DEDICATION

I am dedicating this book to my parents, whose decision to move their young family from its safe Montana existence to Europe has enriched my life immeasurably, and whose never-failing support has made it possible for me to realize my dreams.

Thanks Mom and Dad
PROLOGUE

The completion of this project will be the end of my formal education, but only the beginning of an education in the practice of architecture. It is therefore in this project where I would like to eliminate pre-designated educational goals or client concerns and create architecture that embodies purely personal ideals and interests.

My goal is a "set piece" of architecture that will be the culmination of five years of school: a portrait of what I think my architecture can be now, both intellectually and artistically.

I considered building types concerned less with function than with the manifestation of emotions. The conservatory emerged as a building which could, by virtue of its function, explore architecture's necessary programmatic responses, but whose greater purpose is that of music itself: the exaltation of the spirit.
GOAL

I wish to create a "set piece" of architecture.

An exercise of self-expression
A manifestation of beauty
A stage set for music
This paper is not intended to be another denunciation of postmodernism nor a glorification of modernism. It will try to gel some ideas, facts and opinions into a loosely coherent thesis concerning the problem of architecture today. In doing so, it will rely heavily on the critical analysis of modernism and postmodernism by Hal Foster and Jurgen Habermas. If I seem to selectively cull arguments, it is for the rationalization of my own inherent biases, not the misrepresentation of theirs.

To begin, I will define Postmodernism as the style that the press has proffered it to be. Venturi's writings were seen as the theoretical premises upon which Postmodernism was built, while Graves' Portland Building exemplified its requisite architectural manifestations. Venturi saw the opportunities of meaningful symbols applied to modern structures as a means of reconciling the humanistic aspirations of architecture with its technical ones. Culture became a facade that could cover the realities of a delinquent Modernism. The Portland Building explores this in its most literal sense, using the facade as a "signboard" to communicate culture through historically referenced symbols. Supporting this facade was a thoroughly modern building in construction and sensitivity.

Foster warns that this is a postmodernism of "reaction" based on the naive notion that a return to pseudo-historical forms to imbue architecture
with the cultural identity it lacks for today's society can only be a nostalgic recapitulization of a dead vernacular which, stripped of its ideological basis, becomes merely a set of rules imposed upon the present. Reactionary Postmodernism has in fact reaffirmed the status quo: the imposition of a set of exclusive rules on an inclusive society.

There is, fortunately, another postmodernism that looks critically at modernism and advocates the "destruction" of those traditions which constitute the status quo. This "postmodernism of resistance", as Foster calls it, addresses the core of modernism's problem. (Assuming here that we agree there is a problem. As feeble proof—in light of the fickleness of today's architectural press—let me offer that there have been at least as many articles enumerating modernism's inadequacies as there have been color spreads of Postmodern icons.) Its proponent, Habermas, offers that these inadequacies result from the dichotomy between the intentions of the Enlightenment and its realization, a project that goes beyond admitting the limitations of modernism's dogmas, to exposing society's real discontentment with the process of "societal modernization". I find this argument imperative to the understanding of the problem because it divorces the origins of modernity from its architectural manifestations in the machine age.

The machine was only a medium through which societal modernization could be partly realized. Societal modernization's impetus, however, was the broader philosophical development known as the Enlightenment. In the 18th century, the introduction of Darwin's Theory of Evolution caused a schism to occur in the heretofore single sphere of culture. Religion, science and art separated into independent realms. Science was purified of its religiously didactic content, and its empirical methods relegated to objectivity. Consequently, religion and art developed
into autonomous spheres. Philosophers saw that culture was no longer an integral part of man's psyche, it was a repository of knowledge to be used to enhance everyday life for the common man. Such was the intent of societal modernization.

If we use Modern architecture as an example of societal modernization's realization, the Postmodernist's reaction to it must not be discounted because it indirectly illuminated the cause of Modernism's inability to fully communicate those realms of culture such as art, religion and history that all societies seem compelled to convey. Ironically, the cause was inherent in the solutions. Venturi never questioned the incorporation of the rational knowledge that science had provided. He accepted it as a given and it in fact was thus dominated by it. The science of History as well as the sciences of Structures and Programming suppressed the truly communicative subjective. This is the cause. The overemphasis of one of those autonomous spheres due to its economic expediency in an industrial age has left an entire generation struggling to reinsert the other vital spheres into their identity.

In order to recapture modernism's original intent, and I do believe that the use of knowledge to enrich everyday life is a goal far more worthy of Architecture than that of functional expediency, we must deflate the sphere that has been inflated to such gigantic proportions: The architect must regain control. Louis Kahn once asked, "What does a brick want to be"? I would ask, "What do I want the brick to be"? The brick is only a medium at our disposal for the expression of ideas. Interestingly, Mies van der Rohe used the new industrial materials of steel and glass to express his ideas. Time has shown that his ideas were clearly not to be the ideas of everyone, but he was still controlling the means of expression. The decline of Modernism began when the means started to dominate
the expression. We must regain control.

If this is my "loosely coherent thesis concerning the problem of architecture today," and I think it is, I should probably stop here. But, no, let me dig myself deeper into the hole--er, I mean--the quagmire of esoterica.

A question was raised in Modern Architectural Theory 421 after reading Venturi's essays concerning possible alternatives to architects today. The question was: "What is wrong with celebrating the status quo?" In light of the above ramblings, I would argue that we can choose what we wish to celebrate only if all the spheres of culture are equally presented. If one is mistaken to be irrefutably dominant, the others don't have a fair chance. If the architect is truly in control, he can regulate the amount of emphasis he places on each sphere according to the values of society, the goals of the particular project, and his own values.

I turn to the Wick Alumni Center in Lincoln, Nebraska as a built example of this verbage. It was done by staunch Modernists, and admittingly there are more pure examples of the controlled inclusion of all spheres of culture, but I chose Gwathmey/Siegel's Wick Center exactly because it appears so identifiably Modern. It has, upon closer investigation, been enriched by both the knowledge of art and the knowledge of science. Symbols come in the forms of historical associations (the plan is a transformation of a Renaissance Palace plan); contextual relationships (massing and material choice) and in the communicative power of emotional responses to space. Functionalism comes in the form of free flowing space modulated by screens, pocket doors, and transparent walls to accommodate the Center's required flexibility; and in the form of modern building techniques to control cost. Some have devalued these as "formal gestures" but I see an intent to actively pursue a more inclusive
architecture than they have in the past. Although their emphasis may still be on the formal, the formal has not strangled the communicative. Maybe there is finally a slow gravitation towards Venturi's ideal postmodernism: an inclusive modernism.
GOAL

I wish my response to be "inclusive".

An experiencially communicative architecture
A consideration of context
A richness of materials, textures and colors
An emotive drama
A functional efficiency
An interactive human environment
Music and architecture are the two Arts that we come in contact with most in our lives. Through the mass media, music infiltrates our conscious and subconscious almost every waking hour: muzak, advertisement jingles, and even the Evening News has a theme song. The built environment surrounds us to an even greater extent in its fulfillment of the basic human need of shelter. It would seem then that music, literature, painting and drama as well, are superfluous to mankind's existence because their raison d'être is not procreative in nature. But these Arts have flourished along with architecture; they are all integral pieces of what we consider culture. The thread that binds music and architecture must be deeper than a functional need, since caves and tepees provided shelter long before Architecture did and music supposedly has no functional purpose. To explore these links in the specific realms of music and architecture I asked three questions: Why? What? and How?

WHY?

Why did the first musician compose a tune? Was it to sell Coca-Cola? Why did the first architects compose the acropolis? To provide shelter? These were composed to express ideas. Ideas that are not vital to the survival of the human race but they are ideas that make us a race wholly different from all others we know. The shelters built by other animals, however intricate, have function as an impetus; the song of the Morning Dove, likewise. Music and
architecture, however, are products of man's intellect, whose creation does fulfill what I will offer here as a basic human need: self-expression.

Arthur Koestler, in his The Act of Creation, proffers—in fashion true to philosophers of the Enlightenment—a scientific explanation of this need. It is a neurophysiological breakdown of the emotions into two distinct categories: the self-asserting (fear, anger), and the self-transcending (love, compassion). Fear and anger are able to be discharged through bodily changes such as accelerated heart beat, adrenalin release, increased blood sugar level, etc. Such changes affect the entire body physically—indeed of reason—and therefore cannot be circumvented through intellectualization once the process has begun. These are the traditional "fight or flight" mechanisms of which love and compassion are not directly tied. The self-transcending emotions, on the other hand, are relegated to the intellect and have no associated biological cathartic means. They are suppressed by the overpowering self-assertive tendencies, yet to deny their existence denies man's intellect. This being impossible, they transcend the body, expressing themselves through the Arts.

There have been less scientific reasons given for the need to express one's ideas, but whatever the reasons, the need is an undeniable part of man. In this paper that is taken as fact.

WHAT?

They Why being established, I looked for similarities in What we express. I found it legitimate to extend categories found in Halbert Britan's The Philosophy of Music beyond his subject to architecture. First, let us discuss the "Formalists". These are musicians who define music as a manifestation of beauty through "pleasing" melodies which entrance the soul by their rhythmic juxtapositions of complementary tones.
Music is no more than an escape to a realm of tonal bliss, an emotional amphetamine. Program music, that which accompanies operas, plays, etc., is essentially that. It has a function of illiciting emotional crescendos and decrescendos as enhancement of the staged actions and words. Notes thus become banal building blocks of a "pleasing" structure with no meaning in and of themselves. Substitute "stones" for "notes" and we have an architecture which doesn't transcend its functional goals either.

The other school of thought, the "Expressionists", maintain that music is a medium of thought. It is an expression of intellectual ideas which has didactic goals greater than emotional representation. Beethoven's Fifth Symphony is, for instance, a conveyer of thoughts about the French Revolution. The scherzo, the four note rhythm on the kettledrum, is a common thread throughout the entire sonata, yet it changes from the foreboding sorrow of the first movement to the inebriated joy of the last. It is as if joy were borne of sorrow. This "scherzo" is analogous to the "destiny" of the French peasant as he struggled under the oppressive feudal system, but found he could reshape his destiny through revolution. Beethoven himself wrote: "We finite ones with infinite souls are born only for sorrows and joy, and it might almost be said that the best of us receive joy through sorrow." (Ballantine, p. 40)

Architecture also has expressionists. Mies van der Rohe used architecture as a means of concretizing his abstract ideas into a built form. His ideas had a political basis also. A major world war had brutally enunciated his developing belief, fueled by the machine age, that man must live as a "collective brotherhood" if he is to survive; hence, Mies's search for a universal space which could accommodate all peoples and all functions equally.

An exploration of What we express has
thus ended—much too soon I admit—in a rather general conclusion supported by specific examples. We express ideas. Ideas which in this case concern man's ultimate destiny, but which can concern anything. Both architects and musicians, through their respective mediums, communicate themes important to their culture. To understand these cultures retrospectively we must be able to "read" the themes presented so abstractly in the expressions. To "read", however, incorporates a vast corpus of knowledge not limited to the realm of the "Formalists".

HOW?

If the similarities presented so far seem generic, it is because they are by nature more abstruse questions than the last one. How? How are abstractions expressed through objects serving as physical monuments of their meanings? Both architect and musician manipulate a known language of abstract symbols to represent their thoughts. The stave represents a musical structure just as the lines of a plan represent an architectural structure. Notes translate to sounds as rectangles translate to windows. Only through the hearing of these notes or the experiencing of these walls, though, is the communication happening. It is not complete until the experience is understood by the brain.

Architecture and music thus have in common the use of a language, but with any language comes a corollary set of rules, and it is herein where many philosophers, including Plato, found the most cogent relationship between architecture and music: The Golden Section.

Composer Bela Bartok used the golden section to regulate his Sonata for Two Pianos and Percussion. For example, the first movement contains a theme and its recapitulation in a total of 443 bars. The theme is built in 274 bars and the recapitulation takes the remaining 169
bars. The ratio of the longer theme to the full movement is .618 (274/443): The Golden Section. Bartok's Music for Strings, Percussion and Celesta similarly rises in the first movement from a soft quietness to a loud high point at the 55th bar, receding then to the silence of the 89th bar. Simple calculations confirm the Golden Section's incorporation. (Kepes, pp. 176-177)

LeCorbusier built a villa at Garcnes in 1929 using the Golden Section to marshall the elevations. The actual ratios of the wall sections were placed on the drawings as indisputable proof. (Rowe, pp. 7-10)

To see this tie between music and architecture as more than coincidence, one must remember that the Greeks thought music to be the means whereby man could "rhythmically attune his finite soul with the infinite through gracefully blending his thoughts and actions with the celestial bodies comprizing the harmony of the spheres." (Portnoy, p.18) The Greeks also believed the harmony of the spheres had as its basis mathematical laws. If architecture reflected those mathematical constants (ie. The Golden Section) then it would be aesthetic Truth. LeCorbusier saw this connection in his own work. "More than these thirty years past, the sap of mathematics has flown through the veins of my work, both as an architect and painter; for music is always present within me." (LeCorbusier, p. 129)
GOAL

I wish to relate my architecture to music.

An exploitation of human circulation as an analogy to melody

A relationship between architectural structure and rhythm

A use of musically derived patterns as embellishment
What are architecture's messages? Does architecture even have messages or does it merely serve functional ends? These are questions of architectural theory, but they are also beginning to be addressed in the design studios of some schools. Two viewpoints on architecture and architectural education are discussed here as a means of answering the questions.

For the most part, our generation of educators has embraced the Miesian educational system of a "rigorous" study of the problem and its subsequent "logical" solution. This approach has most recently manifested itself in a new theory called "Programming as Design" conceived by Julia Robinson and J. Stephen Weeks, both of the University of Minnesota's School of Architecture.

This design methodology was created to force students to address a broader base of architectural issues in order to create a more sympathetic architecture. The solving of general functional relationships and the response to contextual concerns do not in themselves lead to meaningful architecture.

To broaden this base Robinson and Weeks suggest that by combining programming (verbal) processes and design (graphical) processes into a single process whereby programmatic analysis is simultaneously paired with graphical design solutions, all pertinent matters can be explored and the implications of those design solutions immediately seen as they are integrated into the
building's overall design. In the traditional sequence of attack, pre-design—that is programming and analysis—is usually verbally catalogued and then forgotten when the student sits down to a clean desk, and subsequently with a clear mind, to design.

Such a method of exploration delays the definitive problem statement, which was often built on misguided, preconceived notions. It can also raise new questions which find their resolution in previously un-thought-of architectural alternatives to the given issue.

How does one go about this exploration then? How does one ferret out these alternatives? The authors give eight exercises to help the search. 1.) Examine your preconceptions and develop design directives. 2.) Gather information for a general "knowledge base". This step has four substeps. 3.) Think about the future, which not only includes thinking, but also outlining, graphing, presenting verbal reports and utilizing visual aids. 4.) Study precedents, which again has four substeps. 5.) Complete an exhaustive code search. 6.) Create architectural metaphors linking the factual to the metaphysical. 7.) Observe how activities happen in certain places and of course critically dissect these observations to rid them of any biases that may cloud your objective analysis, and 8.) Test these design directives in relation to site, context, energy, structure, economy, politics, etc., and if they fail this test start over. Such a rigorous approach will "promote a pursuit of a richer architecture, an architecture which is a practice that tests ideas." (p. 11 Robinson/Weeks)

What is architecture? Robinson and Weeks state that it is a "testing of ideas," ideas which are sensitive to multiple design issues derived from critical analysis of issues which have traditionally been given no, or cursory, attention through our separation of design and programming. A noble aim
indeed, but what does critical analysis predispose us toward: the stripping away of subjectivity by confronting preconceptions. By questioning what we see, we try to "get at" the facts. We have reduced architecture to a science.

Gerald Walker, professor at Clemson, believes that from this science comes today's architectural stagnation. Architects have become, to use his term, "translators" of verbal analysis into graphic language—a sterile translation which is not allowed to wander through the subconscious maze of our intuition, creativity and emotion lest it be transmuted by the subjective. Walker maintains, however, that architecture must not only wander in, but indeed must spring from that subjective netherworld because people do not confront objective facts in every day life. Our reality is in fact the subjective world comprised of our history, tradition, culture, language and our experiences. It is not an Angiospermae Lithocarpus that shades our window from the noon-day sun; it is the old oak with the gnarled trunk. It is similarly not a void in a solid; it is a window. It is not a transition space; it is a vestibule. It is only in this world where architecture takes place, so should it not also come from this world if it is to be a true reflection of our society. To be sure, architecture as "poetic image" could be of narrow focus and missed opportunities, but maybe the messages of architecture are more profound than even a broad based critical "testing of ideas" can illuminate.

Let me pause where to clarify, for I fear I have equated Robinson and Weeks' approach to that of the pure functionalists. They do acknowledge culture and history and experience in their approach, but by the simple act of recognizing them they are objectifying them and therefore lessening their full expressive potential.

Walker's "poetic image", that creative spark, that intuitive feeling, on the
other hand, comes from the subconscious—the storehouse of all our experiences—and therefore must have a strong connection to our life and existence; it would not be brought out of our subconscious and into our conscious if it were otherwise. This does not limit architects to those who have hallucinations; it simply puts architecture back into the real subjective world, which Walker believes is more profoundly prophetic than the objective one.

My opinion on the matter is to the reader of this paper by now probably obvious. Architecture's varied and far-reaching messages are inextricably linked to the poetic image. As for its role as a functional servant to the people, I would ask, "Would the Sydney Opera House be a better opera house if its costs had not outweighed its budget ten-fold, if its form had not predicated a false acoustical ceiling, if its structure had been more efficient, . .

I can hear a resounding "Yes" from the analytical readers.

Ah, but then it would merely be an opera house—a good opera house—but not The Sydney Opera House.
METHODOLOGY

MODERNIST APPROACH

START

CLIENT

FUNCTION

INSERT

SOLUTION

PRECEDENTS

SITE ANALYSIS

RESEARCH

MATERIALS

MY APPROACH

INTUITIVE

RESPONSE

SITE

START

CONTEXT

SYMBOL

MATERIALS

FUNCTION

MODIFY

CLIENT
The Portland Conservatory of Music is a small, private school of 80 students and 10 faculty members. To keep the student/instructor relationship intimate, only 20 new students of superior skill are chosen each fall from the many applicants by way of a rigorous interview and audition before the Conservatory's faculty and Board of Directors, a group consisting of prominent local musicians.

The school operates year-round on a trimester schedule. The student has a variety of theory and history courses from which he or she must choose at least one each semester, providing the intellectual counterpart to the student's intense practice in instrumental performance. The Portland Conservatory of Music fosters this broad development through its generous facilities and its excellent faculty.

The building itself is a classic structure with ample space for personal practice, study, contemplation and student/faculty interaction. An extensive library includes listening booths as well as an exhaustive sheet music collection available for student use. A small recording studio provides the opportunity to record work for educational purposes and portfolio enhancement, a unique feature among music schools.

Dedication units the diverse backgrounds of our ten full-time professors. Their credentials bespeak of commitment to the
The Portland Conservatory of Music is structured on a four year curriculum; the student may leave whenever he or she feels ready. No certificate of completion is ever given. The student leaves with understanding and appreciation, knowledge and skill; for graduation is not the goal of this school, excellence is.
## SPACE REQUIREMENTS

### ENTRY

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<td>Coat Room</td>
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<td>Restrooms</td>
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### OFFICES

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<td>Boardroom/Meeting Room</td>
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<td>Kitchen</td>
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<td>Sheet Music Library</td>
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<td>Checkout/Control</td>
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### RECITAL AREA

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RESTROOMS

Student Restrooms 2 @ 150 SF

RECORDING STUDIO

Performance Studio 400 SF
Sound Room 150 SF

MECHANICAL

Penthouse and Closets 800 SF

CAFE

Kitchen 800 SF
Seating Area (seating for 65) 1300 SF
Storage (cold and dry) 150 SF
Office 129 SF

16,000 SF
SPACE CHARACTERISTICS

ENTRY

A covered stopping point where one can put the hat on or extend the umbrella before stepping into Portland's often wet weather. Sturdy railings should be following the stairs since freezing rains create icy conditions. A place to survey the landscape to orient oneself and plot navigational strategy. Upon arrival, a place to prepare oneself for entering. An enticement of what's beyond, an invitation. The foyer, reflecting the school's intimate scale, yet a luxurious sense. No receptionist is present, so circulation must be apparent. A definite rootedness, permanence is sought here telling of unwavering values.

OFFICES

The administration area is an efficient work space with room for desks, typewriters, computers, files and copy machines, yet must retain a public image. Natural light and fresh air are required to dispel institutional associations. This office is the control center of the building, the liaison between public and private. The director's office entry should control access, yet encourage visitation from both students and faculty. Materials, lighting and scale befitting the position shall also speak of the school's traditional values. A less public space, the boardroom shall have a quiet, comfortable atmosphere free from traffic noise, glaring sunlight or student activities. Well integrated, professional audio-visual equipment is
required. Space hosts school's supporters, so it should exemplify their status and image. Faculty offices, places of greater autonomy, not under the eye of administration. Least public spaces, but accessible to students. Private control of windows, lights and shades. Quiet places for preparation.

CLASSROOMS

The ultimate classroom: a living room. An inwardly focusing space with moveable seating and teaching aids which encourage intimate, relaxed gatherings for discussion. Indirect ambient lighting of a uniform intensity.

MUSIC ROOMS

Soundproof rooms that are acoustically "live". They should have an expansive feeling, not padded boxes. Distractions such as glare and excessive traffic past the rooms must be minimized. Although concentrated practice is the goal, claustrophobic confinement is detrimental.

LIBRARY

Long views ripe for daydreaming, high ceilings allowing thoughts to flourish, like an old-world reading room. Should promote introspection, yet not be oppressive. City noise and building activity should be dampened, but natural light and greenery introduced.

RECITAL AREA

The most public space in the building. It should be the visual force of the interior due to its role as the stage for performances of virtuosity. It shall not be an acoustically correct, windowless theater. In fact, sunlight, greenery and even the songs of birds should infiltrate the space creating a relaxed outdoor-like ambiance. A certain softness, delicacy should prevail the space to allow the music to dissipate, not be bound by acoustical panels.
RECORDING STUDIO

A simple, acoustically correct performance studio. Soundproof, windowless. Adjacent soundproof equipment room with visual connection to studio.

CAFE

Located so as to provide direct access from street for local use. Has dual character of being lively, expansive in good weather; cozy, protective on rainy days. Efficient, quick meal function should not hurry patrons who wish to linger over coffee and conversation. Outdoor seating area should participate in activity of street but take on softer, more natural character.
SOURCES USED


