ARCHITECTURE
and the
FUTURIST
MANIFESTO

An exploration
in the philosophy
of Futurism

Ball State
University
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DINO VAL VANNONI
This book is dedicated to Loretta and Zano Vannoni for their support, and love. Especially for the last six years, but for all of my life. Thank you
Special thanks to A. E. Palmer. Thank you Sonny for all your guidance and knowledge. Without which I could not bounce between clouds and rocks.
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PROLOGUE
The success and dominance of the human race on this planet is directly related to man's ability to adapt, rationalize and create. It is because of these abilities that man was able to raise himself out of a chaotic state of existence. The unique qualities that humans contain within themselves has insured our survival in the world. When faced with a problem we are able, through thinking, to arrive at a solution. It is an inborn trait, or instinct, that all people contain within their genetic structure. Without these instincts we might have been destroyed millions of years ago. It is the essence of man to "be ever in motion to remain stable...to adjust, flex, bend and change." (Sturgeon, 1986) It is in us to do this because we can think.

When man stops thinking life also stops. Every moment of our consciousness, and unconsciousness, being revolves around thought. We can control life, we can incourage it or we can destroy it. It is our interpretation of our perception of life that affects our existence. The centrifugal force of man's thoughts throws him ever outward, ever toppling, ever spinning into a galaxy of abstractness. The force then envelopes him, and powerfully persuades him to express these inner thoughts, feelings and experiences. Man has found a way to achieve this expression in literature, art, sculpture and most powerfully and boldly in architecture.
In architecture man has found the most perfect vehicle in which to portray life. Architecture, like life is an ongoing experience, subject to change and adaption. Together and apart they must both continuously evolve, pushing each other to their limits, turning each other inside out, forcing adaption. They must also continuously test the values and beliefs which they both contain, and are both founded on.

If this testing is to be achieved, then a criterion has to be developed. Does life set the standards for architecture, or does architecture determine the bases and values of life? If man dominates the world, he is also dominating nature. Should his architecture also dominate, or should it exist in harmony with nature as man must try to do, as not to destroy it and the world? The testing and growth of life must take place. If it does not then the momentum of thought that is the thriving of life will collapse inward into a state of perpetual equilibrium.

Architecture is the manifestation of human consciousness in material form. It is the embodiment and expression of this consciousness that strengthens and influences the psychological values of humans. Therefore, it is important for architecture to transcend the solid known world of human sensibility and create an emotional environment which intuitively sympathizes with, and links, the external concrete elements to the internal abstract emotions. This is
vital so that man can continuously enrich his spiritual being, so as not to grow stagnant in a void of sterile intellectualism.

The earth is a laboratory in which creativity dangles extremely at the edge of reality. Creativity seeks reality. Imagination seeks the creation of impossibility. Architecture is the creation of abstract spiritual interpretations, whether rational or irrational, possible or impossible, which man powerfully seeks to manifest in built form.

Since architecture is a reflection of man, and man is a product of society, then architecture must correspond to society. This simple idea is the foundation of the Futurist Manifesto in architecture. The Futurist philosophy proclaims that architecture must be the immediate and faithful projection of ourselves. It is a question of creating architecture with entirely new values, because each civilization is different, so too must be its criterion for building. The Futurist philosophy bases its aesthetic standards in the ability of man to find inspiration in the elements of the most recent technological world which he has created. Man's architecture has to be the most beautiful interpretation and expression of the mechanical world, together with the direct projection of the world of the spirit.

In essence, the Futurists believed that architecture could not be subjected to any law of historical continuity.
Architecture must gain its power, its rationale, its dynamics and its standards from the modern world. Violence, war, anarchy, technology, speed, noise, distortion, and movement crystallized in space, carried to their limits, should rule our design creations.

It was in 1914 that Filippo Tommaso Marinetti and Antonio Sant'Elia gave birth to the Futurist Manifesto in architecture. Until that time, Marinetti who fathered the futurist movement in 1909, had no support for the movement in the field of architecture. Antonio Sant'Elia became the first architect to adhere to, and use the Futurist ideals to convey new meaning and new values in architecture. His writings and drawings opened the antiquated door for others to follow. People such as Virilio Marchi, Bruno Taut, and later Hugh Ferriss.
It is one of the main problems of this study to find out which, if any, of the ideas, theories, and or beliefs have lasted from the time of Sant'Elia through to present day. If so, then in what form or forms do they exist, and have they or have they not adapted to society as it is today. These questions are of great importance, because the answers may or may not justify the validity of the Futurist movement. If the movement, or remnants of it, does exist today, then the justification of the movement may still be as important today as it must have been then. However, if there are no remains of the movement to be found today, then we must question whether or not the movement was ever valid.

In a sense, the study is a means to use the philosophies of Futurism as a vehicle to explore and extend personal values. Futurism can be seen as a tool which was used to open man’s mind to new and creative possibilities in architecture, and to break the bonds of historical continuity. This tool challenged past traditions, ethics, and historical precedences. It may then be possible for architects today to use the basic foundations of the Futurist Manifesto to again defy present practices in architecture. To challenge is to question, and to question is to inquire. In this way we may be able to better what we do as architects.
By strengthening our values and our standards we may then be able to strengthen and improve our buildings. Architecture is, in effect, a struggle for man to express his emotions abstractly in built form, which will then intrigue other human senses. The mediator, or judge of his achievements should be the values and beliefs of society, which can only be valid in the time in which it exists. Hence, to build architecture is to reflect society as previously stated, and to judge architecture is to judge man in his society.

The study is also a way to determine personal criterion for the design process, based on personal standards and values. It is not a question of designing architecture as Sant'Elia would have, or any other followers of Futurism. It is a problem of finding in society a set of rules or principles to guide, direct, and to govern what I do as an architect. In the words of Sant'Elia, "the house will last for a briefer period of time than ourselves; each generation will have to build its own city; this constant renewal of the architectonic environment will contribute to the victory of Futurism." (Carrièrè, 1963: p.151)

To understand the present and to renew the city does not mean to ignore and destroy the past. On the contrary, to understand the present one must realize where they have come from. The influence of one particular period of time on another is important to
understand. By understanding, we may be able to see what could happen beyond the present. The pieces or threads of Futurism which have been pulled through time could be effecting us today and effect us in our future. It is vital that we can understand these threads which link us to the past, for they may also tell us something about the reasons we are the way we are.

The study of Futurism goes beyond the study of architecture, and into human metamorphosis. The change from one type of society with a particular set of values into a totally new creature demands from us a different type of value system. In conclusion;

"The art of construction has to be able to evolve with time and to pass from one style to another, whilst maintaining unchanged the general characteristics of architecture, although shifts in fashion and mutation caused by religious and political alternation are historically quite frequent; but that which is very rare are those causes of profound change in the conditions of the environment, which unhone and renew, such as the discovery of natural laws, the development and the perfection of mechanical means, and the rational and scientific use of matter. The process of consequent stylistic development of
architecture comes to a halt in modern life. ARCHITECTURE SERVES ITSELF FROM TRADITION AND INEVITABLY BEGINS ALL OVER AGAIN FROM THE BEGINNING."
(Carrieri, 1963: p.150)
The first part of this study is an exploration conducted through research on the people and the philosophies of Futurism, to determine the basic concepts and values of the movement. The focus of this research was conducted through readings to gain an insight into the motivation of the manifesto from its conception. This in turn generated thoughts on personal values and beliefs.

Partial Selection of Readings:

Umbro Apollonio - Antonio Sant’Elia

Rosa Trillo Clough - Futurism

Tisdall & Bozzol - Futurism

R. F. Flint - Marinetti, Selected Writings

Umbro Apollonio - Futurist Manifestos

Alessandro d’Amico - Virgilio Marchi

Paul Scheerbart & Bruno Taut - Glass Architecture Alpine Architecture

Bruno Taut - Fruhlicht

Hugh Ferriss - Power in Buildings
Hugh Ferriss - The Metropolis of Tomorrow
Jean Ferriss Leich - Architectural Visions

The second part, is a series of drawings done exemplifying the values of Futurism. The third part of the study is an exploration, which is the embodiment of personal abstract ideas derived from the research and personal experiences, in design form. This is achieved through the use of drawings and models, in a particular design project.

PROJECT: A Memorial Museum for the Futurist Manifesto
PROGRAM: A complex of buildings for the display of Futurist and Futuristic Art and Architecture.
SITE: An imaginary composition of earth, air, and light, reflecting the symbolic qualities of the memorial.
SECTION ONE

The first part of this study is an exploration in the imagery and philosophies of Futurism, from this research basic concepts and values of the Manifesto were extrapolated and then explored. The focus is to give a brief insight into the motivation and ideals of the philosophy. Looked at in this section are the ideals and the work of a few of its people.
Antonio Sant'Elia (1888-1916)

Sant'Elia was born and raised in Italy. It was out of this context that he developed an attitude of complacency. Surrounded by fifteenth century cupids, and seventeenth century leaves, and all of the other ancient architectonic elements, he came to despise what he called a living museum. It was from these feelings that the world of architecture was to be turned upside down and inside out. The new philosophy challenged everything that went before it, calling it a "vacuous mixture of the most stylistic elements." (Carriero, 1963: p.150) His goal was to fight against the pseudo-architecture, the reproduction of, the embalment of, and the reconstruction of past styles.

"The problem of the Futurist architecture must be solved without thieving any longer from the photographs of China, Persia, Japan and without becoming moronic studying the rules Vitruvio. The problem must be solved by strikes of genius based on scientific and technical experience."

(Carriero, 1963: p.151) He proclaimed, "that the Futurist architecture is the architecture of calculation, of rash audacity and of simplicity; the architecture of reinforced concrete, of steel and of glass." (Carriero, 1963: p.151) That the
decorative value of architecture depends on the use and arrangement of rough or nude or violently coloured materials. Sant'Elia's vision of what should guide the built forms of man would soon revolutionize the thinking, the values, and the beliefs of the time.
Bruno Taut (1880-1938)

One of German born Bruno Taut's dreams was to create the utopian community through the use of glass. Glass, ... "is in itself highly symbolic: transparent, it is the allegory of a new collective purity; produced by the rarefaction of its material, it symbolizes the passage from the real to the unreal, from weight to weightlessness." (Dai Co, 1976: p.129)
Marchi, an Italian contemporary of Sant'Elia, believed that all architects contain within them their own inner laws and beliefs, which should not be influenced by others. He believed that style should come from the "vital forces existing in the individual creator." (Clough, 1961: p.152)

Architecture for Marchi should reflect the spirit of its time. The use of motion in curved lines, planes of abstract movement, and complexity were his bases for design.

"We are filled with enthusiasm for those aspects of modern life which seem valuable because they are phases of that rapid, living emotion in whose manifest reality we strive to find the new architectural forms." (Clough, 1961: p.152)
The work of Hugh Ferriss is a wonderful fusion of reality and visionary concepts. His renderings are among the finest examples of Futurist ideals in America in the 1920’s and 1930’s. His beliefs and convictions for the Futurist city over flow in his work. His vision of enormous skyscrapers, of wide avenues, of romantic ideals and of aesthetic qualities, are fantastically portrayed in his drawings.

"Ferriss’s lesson, is one of vision tempered by accommodation to reality... This balance between vision and reality, between fantasy and common sense, is what motivates all of Ferriss’s drawings - it is what makes them, finally, testaments not merly to the cities of imagination, but to the greater cities that exist in real places and real times." (Leich, 1980: p40)

"Our criterion for judging this selfconscious architecture will be its effects on human values: its net contribution to the harmonious development of man." (Ferriss, 1929: p142)
"BUILDINGS LIKE CRYSTALS.
WALLS OF TRANSLUCENT GLASS.
SHEER GLASS BLOCKS SHEATHING A
STEEL GRILL.
NO GOTHIC BRANCH: NO ACANTHUS
LEAF: NO RECOLLECTION OF
THE PLANT WORLD.
A MINERAL KINGDOM.
GLEAMING STALAGMITES.
FORMS AS COLD AS ICE."
(Ferriss, 1929: p.124)
In the second section of this study, a series of drawings, has been done expressing the qualities of Futurism. They are an exercise in the vocabulary of the philosophy. They are intended to capture the spirit of the ideals, and not to be a literal interpretation. The qualities chosen are of the basic values and have been simplified into five, or so, distinct words and their definitions.
Futurism, as defined in the Living Webster Encyclopedic Dictionary, is a movement "rejecting traditional forms of expression in order to portray the dynamic movement, speed, violence, and power of a mechanized era."
As defined by the Webster Encyclopedic Dictionary of the English Language.

**VIOLENCE:**
Intense or severe force; severe or injurious treatment or action; and unfair exercise of power or force; an act of violence; an inordinate vehemence of expression of feeling; a distortion or misrepresentation of content, meaning, or intent.

**VIOLENT:**
Characterized by or acting with extreme rough physical force; characterized or caused by harsh destructive force; marked by intensity of force or effect; sudden, intense energy tending to misrepresent or distort.

**SPEED:**
(O.E. speedan, to hasten, to prosper, haste, prosperity.) Rapidity of movement; the rate or swiftness of motion or action; the act of moving swiftly.

**MOTION:**
The process of moving of changing place or position; a movement or gesture; the manner of moving; action, activity, or active operation.

**VELOCITY:**
The rate of motion in which direction as well as speed is considered.
TECHNOLOGY:
The branch of knowledge that deals with the industrial arts and sciences; utilization of such knowledge; the knowledge and means used to produce the material necessities of a society.

NOISE:
A sound or sounds of loud, confused, of discordant kind; a sound of any kind; as the noises of the meadow; unwanted sound or disturbances causing interference in a communications system.

DECADENCE:
A falling off or away from a state of excellence of prosperity; decline; decay; deteriorated condition.

DECADENT:
One who is decadent; one of a group of French and English writers and artist toward the end of the 19th century whose work was characterized by great refinement of subtlety of style with marked tendency toward the artificial and abnormal, and was thus held to exemplify a general decadence.
Fountain Head
Original
Violence
Motion
Technology
Noise
Decadence
Villa Rotunda
Original
Violence
Motion
Velocity
Noise
Baptistery
Original
Violence
Speed
Decadence
"When a given people, society or civilization in shaken or shattered, this calls for fresh thinking; in fact, more often than not, for a new philosophical basis."

(Skolimowski, 1981: p.88)
SECTION THREE

The third and last section of this study is a personal manifestation and culmination of the research and the experiences in design form. The design is a means of examining the Futurist beliefs intertwined with personal values, beliefs and standards. It is meant to be a way to search, to seek, to discover, to inquire, and to find answers to inner questions about architecture. It is used as a method of inquiry aimed at developing a way in which to design. It asked the questions: for whom do we design? Why do we design, and what should our designs try to represent.
"Architecture is the manifestation in form of the order or our experience. It is a model of our consciousness, the fitting of ourselves between the earth and the sky."

(Lobell, 1979: p.60)
Like gigantic robots they march mercilessly over the earth. Each identical, yet individual, they seem to stand isolated from one another, yet they are bound together. With neither fronts nor backs they are faceless. With no motion they move across the land. With no known origins or destinations they travel the endless miles. Sometimes firmly attached to the ground on all fours, other times teetering gently at a point they are set down, aliens in the landscape. Soaring over most life they contain an inner life, one that sporadically hisses and snaps as if to prove there is life within. What is still, surges with the power of a metropolis.

Ever spawling, ever extending, they divide and separate. Like veins they capillary outward from their energy source, from their creator. This creator, like a heart pumping a never ending flow of electric blood, is the source of all their energy. Then the city, like a giant gash in flesh, drains them of their life giving fluid. A fluid so powerful and so needed, that without it the world would cease to function as we know it, and the stillness of their presence would envelope all.
The project chosen in which to explore the design process is that of a museum. It is a Memorial museum for the Futurist Manifesto. The reasons for this choice were my personal ideals about what a museum could be. Museums are places in which humans place art to be worshiped. We visit them when we feel the need for culture or enrichment. Art and sculpture express the values, qualities, and beliefs of their creator and society. Then what better building type than a museum to express these same issues. In using a museum symbolically enveloped with emotions reflecting personal attitudes toward architecture, the possibilities of utmost freedom in inquiry were achieved.

The site is an imaginary composition of earth, air, and light, reflecting the symbolic qualities of the Memorial. In choosing a site for the project to be placed, that of a desolate tundra, or plain, was chosen. It is a barren rocky terrain, half of which is thrust upward to make a sheer cragly wall. The reason for such an isolated, nebulous environment was to ensure the removal of the presence of civilization. It is an imaginary composition of earth, air and light to reinforce and dramatize the building.
As one enters the site, after leaving the realities of society behind them, they are greeted by an electrical tower gateway. Its 160 feet presence looms over head with outstretched arms. Walking between its legs one can feel the energy soaring through it as an axial path starts the journey. The pathway is a flat walkway, which as one proceeds along increasingly becomes a bearer to visual wondering. This is done by raising the ground level on both sides of the path, giving a tunnel effect. All that is intended to be seen is what lies ahead and above.

The next critical point reached is a second tower, one with telescoping geometric dimensions. Its upper pinnacle accentuated by converging wires from the gateway and the main building structure, yet to come. Walking through to its center base, a choice is given as to which direction to take. To the left is the gradually terraced statuary. To the right, a flight of radiating steps leading to a circular amphitheater. Ahead lies a small ramp. The top of which is joined from either side by the alternate paths. From this point one can now see the void that gashes through the site, dividing it into two edifices, dangling at the extreme edge of their reality.
TOWERS, NORTH ELEVATION
Looking forward, the mammoth manifestation of glass, steel and concrete cantilevers out from the side of the cliff. The bridge, connecting one reality to the other, thrusts out over the sterile, stagnant slash in the earths crust. Its form radiating from an imaginary point in space.

This point, along with the point at the base of the second tower and the point at the center of the amphitheater, are the generating forces for the plan of the building complex. It is this point, at the tip of the bridge, from which the main building derives its form, its order and inner and outer dynamics. Upward from this point the overwhelming conicle shape stalactites down upon you. Circling around on an edge it can be viewed from all perspectives.

Upon entering the main building through a short passage a circular steel mesh platform is reached. It is the core of the building, and its center point is a reflection of the main point outside. Below you in the depths of darkness, the roaring and energy of the mechanical heart can be heard and felt. The core is a vertical circulation area. With five elevator shafts for public and private use, and one spiral fire stair, the six floors of the building can be reached.
"There was no consideration of deviation to either side of the path, as nothing existed other than the path. The great Egyptian temples were rhythmically ordered sequence of space, the sacred way leading through avenues of rams or sphinxes."

(Lobell, 1979: p.60)
BRIDGE AND ENTRY
The design of the building plan revolves around the idea of a point in space split in half, like an atom. Around each point two large circles are spun. They interlock making the sign for infinity, in plan. From them two double spiraling ramps are created. One spinning downward into the void, the other spinning upward toward the sky. They in turn become the main focus of the building's internal environment and are used as a circulation centerpiece. They are constructed of steel channel beams with diagonal cross bracing. The lattice-like effect is one of openness and lightness. They are expressed externally as dynamic glass shapes.

The exterior of the building is reinforced concrete, expressing the raw qualities of the material. The spirals are concealed by slightly mirrored glass. They only appear to be circular stepped forms. Not until night, when the light energy radiates outward from the building, is their true character revealed. The entire exterior composition is one of solidness and massiveness.
FIRST LEVEL, PLAN
Internally, the building takes on new dimensions. On the first floor, above the entry level, the spiral is at its smallest diameter, and the ceiling height is at its lowest. As one proceeds upward, floor by floor, both the spiral radius and ceiling height increase, causing an explosive feeling. The altered vertical dimensions allow for a most varied use of space. It also allows for the expression of light to be seen and felt. From the darker more intimate lower spaces one can experience the energy and light spiritually lifting them into the clouds.
Inserted between floors are subfloors which radiate outward from the ramp system. They can only be reached by using the system. They are inserted like slices or spears into the building. Then as if rays of light had punctured through the building, light wells shoot holes down into the darkness. The effect achieved is an inner openness in which light is used as an element with such energy that it can penetrate through solid matter.
Roof Detail
A POINT IN SPACE
In architecture we must try to represent our beliefs, values and inner feelings. Through design this thesis has attempted to do just that. The project was chosen and designed to put into physical form personal thoughts on architecture. Its statement is bold. It is my idea of creativity, which dangles at the extreme edge of reality, of imagination in built manifestation. It is a statement which pushes society to question what is valued and what is not. The Futurist's fascination with what they felt should be the values of the time, overwhelmingly influenced their ideas and work. Although their values for society may have faded with the years, the threads in the fabric they weaved are still as valid. But what should today's influences be? What are society's values and what needs should guide our architecture now? These questions are still personally unanswered, but the realization that we cannot continue to blindly build architecture with no sense of values must be attained by others.

As a society we need to question where we are going as a civilization. This thesis tries to force one to think and to develop one's personal values and beliefs. The criteria chosen to judge architecture must come from an enlightened level of understanding. In this way the highest plateau of intellectual development may possibly be reached. The success of this thesis lies in the ability of others to see it as an inquiry and a statement of intent, not just relating to architecture, but relating to, and hopefully inspiring thoughts on life.
Personally the project is a success, because it allowed me to express my attitudes toward architecture. Through it I explored ideas verbally and visually. The visual expression was the more difficult part of the thesis. It became a real struggle for me to communicate my thoughts in three dimensional form. The translation from one to the other always seems to lose clarity and intent in the end product. I don’t think any built form can communicate all of its intended meaning to others. I feel that only the creator of a building, or any other art form, can possibly know this. The thesis was a way for me to improve my skills as a communicator in the medium of architecture. I wanted to learn better ways in which to shorten the gap between what other individuals perceive my architecture to be and what I want it to be expressing. Architecture for me is the expression and the experience of life, whether it is my life or someone elses, it must be clearly understood.

If I can continue to develop my abilities throughout my life, without losing track of my beliefs, then I will feel fulfilled as a person. This thesis has been the foundation and the starting block of this goal. It is the seed, or the embryo, that will grow into the essence of my being as a person and as an architect.


