No design solutions were proposed in the program.

The completed program is reproduced in the appendix of this book. The parts of it included in this section are correlation diagrams, a summary of all the spaces in the project, and total square footage calculations.
The major divisions of the graduate school are the three theaters, the five departments, and administration, shown at the left.

The three theaters have no direct relationship with each other, but are each related to certain departments. The strength of these relationships is indicated by the type of connector; two lines denote a strong relationship, while one line denotes a weaker relationship.

This diagram deals with functional relationships, not physical proximity. However, it serves as a starting point for internal organization, as will be shown in the Concept Evolution chapter of this book.
MUSIC

Teaching studios serve as the music faculty offices also. This is the reason for the strong connection between teaching studios and classrooms.
DANCE

The studios are the heart of the dance department, with all of the other spaces serving them. All dance classes will be taught in the studios. The classroom is for academic classes, and so has no special requirements.
DRAMA

The dressing rooms and rehearsal room must be very close to the theater stages. The reading library is open to all Cranbrook students and the public, but will be used heavily by the drama department students and faculty.
FILM

Besides the two studios shown here, the film department needs outside filming space, and access to one or more of the theaters. The film department and the drama department can be extremely helpful to each other, especially if they are located near each other.
The production department supports all of the theater productions. It should not, however, be considered subsidiary to the other departments.
ADMINISTRATION

Administration really consists of the Dean's office and secretarial spaces. Snack lounge and janitor spaces have been included in this category for convenience only.
THEATERS

Even though the three theaters have no functional relationship to each other, each is served by common elements. The relationship with the Green Room is weaker because the Green Room serves fewer people than either the ticket offices or checkrooms, and because one could be expected to walk farther to reach it.

An unprogrammed space which is necessary for each theater is a lobby area to provide public access and contain restrooms and seating areas.
## All Spaces

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SPACE TOTALS

Total Net Assignable Sq Ft = 54,880 sq ft

For purposes of determining gross square footage estimates, the total must be divided into subcategories according to function.

Total Educational = 30,240 sq ft net
Total Performance = 24,640 sq ft net
\[ \frac{54,880 \text{ sq ft net}}{54,880 \text{ sq ft net}} \]

Educational: 30,240 = 65% of gross
Gross sq ft = 46,523

Performance: 24,640 = 60% of gross
Gross sq ft = 41,067

Total Educational = 46,523 sq ft gross
Total Performance = 41,067 sq ft gross

Total Programmed = 87,680 sq ft gross
The next few weeks you will be gathering the remainder of the basic facts needed to develop a schematic design. This will include:
- Historic studies, site analysis and building program information.
- The core problem people have during this stage of your thesis work is not being able to tell which information will be most useful. This difficulty can often be overcome by constructing a model of the site problem which you will be solving with your thesis project.

Projects in architecture see design in its principal role of producing things to solve problems. However, these "solutions" can also be used solve the design problem, any of you probably recall final projects with which the design problem finally became clear.

This sketch project you are asked to produce a schematic design for your project based on what you know at this time. The purpose of this project is to create a model of your design problem and to discover what you still don’t know about your project.

Directions:
- The sketch design is to be presented on 8.5 x 11 white paper and illustrating the building organization, siting and 3D massing. To-scale axon, building plan and building section drawings must be included.
- Submissions are due at 11:00 AM, Monday, September 16th.

Comments:
- For campus functions or areas into a few general categories and assign program estimates for square foot requirements.
- list for basic constraints of the site. Identify buildable areas and try to list basic massing options for the building (number of stories, orientation, etc.), after considering other land needs such as parking.
- Concentrate on building organization concepts but be sure to go past the diagrammatic stage to a 3D understanding of the building and its spaces.
- You will encounter areas where you have no information. Don’t let this stop you. Take your best assumption and write it down, then go on. You are interested in the synthesis of the building design not in the finite description of each part.
- The best results will probably be attained by accepting the 8 hour limitation for work on the project. You may want to pre-assign time periods for: problem analysis, concept development, and working out the final form.
INITIAL ANALYSIS OF SELECTED SITE AND PROPOSAL

- Formal Axis -- could be strengthened
- Parking -- could be moved
- Green edge of walk must be preserved
- Poor transition
- Natural area should be preserved
- Enclosure -- could be extended

- Parking relocated
- Main theater
- Theater square
- Auditorium
- Theater & film
- Music & dance
- General art
- Student housing
### DEPARTMENT OF MUSIC PERFORMANCE

**AUDITORIUM (SYMPHONY, CHORAL)**
- 7500
- 1500
- 1500
- 5000

**ORCHESTRA**
- 2100
- 2000
- 1600
- 6800

**CHOIR**
- 200
- 200
- 150
- 550

**PRACTICE ROOMS @ 400**
- 2400
- 200
- 1200
- 3800

**SMALL ENSEMBLE PRACTICE @ 100**
- 200
- 200
- 150
- 550

**LESSON ROOMS FOR INSTRUCTORS @ 100**
- 1800
- 150
- 1950

**CLASSROOMS FOR 1 CORE GROUP @ 125**
- 200
- 200
- 150
- 550

**CLASSROOM FOR 2 CORE GROUPS**
- 1000
- 1000
- 2000

**MUSIC LIBRARY**
- 1000
- 1000
- 2000

**Total**
- 15500

### DEPARTMENT OF FILMMAKING

**DARKROOM**
- 500

**2 VIEWING ROOMS @ 200**
- 400

**STORAGE**
- 200

**2 OFFICES FOR INSTRUCTORS @ 100**
- 200

*(CLASSROOM & AUDITORIUM SHARED)*
- 1300

**GENERAL AREAS**

**ADMINISTRATIVE OFFICES**
- DEAN
- 200
- SECRETARIES 2 @ 100
- 200

**JANITOR 4 @ 50**
- 200

**RECEPTION ROOMS & KITCHEN**
- 500

**SNACK LOUNGE**
- 200
- 1500

**Total**
- 15500
- 11650
- 8250
- 1300
- 1300

**38000 + 25% = 47500**

**GROSS TOTAL**
Since Cranbrook has such a formal site plan, I tried to take advantage of this by using one of the two long axes for an axis of my complex. It seemed logical to place one theater—the large one—on one side of this axis and group the two smaller ones together on the other side. Music and dance departments worked off the auditorium, and theater and film departments worked off the experimental theater. Since the production department serves both the main theater and the experimental theater, it was located underground between the two. Because a theater floor slopes down to the stage level, this underground connection was actually at the stage level of the main theater. This arrangement would work extremely well for movement of scenery and props, as well as for the actors and stage crews.

Student housing was placed along the formal green, continuing the built enclosure of the Art Academy. This element was later dropped from the program.
CONCEPT EVOLUTION
CONCEPT EVOLUTION

SITE RESPONSE

The initial idea used the east-west axis as an organizer for the scheme, placing the main theater north and the other two theaters south of it. The main theater was taking advantage of existing topography in its seating slope. The idea of using production facilities as an underground connection between the main theater and the experimental theater and the idea of a shared lobby for the music auditorium and experimental theater were both present in this initial scheme.

Entry into the plaza created between the theaters was awkward, and it was discovered that parking could not be placed where it had been planned. These problems were solved by focusing an arrangement nearly identical to the previous one on the north-south axis, north of Saarinen's Museum/Library building. The Orpheus fountain became a focus for the new theater plaza. The existing U-road could be used for drop-offs.
CONCEPT EVOLUTION

FORM

The organization of spaces shown on the preceding page was, for the most part, very satisfactory, but the scheme lacked cohesiveness. Mr. Fisher suggested a more "geometric" solution, hoping to discipline the form without losing the logic of the plan. This proved to be one of the breakthroughs of the project. Adjacent to Saarinen's logical geometries, a rigidly geometric scheme fit much more comfortably and convincingly.

Using the point where the two axes cross as a starting point, two figures, a square and a triangle, were placed symmetrically in the site. From the plaza side the two forms are identical, but the forms become individual on the rear sides. The points of the triangle fit neatly into the existing circulation patterns.

The corners of the squares were rolled away at the theater entrance level into quarter circles, respecting the circular fountain and Saarinen's facade, but the square edges were preserved above and even at the theater level by a colonnade. This formed a perimeter of columns around the fountain, whose figures also suggest columns.

At this stage the "bridge" first appeared. Connecting the two halves in the air worked extremely well conceptually, because of the underground connection in the same relative location. The bridge semi-enclosed the plaza visually on the north side. The plaza became both a crossing of axes and a space in itself.
CONCEPT EVOLUTION

INTERNAL ORGANIZATION

Internal work at this stage was a problem. I started with the smallest spaces and tried to understand how they might work together.

There was no progress, and I realized that a broader approach would be needed.
CONCEPT EVOLUTION

EVALUATION

The goal of this stage was to develop a mature conceptual basis for the design. This goal was achieved very well. The geometric solution "felt" right to me in its context, and the rigid shapes still were able to accommodate a good organization of the various plan components. The theater plaza created by the walls of Saarinen's building and the new Graduate School was working well also. The bridge/gateway concept was very appropriate, forming a visual frame of Saarinen's building, which itself was the "gateway to Cranbrook."

There were two serious problems identified at this point. The interior circulation was very poor. There was no overall consistent pattern. The vertical circulation in particular was badly handled--three different ways of treating the stair in only four locations. Some critics were offended by the extreme angles of the form, especially the triangles used. Saarinen's formal geometry is much more restrained and subtle.

I personally felt that the plans were too conceptual for this point in the project. I made plan development a priority for the schematic design phase.
SCHEMATIC DESIGN

SITE RESPONSE

During schematic design, I worked with the plaza area, trying to make the geometric relationships fit the existing relationships convincingly and gracefully. The number of columns in the two colonnades were cut by one half to create a more open feeling and to match the spacing of columns on Saarinen's building. The access road was shortened so that it just touched the line of the bridge's overhang, but did not go underneath it.

The building's materials were also chosen at this time. In order to create a consistent perimeter expression, brick and stone similar to the materials used by the Museum/Library building were chosen, brick for the bearing walls and stone for columns, lintels and trim details.
SCHEMATIC DESIGN

FORM

One of the first decisions made during schematic design was to eliminate the triangle on the west side. There was no justification for the shape in the interior organization, and the triangle caused severe circulation problems. The west mass became a square with one fourth of it removed. The triangular massing worked extremely well at the second level, because of the diagonal circulation at this level, and so here it was preserved.

The interior vertical circulation locations were not working in the previous scheme, so the decision was made to pull them outside the perimeter of the larger forms. Having eliminated the triangle from the ground level, I experimented with various shapes for these circulation elements: rectangles, octagons, semicircles. The goal was to find a shape which fit both the building and the site, and did not make the building appear too monumental.

A problem with scale was identified at this stage. This problem would be dealt with at all subsequent stages.

The decision was made to pull the quarter-circle entries inside the edges of the squares, to improve the intersection of the different edges.
SCHEMATIC DESIGN

INTERNAL ORGANIZATION

Many different problems dealing with internal organization were attacked at this stage. More detailed plans of all spaces were developed. Seating capacities became a major consideration for the theaters, as well as designing a section that would work acoustically and visually.

Working from the program, the various departments were organized at a more refined level, dealing with individual spaces now instead of the whole department.
SCHEMATIC DESIGN

EVALUATION

Schematic design was the most frustrating phase of the project. Progress was painfully slow or nonexistent. A lot of detailed plan work went on, but the solution to the awkward and inconsistent areas were not found, for the most part, until later stages of the project.

The major problem identified at this point was scale. Jury comments at the left indicate that the building was too over-simplified and monumental. The main goal for design development, therefore, was to create a better scale for the project.

JURY COMMENTS:

Question use of brick
Elevations need to be taken to the same level as plans and volumes
What is structural system, how is bridge handled structurally
Advertise theater function to public
Expression of theater structure--deviation from symmetry
Scale of colonnade, scale problem at entry
You don't have to prove that the squares are there:
  curve colonnade?
Living pattern of plaza
Diagram, sketch scale and patterns, rhythms of existing structures for scale relationships
Man vs. monumental scales
Too hung up on monumentality; monumental volume, small scale fenestration, range of scales
DESIGN DEVELOPMENT
DESIGN DEVELOPMENT

SITE RESPONSE

No satisfactory way of treating the colonnade had been found by design development, so this problem was studied carefully. The corners of the squares were too large and made the plaza more of a crossroads than a real space. Also, these corners were being used above as outdoor terraces, which were much too cumbersome to be functional.

Scale of the south elevation was carefully investigated during design development. I experimented with different ways of expressing the theater entries, manipulating the heights of the colonnade and terrace wall. The rhythm of the colonnade was continued in the facade, breaking down the scale of the huge blank walls. Fenestration was worked into the same pattern, and articulated in a manner very similar to the fenestration of the Library/Museum building.
DESIGN DEVELOPMENT

FORM

The first form problem addressed at this stage was the configuration of the circulation towers. The triangular shape finally won over the others considered, because it combined advantages of smooth function as a stair with breaking down the mass outside visually.

The solution of the colonnade problem was finally worked out by continuing the quarter circle up through the terrace level and allowing the colonnade to become a freestanding element.

The expression of edges suggested by this solution became almost a game. The rule was to complete the perimeters of geometric shapes, but not fill in the volume. By applying this logic to the stair towers, a very elegant way of terminating the elevations emerged. Stone formed a frame for the opening in the towers, just as it did for the windows of the elevations. This stone completed the shape of the triangle, but the floor area inside was cut back eight feet and this plane was glazed completely. The resulting edge is there, but not there, and very light in its expression.

Some of the windows started to play the same game, and served to emphasize the geometries in plan very well.
DESIGN DEVELOPMENT

INTERNAL ORGANIZATION

Two problem areas in the internal organization were quite obvious during design development. One was the point in the upper level where the circulation axis shifts 45°. The start of a solution was using a triangular-shaped open area as the piece which the rectangular sections could "frame into." This triangle could contain lobbies, restrooms, elevators, and vending areas. It became the transition both geometrically and functionally. Later, a more mature way of dealing with this triangle was developed, which is shown in the presentation drawings following this page.

The second problem area was the interface between the square box-container and the circular theater inside. I didn't know whether this should be a spinal circulation path wrapping around the theater or a more open type, simply filling the space between the square edge and the round one. No satisfactory answer came at this stage.

Structure was studied more carefully at this stage and had a major impact on the design of the main theater.
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**DESIGN DEVELOPMENT**

**EVALUATION**

The final jury for design development was very successful. With scale and internal organization no longer serious weaknesses, the project was very well received. The questions raised by the jury dealt with how best to present the project in drawing form and fine details of design.

Weaknesses I identified at this stage were the elevations and the structural understanding of the building. I had taken a very broad approach to these two problems up to this point, and needed to study them in greater detail.

**JURY COMMENTS:**

- Use outside spaces for production
- Make more clear how old and new relate
- Student entrance--paving material or grass?
- Question columns in middle of rooms
- Need more context for the site model
- Facade is fun
- Underside of bridge--articulate in new fashion of old
- Bridge is heavy compared to museum
- Need east-west section as well as north-south section
- Need more site sections and at a larger scale
- May need to cast shadows on facades
- Need other views to show relationship between old and new
FINAL DESIGN
FINAL DESIGN

SITE RESPONSE

By final design, the site response was very satisfactory. Some elevation changes occurred as a result of studying how the elevations of the two buildings worked together.

The details of the stair and ramps connecting the U-shaped road and the plaza were finalized. Parking was also finalized.
FINAL DESIGN

FORM

No volumetric changes of the form occurred in final design. The elevations were reviewed carefully again, however, and were substantially improved. During design development only the south elevation was studied in any detail. Now the other three elevations were brought to the same quality of detail and balance.

The supports for the cantilevered offices were redesigned, and the wall of the northwest lobby was changed to full glass.
FINAL DESIGN

INTERNAL ORGANIZATION

Once again, two major problems surfaced at the beginning of this stage. One was the design of the main theater. A mistake during design development had resulted in there being too many seats. This actually worked to the project's advantage, because it allowed the theater to shrink slightly, making the circulation around it more generous.

I finally decided to let the circulation area be the remainder after subtracting the circle from the square. By expressing the coatrooms as low areas in a very tall space, the geometries were apparent, and the space became successful for the first time.

A ring-shaped circulation path above the theater was created. This resulted in minor redesigning of the stair towers, but a mezzanine level was gained, providing the audience with a behind-the-scenes glimpse by means of a glass wall at the mezzanine level overlooking the backstage areas. I felt this was very appropriate for a student theater. Also, the enclosed corridor resolved the various curves of the main theater wall into a smooth cylinder above.

The second problem was the lack of a good way to ascend to the upper level from the plaza level. A stair and elevator were added, working off the music auditorium/experimental theater lobby. This lobby then became the main entrance for the project, providing quick access to the libraries, Dean's office and other offices, the ticket office, and the various departments. The new circulation element took the shape of the others, although used in a slightly different way. This triangle fits neatly into the square hole in the west half of the scheme but preserves the geometry of the square lobby inside.

The offices were flipped, placing the Dean's office in a more strategic location just off the west lobby above, and near the top of the stair.
FINAL DESIGN

EVALUATION

What follows is my personal evaluation of the project, after it is completely finished. This is the last page of the thesis book to be written; the drawings have been submitted, and this time there is not another design phase in which to solve the remaining problems. If there were another quarter, though, what would I do to improve the project?

Each of the chapters in the book had three subheadings: site response, form, and internal organization. These were the three issues that were most important to me. I feel that the final design product is very mature and well thought out in terms of these three issues. In other words, I achieved the goals which I set for myself in the project. There are some issues which never became goals, however. An important one is structure. The Graduate School has a believable structural order, yet the structure is not worked out in any detail. Mechanical systems are an even greater weakness.

On the whole, however, I am pleased with the thesis and proud of my efforts in producing it.
FINAL PRESENTATION
APPENDIX
GRADUATE SCHOOL
FOR THE PERFORMING ARTS
FACILITY PROGRAM

CRANBROOK EDUCATIONAL COMMUNITY
BLOOMFIELD HILLS, MICHIGAN

PREPARED BY CYNTHIA R. NICHOLS
TO FULFILL THE REQUIREMENTS OF
ARCHITECTURE 496, FACILITY PROGRAMMING

COLLEGE OF ARCHITECTURE AND PLANNING
BALL STATE UNIVERSITY

COMPLETED MAY 13, 1980
THE GRADUATE SCHOOL FOR PERFORMING ARTS IS TO BE LOCATED IN CRANBROOK EDUCATIONAL COMMUNITY, WHICH CONTAINS CRANBROOK ACADEMY OF ART. THE ACADEMY OFFERS INSTRUCTION IN THE FINE ARTS AND ARCHITECTURE, MAKING A PERFORMING ARTS SCHOOL A NATURAL ADDITION. THE PERFORMING ARTS STUDENTS AND FINE ARTS STUDENTS, WITH THEIR COMMON INTERESTS, CAN SUPPORT EACH OTHER, BUILDING THE STRENGTH OF BOTH PROGRAMS.

A MAJOR DESIGN ISSUE IS THE EXISTING SITE. CRANBROOK'S EXISTING BUILDINGS AND GROUNDS WERE DESIGNED BY THE ARCHITECT ELIEL SAARINEN. CRANBROOK HAS A STANDARD OF DESIGN EXCELLENCE AGAINST WHICH ANY NEW STRUCTURE WILL BE EVALUATED. THIS EXCELLENCE PROVIDES MANY OPPORTUNITIES AS WELL AS CONSTRAINTS. FOR THESE REASONS AN EXTENSIVE SITE ANALYSIS IS INCLUDED IN THE PROGRAM. HOWEVER, IT CAN NOT REPLACE A VISIT TO THE SITE ITSELF.

A SECOND DESIGN ISSUE IS THE DUAL NATURE OF THE FACILITY. TWO GROUPS OF USERS HAVE VERY DIFFERENT NEEDS. THE PRIVATE GROUP—STUDENTS, FACULTY AND STAFF NEED CONSTANT ACCESS FOR EDUCATIONAL PURPOSES. THE PUBLIC GROUP—AUDIENCES FOR THE VARIOUS PERFORMANCES NEED LIMITED ACCESS AT SPECIFIC TIMES. THE FACILITY MUST RESPOND SUCCESSFULLY TO BOTH GROUPS.
INTRODUCTION

BACKGROUND AND HISTORY OF PROJECT
SCOPE OF PROGRAM
APPROACH