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The Study of artificial space and metaphysical

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The Study of Artificial Space and Metaphysical Energy in Glass

by

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INTRODUCTION

A study of Artificial Space and Metaphysical Energy in Glass

This documentation will describe a journey of abstract art in glass. The process of each of the steps and the aesthetic concerns therein will be narrated in the following interpretation.

The purpose of the MFA thesis is to investigate both artificial, negative and positive space and to exemplify metaphysical energy in glass sculpture. My aesthetic intention for the sculpture is to create dynamic, active, and energetic movement in geometric forms which are symbolic of living creatures. This will be done by employing graphic images of centuries old Korean geometrical patterns.

Historical research has allowed me to push traditional representations in my sculpture a step further. The objective of my ‘Space Series’ is to transform 2-D graphic images into 3-D glass sculpture. The laminated glass has explicit potential for creating optical illusion. The main issues to be investigated include, creating artificial space in both exterior and interior forms and the balance of metaphysical forms that are created from that space.
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AESTHETIC CONCERNS

HISTORICAL RESEARCH OF KOREAN GEOMETRY

In our multi-cultural society, Korean geometry is a definitive reference which furnishes the aesthetic objective of this thesis. The geometrical figures of these glass sculptures have been inspired by traditional Korean patterns that are 1000’s of years old. Understanding art from an artists point of view relies upon dependable inspiration. Looking at an object, motion, or creature etc. develops themes and subjects. These can be critical, political, or social and end up as functional or non-functional, craft or fine art. It is difficult to discuss the diverse directions of artistic aspects; however, any of the issues that have been considered in art are significant and critical.

For my glass sculpture, I have focused on cultural influences and how to identify both myself and the body of work as Korean, physically as well as spiritually, a sculptural representation of internalized cultural sentiment. On a conceptual level, I was looking forward to researching Koreanized aesthetics which could be combined with Western techniques and education to create a coherent body of work. Every culture has diverse sources of artistic references and inspiration that are found in their own environment. Using decorative Korean patterns as a dynamic symmetry, I found an interesting similarity between Western and Eastern patterns. These two mainstreams of culture in today’s global community, are commingling as the borders between them fade.
In the process of collecting ideas for this thesis, I have researched numerous sources in diverse fields, and I was curious about identifying myself and the glass pieces as belonging to Western or Eastern culture. Because glass was mainly an industrial medium in Korea, it had not been utilized in any institutional artistic education in the early 1990s, and there are only a small number of outstanding Korean glass artists. These artists were for the most part educated in Western countries and now are attempting to establish a basis for glass education in Korea. As a matter of fact, most Korean art glass pieces have been created by Westernized glass artists in Korea. One might say it is not important to identify the artwork and the artist; however, I am personally conscious of the significance. I strongly feel that I have an obligation to create a piece of artwork which can be identified as Korean for establishing a modern history of glass art in Korea. Consequences of my philosophical thought induce me to develop cultural influences into my thesis work, as a result utilizing Korean geometry as that influence. This modified version of geometry has been confirmed as my final goal for my thesis work. Again, it is important to identify this body of work as Korean to both recognize and celebrate that culture in a way that it can be appreciated and understood by both East and West. In my opinion, identifying an artist’s culture with one’s artwork is absolutely essential, because we are living in a multi-cultural society. I would argue that by establishing that cultural identity new venus of meaning and significance are brought about. It is not a limiting factor.
There are divisions within traditional Korean patterns; clouds, mountains, trees, flowers, plants, Dok-Ke-Bies, geometry, and so on. The genre of Korean geometry, is most appealing to me in the development of this body of work. In the pattern of “Dolim Munui”, I found a significant relevance to my work. “Dolim Munui, a geometrical spiral form, was the most impressive, powerful, and dominant imagery that I found. I approached the two dimensional Dolim pattern with the intention of transforming it into a three dimensional form.

Simplifying the geometric patterns lead me into a stage of brain storming to create a new vision, or form of creation. Sharp edges, accurate turns as perfect 90 degree angles, and rectangular elements in the “Dolim” pattern create of both negative and positive space in two dimensional imagery. (Photography No. 9) The first step that I had to deal with was visualizing the drawings of the pattern as a three-dimensional form before I made an actual model. Through the drawing procedure, the placement and the form of the sculpture have been examined and modified in diverse directions. (Photography No.11,12,13,14) After I finished the three-dimensional drawings, I created several mock-ups, based on the drawings, which were full scale. During the modeling process, it was uncertain that it would be possible to observe the models as an actual glass piece because the modeling material was not transparent. However, assembling the actual model was a critical, prejudicial and creative moment within the process. It helped me to reconfirm the configuration and structure of the real glass pieces.
Photograph No.12
Photograph No. 13
Drawing 3, 1998
Photograph No. 14
Drawing 4, 1998
TRANSFORMING PROCESS AND DEVELOPING FORMS

The significance of the first piece, "Composition of Space I", lies in the simplification of the geometrical figure of "Dolim" in order to maximize optical reflections in the glass. (Photography No.1,9) I dealt with extremely accurate angles with each laminated element and focused the movement of the piece on massive action within the form itself. The particular Korean geometrical graphic image, "Dolim Munui", was finally transforming into a vibrant three-dimensional glass sculpture.

In terms of historical background, the pattern is a ancient graphic image that represents the most powerful shapes in nature such as the top view of a galactic system, tornadoes, and even the ends of the human body (fingerprint, toeprint, and center of head spiral). These aspects that have been simplified into a geometrical form also describe a spiral as a form that has unexpected impact-energy and power. According to the Korean History of Arts, the Dolim pattern had been utilized in many diverse ways: from use as a design element on Korean porcelain, wood carving, metal works etc. Many modern day Korean artists rediscover and redesign with these past references of this cultural treasure. Although I may belong to this group, my work is about more than just the historic relevance.

Approaching an abstract form, I am concerned with theoretical interpretation of several main Western artistic movements in modern art; Suprematism, Cubism, and Minimalism. These movements dealt with many different issues and
Photograph No.1
Composition of Space I
17”x17”x17 1/2”
Plate Glass, laminated, and Polished, 1997
Photograph No.9
Dolim Munui 1, (Fret)
different points of views. In my graduate research, Suprematism is a good example of an aesthetic background that I identified with. It was a movement that was concerned with geometric lines and was a reaction to the undulating curves and decorative organic forms of Art Deco. It is difficult at times to understand Western art movements because the interpretation and majority of artists and their art theories are based on their western experiences and expectations. However, I feel that my work has historical relevance to one of the main supremists, Malevich, and one of his earliest works, *Black Squararies*, in 1915. He pursued a form of geometric abstract art which was developed in Russia in the years before the Bolshevik Revolution of 1917. Malevich was the first to utilize geometry in a conceptual level as fine art, but I also researched other artists, Mondrian and Kandinsky, in order to investigate the particular studies of geometric abstraction. A vision of technical and mathematical precision became a new kind of a value and a gold mine for modernists. It was a great innovation and a sensation in the arts. In my work, I realized that the outline of the forms are similar within the context of geometry. The purity of glass as a medium, was another significant concern of my thesis project. “Composition of Space I” has familiar intellectual aspects with many early modernists works through the use and abstraction of geometric forms. However, my glass pieces are not about striking issues as the modernists were. (Photograph No. 1)
My intention of the pieces is about form itself and its' extremely dynamic and energetic movement therein. If the viewers look at it from its front they would realize clearly what the form is about; however, if they look at it from different angles they would not figure out what the form is about because of reflection of the pieces creates a different look. My interest and intent for the piece includes potential for creating optical illusion by its different angles and different point of views. Another fascinating issue is to look at the depth of glass which create various tones of its own color.

Various sizes of models for each piece were constructed in order to reexamine their structure and how they appear before I produced the actual glass sculptures. During the modeling of the pieces, the decision was made that the thickness, width, and length of each glass element which would be required, be technically accurate for minimizing eventual mistakes. Moreover, accuracy of adhesive height for the glass elements have to be monitored to avoid incorrect thickness of the elements. As a result, if the thickness of the element is not of perfect size it is rendered useless. The importance of measuring each elements is an essential decision because once the adhesive is cured it is irreparable. Overall, there is a general pattern set up that corresponds to the different stage of the work if you compare it to the ancient geometric abstraction of Korean arts.
TRANSITIONS OF THE ABSTRACT FORMS

During the process of the transitional models, I recognized the various possibilities to create diverse series of new abstract forms of glass sculpture. An unexpected consequence of the modeling procedure was the fascinating viewpoints created through the transition of my drawings into their three dimensional forms. As a result, through the modeling procedure, I was able to observe a particular model either to confirm it as an actual piece or to recompose it to other forms depending on my interest. Reconstructing the model was a most creative, effective, and precious process, it added to the aesthetic concern as well as integrity of the work.

In terms of the modeling and transiting procedure, questions arose as to the definition of abstraction? The definition of abstract art is "a term that can in its broadest sense be applied to any art that does not represent recognizable objects, but which is most commonly applied to those forms of modern art in which the traditional European". Abstract art is both representational and non-representational because it depends on artist’s intention and interpretation of their work. The distinction between abstraction and reality is purely institutional, representational, and creative. One might consider the “quality expressed” by abstract art as the image of the interpreted essence of the concrete physical form, or the image of artist’s emotional response to the concrete physical form, or the depiction of artist’s imagination, which in some part reflects back to their experience of concrete
Photograph No.2
Composition of Space II
18”x20”x14”
Plate Glass, laminated, and Polished, 1998
Photograph No.7
Kokdu-Munui, (Square Pattern)
Photograph No.8
Atcha Munui , (Square-Bracket Pattern)
Concerning my work, it employs abstract figures that allow me to achieve the transforming process. Abstraction in question began with a few artists in the late 1950s and early 1960s and continued into the 1970s. Abstraction was derived from the real world, whether natural or man-made by artists such as from Kandinsky or Leger to Stuart Davis. Their works included a sense of what might be exclaimed social obligation; an emotion or a feeling that abstraction mirrored what was new and urgent, whether in philosophy, science, or popular culture. For example, Kandinsky was involved with the development of atomic physics in his early works. However, my interest was how artists develop an idea from reality and transform it into abstraction; depending on their thoughts and influences. For my thesis, I developed my idea from numerous Korean artificial images relating to the "Dolim Pattern". (Photograph No.7,8,9,10)

In retrospect, gradual movement of the elements, symmetrical figure in the pieces, and profound color of two inch thick plate glass which creates the depth of transparent jade were considerably involved with both creating new forms of glass sculpture and exemplifying explicit force as metaphysical energy.

Metaphysics, traditionally refers to the branch of philosophy that attempts to understand the fundamental nature of all reality, whether visible or invisible. Within each work, there is the discovery of a fundamental reality. The reality is mirrored within itself. The mirror creates a microcosm which generates to infinity creating reality of its own existence, thus term metaphysical energy.
Photograph No.10
Dolim Munui 2, (Fretwork)
Moreover, “Composition of Space II” contributes to unpredictable jumps to other levels of creativity in the theme. (Photograph No. 2) On the perpendicular angle of reflection in the sculpture “Composition of Space VII” repeated edges of the optical illusion and abundant color of depth were recreated. (Photograph No. 5) The mathematical composition of each of the rectangular components were composed by applying accurate measurements through the grinding and polishing process. Each of the components, the rectangular glass blocks, are precisely worked into same size, thickness, and width by the grinding process. For this particular cold-working process a somewhat patient attitude is required to fulfill the project. The repetitive activities of cutting, grinding, and polishing, allowed me to consider that control and concentration were of the utmost importance to avoid mistakes. This whole process was a valuable study in understanding a distinct technique.

Another consideration for the sculpture; enlargement of the dimension of the glass sculpture, encouraged me to research other useful materials such as wood, metal, or concrete. This was done to enable me to enlarge the dimension of the pieces. As a result, I decided to utilize mild construct angle steel for enlarging the scale because it was impracticle to maximize the dimension using only plate glass. It was a way of gaining more mass and making a larger gesture and it was due to my intention to make front and back views of the sculpture radically different from end views. From certain view points, there is actual distance between energetic
elements, real space and intensive gesture of the forms. My intent for this piece was the use of different sources of materials and size. The limitation of scale in glass disturbed me when I saw the small scale of my glass pieces. However, the solution to the problem was found by using other material to fabricate in larger dimensions. In “Composition of Space VIII”, a combination of two different materials, laminated rectangular polished glass and irregular bent rectangular steel, are present in the development of my works. (Photograph No.6)

The consequences of this project that brought me into the geometrical exploration lead to focus on these particular geometrical forms. (Photograph No.1,2,3,4,5,6) In a search emphasis for designing, I prefer mathematical and geometrical forms rather than spontaneous and organic forms.

To transform the Korean graphic images into three dimensional glass sculpture was part of the process to approach abstraction. (Photograph No.1,2,3,4,5) During the transforming images into making models, I realized that the duration of the time was a thoughtful, academic, and creative moment because it was the moment that my brain was rapidly speeding up to preview the final pieces before I even started to do sketches of the pieces.

One might say my work as abstraction is not representational; however, I would say abstraction itself is now part of our reality, both as a form with its own history and as visual vocabulary. There are diverse possibilities of abstraction in contemporary art and my work belongs in one part of that reality.
Photograph No.3
Composition of Space III
16"x17"x17 1/2"
Plate Glass, laminated, and Polished, 1998
Photograph No.4
Composition of Space IV
13”23”x16”
Plate Glass, laminated, and Polished, 1998
Photograph No. 5
Composition of Space VII
Plate Glass, laminated, and Polished, 1998
Photograph No. 6
Composition of Space VIII
32" x 50" 34"
Plate glass, Mild Steel, Laminated, and Polished, 1998
ARTISTIC INFLUENCE

In my graduate study, abstraction was the most important issue to investigate for the thesis. As to the study of abstraction, I have found diverse artists who investigated abstraction in art from 1910s to 1980s; however, my main interests are with Tony Smith, David Smith, and Sol Lewitt. All of them were involved with abstraction that included geometrical forms and structural figures in their works. Tony Smith, constantly refers to his geometric forms in primitivist and minimalist terms, or compares them to architectural sites and dwellings from early cultures to menhir, earth-mounds, and diagrams he has found in books of building and town plans of the ancient Near East.4 In his thought, he approached the theoretical vocabulary, geometry, from dual references, and to nature and the organic. For his work, I was essentially interested in not only the symmetrical construction but also the dynamic composition in his works as well. (Photograph. No. 16) David Smith was enthralled by the idea of surfaces that would change as the light of the day changed, and so, in a sense, they are the final development of his lifelong preoccupation with possibilities of color in sculpture.5 (Photography No. 15) He had worked with metal as a sculptural medium and I admire his approach with
Photograph No. 15
David Smith, Cubi XXIII, Stainless Steel, 1964
Photograph No.16
Gracechoper, 1962/72, Steel
Tony Smith
geometrical forms as well as the texture of the pieces. The concept of a work of art may involve the matter of the piece or the process in which it is made, LeWitt commented in 1968. LeWitt made systematic sculpture objects whose structures were wholly determined by few decisions about design and dimension. (Photography No.17) Logical possibilities of his work impressed me to discover a geometric exploration in the specific idea. He had explored more possibilities in conceptual space and geometrical structure. I have involved both geometrical abstraction as a concept and cultural concern in these works.

Through this thesis work, I discovered myself as a practicing artist in search of new sculptural possibilities in glass. I created a new form of abstract glass sculpture that suggests a new approach and possibility on a conceptual level. It is acceptable to borrow an ancient icon or old form or a past idea in order to recreate an object as functional or an artwork as non-functional in an advanced artistic level. I think that we have various divisions of technology to share all visual knowledge form all over the world; although I chose a specific icon to rediscover and redesign into a new form. Through this project, I was able to explore important issues in art such as symmetry, balance, contrast, volume, composition, proportion, design, form, coherence, and proportion. The whole process of this thesis was
extraordinary to educate myself as a practicing artist. I will keep exploring, inquiring and investigating variation of sculptural forms in glass.
Variations of Incomplete Open Cubes

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Photography No.17
Variation of Incomplete Open Cube, 1974
Sol LeWitt
**Conclusion**

My thesis study and the body of works provide different possibilities to pursue into an advanced level of sculptural or architectural attempts as a project. It was only a short period of time that I had to develop a specific idea as a theme for my thesis; however, these were excellent experiences and opportunities to deal with various materials, diverse processes, and appropriate techniques that I learned through my graduate years of study. I would like to explore other relative possibilities of sculpture and to challenge myself as an artist. I also wish to expend my capacity for improving design as it improves culture and quality of human life.

Finally, my glass sculpture as a dynamic creature and metaphysical energy is committed as a means of exploring the global need for conceptual meaning. I am confident that my work was an exemplification to this end.
BIBLIOGRAPHY


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