MIDWEST MUSICIANS INSTITUTE

ARCHITECTURAL DESIGN THROUGH MUSIC

MICHAEL ECKMANN
SENIOR THESIS 2005

MIDWEST MUSICIANS INSTITUTE

'Architectural Design Through Music'

AN UNDERGRADUATE THESIS SUBMITTED TO
THE DEPARTMENT OF ARCHITECTURE AND LANDSCAPE ARCHITECTURE
NORTH DAKOTA STATE UNIVERSITY

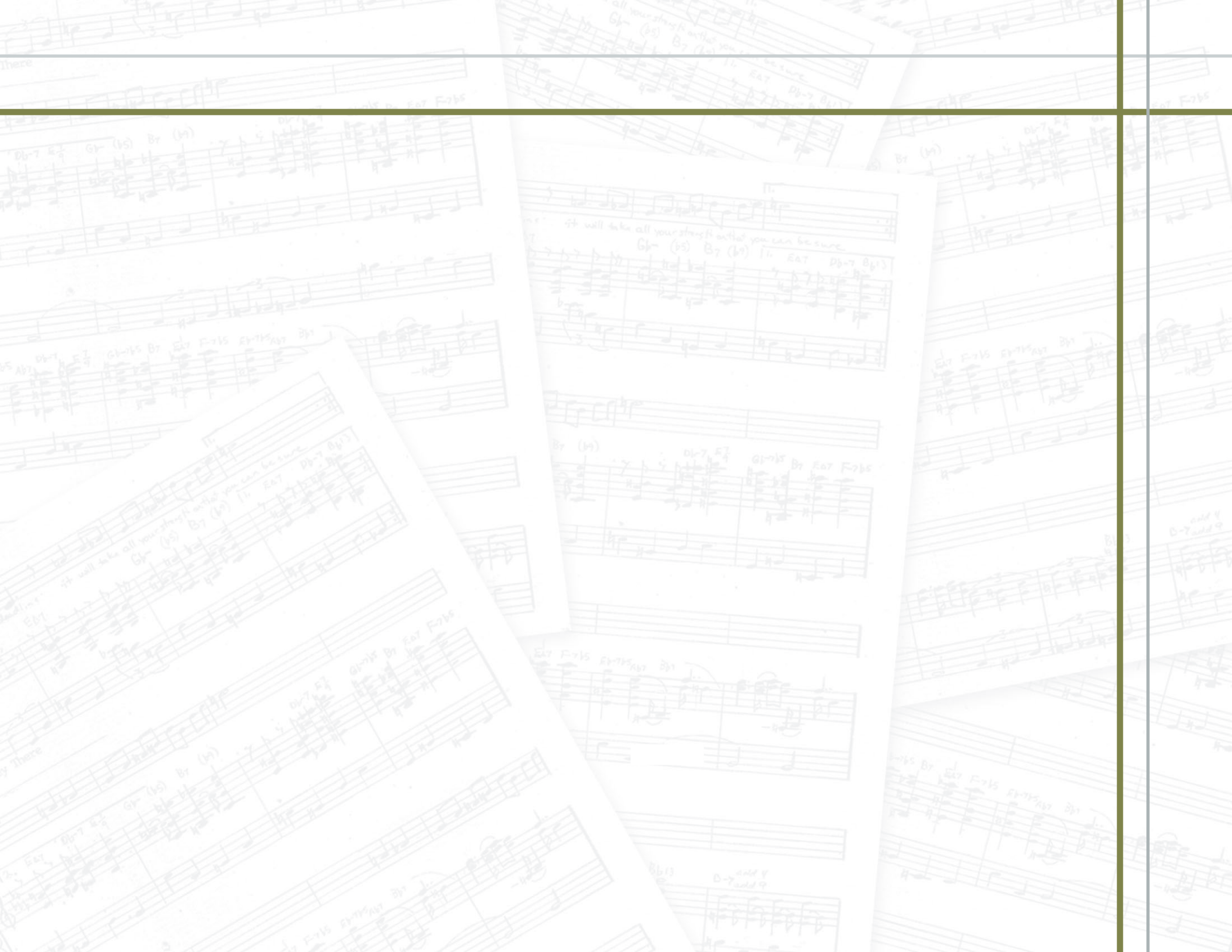
by

Michael K. Eckmann

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
BACHELOR OF ARCHITECTURE

Paul Gleye, Primary Thesis Critic	Mark Barnhouse, Secondary Thesis Critic
Darryl Booker, Blind Thesis Critic	Don Faulkner, Thesis Committee Chair
Ganapathy Mahalingam, Program Director	Paul Gleye, Department Chair

May 2005
Fargo, North Dakota



PROJECT INTRODUCTION
- BUILDING TYPOLOGY....6
- CONCEPTUAL BASIS....6
- PROJECT JUSTIFICATION....7

PROJECT DESCRIPTION
- USER AND CLIENT DESCRIPTION....8
- MAJOR PROJECT ELEMENTS....9
- SITE INFORMATION....10
- EMPHASIS....11

PLAN FOR PROCEEDING
- DESIGN METHOD....12
- REALIZATION OF DESIGN METHOD IN THE DESIGN PROCESS....13
- DOCUMENTATION OF THE DESIGN PROCESS....13
- WORK SCHEDULE....14

PREVIOUS DESIGN STUDIO EXPERIENCE....16

RESEARCH RESULTS....18

SITE ANALYSIS....26

PROGRAMMATIC REQUIREMENTS....46

PROCESS DOCUMENTATION
CONCEPT SKETCHES....56
CONCEPT SCULPTURES....64
BUILDING CONCEPTS....72
BUILDING FLOORPLANS....78
BUILDING SECTIONS....80
SITE PLAN....81

PROJECT SOLUTION DOCUMENTATION
FINAL PRESENTATION BOARDS....82
FINAL PERSPECTIVES....83
FINAL BUILDING MODEL....89

APPENDIX
TABLE OF PHOTOGRAPHS....94
TABLE OF SKETCHES....97
TABLE OF FIGURES....98
THESIS ABSTRACT....100
STATEMENT OF INTENT....101

REFERENCES....102

BUILDING TYPOLOGY

The architectural typology of my thesis is that of a facility that will house the teaching and performing of jazz and contemporary music at the collegiate level. The activities that will take place in this facility include performing, teaching, and recreation.

CONCEPTUAL BASIS

Architecture and music are very similar forms of expression; each one can take a person to a different plane of existence. Each uses different parts of the visual or audible senses to create a composition that flows and speaks to the audience. The intent of this project is to design a building, where students can learn and practice their talent in a space that architecturally mirrors a type of music through form, structure, and feeling.

PROJECT JUSTIFICATION

Music has played an important role, not only in my life but in my family's life, going back to my great grandfather. My great grandparents and my grandparents used to play at dance halls all over the eastern half of South Dakota. Growing up listening to these stories, I couldn't help being drawn to music myself. As I grew, I found music to be a great release and source of inspiration and relaxation. I was introduced to architecture around high school and have since found many similarities between music and architecture.

Music is very diverse in many ways including the different styles that are out there and the involvement that a person wishes to achieve with music. Some love to listen to music and are perfectly content with the radio and a few live concerts. Others live for music and believe that it is they're sole purpose to be involved with the creation and changing of the music scene. This facility will comfortably accommodate both, with education and music production for the individuals who are more involved with music and performance spaces for the entertainment of those less involved.

Musical institutions of this type are few and far between. To fully take advantage of the diverse culture of people and music from the Midwest, we need a facility where individuals can refine and build upon their personal talent and pass it along to the public without having to travel far from home.

A facility such as this would be used by those people who seek a greater knowledge of music to pursue their goals and take an active role in the ever changing music scene. It would also allow those who are less involved in music to be able to take in a diverse range of entertainment.

The Midwest has a very diverse population, from small rural towns to bigger cities with colleges that have very diverse ranges of culture. This facility would add to the ever changing diverse culture of both the people that listen to music and those who choose to create it.

USER AND CLIENT DESCRIPTION

The user/client for this facility can be separated into two groups, private and public. The private group of the user/client base will be those that work in administration, education, and music production. These users will be mainly adult aged and differing races and in accessibility. The public group will include individuals that are taking advantage of the educational and entertainment opportunities of this facility. Educational users will be mainly adult aged and differing in race. There will be all ages and demographics in the entertainment spaces therefore they need to be designed to accommodate. All users will have a connection to music and should get the feeling that the spaces and structure "make music."

MAJOR PROJECT ELEMENTS

The spaces listed below will be the main areas of focus and design development:

- Administration
- Amphitheater
- Auditorium
- Café
- Classrooms
- Faculty Spaces
- Library
- Maintenance
- Parking
- Practice Rooms
- Public indoor/outdoor gathering
- Recording Studios
- Storage

SITE INFORMATION

The site I have chosen for this institute is located in the downtown region of Fargo, North Dakota, on the corner of Northern Pacific Ave and 2nd Street. It is lined on the eastern side by the Red River which creates a feeling of energy and constant movement. Building a facility of this type would greatly increase the momentum of the downtown revitalization process that Fargo is undergoing.

The site currently contains the Midamerica Steel company which uses the site to manufacture and distribute steel products throughout the Midwest. However the company is outgrowing its location and needs to upgrade to a bigger facility and move out to the industrial district of Fargo.

There is a lack of a professional music scene in downtown Fargo. The main venue is the Civic Center which has been very successful in attracting big shows, but is becoming overwhelmed with the amount of business that is trying to come to downtown Fargo. Other than the Civic Center, there are only a few select drinking establishments that have the facilities to house any musical talent. MMI would not only educate individuals in the field of music but would also have a performance venue that would be used by not only graduates but many other musical talents that come through Fargo.

SITE INFORMATION

The street traffic is in high density around the site because of Main Ave and NP Ave that surround it. And the amount of pedestrian traffic is confined to the bike path along the river.

There is vegetation that surrounds the river on the eastern edge of the site, but becomes significantly less as you move west into the dense downtown region.

Existing buildings are used by Midamerica Steel and are a combination of various materials and different eras. These buildings have very little architectural value and add little to no interest in the downtown region. The surrounding context contains many buildings of differing types and architectural styles. This diversity will contribute to the convergent style of the proposed facility and would work to bring the context together.

EMPHASIS

This thesis will concentrate on the education and performance of music in a facility that architecturally mirrors the style and feel of the music being played. The emphasis will be placed on the overall feel of the spaces and structures that create this facility and how those feelings directly relate to the style of the music. There will be particular emphasis placed on the image, function, and interaction of the facility with the public.

DESIGN METHOD

A variety of methods will be used throughout the design process ranging from case studies, analysis, and graphics. Through the use of case studies of similar typology, knowledge will be gained about the design of a musical institution. Interviews will also be used to further gather information about the spaces needed and how they are used.

A number of visits to the site will be taken to gather information and analyze the site in terms of context, use and feel. Visits will be used to further understand the site and gain inspiration about how the facility will be arranged.

Through the use of different graphic analysis, knowledge will be gained about spaces, feel, shape, etc. 12 the facility. Graphic analysis, materials for modeling, and computer modeling will help the building take shape.

REALIZATION OF DESIGN METHOD IN THE DESIGN PROCESS

Realization of the design will come from the unifying idea of architecture designed through music. By combining all data from the analyses, the information will create a conceptual template from which to design a music facility.

DOCUMENTATION OF THE DESIGN PROCESS

I will place importance upon saving and filing all sketches, notes, and other graphic material from this thesis to completely document the whole design process. I will store all sketches and notes in a binder so that I can refer to them as needed throughout the design process, and will in turn outline the whole design process.

WORK SCHEDULE

Oct. 1st – 9th	Work on Thesis Proposal Due 7th
Oct. 10th – 16th	Gather project materials – Visit Site
Oct. 17th – 23rd	Site Documentation and Analysis
Oct. 24th – 30th	Site Analysis
Oct. 31st – Nov. 6th	Find information and research
Nov. 7th – 13th	Find Case Studies
Nov. 14th – 20th	Work on Program
Nov. 21st – 27th	Work on Program, Draft Due 24th
Nov. 28th – Dec. 4th	Work on Final Program
Dec. 5th – 11th	Work on Final Program, Due 9th
Dec. 12th – 18th	Suggestions from faculty
Dec. 19th – 25th	Work on conceptual sketches
Dec. 26th – Jan. 1st	Work on design research and ideas
Jan. 2nd – 8th	Work on design research and ideas
Jan. 9th – 15th	Classes Begin 11th
Jan. 16th – 22nd	Design Process and research

WORK SCHEDULE

Jan. 23rd – 29th	Design Process
Jan. 30th – Feb. 5th	Design Process
Feb. 6th – 12th	Design Process
Feb. 13th – 19th	Design Process
Feb. 20th – 26th	Design Process
Feb. 27th – Mar. 5th	Wrap up initial design for Review
Mar. 6th – 12th	Mid-project Review
Mar. 13th – 19th	Work on changes, final layout ideas
Mar. 20th – 26th	Work on finishing up design decisions
Mar. 27th – Apr. 2nd	Finish all working documents
Apr. 3rd – 9th	Work on Final Presentation
Apr. 10th – 16th	Work on Final Presentation
Apr. 24th – 30th	Finish Everything, Thesis Due 25th
May 1st – 7th	Last day of classes May 6th
May 8th – 14th	Final Thesis Document Due 12th
Graduation 13th	

Fall 2001 (2nd Year)
Vince Hatlen

-Shapes

-Nativity School Addition

Spring 2002 (2nd Year)
Milt Yergens

-Office Building.

-Loft Apartments.

-Hidderdhal Church Renovation

-Lachine Bridge

Fall 2002 (3rd Year)
Steve Martens

-Abercrombie Museum

-Huron Airport

Spring 2003 (3rd Year)
Carol Prafke

-Fargo Center for the Arts

-Faith Assembly of God

Fall 2003 (4th Year)
Barnhouse, Urness, Dugan, Walter

-Urban Design Downtown Fargo

Spring 2004 (4th Year)
Frank Kratky

-Multi-family Housing - Marvin Windows Competition

-San Francisco Multi-use High-rise

THEORETICAL PREMISE RESEARCH

Because of the difficulty of my unifying idea, I have found that there are very few buildings out there that follow along with my theoretical premise of design through music. There have been structures built that follow the structure of music, for example the Stretto House by Steven Holl, however my theoretical premise is to take that idea to the next level by using the movement and feel of music to guide my design. My case studies will show a wide variety of music school facilities, some that have been designed with music in mind and some that have been only adapted to produce music.

FIRST CASE STUDY

Musitech College

Musitech is a college that was established around 1987 in a downtown Minneapolis loft that was around 32,000 square feet. They soon grew out of that space and needed more room, so they moved into a building formerly occupied by a museum. The college teaches an average of 250 students in the summer and up to 400 in the fall. As an adaptive reuse this college occupies the building in an organized and logical manner. First floor of the college has Administration, and 9,000 square feet of recording spaces. Second floor contains the library, classrooms, practice rooms, some faculty offices, and a store. Third floor houses the café and lounge spaces and all the mechanical. On the north side of the building is where the auditorium is located. It has all the needed equipment to not only allow students to perform, but outside guest lecturers and performers as well. The rest of the building is leased out to a community theater and a conservatory.

Photograph 1 Musitech entry, Minneapolis, MN

Photograph 2 Musitech recording studio, Minneapolis, MN

This case study is relevant to my thesis in that it houses all the spaces I feel should be included in a successful music college. I feel that all the musical learning and performing spaces located within Musitech is appropriately sized and is very functional. This school is a great example in types and quantity of spaces and the quality of learning environment that the school posses.

List of applicable spaces-

- 10 recording studios at 625 sq. ft.
- 2 mixing labs at 750 sq. ft.
- Library at 1500 sq. ft.
- 10 classrooms/group ensemble at 600 sq. ft.
- Music/book store at 600 sq. ft.
- 15 practice rooms at 100 sq. ft.
- 2 Keyboard classrooms at 300 sq. ft.
- Computer lab at 600 sq. ft.
- 2nd floor faculty office at 700 sq. ft.
- 3 percussion classrooms at 400 sq. ft.
- 3 voice classrooms at 400 sq. ft.
- Café/lounge at 8,000 sq. ft.
- Mechanical at 12,000 sq. ft.
- Auditorium (280 seats) at 2,000 sq. ft.
- Lobby at 700 sq. ft.
- Administration offices at 4,000 sq. ft.

(source: http://www.musictech.edu/twincities.html)

Photograph 3 Musitech Cafe, Minneapolis, MN

Photograph 4 Musitech auditorium, Minneapolis, MN

SECOND CASE STUDY

University of Georgia School of Music

The visual and performance arts complex is comprised of three buildings. It includes the 100,000 square-foot School of Music, the 45,000 square-foot Performing Arts Center, and the 55,000 square-foot Georgia Museum of Art. For this thesis I will focus the case study on the School of Music and the Performing Arts Center.

Photograph 5 University of Georgia School of Music entry, GA

The five-story School of Music accommodates a faculty of 50, as well as 45 graduate assistants. Student enrollment is approximately 350 undergraduates and 100 graduate students. The building has a mix of classrooms, practice rooms, computer labs, faculty studios, and graduate assistant offices on each floor.

Photograph 6 University of Georgia School of Music, GA

List of applicable spaces-

- Eleven classrooms
- Five Performance halls
- Three computer labs
- Music Library
- Fifty-three practice rooms

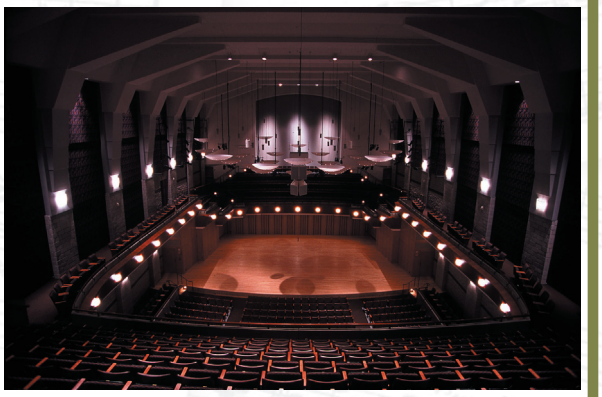
Located directly next door to the School of Music, the Performing Arts Center presents a professional series of world-class artists in its two halls. The Performing Arts Center is also home to School of Music performances.

Hugh Hodgson Hall accommodates 1,100 persons in festival style seating (seats surround the stage) and is used for solo artists, chamber ensembles, and symphony, band, and choral performances.

The 360-seat Ramsey Concert Hall is a traditional hall designed for solo recitals, chamber music concerts, and small choral concerts.

(source: http://www.music.uga.edu)

Photograph 7 University of Georgia Performing Arts Lobby, GA



Photograph 8 University of Georgia Performing Arts Auditorium, GA

THIRD CASE STUDY

Musicians Institute, Hollywood, CA

Musicians Institute is housed in a three-story, 64,500 square foot facility (approximately 20,000 square feet per floor) plus the adjacent two-story Hollywood Passage. The type of music taught in this facility is primarily contemporary and is focused on performance and recording. The school is located one block from Hollywood Boulevard in the heart of the music scene in Hollywood, California.

This case study is another good example of spaces and sizes for a functional facility. The connection between the educational facilities and the recording is very functional and shows the relationship between the two.

List of applicable spaces-

- Concert Hall – 500 person theater seating
- 2 Performance Rooms – 50 person
- The Passage – 125 person classroom
- 12 Recording Studios
- 12 classrooms
- 52 practice rooms
- Computer lab
- Library
- Supply Store
- The Green Room Café

(source: http://www.mi.edu)

HISTORICAL CONTEXT OF THESIS

Throughout history, buildings that are designed to house some form of arts have been held high on the quality of design that must be put into these structures. From museums to opera houses, these building have always been seen more as art themselves, part of the display, than any other building typology.

Lately buildings of this typology have been forgotten in the realm of 'arts' buildings. Currently museums and large opera houses are still seen as buildings that need to be designed as part of the exhibit. Music schools however have slipped through the cracks and are not seen as 'arts' building but seen as just another school. I believe that more attention needs to be brought back to the design and the presentation of these schools as if they were part of the music that is taught.

The thesis is set in the heart of downtown Fargo, along the Red River, and amidst the growing music scene occurring with the revitalization of the downtown area. North Dakota State University has just opened a refurbished building in the downtown area, and this thesis would continue the growth of education and will draw a younger crowd to the heart of Fargo. The physical context of the site includes main streets of both Fargo and Moorhead, and the flowing Red River.

GOALS FOR THE THESIS PROJECT

- Create a functional education facility
- Create an adjoining performance facility
- Match aesthetics of certain sections of facility to type of music being taught and performed therein
- Use aesthetics to welcome public into facility
- Embrace site characteristics and utilize the positive aspects

REGIONAL

HISTORY OF RED RIVER VALLEY

The Red River Valley was formed by the Glacial Lake Agassiz about 12,000 years ago, which was created from the melting of the continental glacier that covered the Basin. The lake eventually drained and left what is now known as the Red River Valley.

(source: http://www.ndsu.nodak.edu/fargo_geology/fargogeology.htm)

Figure 1 Glacial Lake Agassiz

SOILS

The soils in this region are very good for growing crops, but prove to be poor for carrying loads. The soils found in this region are ones left behind after the glacial Lake Agassiz drained and are typically composed of clay and silt. For any tall buildings or heavy loads, casings must be poured to a depth of 100 to 200 feet.

(source: http://climate.umn.edu/pdf/fargo_climate.pdf)

TOPOGRAPHY

The topography of the Red River Valley is relatively unchanging due to the movement of the glaciers, and is considered one of the flattest regions in America. Along the Red River Valley from the South Dakota border to Canada there is an overall slope of less than one foot per mile. This area is known for the vast fertile farmland and rolling prairies.

(source: http://climate.umn.edu/pdf/fargo_climate.pdf)

CLIMATE

Because of North Dakota's location in the center of North America, the climate is a typical continental climate. This is characterized by large annual, day-to-day, and daily temperature changes. The precipitation in this climate is light to moderate and tends to be irregular in time and coverage. Other aspects of this climate are a low relative humidity, plentiful sunshine, and nearly continuous air movement.

(source: http://www.npwrc.usgs.gov/resource/othrdata/climate/climate.htm)

NATURAL VEGETATION

The native vegetation of the region consists of tall prairie grasses such as Bluestorn, Switch Grass, and Indian Grass. Cottonwoods, Willows, Oaks, American Elms, Green Ashes, and American Lindens are just a few of the native trees in the region. The natural prairie is primarily covered with grasses and has few trees. The trees that are native grow thick around bodies of water and rivers.

(source: http://www.ag.ndsu.nodak.edu/aginfo/trees/handbook/native.htm)

LOCAL

CLIMATE

The city of Fargo and the State of North Dakota are located in the center of North America which results in a continental climate overall. This means that the summers are warm and the winters are cool. The average annual temperature of the area is 49.5° F. July is the warmest month with an average temperature of 70.6° F and January is the coldest with average temperatures down to 6.8° F. Average annual precipitation is 21.19 inches with May through August being the wettest months. The average annual amount of snowfall is 40 inches.

(source: http://climate.umn.edu/pdf/fargo_climate.pdf)

TEMPERATURE

The average temperature in Fargo is 41.5° F for the year. Spring brings about a rapid change of temperature in Fargo, as the seasonal average temperature rises to 43° F. Summers bring about a very comfortable weather with the typical average temperature reaching 69° F. A few days out of the year the high temp can reach into the 90's but that is not long lasting. Fall is similar to spring in Fargo in that it is short and brings about rapid change in temperature. Winter brings colder weather with the temperature dipping down to an average of 11° F.

(source: http://climate.umn.edu/pdf/fargo_climate.pdf)

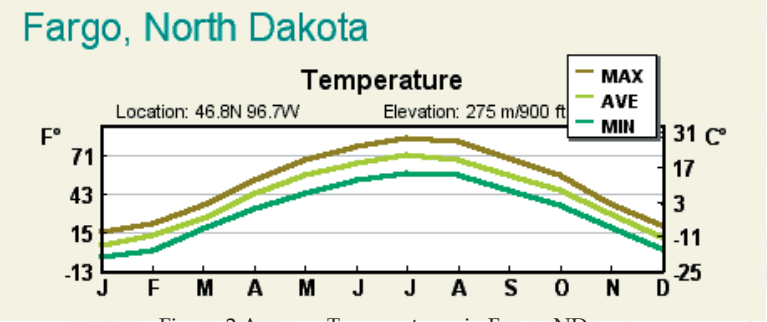


Figure 2 Average Temperatures in Fargo, ND

PRECIPITATION

Fargo's annual precipitation averages around 21.19 inches, which is more than the rest of the state receives. Spring averages about 5.15 inches of rainfall during the months of March through May. June has the highest average of rainfall in Fargo, with 3.51 inches of precipitation. The seasonal average precipitation climbs in the summer months to 8.91 inches and drops back down during the fall months to 5.21 inches. The precipitation is very light in the winter and falls mostly in the form of snow. On average, Fargo receives 40 inches of snow every year.

(source: http://climate.umn.edu/pdf/fargo_climate.pdf)

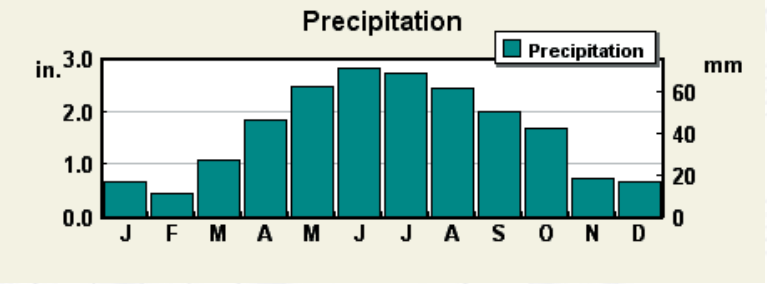


Figure 3 Average Precipitation in Fargo, ND

WIND

The wind speeds in the Red River Valley are on average, higher than the rest of the state. Prevailing wind in Fargo is strong incoming North-Northwest flows commonly during the winter months and a strong South-Southeast return flow during the summer. The yearly average wind speed in Fargo is 11.1 mph, with the highest wind speeds during the winter and spring months.

(source: http://climate.umn.edu/pdf/fargo_climate.pdf)

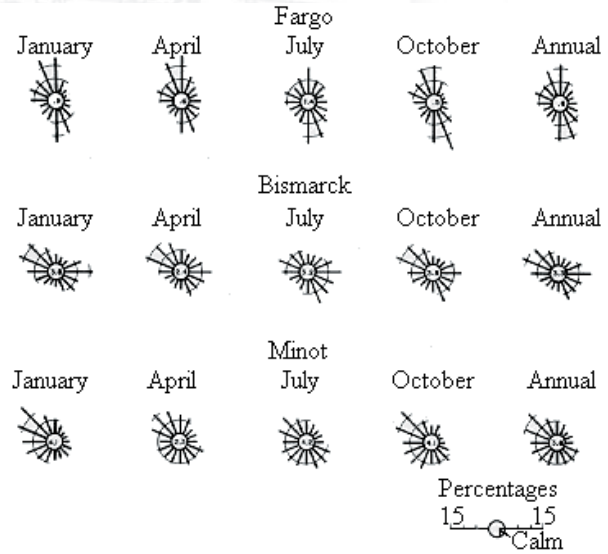


Figure 4 Average Wind Direction in Fargo, ND

SUNLIGHT

North Dakota receives a fairly high percentage of possible sunlight however Fargo itself only has an average of 88 days out of a year that are classified as clear. There are 109 days that are partly cloudy and 168 days that are cloudy. Summer has the lowest percentage of cloudy days at 29%. Fall and spring are next at 49% cloudy days and winter is the season with the highest percentage of cloudy days at 55%.

The day with the shortest amount of daylight occurs on December 21st with only 8.5 hours of sunlight and the longest occurs on June 21st when there is 16 hours. The suns path through the sky in Fargo at the summer equinox starts and ends at 55° east and west of north (the azimuth) and rises to an angle of 68° above the horizon (the altitude). During the winter solstice the sun starts and ends at 125° east and west of north and only rises to an altitude of 20° above the horizon.

(source: http://climate.umn.edu/pdf/fargo_climate.pdf)

DEMOGRAPHICS

Fargo:

Population:	90,599	
Male:	45,306	50%
Female:	45,293	50%
Median Age:	30.1	
Race:		
White:	85,321	94.2%
Black:	922	1%
American Indian:	1,119	1.2%
Asian:	1,482	1.6%
Hispanic:	1,167	1.3%
Households:		
Average size:	2.2	
Total Available Housing:	41,277 units	
Owner Occupied:	18,508	
Renter Occupied:	20,760	
Vacant:	1,932	

(source: http://factfinder.census.gov)

SITE LOCATION

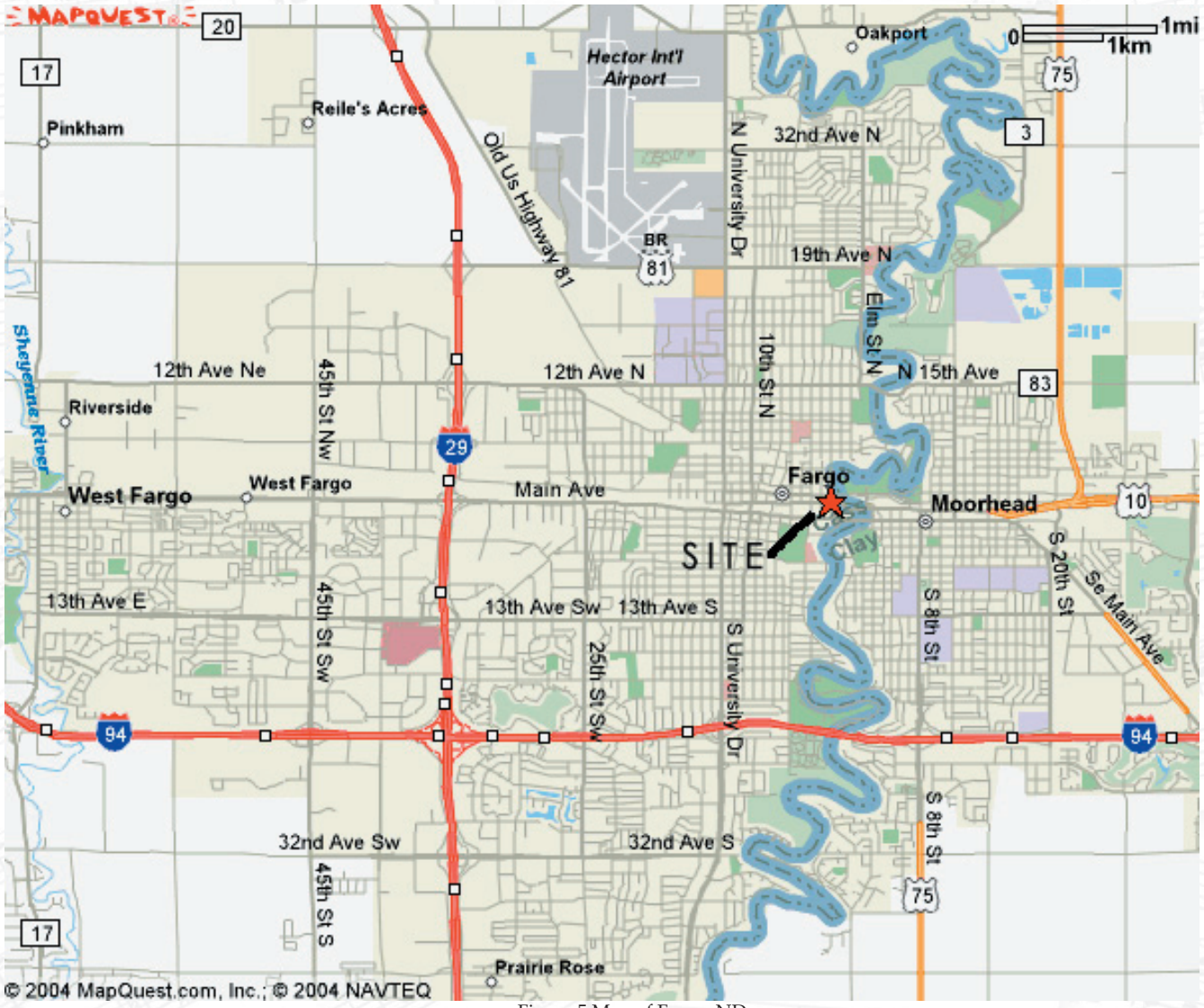


Figure 5 Map of Fargo, ND

Figure 6 Downtown Map of Fargo, ND

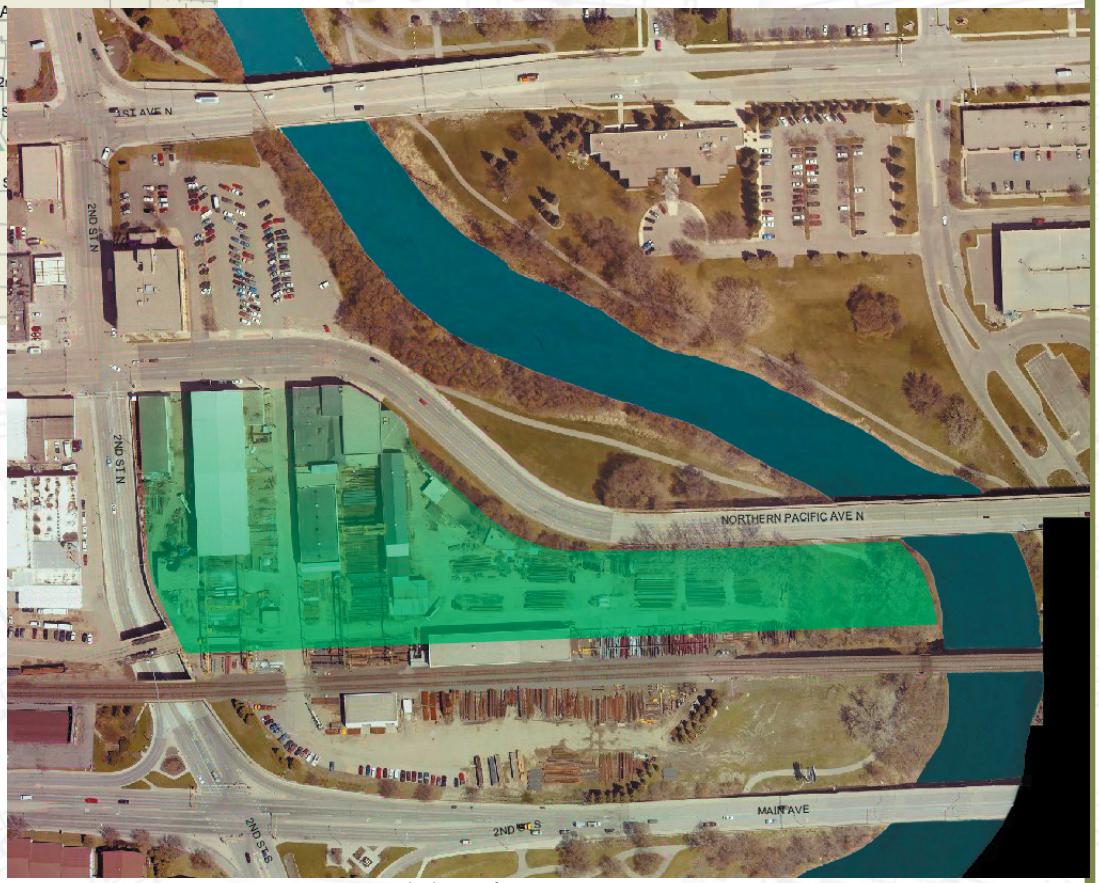
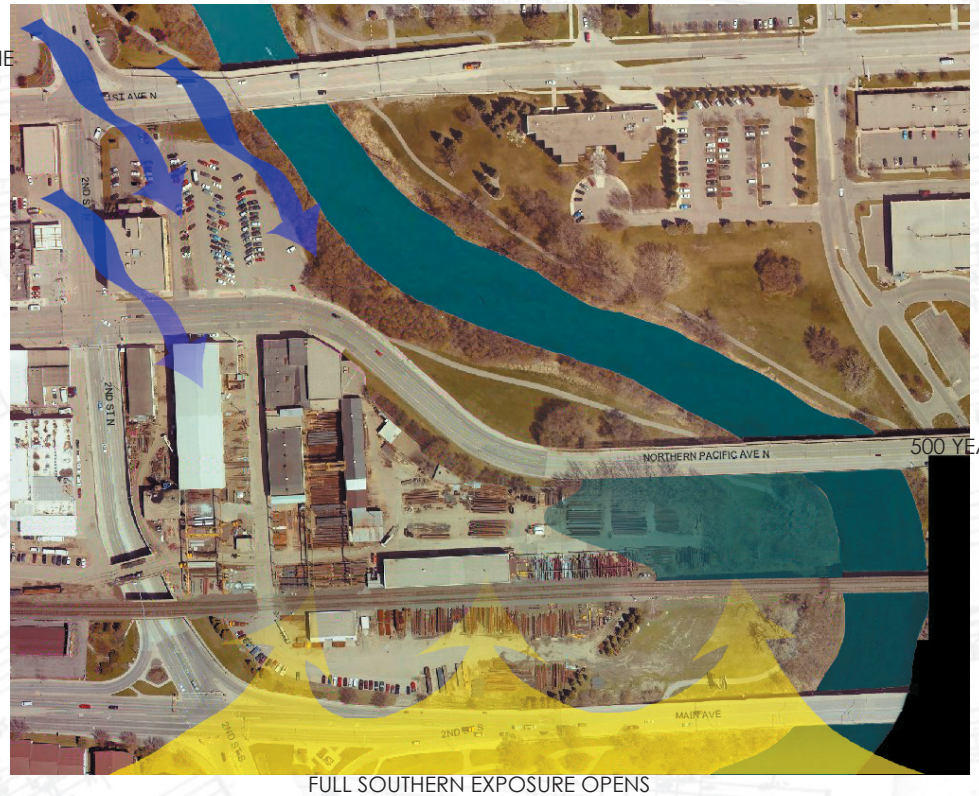


Figure 7 Aerial Photo of Project Site Fargo, ND

NATURAL CONDITIONS

WINTER WINDS FROM THE
NORTH NORTHWEST



500 YEAR FLOOD LEVEL

FULL SOUTHERN EXPOSURE OPENS
SITE UP TO FULL DAY OF SUN

Figure 8 Natural Conditions of Project Site Fargo, ND

TRAFFIC CONDITIONS

VEHICULAR TRAFFIC

PEDESTRIAN TRAFFIC

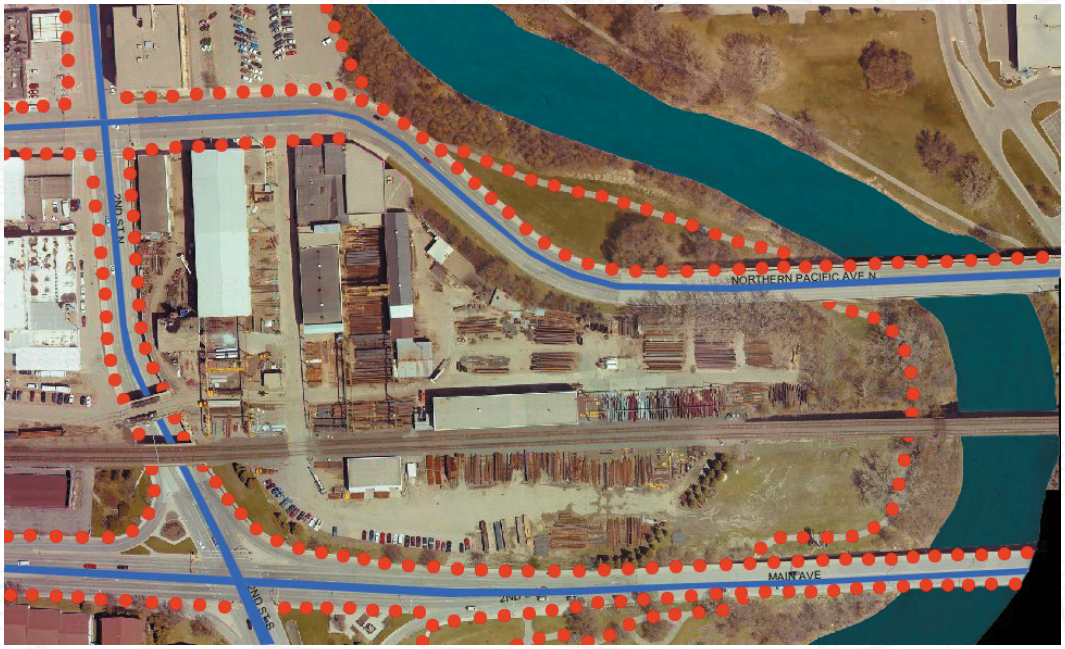


Figure 9 Traffic Conditions of Project Site Fargo, ND

OPPORTUNITIES AND CONSTRAINTS

Figure 10 Opportunities and Constraints of Project Site Fargo, ND

SITE TOPOGRAPHY

5 FOOT INCREMENTS

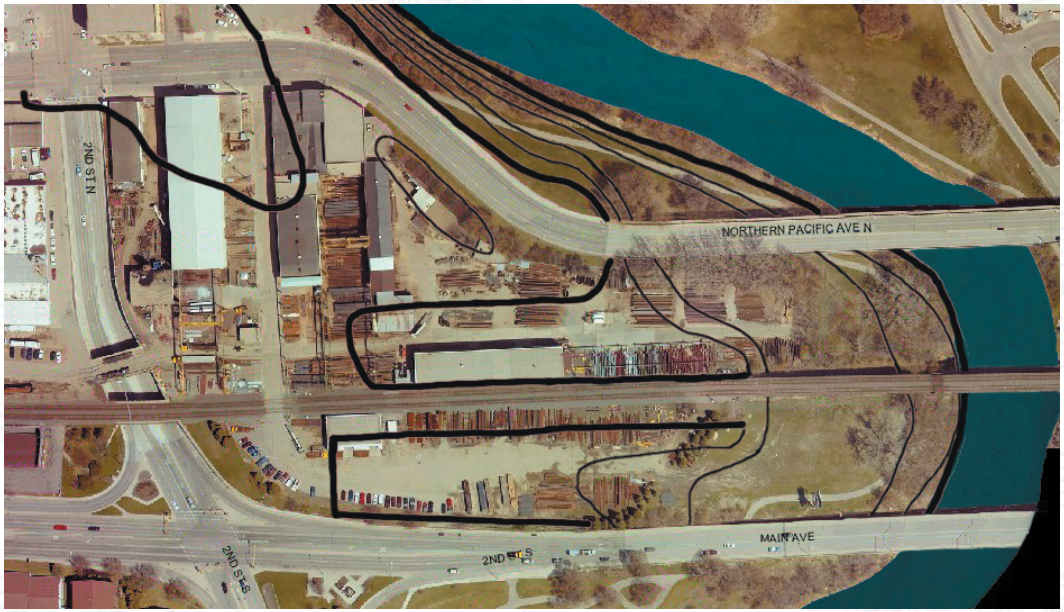


Figure 11 Topography of Project Site Fargo, ND

PHOTOS ONTO THE SITE

Photograph 9 Looking south on 2nd st. at Site

Photograph 10 on Corner of NP Ave and 2nd st. Looking at Site

Photograph 11 Looking Down NP Ave at Site

Photograph 12 Bird's-eye from the Southwest Looking Northeast at Site

PHOTOS ONTO THE SITE

Photograph 13 Looking Down Main Ave Bridge at Site

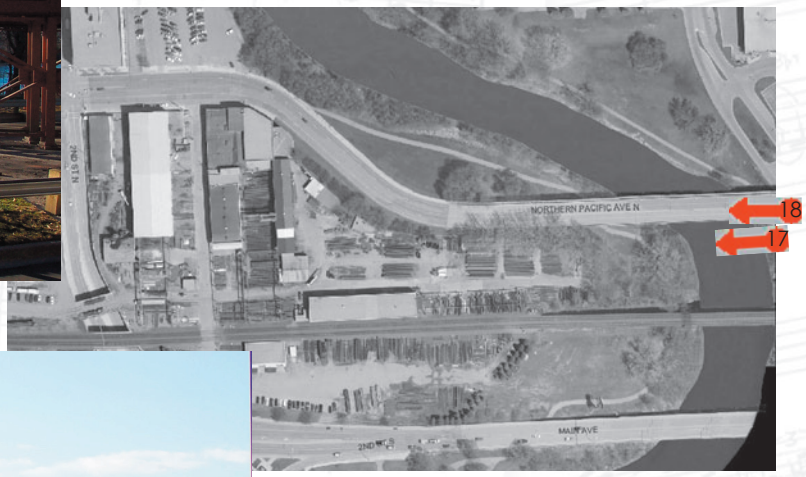
Photograph 14 Looking from the East at Site

Photograph 15 Looking from Moorhead, MN at Site

Photograph 16 Looking from the East Across the Red River at Site

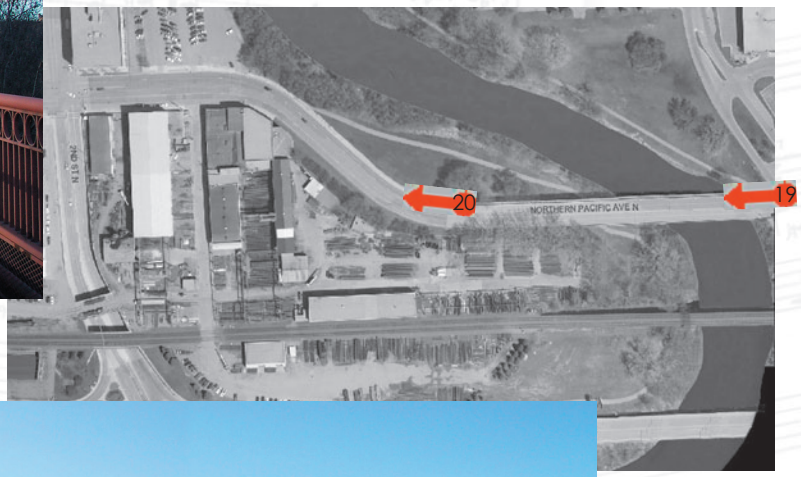
PHOTOS ONTO THE SITE

Photograph 17 Looking from Under NP Ave Bridge at Site



Photograph 18 Looking West Across NP Ave Bridge at Site

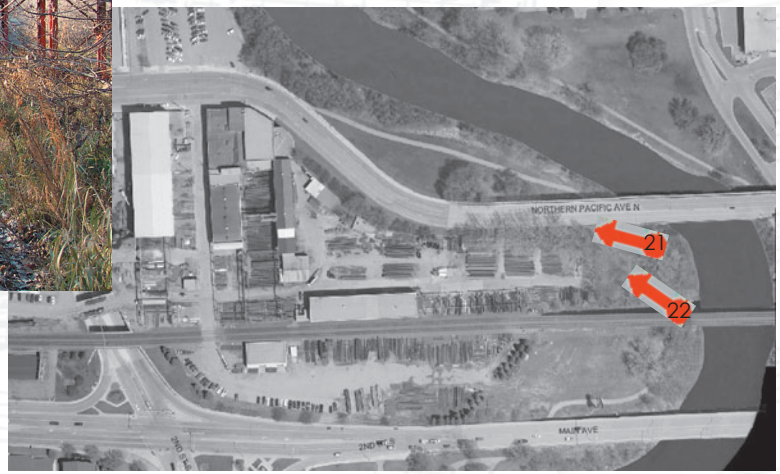
Photograph 19 Looking West Across NP Ave Bridge Sidewalk at Site



Photograph 20 Looking West Across NP Ave at Site

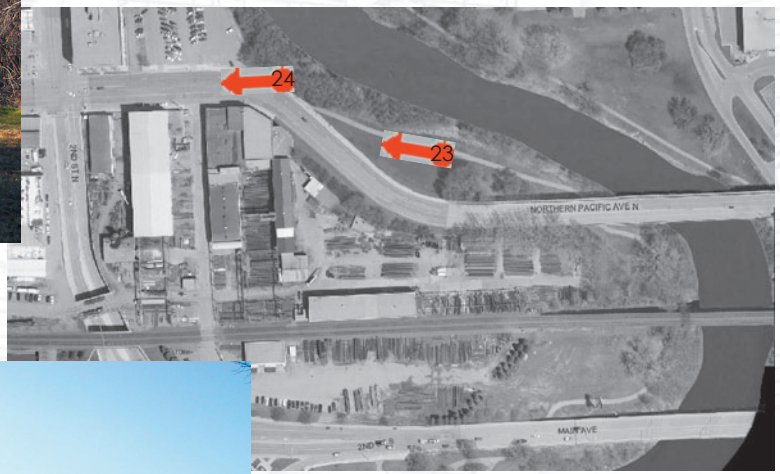
PHOTOS ONTO THE SITE

Photograph 21 Looking West Along Bike Path at Site



Photograph 22 Looking West from the Southeast Corner at Site

Photograph 23 Looking West Along Bike Path at Site



Photograph 24 Looking West Along NP Ave at Site

LIST OF SPACES

- Lobby	500 sq. ft.
- Administration	4,000 sq. ft.
- Faculty Offices	1,200 sq. ft.
- Classrooms	14 @ 600 sq. ft.
- Practice rooms	40 @ 100 sq. ft.
- Computer room	3 @ 750 sq. ft.
- Recording studios	6 @ 625 sq. ft.
- Auditorium (main)	6,000 sq. ft.
- Secondary Auditorium	3,500 sq. ft.
- Library	2,000 sq. ft.
- Café	7,000 sq. ft.
- Music Store	2,000 sq. ft.
- Storage	2,000 sq. ft.
- Mechanical	8,000 sq. ft.
- Parking	20,000 sq. ft.
- Amphitheater (outside)	
- Outdoor Plaza	
TOTAL =	**75,600 sq. ft.**

LOBBY

SIZE:	500 sq. ft.
INTENDED USE OF SPACE:	This space will be the entry to the facility. This will be the first impression of the interior by visitors, future students, and other users. The users of this space will include visitors, students, staff and a receptionist.
DESCRIPTION OF SPACE:	The Lobby requires lighting, preferably natural lighting but artificial may be required. The lobby will also include a waiting area, so furniture will be required. This space should be directly connected to the main circulation space. The quality of the space should be very welcoming and inviting to all users. This space will be very heavily traveled and should contain durable materials.

ADMINISTRATION

SIZE:	4,000 sq. ft.
INTENDED USE OF SPACE:	The administration space will contain all the offices needed for the operation of a school facility. This will primarily be a 'private' space used by the employees and not seen by the public.
DESCRIPTION OF SPACE:	The administration space will contain both offices and cubicles, and should be lit mainly by artificial light to prevent glare. Natural light can be used but needs to be controlled. The offices and cubicles will contain typical office furniture; desks, chairs, shelves, etc. The quality of this space should promote a positive work environment, and be well organized. The administration should be fairly close to the lobby and the receptionist.

FACULTY OFFICES

SIZE: 5,000 sq. ft.

INTENDED USE OF SPACE: This space will contain all the offices and services needed by the educational faculty. This will primarily be a 'private' space used by the faculty and not seen by the public.

DESCRIPTION OF SPACE: Offices, copy room, break room, and storage is included in this space. These spaces will be lit using primarily artificial lighting to reduce glare. Natural light can be used to enhance the space but should be controlled. The offices will contain typical office furniture which includes desks, chairs, file cabinets, etc. The quality of this space should be relaxing and promote a positive working environment. The faculty space should be close to administration.

CLASSROOMS

SIZE: 14 rooms at 600 sq. ft.

INTENDED USE OF SPACE: These rooms will be used mostly for the education of students. They may also be used as large group ensemble practice rooms.

DESCRIPTION OF SPACE: These rooms will be set up for the teaching and learning of music. The classrooms may be divided by a temporary wall so that some spaces can be combined to create larger spaces. The rooms should contain student desks, a white board, computer, and projector. These rooms can be lit by either artificial or natural lighting. The quality of these rooms should be inviting and comfortable to promote learning. Each of these rooms should have character and should not be made to feel like an institution.

PRACTICE ROOMS

SIZE:	40 rooms at 100 sq. ft.
INTENDED USE OF SPACE:	The practice rooms will be used by students and educational faculty to refine their musical skill. These rooms will be used by one to three students at a time and are relatively sound proof to prevent sound from all the rooms escaping into other spaces.
DESCRIPTION OF SPACE:	The rooms will be small and intended for single or small group practice. They will be soundproof and buffered through the ventilation system to prevent sound escape. The practice rooms will be typically lit by artificial light. Furniture in the rooms will be chairs and music stands. Some rooms will have an upright piano in them. The quality of the spaces should promote privacy and encourage self improvement.

COMPUTER ROOMS

SIZE:	3 rooms at 750 sq. ft.
INTENDED USE OF SPACE:	This space will be used by the students and educational faculty as a media center for research, homework, and music mixing and creation.
DESCRIPTION OF SPACE:	The spaces will be divided into three rooms and will contain computers, keyboards, and printing equipment. The computer rooms can also be set up as classrooms. This space should be lit primarily by artificial light to prevent glare from natural light. The quality of the spaces should promote learning, study, and creation of music.

RECORDING STUDIOS

SIZE: 6 studios at 625 sq. ft.

INTENDED USE OF SPACE: These spaces will be used essentially for the recording of music. The studios will record and mix music created by student and staff.

DESCRIPTION OF SPACE: Each of the studios will be separated into two rooms, one for the musicians and one for the recording and mixing equipment. Each of the studios will be completely sound proof with floating floor systems and sound proof walls. Due to the need for complete soundproofing exterior walls and windows will be avoided, therefore light will be provided by artificial lighting. Furniture in the studios will be chairs, and in the recording booth will be desks for equipment and storage. The quality of the studios should be that of complete separation. There should be no distractions, or outside elements that could affect recording.

AUDITORIUM

SIZE: ~ 1,500 seats in 6,000 sq. ft.

INTENDED USE OF SPACE: The auditorium will be used mainly as a performance arena. Students, faculty, and guest lecturers will use this auditorium to perform or teach music. The general public will also use this space for entertainment purposes to watch students and faculty perform.

DESCRIPTION OF SPACE: The auditorium will have roughly 1,500 fixed seats, a stage, and sound booth. Some of the seating may be located in a balcony. The auditorium will be equipped with sound and light effect for performance purposes. The quality of this auditorium should exceed any other space in the facility. This space will not only be seen by students and faculty of the school, but the general public as well. Therefore a great deal of design and thought will be placed into the creation of this space.

SECONDARY AUDITORIUM

SIZE: ~ 700 seats in 3,500 sq. ft.

INTENDED USE OF SPACE: This auditorium will be used similarly to the main auditorium, but on a smaller scale. This space will be used by both students and faculty as a performance space. The general public will also use this space for entertainment purposes to watch students and faculty perform.

DESCRIPTION OF SPACE: The auditorium will have roughly 700 fixed seats, a stage, and sound booth. The auditorium will be equipped with sound and light effect for performance purposes. The quality of the auditorium, though not as grand as the main auditorium, should still feel as though it is exceptional. This space will be seen by students, faculty, and the general public.

LIBRARY

SIZE: 2,000 sq. ft.

INTENDED USE OF SPACE: This space will be used for the referencing and storage of educational materials by students and faculty. The library will be primarily used by the students and educational faculty.

DESCRIPTION OF SPACE: This space will be set up for the ease of referencing and reading of materials. The library should contain shelves and cases for storage of all media types. The space will have desks for the students to read, study, and research. The lighting in the library can be both natural and artificial. The natural light should be controlled so that there is no damage to any material. The quality of this space should be inviting and comfortable to promote learning and should have a positive character.

CAFE

SIZE:	7,000 sq. ft.
INTENDED USE OF SPACE:	This space will be used mostly by the students and faculty as a café. Food and drinks will be served in this space. There will be a stage for live entertainment as well.
DESCRIPTION OF SPACE:	This space will be designed for users to purchase refreshments and lounge. A stage will be located in this space for live entertainment at various times. The café will contain tables, chairs, couches, desks, food preparation spaces, stage, and storage. The lighting in this space should be low and calming. Natural light is preferred however artificial light can be used for accent and at night. The quality of this space should be very relaxing and calming. It should inviting and allow users to eat, drink, and lounge.

MUSIC STORE

SIZE:	2,000 sq. ft.
INTENDED USE OF SPACE:	This space will be used for the most part by students and educational faculty to purchase educational supplies and resources.
DESCRIPTION OF SPACE:	The store will contain many supplies need by students and faculty so that they don't need to leave the facility. This space should be organized well so users can easily find and purchase what they need. Lighting in this space can be either natural or artificial. The quality of this space should be inviting and welcoming.

STORAGE

SIZE:	2,000 sq. ft.
INTENDED USE OF SPACE:	This space will be used mostly for the storage of supplies, instruments, and files.
DESCRIPTION OF SPACE:	This space can be divided into separate storage rooms throughout the facility. These spaces will be mainly open and lightning will typically by artificial. The quality of these spaces need not be very high, just as ling as they are functional.

MECHANICAL

SIZE:	8,000 sq. ft.
INTENDED USE OF SPACE:	This space will house the facilities mechanical equipment for HVAC, plumbing, and electrical.
DESCRIPTION OF SPACE:	This space will be designed for the function of the mechanical equipment. This space will be seen by very few people, so the aesthetic design of the space is not necessary.

PARKING

SIZE:	20,000 sq. ft.
INTENDED USE OF SPACE:	The space is used to allow for parking for the students and staff of the facility.
DESCRIPTION OF SPACE:	The parking space should allow for easy access to and from the street and direct the pedestrians up to the front of the facility.

AMPHITHEATER

SIZE:	Outdoors
INTENDED USE OF SPACE:	This space will be similar to the auditorium spaces, but will be outdoors. The amphitheater will be used by both students and faculty as a performance space. The general public will also use this space for entertainment purposes to watch students and faculty perform.
DESCRIPTION OF SPACE:	This space will be outdoors, and have no fixed seating. The stage and shell will be the only structure. There will be electricity however there will be minimal lighting. The amphitheater should be designed to block out unwanted noise and project the sound within the shell. This space will be seen by students, faculty, and the general public.

OUTDOOR PLAZA

SIZE:	Outdoors
INTENDED USE OF SPACE:	Large gathering space outdoors for students, faculty and the general public.
DESCRIPTION OF SPACE:	This outdoor space should have fixed seating and tables for users to meet. The space should accent the facility and draw the public into the building. The plaza should have vegetation to reduce runoff and create the feeling of an outdoor room.

CONCEPT SKETCHES

To achieve my conceptual goal of combining architecture and music, I needed to first study music itself and the differences between different styles. I gathered many types of different music and listened to them to try to distinguish the similarities and differences in them. To help me discern the differences I decided to make conceptual sketches while listening to the different styles of music. I used the sketches to mirror the feeling that the music was giving me.

I started with the harder rock/metal style of music and moved from there through symphonic styles, opera, and into jazz. These first two sketches are the beginning of the rock/metal style of sketches.

The first drawing is my conceptual interpretation sketch of '*Numb*' by the band **Disturbed.**

The second one is the conceptual interpretation sketch of '*Right Now*' by **Korn.**

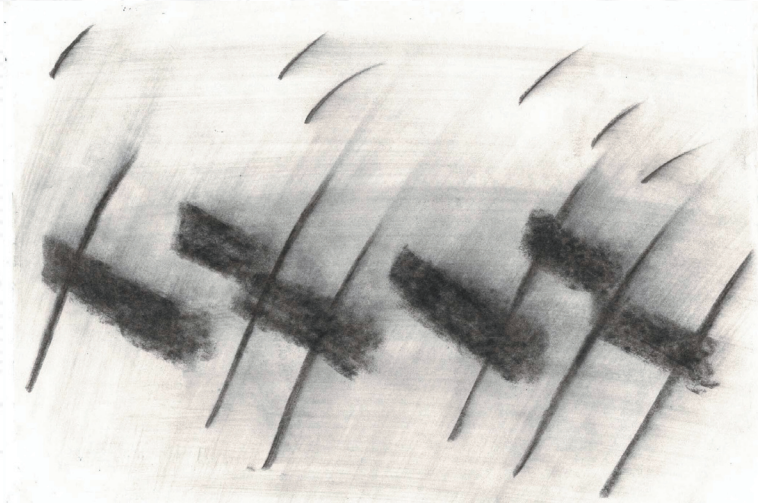
Sketch 1 Conceptual interpretation sketch to '*Numb*' by **Disturbed**

Sketch 2 Conceptual interpretation sketch to '*Right Now*' by **Korn**

This conceptual interpretation sketch is of the song '*Let's Do This Now*' by **Korn.**

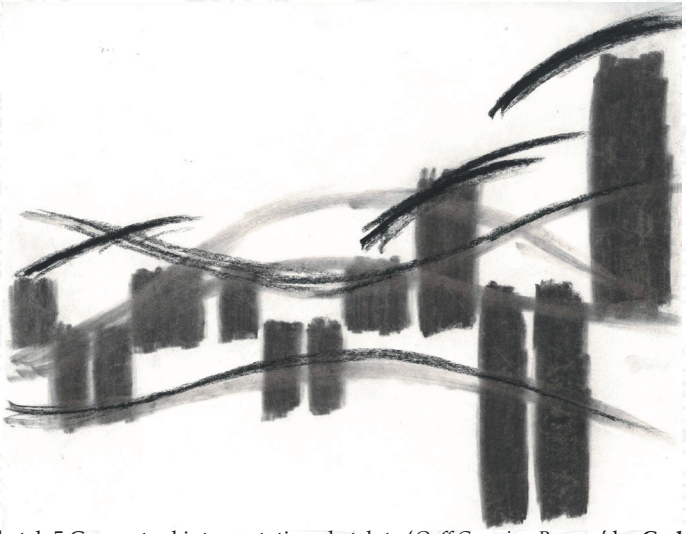
Sketch 3 Conceptual interpretation sketch to '*Let's Do This Now*' by **Korn**

This sketch was drawn to the opening of '*Enter Sandman*' by **Metallica.**



Sketch 4 Conceptual interpretation sketch to '*Enter Sandman*' by **Metallica**

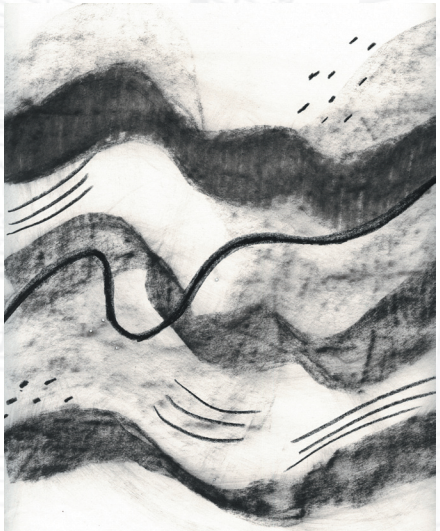
These sketches move into the symphony/opera style of conceptual sketches. Both of these sketches are conceptual interpretations of '*Orff Carmina Burana*' composed by **Carl Orff** and performed by the **London Symphony Orchestra**.



Sketch 5 Conceptual interpretation sketch to '*Orff Carmina Burana*' by **Carl Orff**

Sketch 6 Conceptual interpretation sketch to '*Orff Carmina Burana*' by **Carl Orff**

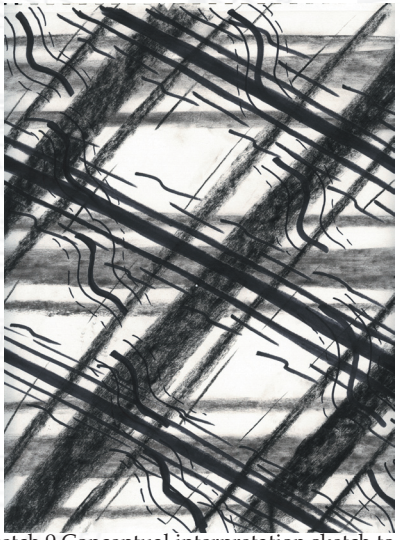
These two sketches are conceptual interpretation sketches of '*Opera Arias*' by **Victoria De Los Angeles**.



Sketch 7 Conceptual interpretation sketch to '*Opera Arias*' by **Victoria De Los Angeles**

Sketch 8 Conceptual interpretation sketch to '*Opera Arias*' by **Victoria De Los Angeles**

These sketches move into a more free form style of music. The first one is a conceptual interpretation sketch of '*Open Air Suit*' by **Air**.



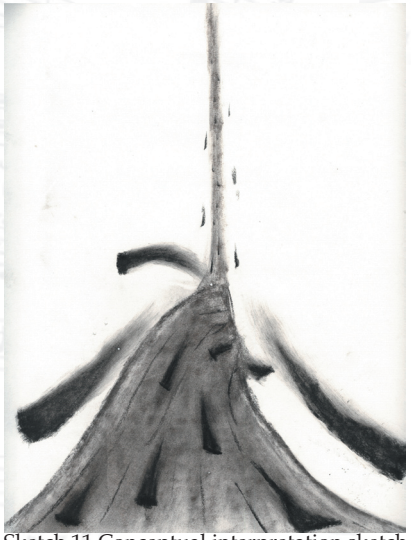
Sketch 9 Conceptual interpretation sketch to '*Open Air Suit*' by **Air**

The second sketch is a conceptual interpretation to '*Dancing in Your Head*' by **Ornette Coleman**.

Sketch 10 Conceptual interpretation sketch to '*Dancing in Your Head*' by **Ornette Coleman**

This sketch is a conceptual interpretation to '*American Garage*' by **Pat Metheny**.

This sketch moves into the more jazz style of music and is a conceptual interpretation of music performed by **John Coltrane**.

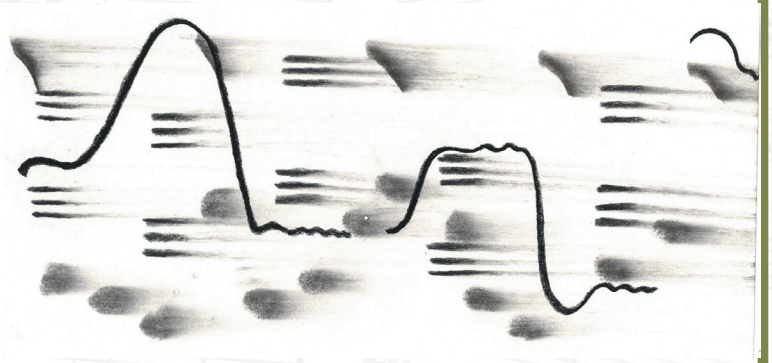


Sketch 11 Conceptual interpretation sketch to '*American Garage*' by **Pat Metheny**

Sketch 12 Conceptual interpretation sketch to **John Coltrane**

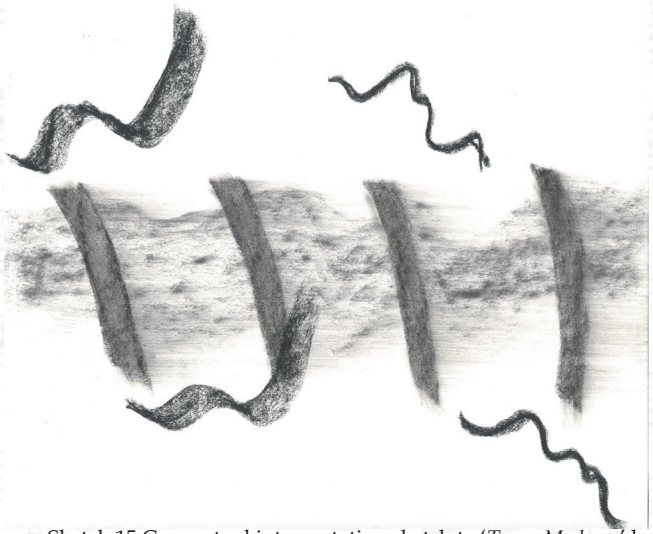
Sketch 13 Conceptual interpretation sketch to '*I'm Old Fashioned*' by **John Coltrane**

These two sketches are conceptual interpretations of '*I'm old Fashioned*' by **John Coltrane**.

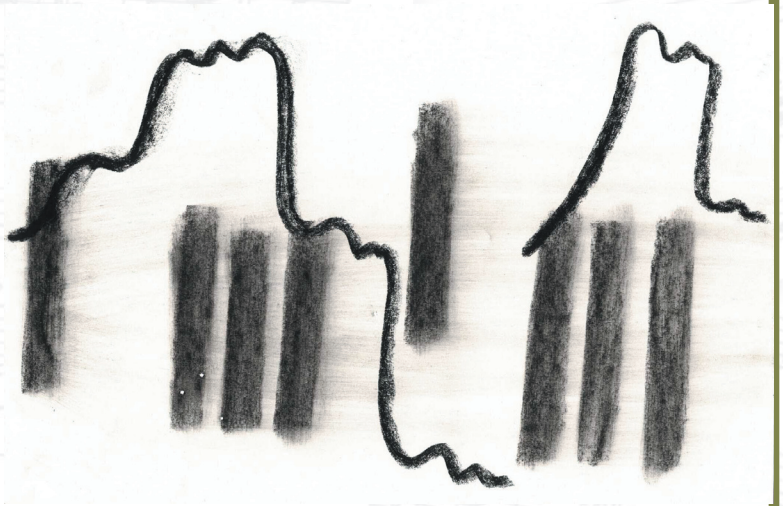


Sketch 14 Conceptual interpretation sketch to '*I'm Old Fashioned*' by **John Coltrane**

These last two sketches are the last of the jazz style and are conceptual interpretations of '*Tenor Madness*' by **The Sonny Rollins Quartet**.



Sketch 15 Conceptual interpretation sketch to '*Tenor Madness*' by **The Sonny Rollins Quartet**

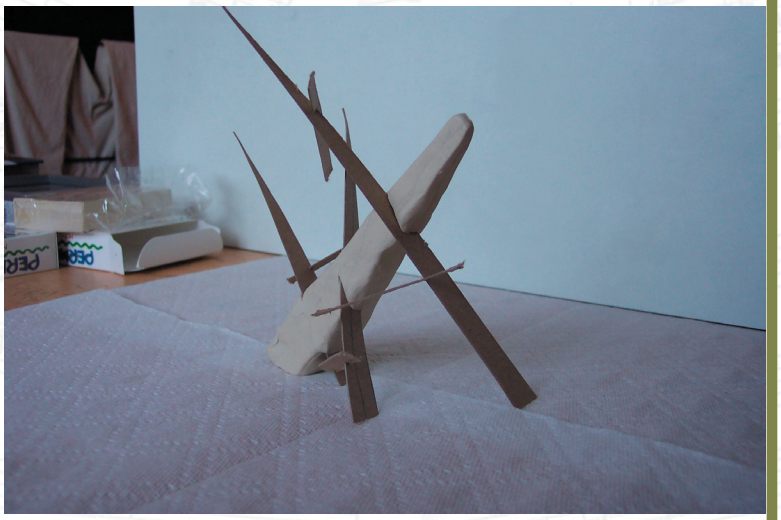


Sketch 16 Conceptual interpretation sketch to '*Tenor Madness*' by **The Sonny Rollins Quartet**

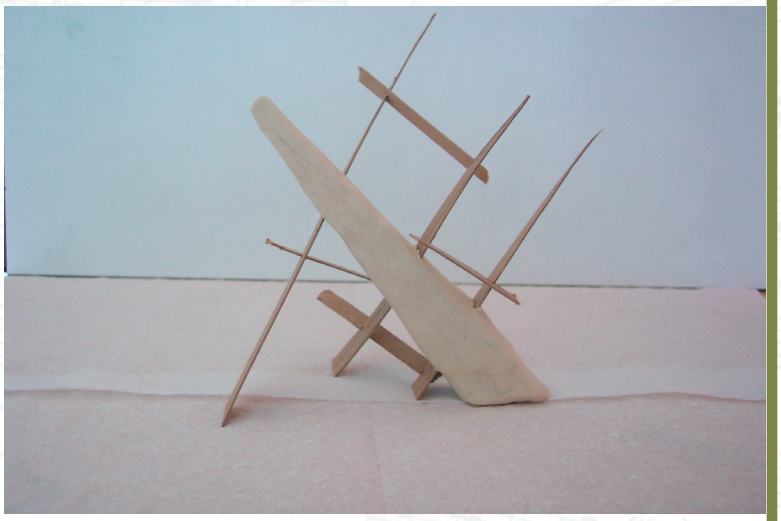
CONCEPT SCULPTURES

The next step in my conceptual process was to analyze the sketches I made to the different styles and study how the drawings echoed the differences between the music, and move into a 3-D study. So I made conceptual sculptures following the same ideas I used in creating the sketches. This helped to further understand the differences in the styles and understand how they look in form.

This first form is a conceptual sculpture that is designed around the style of rock/metal music.

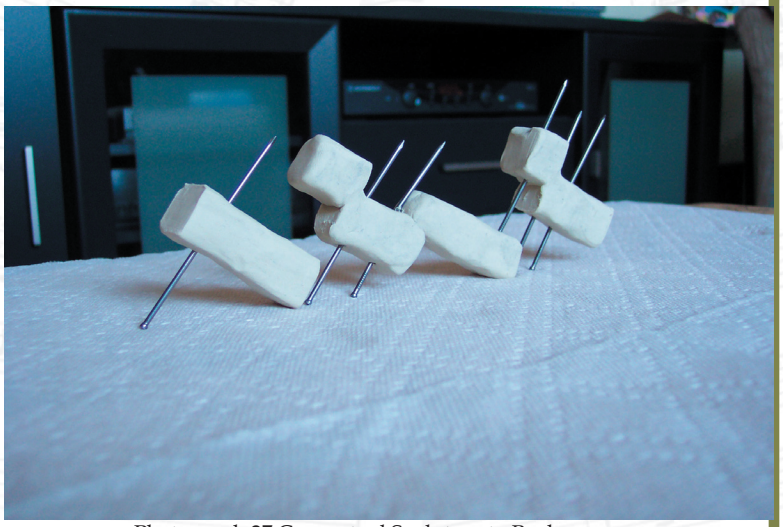


Photograph 25 Conceptual Sculpture to Rock

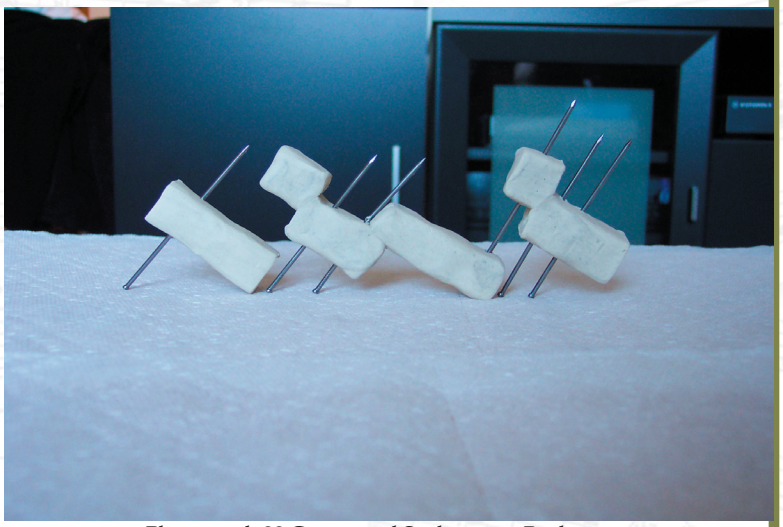


Photograph 26 Conceptual Sculpture to Rock

This next conceptual sculpture was also designed to rock/metal music using different aspects of the music to guide the creation.



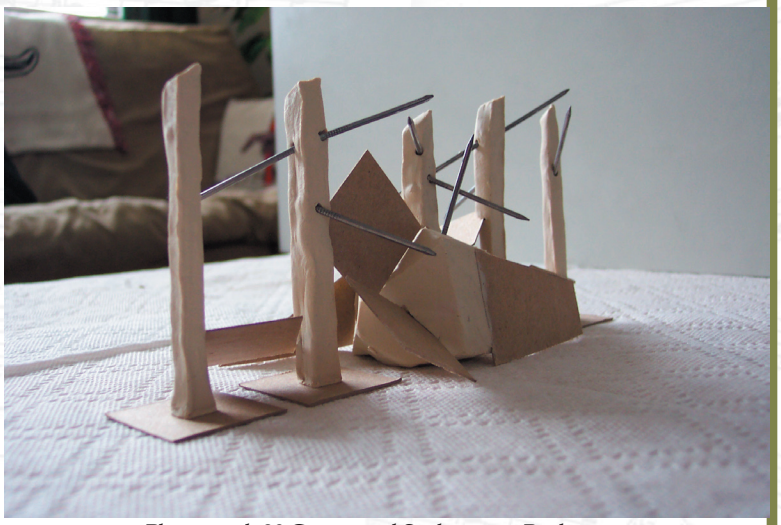
Photograph 27 Conceptual Sculpture to Rock



Photograph 28 Conceptual Sculpture to Rock

This conceptual sculpture is the final model build to the style of rock/metal music.

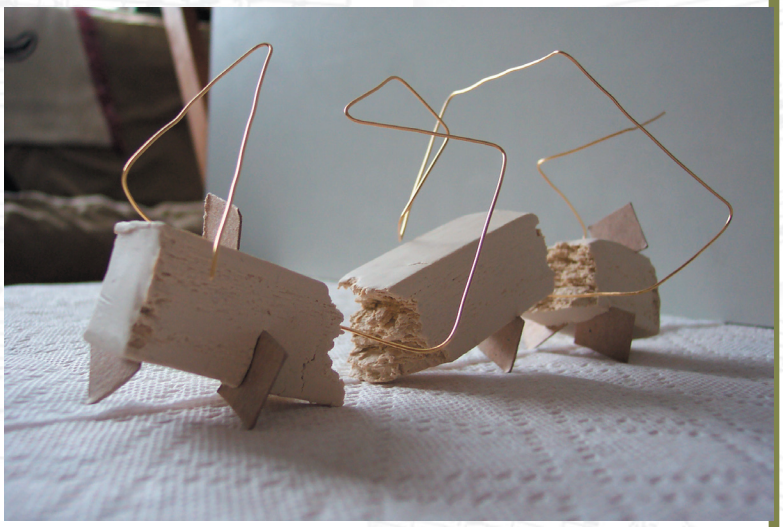
Photograph 29 Conceptual Sculpture to Rock



Photograph 30 Conceptual Sculpture to Rock

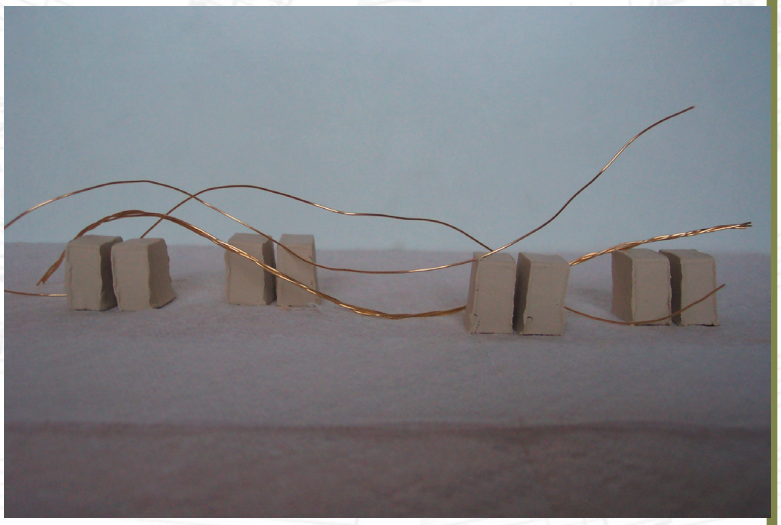
This next conceptual sculpture moves into the more free form music.

Photograph 31 Conceptual Sculpture to free form music

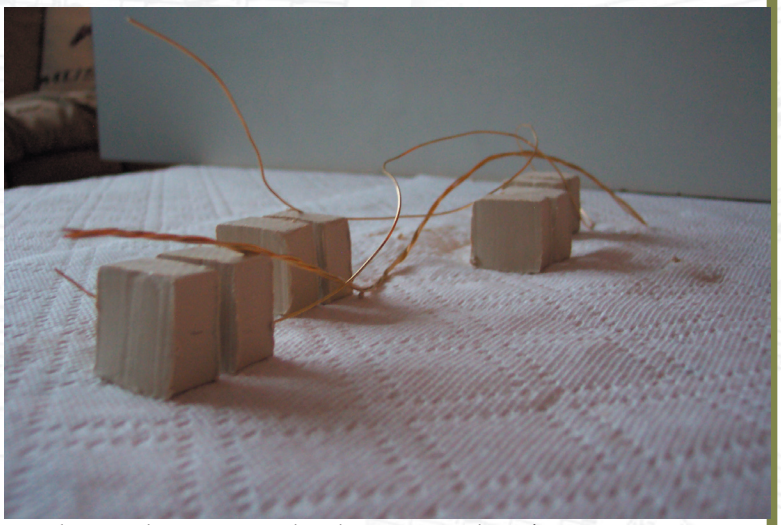


Photograph 32 Conceptual Sculpture to free form music

These next few conceptual forms are designed to echo the style of symphony/opera music.

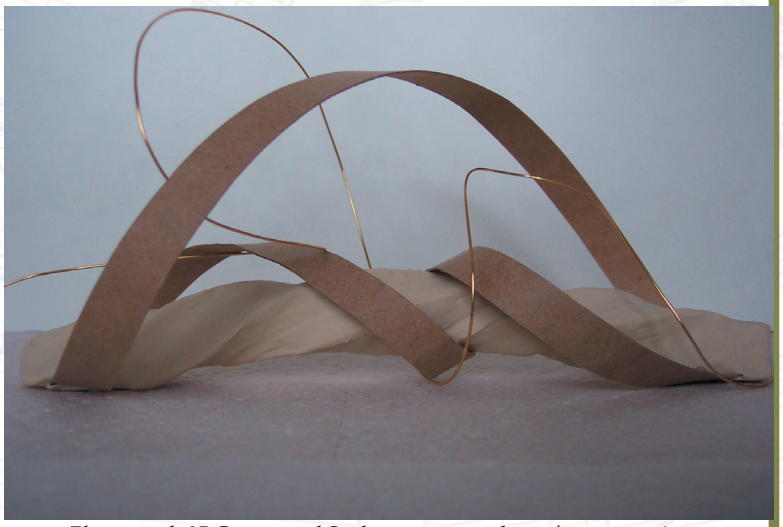


Photograph 33 Conceptual Sculpture to symphony/opera music



Photograph 34 Conceptual Sculpture to symphony/opera music

This sculpture is also built to the style of symphonic/opera music.

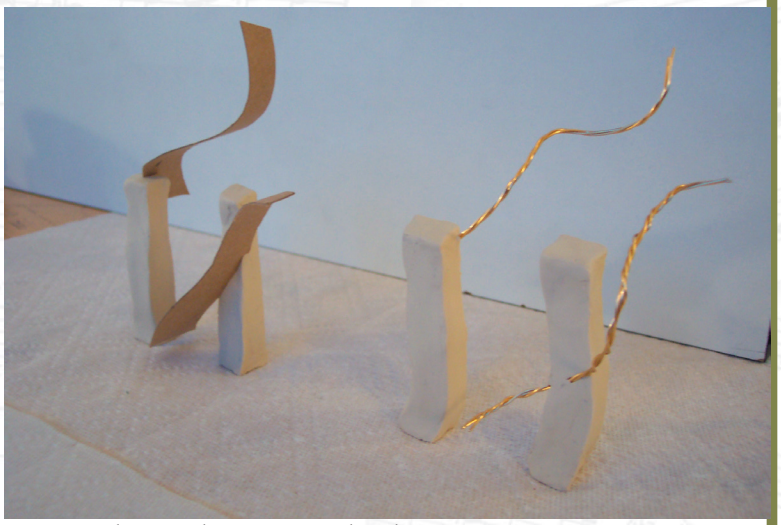


Photograph 35 Conceptual Sculpture to symphony/opera music

Photograph 36 Conceptual Sculpture to symphony/opera music

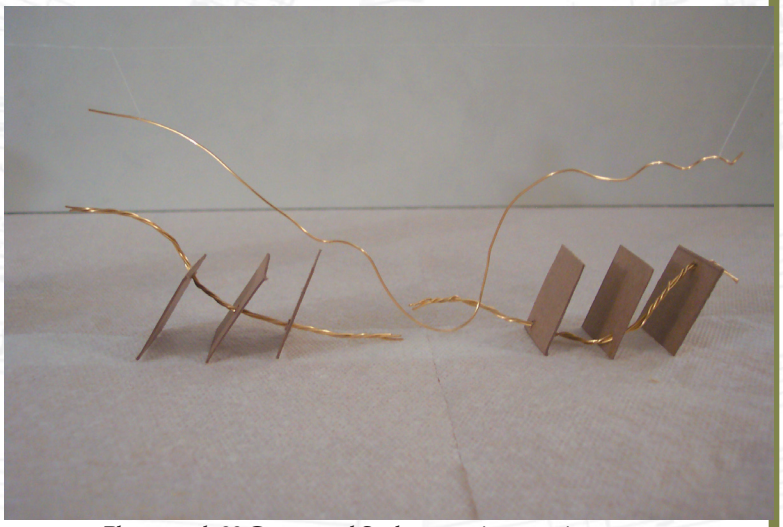
This sculpture is the beginning of the forms that conceptually echo jazz music.

Photograph 37 Conceptual Sculpture to jazz music

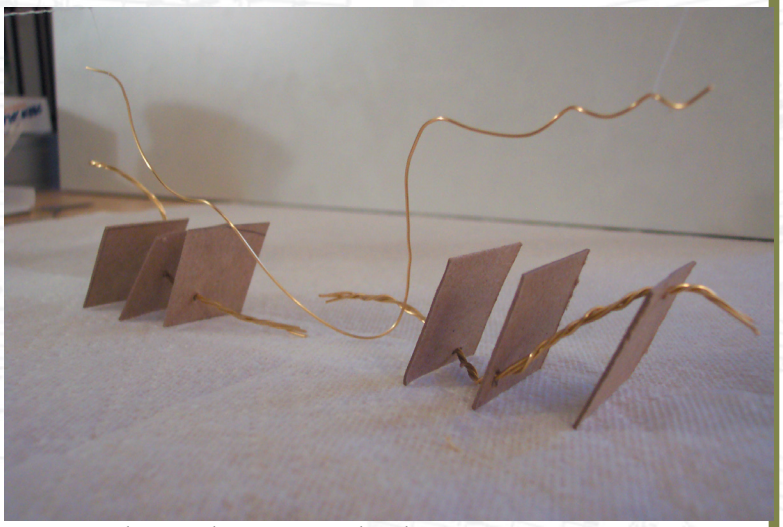


Photograph 38 Conceptual Sculpture to jazz music

This is a conceptual sculpture built to mirror the feeling of jazz music.



Photograph 39 Conceptual Sculpture to jazz music

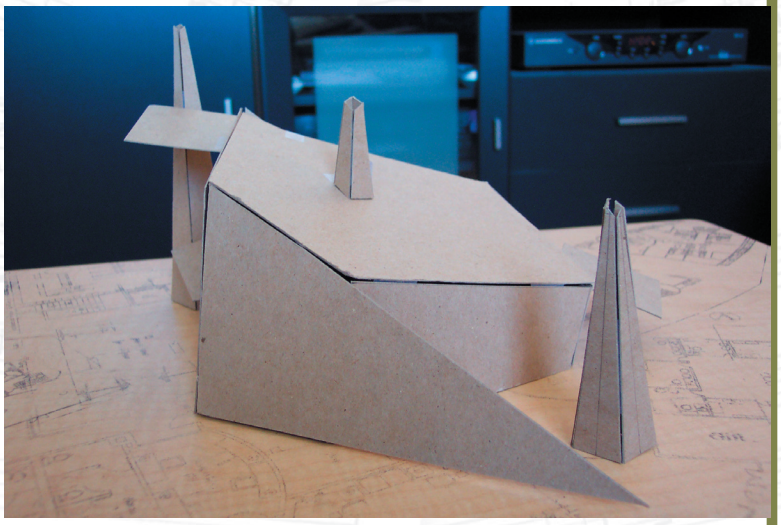


Photograph 40 Conceptual Sculpture to jazz music

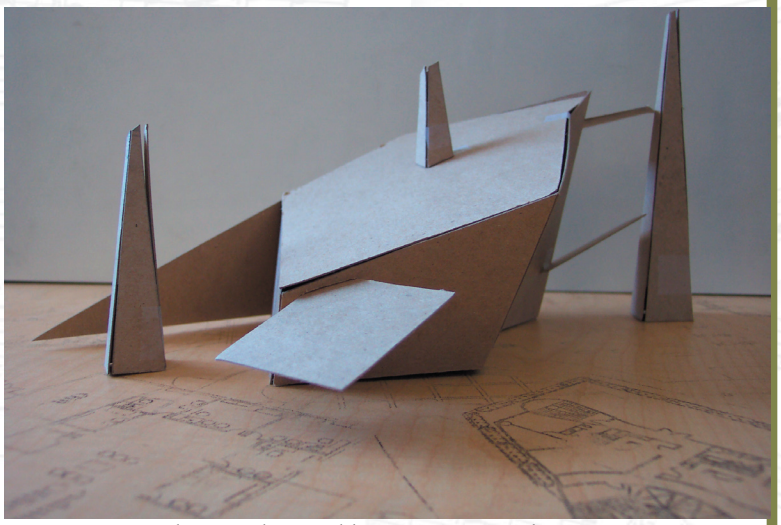
BUILDING CONCEPTS

The next step was to take the same ideas evolved from the conceptual sketches to the 3-D sculptures and apply them to actual building concepts. The idea of using the same building process was to make certain that the conceptual idea would not be lost in the design of the buildings. So I again sat down with the styles of music, now narrowed down to rock, symphonic, and jazz, and use them to design building concepts.

These first ones are designed with the rock/metal style of music.

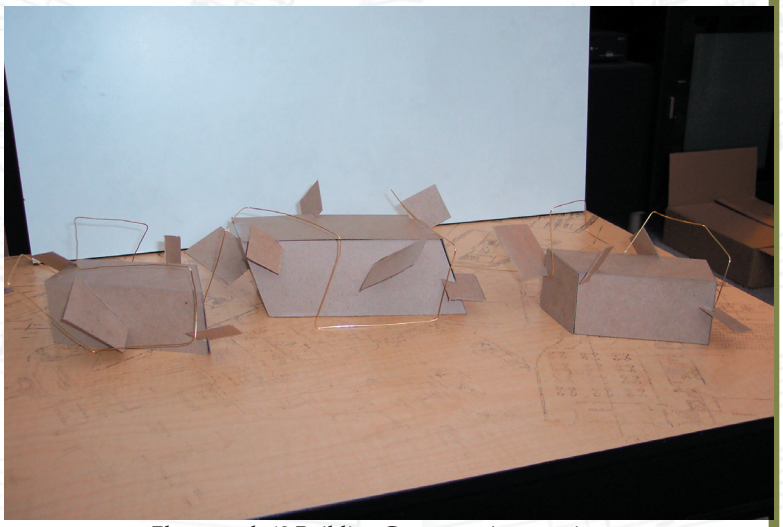


Photograph 41 Building Concept to rock music

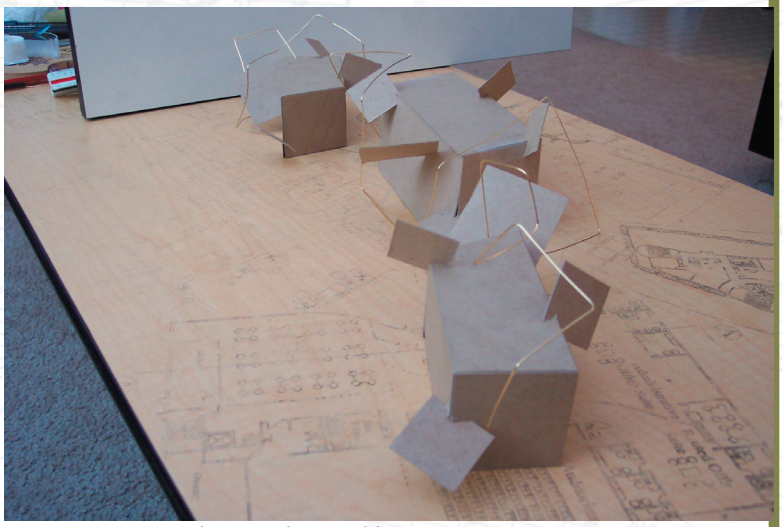


Photograph 42 Building Concept to rock music

This building concept was modeled after the movements and feeling of jazz music.

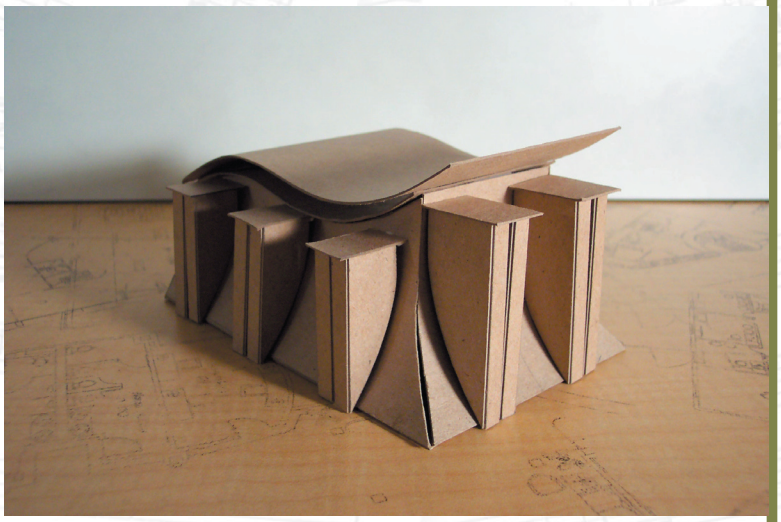


Photograph 43 Building Concept to jazz music

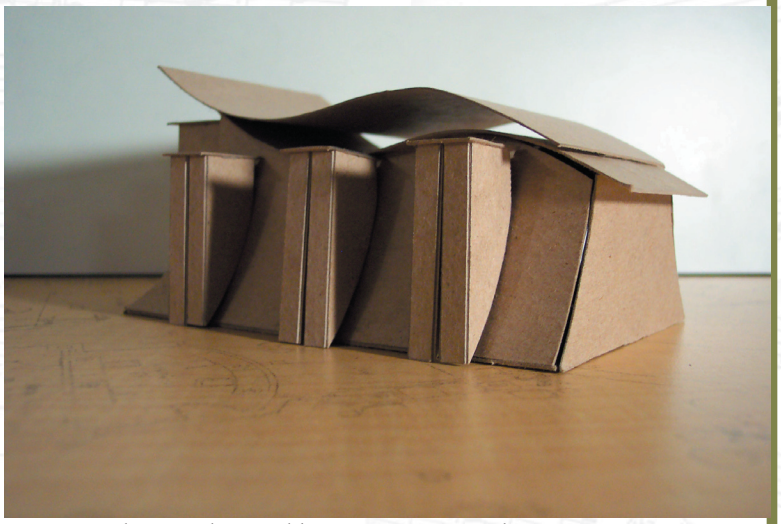


Photograph 44 Building Concept to jazz music

This concept used the feeling and motions found in the concept sketches and sculptures and brought them into this building concept modeled after symphonic music.

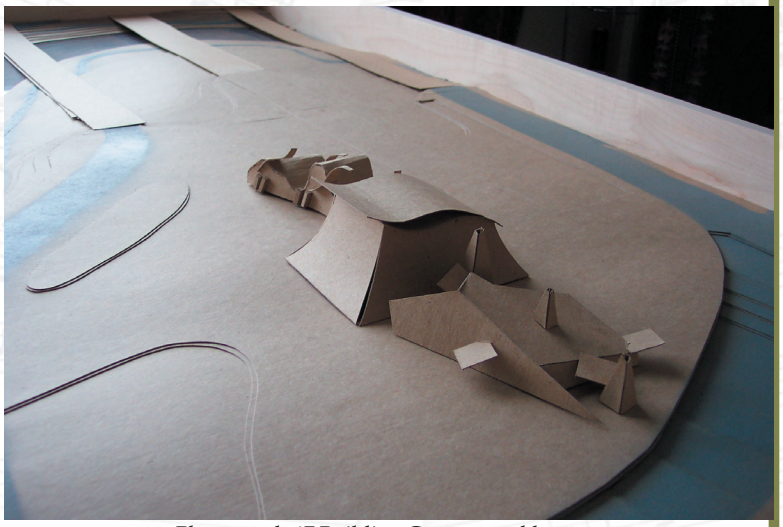


Photograph 45 Building Concept to symphonic music

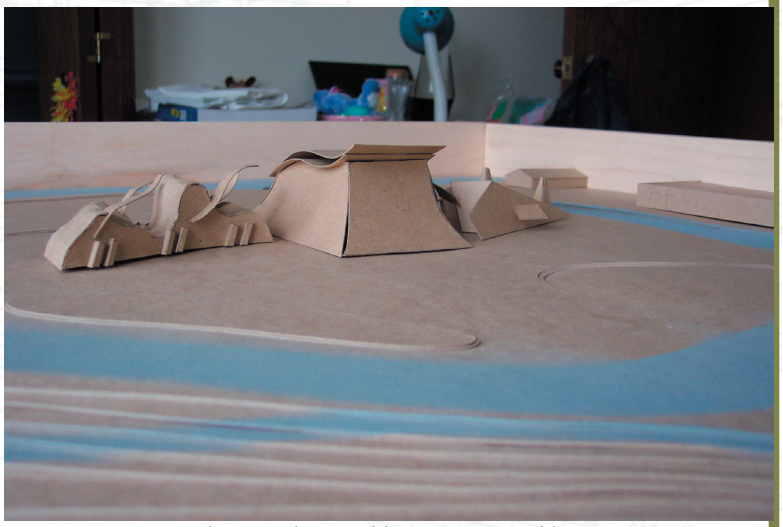


Photograph 46 Building Concept to symphonic music

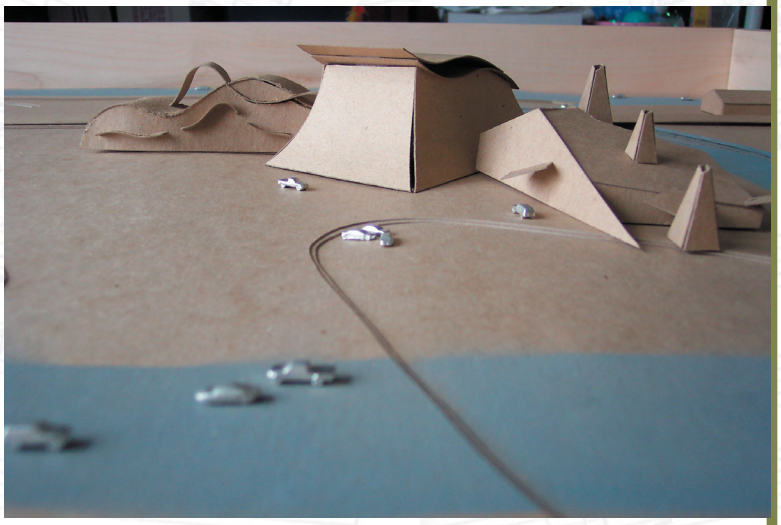
After refining the building forms further, it was time to place them on the site to decide the best layout.



Photograph 47 Building Concept and layout

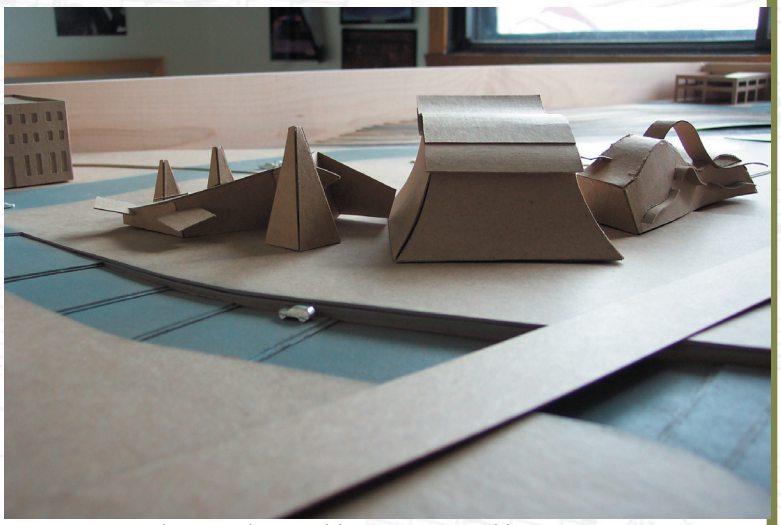


Photograph 48 Building Concept and layout

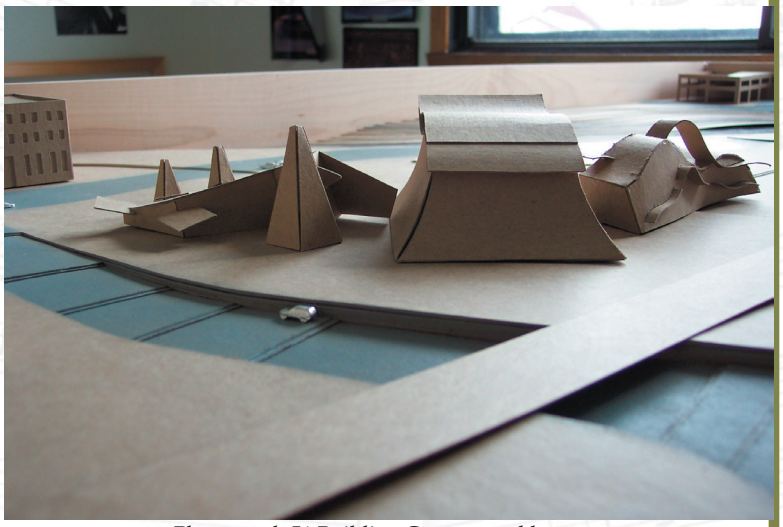


Photograph 49 Building Concept and layout

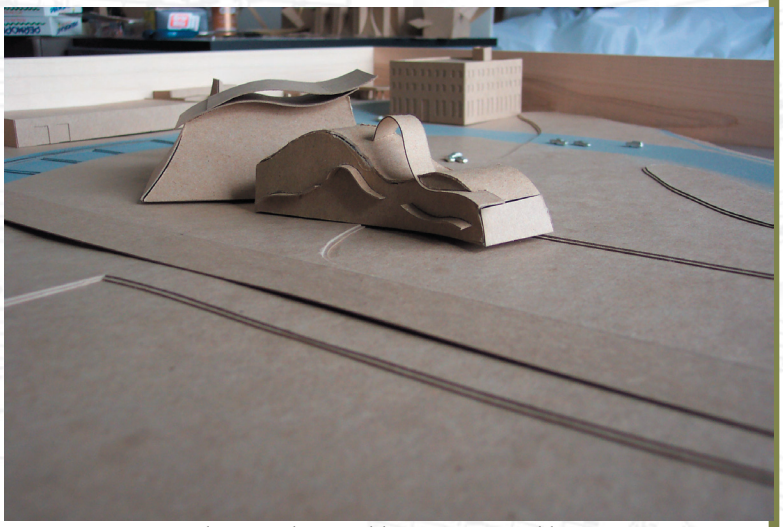
These pictures show further revision in the building concepts and different site layout ideas.



Photograph 50 Building Concept and layout



Photograph 51 Building Concept and layout



Photograph 52 Building Concept and layout

BUILDING FLOORPLANS

The floor plan of this facility needed to also echo the underlying concepts that were used in the designing of the building. To achieve this I simply went back to the same practice that I used in creating the conceptual sketches and sculptures. The plan needed to also flow between all the different sections of the facility and be reminiscent of all music.

For the organization of the spaces, I decided that the spaces that were used only by the different styles would be placed in the corresponding section and the spaces that were used primarily by the public and by both of the different styles would be placed in the center portion of the building.

The center section of the building houses all the combined use spaces such as the recording studios and the library for the school. This section will also have all the main public spaces used not only by the students but also the general public such as the main auditorium that seats 1200 and a secondary auditorium that seats 700. Also the administration, café, and the music store is on the top floor of the facility.

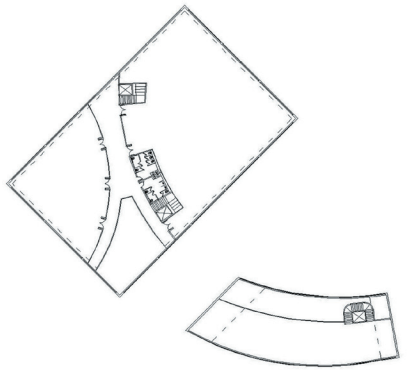


Figure 11 Third Floor Plan

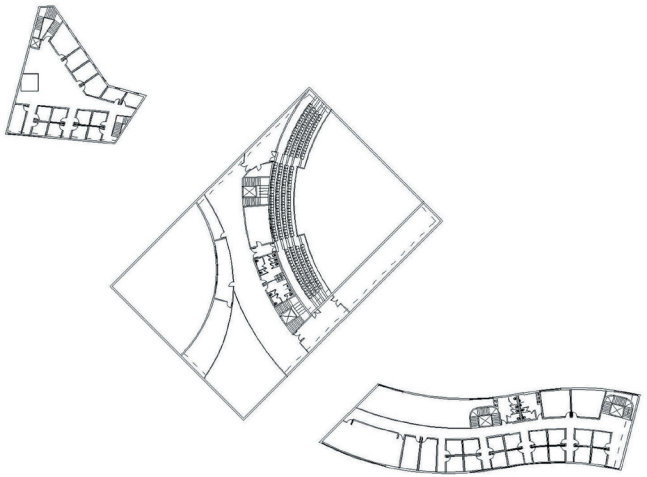


Figure 12 Second Floor Plan

The wing of the facility that is on the west side is the section that will be used for the teaching, learning, and practicing of contemporary rock music. This wing will house spaces that include classrooms, rehearsal rooms, and practice rooms. The layout, floor plan, room shapes, and materials are all designed around the conceptual feeling of rock/metal music.

The wing of the facility that is in the east end is the wing designed for the teaching, learning, and practicing of jazz music. This wing is similar to the rock wing in that is will house the classrooms, rehearsal rooms, and practice rooms. The layout, floor plan, room shapes, and materials are all designed around the conceptual feeling of jazz music.

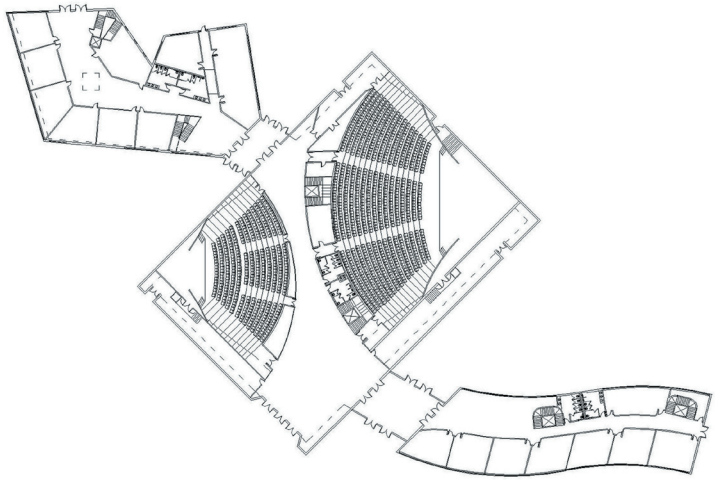


Figure 13 Ground Floor Plan

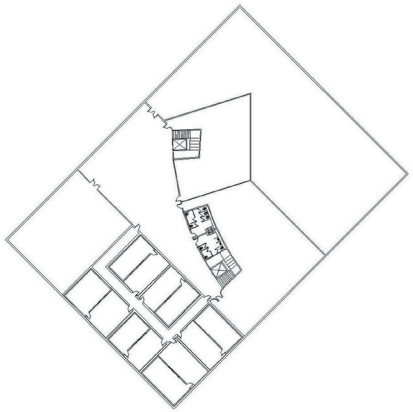


Figure 14 Lower Level Floor Plan

BUILDING SECTIONS

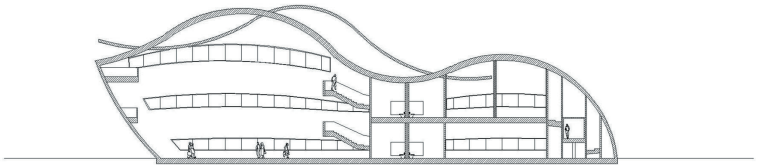


Figure 15 Building Section through Jazz wing

The building sections also needed to echo the type of music in them as well. The section through the jazz wing is shown here first. Second is the section through the Rock wing, and finally is the section through the center section, showing the auditoriums.

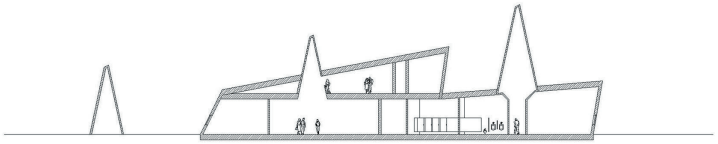


Figure 16 Building Section through Rock wing

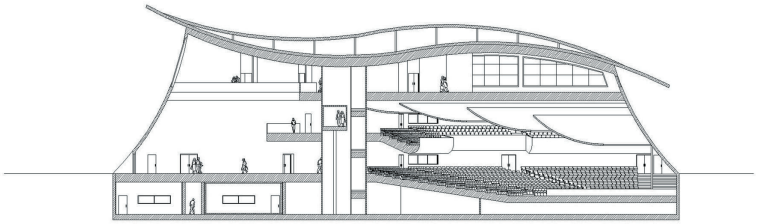


Figure 17 Building Section through center section

SITE PLAN

The final site layout echoes the concept of music and the dynamic curves of the facility add to the conceptual idea of music. I moved the facility along N.P. Ave to give the building a good street presents and to keep them as far away from the railroad tracks as possible. This also created views of the facility from N.P. Ave and Main St. This also lent itself to having entrances from the street, from the parking lot, and from the park as well.

The music park was designed to create a connection from the school to the river and bike path. The park was designed with the same rhythm of the facility, in that it used the same conceptual ideas of designing to rock, symphonic, and jazz music in the same order of the school. The amphitheater was placed in the center portion of the park to echo the auditoriums in the center portion of the facility. The two other sections of the park used the paths and musical sculptures to echo their corresponding musical section.

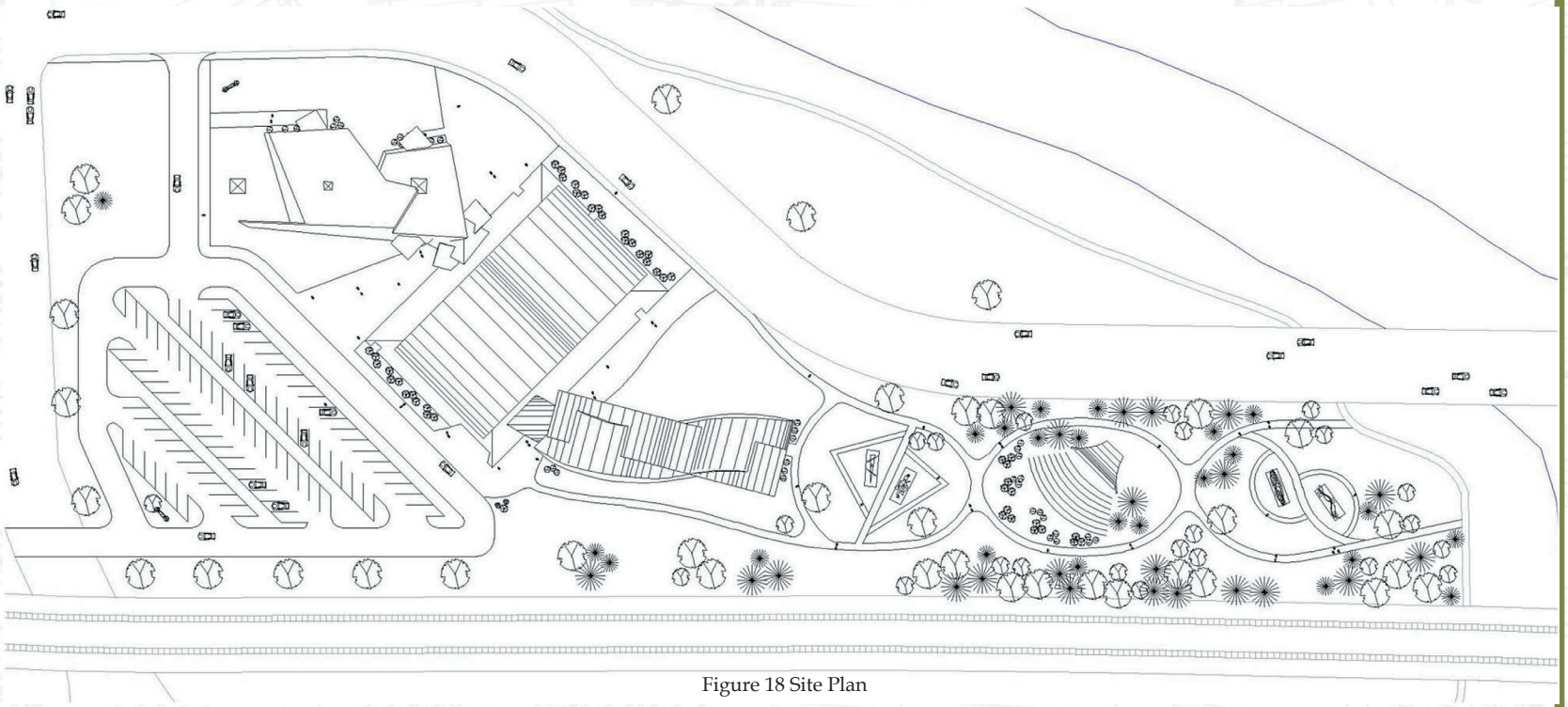


Figure 18 Site Plan

FINAL PRESENTATION BOARDS

The final boards needed to also echo the different musical styles used in the design. Rather than square boards, I used the same conceptual ideas that started back in the sketches and used them to create the boards.

Since my thesis project is extremely conceptually based, I needed to convey the conceptual thoughts that led to the final design on the boards. So I placed some of the more important conceptual sketches on the left and moved into the final design in the middle and right side of the board.

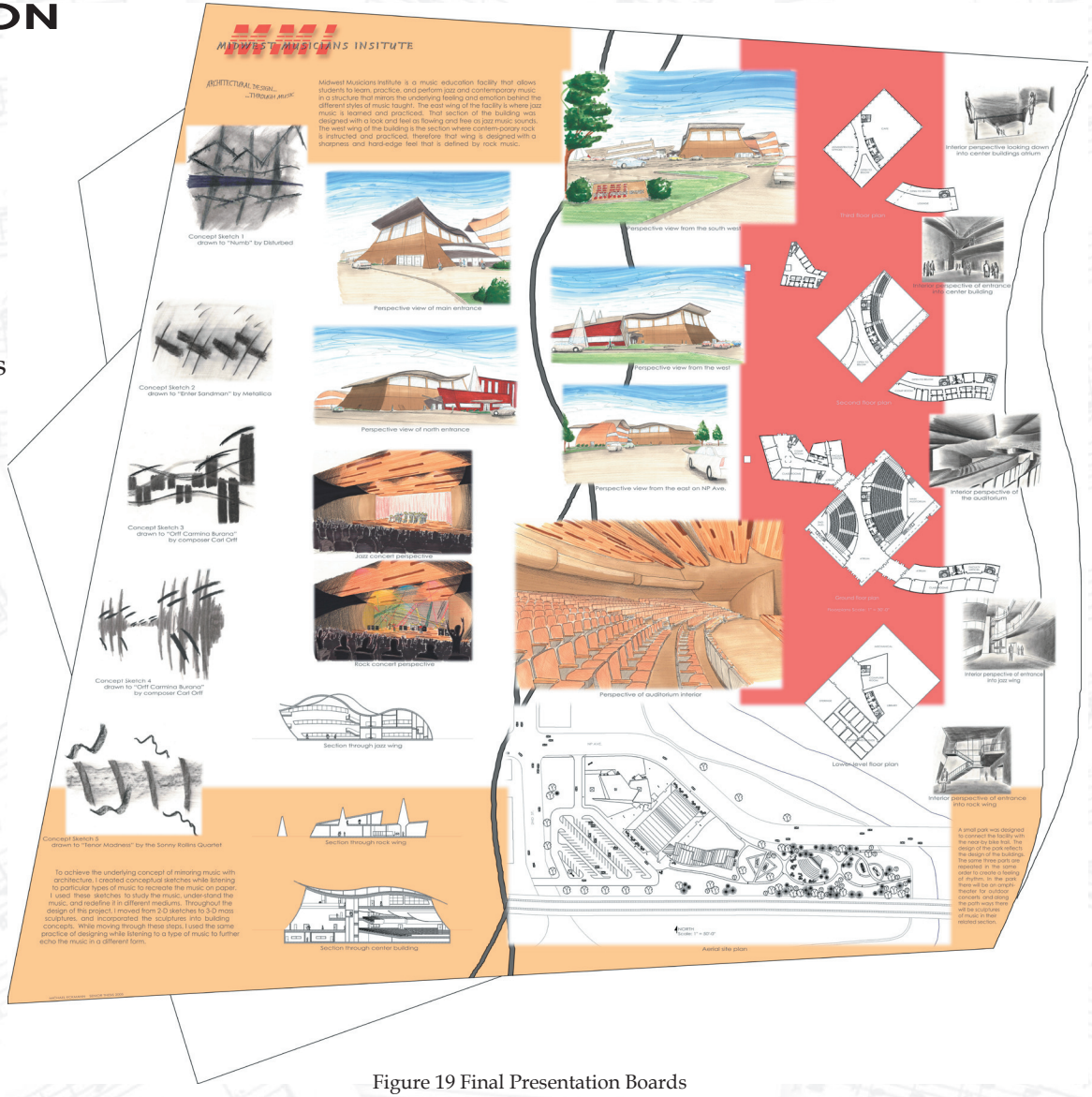


Figure 19 Final Presentation Boards

FINAL PERSPECTIVES

The first picture here is a final perspective of the facility from the south west.

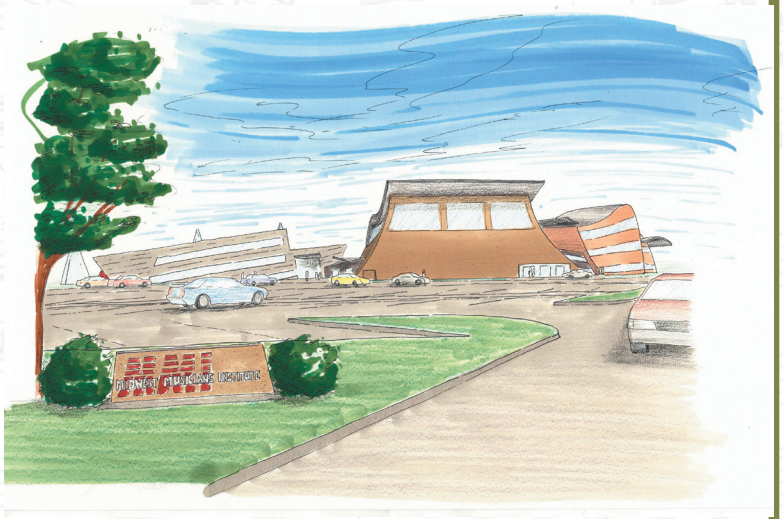


Figure 20 Final perspective from southwest

This final perspective is a view of the main south entry.

Figure 21 Final perspective of south entry

Figure 22 Final perspective from west

This image is the final perspective of the facility from the west.

This final perspective is of the entrance from N.P. Ave. on the North side of the facility.

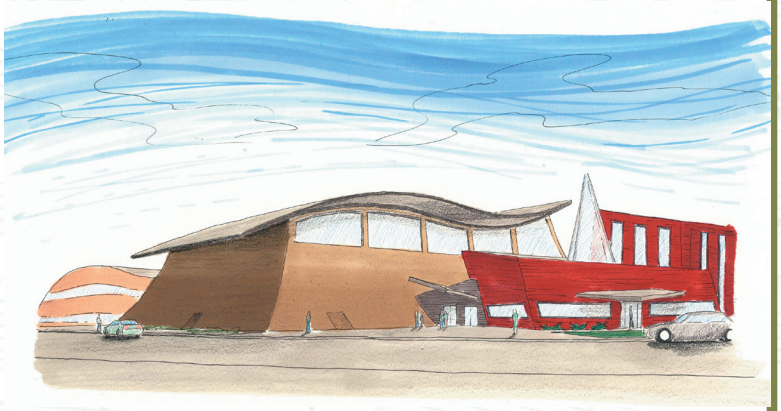


Figure 23 Final perspective of north entry

This is the final perspective view of the facility while traveling west on N.P. Ave.

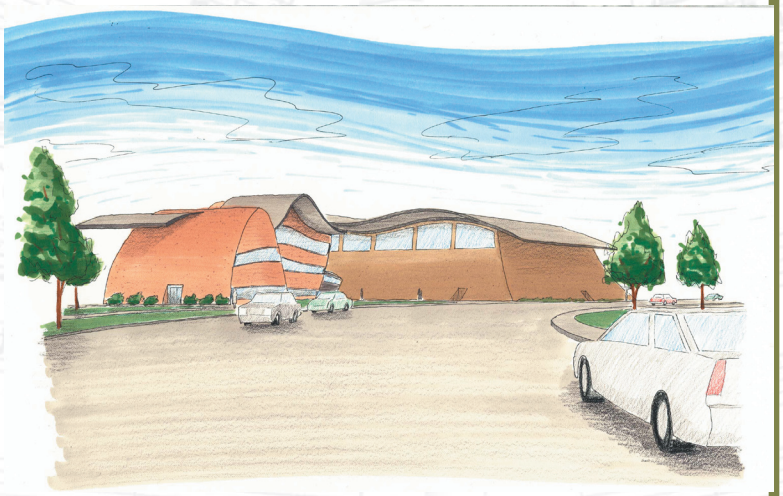


Figure 24 Final perspective from east

This is a final perspective view of the inside of the main auditorium.

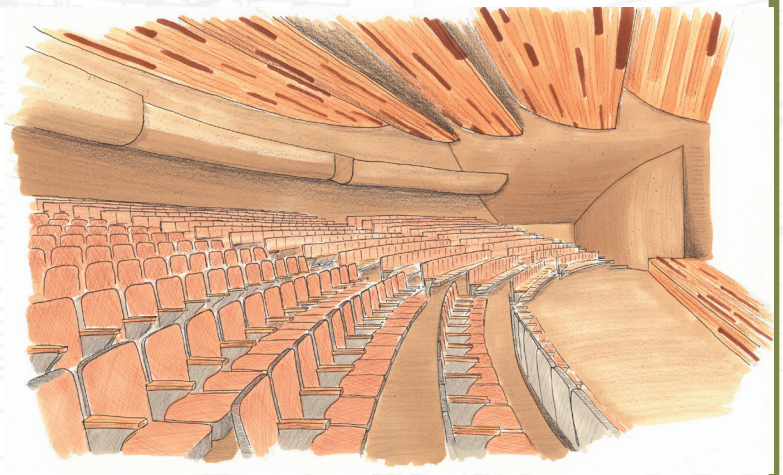


Figure 25 Final perspective of auditorium

These two final perspectives show the versatility of the main auditorium. Both of the auditoriums need to accommodate all types of musical performances, and this main auditorium can house a jazz band just as well as a rock band.

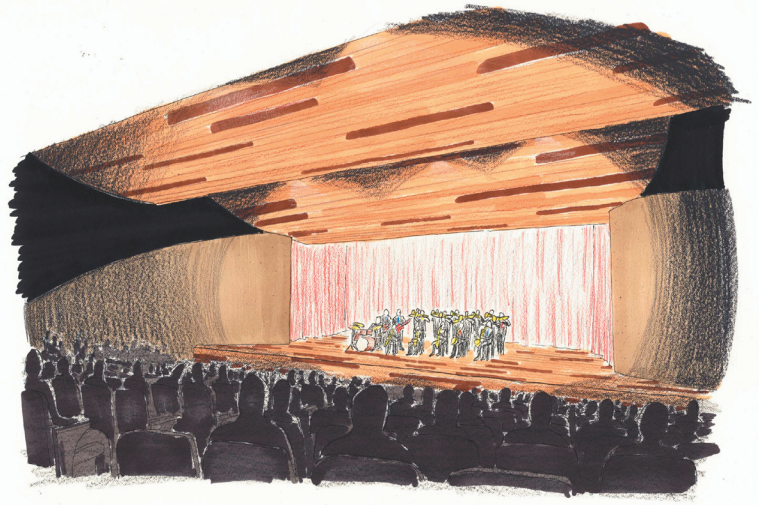


Figure 26 Final perspective of auditorium

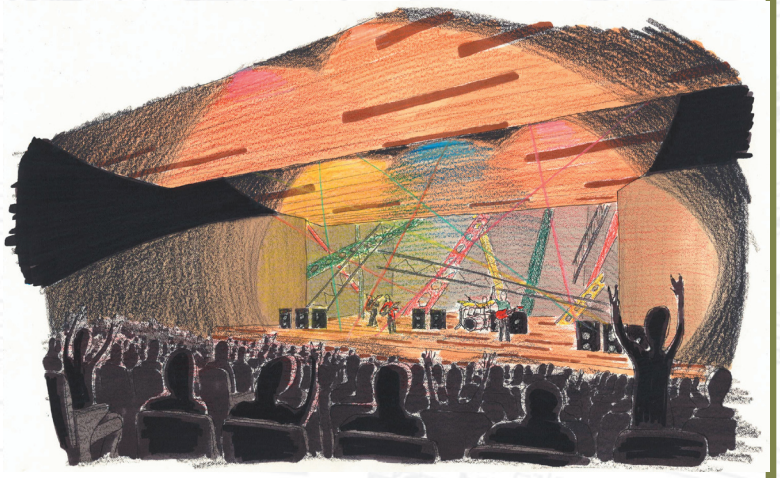


Figure 27 Final perspective of auditorium

This last group of perspectives was drawn using charcoal to bring back the look of the first conceptual sketches and by placing them on the final boards created balance. The first perspective is the atrium of the center section.

This perspective is in the main auditorium looking down from the balcony.

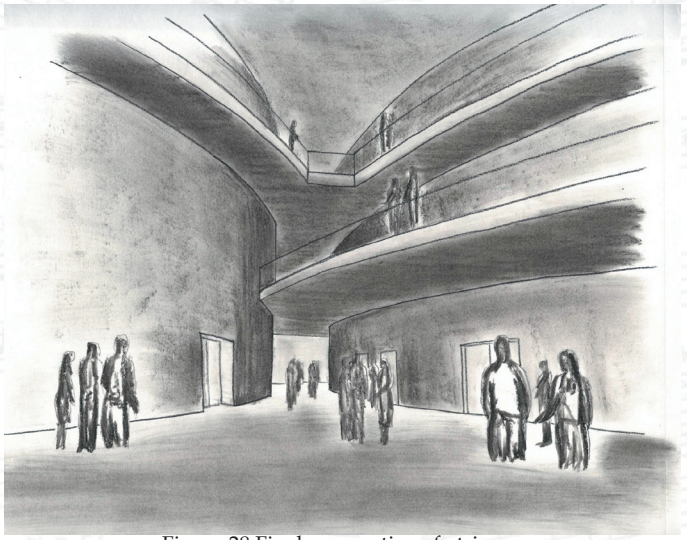


Figure 28 Final perspective of atrium

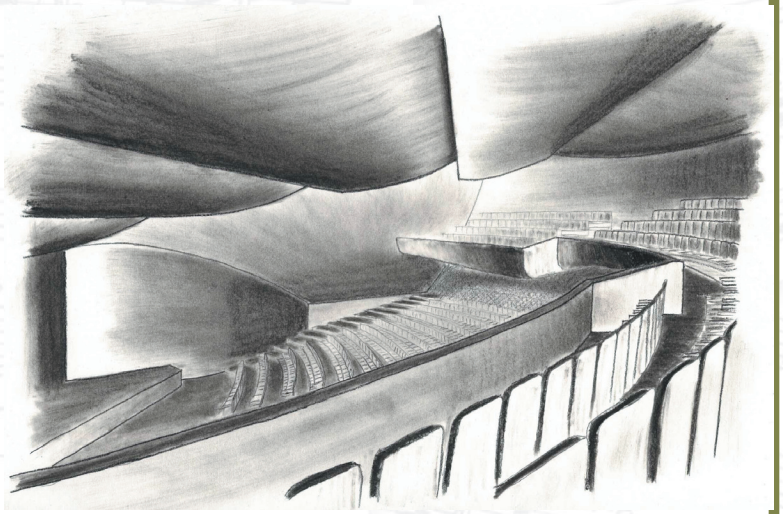


Figure 29 Final perspective of auditorium

These two perspectives are views of the entrances into the conjoining rock wing and the jazz wing. The entrance to the jazz wing is first and the second is the entrance into the rock wing.

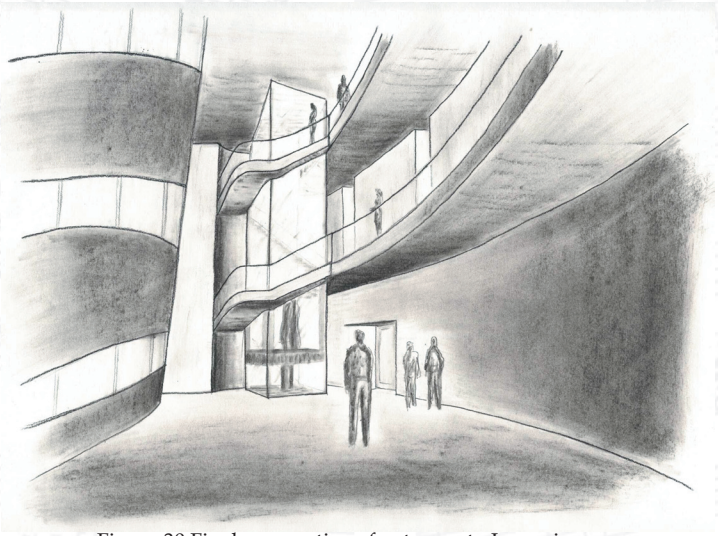
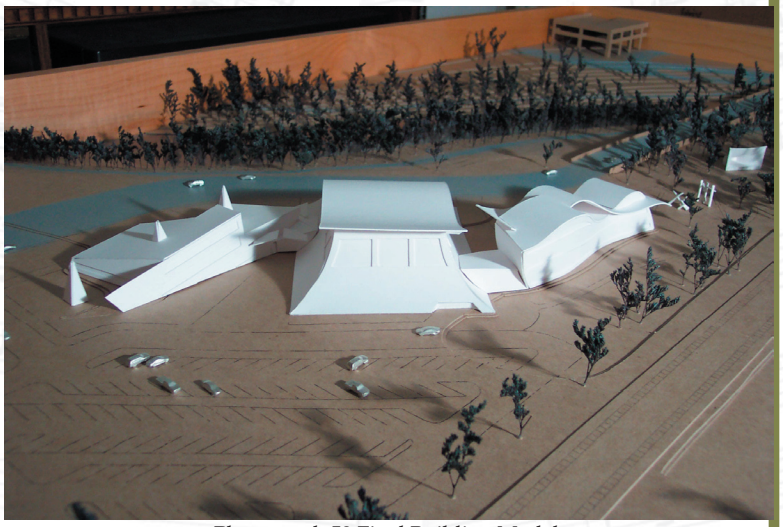


Figure 30 Final perspective of entrance to Jazz wing

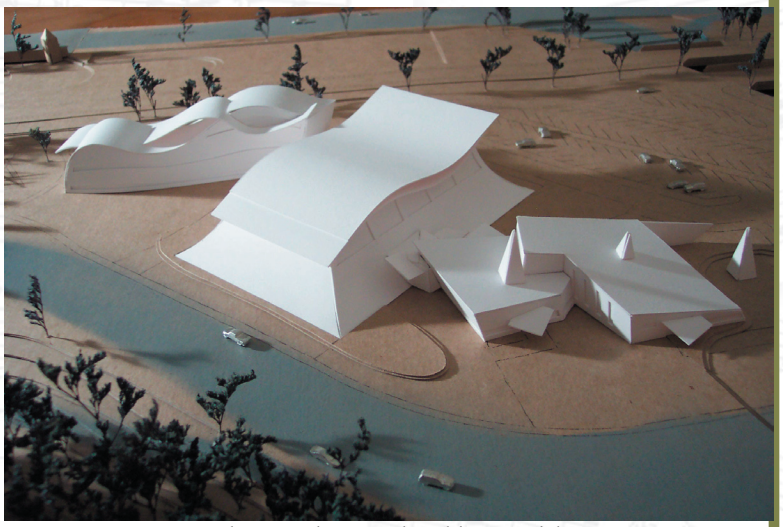
Figure 31 Final perspective of entrance to Rock wing

FINAL BUILDING MODEL

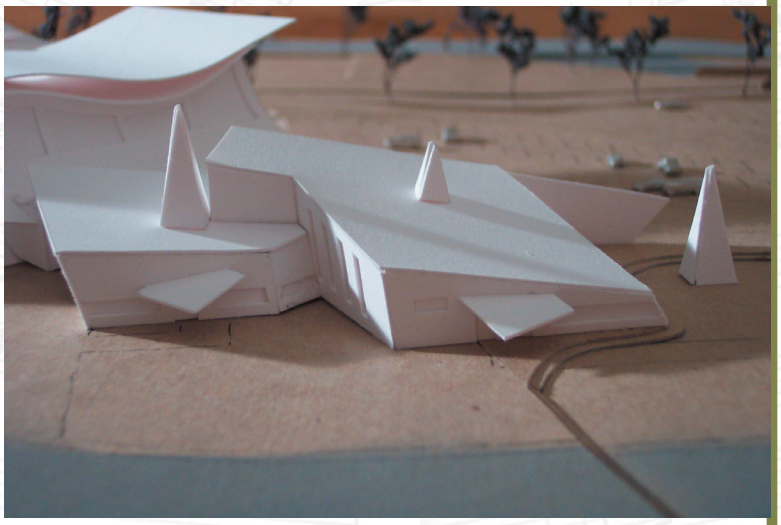
These next groups of pictures are of the final building model. The first picture is looking at the facility from the south west. The second picture is looking at the building from the northeast.



Photograph 53 Final Building Model

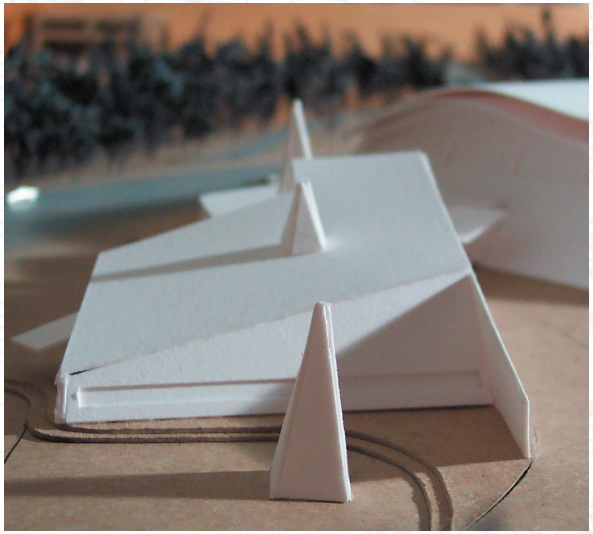


Photograph 54 Final Building Model



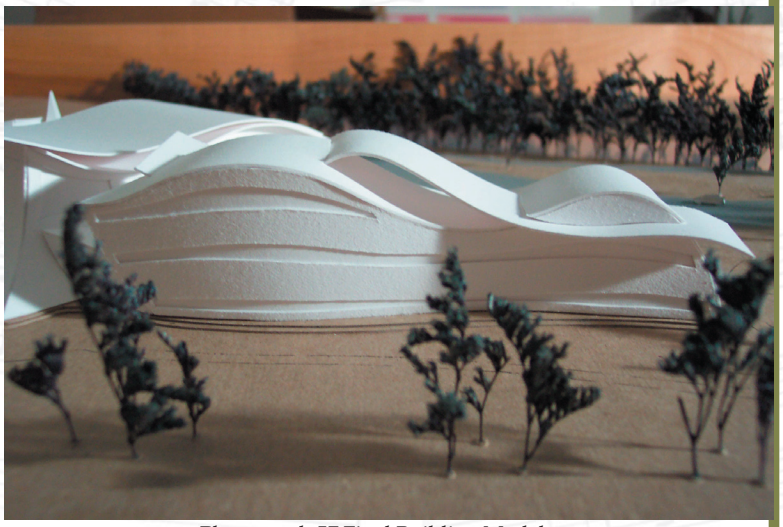
Photograph 55 Final Building Model

These images are final building model pictures looking at the rock wing. The first is from the north and the second is from the west.

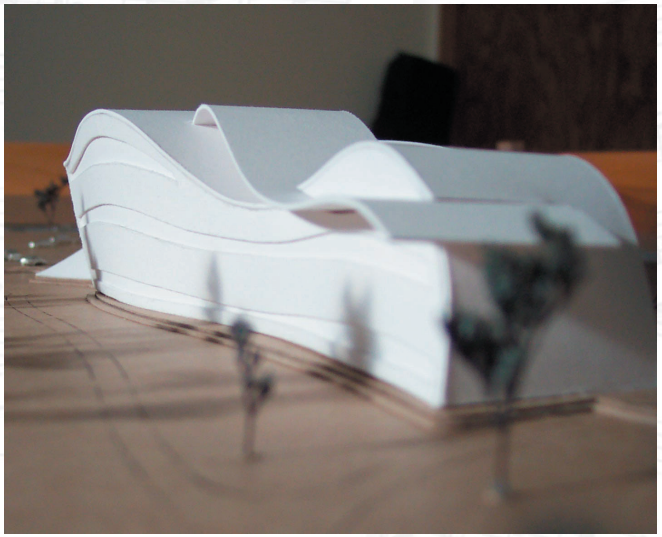


Photograph 56 Final Building Model

These two pictures of the final building model are looking at the jazz wing of the facility.
The first is looking from the south and the second is from the east.

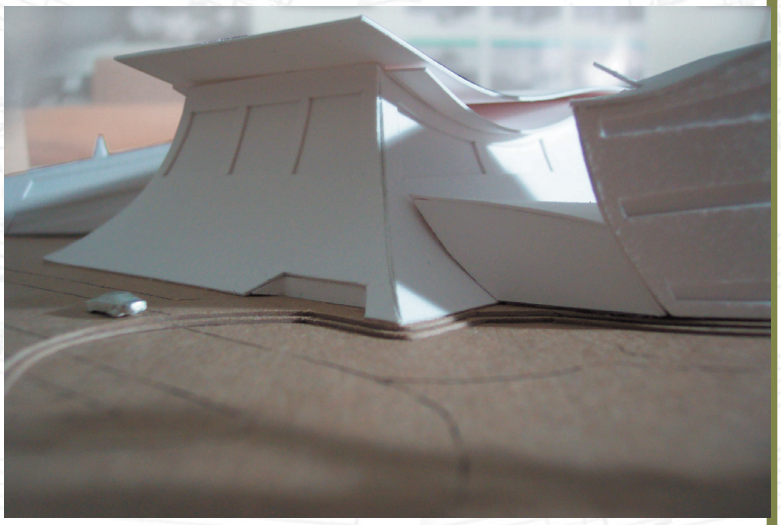


Photograph 57 Final Building Model

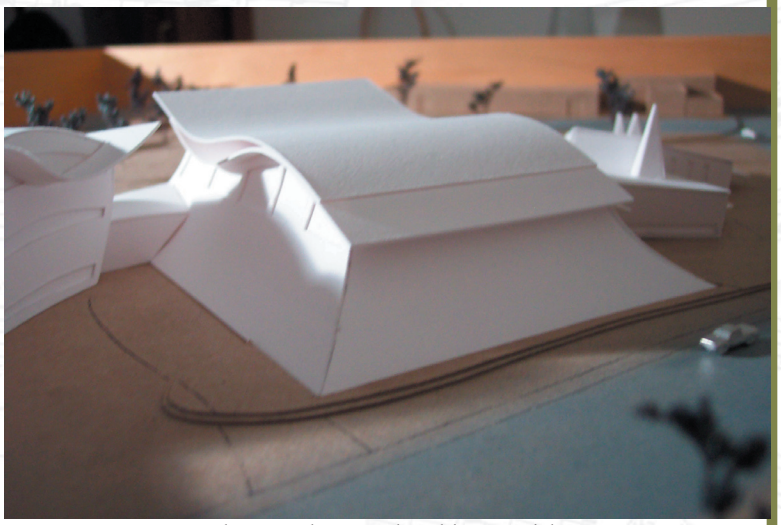


Photograph 58 Final Building Model

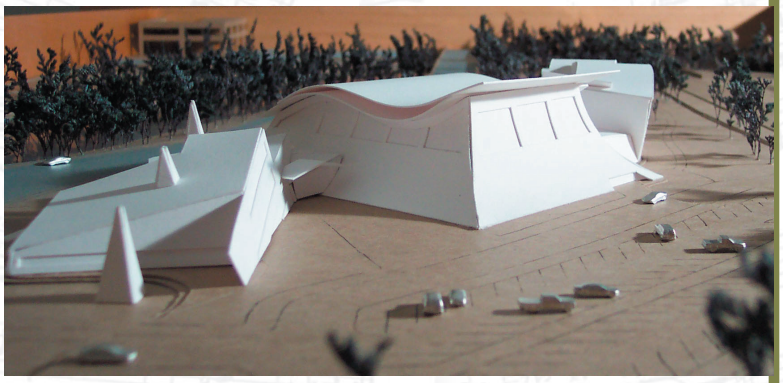
These next two are final model pictures of the center section. The first is showing the main entry on the south side of the building and the second is looking from the north.



Photograph 59 Final Building Model

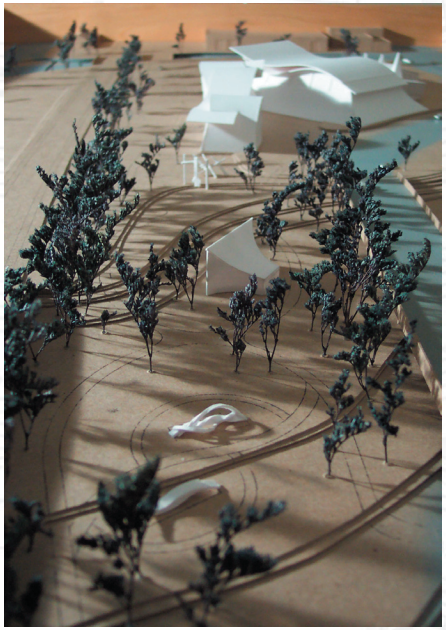


Photograph 60 Final Building Model



Photograph 61 Final Building Model

The last two pictures of the final building model are of the whole facility. The first is looking at the building from the west and the second is at the music park from the east.



Photograph 62 Final Building Model

TABLE OF PHOTOGRAPHS

1. Photograph 1 Musitech entry, Minneapolis, MN (source: Mike Eckmann, 2004)
2. Photograph 2 Musitech recording studio, Minneapolis, MN (source: Mike Eckmann, 2004)
3. Photograph 3 Musitech Cafe, Minneapolis, MN (source: Mike Eckmann, 2004)
4. Photograph 4 Musitech auditorium, Minneapolis, MN (source: Mike Eckmann, 2004)
5. Photograph 5 University of Georgia School of Music entry, GA (source: http://www.music.uga.edu)
6. Photograph 6 University of Georgia School of Music, GA (source: http://www.music.uga.edu)
7. Photograph 7 University of Georgia Performing Arts Lobby, GA (source: http://www.music.uga.edu)
8. Photograph 8 University of Georgia Performing Arts Auditorium, GA (source: http://www.music.uga.edu)
9. Photograph 9 Looking south on 2nd st. at Site (source: Mike Eckmann, 2004)
10. Photograph 10 on Corner of NP Ave and 2nd st. Looking at Site (source: Mike Eckmann, 2004)
11. Photograph 11 Looking Down NP Ave at Site (source: Mike Eckmann, 2004)
12. Photograph 12 Bird's-eye from the Southwest Looking Northeast at Site (source: Mike Eckmann, 2004)
13. Photograph 13 Looking Down Main Ave Bridge at Site (source: Mike Eckmann, 2004)
14. Photograph 14 Looking from the East at Site (source: Mike Eckmann, 2004)
15. Photograph 15 Looking from Moorhead, MN at Site (source: Mike Eckmann, 2004)
16. Photograph 16 Looking from the East Across the Red River at Site (source: Mike Eckmann, 2004)
17. Photograph 17 Looking from Under NP Ave Bridge at Site (source: Mike Eckmann, 2004)
18. Photograph 18 Looking West Across NP Ave Bridge at Site (source: Mike Eckmann, 2004)
19. Photograph 19 Looking West Across NP Ave Bridge Sidewalk at Site (source: Mike Eckmann, 2004)
20. Photograph 20 Looking West Across NP Ave at Site (source: Mike Eckmann, 2004)
21. Photograph 21 Looking West Along Bike Path at Site (source: Mike Eckmann, 2004)
22. Photograph 22 Looking West from the Southeast Corner at Site (source: Mike Eckmann, 2004)
23. Photograph 23 Looking West Along Bike Path at Site (source: Mike Eckmann, 2004)
24. Photograph 24 Looking West Along NP Ave at Site (source: Mike Eckmann, 2004)

25. Photograph 25 Conceptual Sculpture to Rock (source: Mike Eckmann, 2005)
26. Photograph 26 Conceptual Sculpture to Rock (source: Mike Eckmann, 2005)
27. Photograph 27 Conceptual Sculpture to Rock (source: Mike Eckmann, 2005)
28. Photograph 28 Conceptual Sculpture to Rock (source: Mike Eckmann, 2005)
29. Photograph 29 Conceptual Sculpture to Rock (source: Mike Eckmann, 2005)
30. Photograph 30 Conceptual Sculpture to Rock (source: Mike Eckmann, 2005)
31. Photograph 31 Conceptual Sculpture to free form music (source: Mike Eckmann, 2005)
32. Photograph 32 Conceptual Sculpture to free form music (source: Mike Eckmann, 2005)
33. Photograph 33 Conceptual Sculpture to symphony/opera music (source: Mike Eckmann, 2005)
34. Photograph 34 Conceptual Sculpture to symphony/opera music (source: Mike Eckmann, 2005)
35. Photograph 35 Conceptual Sculpture to symphony/opera music (source: Mike Eckmann, 2005)
36. Photograph 36 Conceptual Sculpture to symphony/opera music (source: Mike Eckmann, 2005)
37. Photograph 37 Conceptual Sculpture to jazz music (source: Mike Eckmann, 2005)
38. Photograph 38 Conceptual Sculpture to jazz music (source: Mike Eckmann, 2005)
39. Photograph 39 Conceptual Sculpture to jazz music (source: Mike Eckmann, 2005)
40. Photograph 40 Conceptual Sculpture to jazz music (source: Mike Eckmann, 2005)
41. Photograph 41 Building Concept to rock music (source: Mike Eckmann, 2005)
42. Photograph 42 Building Concept to rock music (source: Mike Eckmann, 2005)
43. Photograph 43 Building Concept to jazz music (source: Mike Eckmann, 2005)
44. Photograph 44 Building Concept to jazz music (source: Mike Eckmann, 2005)
45. Photograph 45 Building Concept to symphonic music (source: Mike Eckmann, 2005)
46. Photograph 46 Building Concept to symphonic music (source: Mike Eckmann, 2005)
47. Photograph 47 Building Concept and layout (source: Mike Eckmann, 2005)
48. Photograph 48 Building Concept and layout (source: Mike Eckmann, 2005)

49. Photograph 49 Building Concept and layout (source: Mike Eckmann, 2005)
50. Photograph 50 Building Concept and layout (source: Mike Eckmann, 2005)
51. Photograph 51 Building Concept and layout (source: Mike Eckmann, 2005)
52. Photograph 52 Building Concept and layout (source: Mike Eckmann, 2005)
53. Photograph 53 Final Building Model (source: Mike Eckmann, 2005)
54. Photograph 54 Final Building Model (source: Mike Eckmann, 2005)
55. Photograph 55 Final Building Model (source: Mike Eckmann, 2005)
56. Photograph 56 Final Building Model (source: Mike Eckmann, 2005)
57. Photograph 57 Final Building Model (source: Mike Eckmann, 2005)
58. Photograph 58 Final Building Model (source: Mike Eckmann, 2005)
59. Photograph 59 Final Building Model (source: Mike Eckmann, 2005)
60. Photograph 60 Final Building Model (source: Mike Eckmann, 2005)
61. Photograph 61 Final Building Model (source: Mike Eckmann, 2005)
62. Photograph 62 Final Building Model (source: Mike Eckmann, 2005)

TABLE OF SKETCHES

1. Sketch 1 Conceptual interpretation sketch to 'Numb' by Disturbed (source: Mike Eckmann, 2005)
2. Sketch 2 Conceptual interpretation sketch to 'Right Now' by Korn (source: Mike Eckmann, 2005)
3. Sketch 3 Conceptual interpretation sketch to 'Let's Do This Now' by Korn (source: Mike Eckmann, 2005)
4. Sketch 4 Conceptual interpretation sketch to 'Enter Sandman' by Metallica (source: Mike Eckmann, 2005)
5. Sketch 5 Conceptual interpretation sketch to 'Orff Carmina Burana' by Carl Orff (source: Mike Eckmann, 2005)
6. Sketch 6 Conceptual interpretation sketch to 'Orff Carmina Burana' by Carl Orff (source: Mike Eckmann, 2005)
7. Sketch 7 Conceptual interpretation sketch to 'Opera Arias' by Victoria De Los Angeles (source: Mike Eckmann, 2005)
8. Sketch 8 Conceptual interpretation sketch to 'Opera Arias' by Victoria De Los Angeles (source: Mike Eckmann, 2005)
9. Sketch 9 Conceptual interpretation sketch to 'Open Air Suit' by Air (source: Mike Eckmann, 2005)
10. Sketch 10 Conceptual interpretation sketch to 'Dancing in Your Head' by Ornette Coleman (source: Mike Eckmann, 2005)
11. Sketch 11 Conceptual interpretation sketch to 'American Garage' by Pat Metheny (source: Mike Eckmann, 2005)
12. Sketch 12 Conceptual interpretation sketch to John Coltrane (source: Mike Eckmann, 2005)
13. Sketch 13 Conceptual interpretation sketch to 'I'm Old Fashioned' by John Coltrane (source: Mike Eckmann, 2005)
14. Sketch 14 Conceptual interpretation sketch to 'I'm Old Fashioned' by John Coltrane (source: Mike Eckmann, 2005)
15. Sketch 15 Conceptual interpretation sketch to 'Tenor Madness' by The Sonny Rollins Quartet (source: Mike Eckmann, 2005)
16. Sketch 16 Conceptual interpretation sketch to 'Tenor Madness' by The Sonny Rollins Quartet (source: Mike Eckmann, 2005)

TABLE OF FIGURES

1. Figure 1 Glacial Lake Agassiz (source: http://www.starofthenorth.org/minnesota.html)
2. Figure 2 Average Temperatures in Fargo, ND (source: http://real-estate-agent.org)
3. Figure 3 Average precipitation in Fargo, ND (source: http://real-estate-agent.org)
4. Figure 4 Average Wind Direction in Fargo, ND (source: http://www.npwrc.usgs.gov)
5. Figure 5 Map of Fargo, ND (source: www.mapquest.com)
6. Figure 6 Downtown Map of Fargo, ND (source: www.mapquest.com)
7. Figure 7 Aerial Photo of Project Site Fargo, ND (source: http://www.ci.fargo.nd.us)
8. Figure 8 Natural Conditions of Project Site Fargo, ND (source: http://www.ci.fargo.nd.us)
9. Figure 9 Traffic Conditions of Project Site Fargo, ND (source: http://www.ci.fargo.nd.us)
10. Figure 10 Opportunities and Constraints of Project Site Fargo, ND (source: http://www.ci.fargo.nd.us)
11. Figure 11 Third Floor Plan (source: Mike Eckmann, 2005)
12. Figure 12 Second Floor Plan (source: Mike Eckmann, 2005)
13. Figure 13 Ground Floor Plan (source: Mike Eckmann, 2005)
14. Figure 14 Lower Level Floor Plan (source: Mike Eckmann, 2005)
15. Figure 15 Building Section through Jazz wing (source: Mike Eckmann, 2005)
16. Figure 16 Building Section through Rock wing (source: Mike Eckmann, 2005)
17. Figure 17 Building Section through center section (source: Mike Eckmann, 2005)
18. Figure 18 Site Plan (source: Mike Eckmann, 2005)
19. Figure 19 Final Presentation Boards (source: Mike Eckmann, 2005)

20. Figure 20 Final perspective from southwest (source: Mike Eckmann, 2005)
21. Figure 21 Final perspective of south entry (source: Mike Eckmann, 2005)
22. Figure 22 Final perspective from west (source: Mike Eckmann, 2005)
23. Figure 23 Final perspective of north entry (source: Mike Eckmann, 2005)
24. Figure 24 Final perspective from east (source: Mike Eckmann, 2005)
25. Figure 25 Final perspective of auditorium (source: Mike Eckmann, 2005)
26. Figure 26 Final perspective of auditorium (source: Mike Eckmann, 2005)
27. Figure 27 Final perspective of auditorium (source: Mike Eckmann, 2005)
28. Figure 28 Final perspective of atrium (source: Mike Eckmann, 2005)
29. Figure 29 Final perspective of auditorium (source: Mike Eckmann, 2005)
30. Figure 30 Final perspective of entrance to Jazz wing (source: Mike Eckmann, 2005)
31. Figure 31 Final perspective of entrance to Rock wing (source: Mike Eckmann, 2005)

THESIS ABSTRACT

•Title
MIDWEST MUSICIANS INSTITUTE
Architectural form through interpretation of music

•Abstract
My thesis is the creation of a musical education and performance facility in downtown Fargo, ND. The education spaces will focus on the learning and practicing of music for individuals seeking musical careers, and the performance sections will house the venues that will showcase students as well as outside performers and lecturers. All of these activities will be combined in a building that emphasizes the overall feel of the spaces and structures that create it and how those feelings directly relate to the style of the music. There will be particular emphasis placed on the image, function, and interaction of the facility with the public. Architecture and music are very similar forms of expression; each one can take a person to a different plane of existence. Each uses different parts of the visual or audible senses to create a composition that flows and speaks to the audience. The intent of this project is to design a building, where students can learn and practice their talent in a space that architecturally mirrors a type of music through

STATEMENT OF INTENT

Midwest Musicians Institute
Development of Musical Performance Studios and Education
Northeast corner of Main and 2nd St. Fargo, ND

It is an unfortunate fact that skilled musicians in the Midwest who wish to further their knowledge and musical careers feel the need to travel to either the east or west coasts to seek a better environment for the pursuit of their goals. Once they leave this area, rarely do they return. To reduce the loss of skilled musicians and composers, the Midwest needs a performance and education facility to serve the residents of this area and to bring more diversity to an already broad culture.

The focus of this thesis project is the design of a musical performance institute that will serve many musical needs for this region. This institute will house performance auditoriums and recording studios, along with educational classrooms and practice rooms. The school will facilitate the education of different styles of music, from contemporary to jazz. The research for this project will concentrate on existing musical institutes to learn what makes them successful or unsuccessful. The research will additionally focus on existing structures where the architecture was influenced by interpretation of music, and provide the opportunity to apply similar interpretations to this thesis. I will design the building in individual areas according to the type of music being studied in that location and allow the architecture to give a feeling to the users similar to the feeling that a certain type of music would give. The other concentrations of this project will be revealed through case studies, interpretive drawing, sketches, and details. Creating an institution that informs and educates the public about different spectrums of music is the intention of this thesis project.

The underlying premise of this design is that the structure of music can generate architectural form.

BOOKS

Allen, Edward. Iano, Joseph. The Architect's Studio Companion, Rules of Thumb for Preliminary Design. ed 2. New York: John Wiley & Sons, Inc., 1995.

Cowan, James. Architectural Acoustics Design Guide. McGraw-Hill Companies Inc., 2000.

Martin, Elizabeth. Architecture as a Translation of Music. V16. New York: Princeton Architectural Press, Inc., 1994.

Mattison, Amy Jo. David Magnet School for Music Education and Performance. North Dakota State University Architecture Thesis: 2001.

Messer, Trishella. A Center for Music and Cultural Immersion. North Dakota State University Architecture Thesis: 2003.

WEB SITES

http://climate.umn.edu/pdf/fargo_climate.pdf
http://www.ag.ndsu.nodak.edu/aginfo/trees/handbook/native.htm
http://www.ci.fargo.nd.us
http://www.ndsu.nodak.edu/fargo_geology/fargogeology.htm
http://www.npwrc.usgs.gov/resource/othrdata/climate/climate.htm
http://www.musictech.edu/twincities.html
http://www.mi.edu
http://www.music.uga.edu
http://factfinder.census.gov
http://www.starofthenorth.org/minnesota.html
http://real-estate-agent.org
http://www.mapquest.com

MICHAEL K. ECKMANN

Home Town:

'North Dakota State University has given me the tools I need to begin to build my dreams.'