

**Nature, culture, and emotion:
Objects of wood, metal, and stone**

by

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A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

MASTER OF FINE ARTS

Major: Integrated Visual Arts

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Ames, Iowa

2010

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PREFACE

My life gradually started to change in the year 2000 when I made the decision to marry. One day before my wedding ceremony, my mother told me, “Never regret your marriage; this is your own choice. You need to bear your responsibility about your decision.” And then she cried so much. As she said, marriage with my husband was the first choice I made. Until that time, I had never crossed my parent’s wishes.

After marriage, even if we didn’t have enough money and everything around me was unfamiliar, I was fully happy and always excited. During the past nine years, we moved eleven times. We moved frequently because my husband serves in the Korean military. That was also why we didn’t need many material possessions for our life. One day my husband made me a red mailbox that looked like a house out of plywood, discarded. On another day I found a small, dirty table on which white paint was thrown waiting for me. Neither item reflected much skill but they made me laugh and impressed me. I deeply appreciated his consideration. His face always shone like a kid waiting for praise after he made something. I became awakened to something inside of me that I had long forgotten.



Figure 1: A Red Mailbox, 2001

My early training was industrial design. I received a bachelor and master of Fine Arts degree in that area as my parents desired. Even though it was not my choice, I graduated without trouble. It wasn't until later that I really appreciated my mother who made me study industrial design. I began to recognize that making and designing something gave me happiness at last. I started to design again and made furniture for my husband and I. That was how it all started.

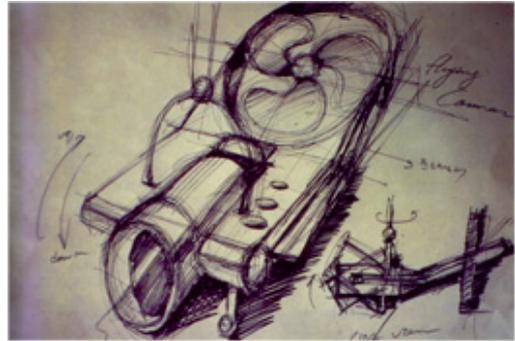


Figure 2: Rough Sketch, 1995

We moved to Iowa in 2005 so that my husband could pursue a doctorate degree in Iowa State University. I bought wood, a hand saw, and chisels. Sitting on the floor of my empty garage, I made a dining table and chairs, a desk, chest of drawers, and a red fire truck bed for my son. Even though I didn't need to make these pieces elaborately because we would move again in a few years, I spent most of my time in my own, small work shop.



Figure 3: A Red Fire Truck Bed for My Son

One day, my husband told me, "Why don't you study here with me?" I hesitated, and he continued, "I thought that you would quit soon because you easily get tired of something. Look at you, you are really enjoying this."

I wrote a letter to ask to a Korean professor whether I could study in college of Design of ISU. I quickly received an unexpected letter.

“Dear Sunki,

I remember I taught you at Ewha when you were a sophomore..... We have a good faculty, Chris Martin, who teaches furniture design.... I can introduce you to him or you can contact him directly at chmartin@iastate.edu. There is no age for study. Always motivation is the most important. Ewha's alumni who have studied here at ISU were all excellent.....no doubt you will be the one of them.”

I met Professor Sunghyun Kang again in the United States twelve years after I graduated Ewha Women's University in Korea. If Professor Kang had not been here and replied, I would have likely given up the application process easily. Her presence and response made me feel like life pushed me softly down a new path. I met



Figure 4,5,6,7: Drawings, 1996

Professor Martin, Associate Professor of Integrated Studio Arts, through Professor Kang. He allowed me to study as a non-degree student during the spring of 2006.

I like my dirty work clothes and the feel of sweat on my forehead. However, effort alone was not enough. Those things didn't take care of everything. I quickly learned that making furniture was complicated. I was not sure what I understood, and my professor was not sure whether I understood what he was saying. It

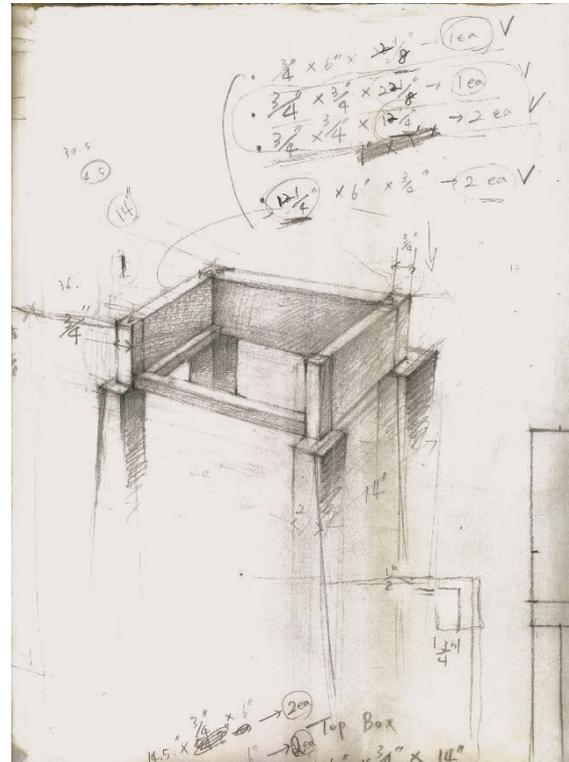


Figure 8: Rough Sketch, 2006

happened every time. One day, after he finished his words, he asked me, "Do you understand what I mean?" I drew what I understood about the inside construction of my furniture on paper. Then, he said, "Oh, my God, look at her drawing." It was the easiest way to communicate with others. There was no fear in drawing; I used to draw scenes of what I imagined in my head from the time when I was young. In retrospect, my mother was probably right. I couldn't understand why she pushed me to do art at that time. She always, strongly believed that I had talent in art, and I doubted her belief about me.

After two semesters as a non-degree student, I entered graduate school. Since then, people have often asked me about my future. However, I have no specific plan because I am pursuing this major not for what I want to be, but for what I want to do. The one thing I do know is that when I

make something, and when I touch tools and materials I can feel my heart pounding. It whispers to me, "I am alive."

I don't know where I am going but I am not going to wonder about it because I am enjoying the present God gave me, fully and happily. If I go the full distance this way, I will see what is next.

INTRODUCTION

The eleven art works made during my masters program share similar themes and were created using a similar process.

The concepts for my art begin with searching nature, looking at the natural environment that surrounds me to find something of interest. I start with nature because of the infinite range of intimate subjects it possesses; there is always something that grasps me at that moment among the trees, flowers, and birds in every season. When I find that interesting element it reminds me of a certain song, poem, or myth from Korean culture emerging from accumulated knowledge and memories, from conscious and unconscious education, and from customs. ‘My own unique element’ is born by projecting my emotional feelings as an artist, a mother, and a woman into the artwork. This is the first step of building my concepts.

These observations, memories, feelings, and ideas lead to a series of rough sketches to develop the concept. While drawing, I recite the poem, sing the song, or remember the story hundreds of times. The sketches become progressively more specific and descriptive of the concept. Based on the rough sketches, I start to make a model to test the concept and anticipate problems that could happen while making the piece. Finally, all of the images and information for the artwork are gathered and organized on a final presentation board which generally includes a concept statement, rough sketch, final design drawing, and the materials to be used. The presentation boards help me keep the way more clearly in focus until the artwork is completed.

These eleven artworks were all completed through this common process. These steps are sometimes switched a little, but I always start looking at the natural environment. The scope of the elements and the concepts that I find in the grandeur of nature lead gradually to elements from Korean culture and my subjective view as an artist, mother, and woman. I hope that people might feel and meet nature, Korean culture, and my personal artistic view through these artworks.



2-1. Tea Ceremony

Year: 2009

Size: Tea Table: 29 1/2 X 39 X 9 3/4 inches

Vessel: 4 X 4 X 2 1/2 inches

Plate: 8 1/2 X 8 1/2 X 1 5/8 inches

Cushion: 21 1/2 X 21 1/2 X 3 inches

Tea Infuser: 11 X 3 X 1 3/4 inches

Materials: Curly Maple, Spalted Maple, Walnut,
Argentium Silver, Sterling Silver,
Grass Linen

A Korean Myth

Once upon a time, there was a young man who was passing by a small village. He was very exhausted and thirsty. When he found a girl who was drawing water from a well, he asked for some water and she gave him a cup of water in which willow leaves were floating. The willow tree was next to the well. Though he was really thirsty, he couldn't drink fast because of the leaves. After he drank, he asked why she floated the leaves on water. Then, she said, 'You looked very thirsty. I worried that you might drink the water so quickly that it would cause your stomach trouble.' He was impressed by her wisdom and thoughtful consideration. Later, he became the first emperor of the Goryeo Dynasty (918-1392 A.D) and she became his queen.

Tea Ceremony

The idea for “Tea Ceremony” started from the Korean myth mentioned above. The core of this story expresses a woman’s wisdom and thoughtful consideration. To explain my works, I need to describe each element that I used and the meaning each has in traditional Korean culture.

The first noticeable characteristic of this work is the tea table with low height. The low tea table, which is not familiar within Western culture, has a decisive effect on the overall tone of this work. Traditional furniture of Korea commonly has low height because of the under floor heating system, Ondol as it is called in Korea. Ondol, which means warm stone in Korean, was invented in the Goguryeo Kingdom (37 B.C.-A.D. 668). The Ondol floor is made warm by circulating warm air in a cavity beneath the floorsurface. The famous American architect, Frank Lloyd Wright (1867-1959 A.D.) wrote about Ondol in his autobiography.



Figure 9: System of Ondol



Figure 10: Korean Tea Culture

A Miracle, The climate had changed. Changed?
 No, but it wasn't the coffee or saki. It was
 Spring, that's all. We were cozy, warm and
 happy again-kneeling there on the floor mats. An
 indescribable warmth: no heating visible nor
 was it felt as such directly. It was really a matter
 not of heating at all but an affair of climate.
 Organic heat!¹

Ondol which has been inherited for thousands of
 years has deeply influenced Koreans who prefer
 sitting on the warm floor rather than a chair, and
 lying on the floor instead of on a bed. This is the
 reason that the traditional furniture style of Korea is
 distinct from styles in other Asian and Western
 countries. My low tea table originates from this
 inherited culture.

I decide to shape the form of the well which is the
 background of this myth on my low table; I tried to
 express water and water ripples by using curly maple
 with its special pattern and express the round, solid



Figure 11: Well

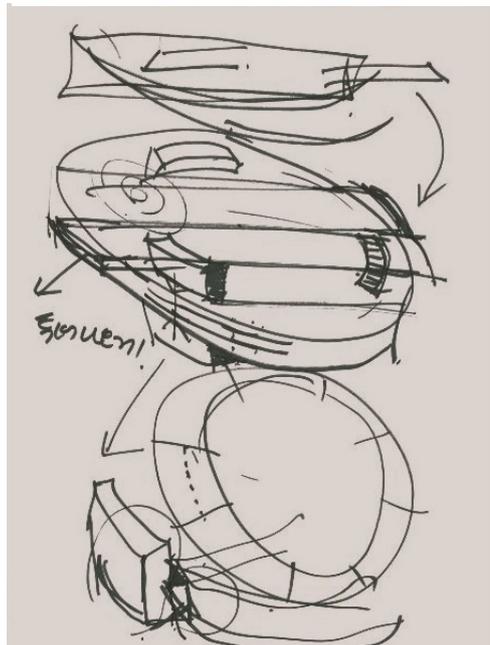


Figure 12: Rough Sketch of the Tea Table



Figure 13: Drawing of Cushion

¹ Frank Lloyd Wright, *An Autobiography* (New York : Horizon Press, 1977)

wall of a well with walnut. A well is always sanctified in Korea from a long time ago. It appeared often in other Korean myths and fairy tales with various symbols like birth, purity, and sometimes life-spring. The willow leaves which were floating on the water also have special meaning; they symbolize women's wisdom. The willow leaves which she floated also demonstrate her concern for others.



Figure 14: Korean Tea Ceremony

The Korean tea ceremony is different than Japan's. It does not require a complex procedure or a particular outfit. The foremost authority in tea culture, Cho-ui, Ui-Soon Jang (1786-1866 A.D.)², wrote about Korean tea ceremony in his book, *Dasingeon*.

In brief, he wrote that one should make tea with a true heart, keep it in a dry place, and prepare it with cleanliness. These are the essential components of the Korean tea ceremony. I projected this courtesy for tea

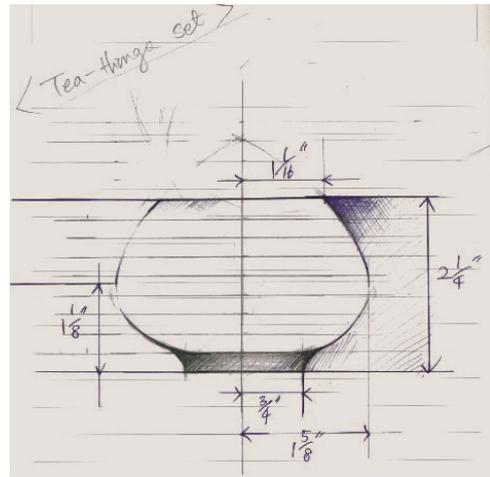


Figure 15: Drawing for the Vessel

ceremony onto the special moment of the myth that I

wanted to express. This politeness including consideration is also expressed by the lotus blossom which was formed in the bottom of the teacup using the chasing and repousse technique. Lotus blossoms which symbolized sanctity and purity in many religions and all over the world has the meaning in the language of flowers, 'Your mind is as beautiful as you.' So when someone sitting

² Ui-Soon Jang, Cho-ui(Pen Name) (1786~1866)

on the grass linen cushion drinks the tea at my tea table and watches the lotus flower emerge from the tea, I hope they will know how concerned I am for them and how special they are to me.

The concept of my works was created with these elements. I shaped the form of the well on the low tea table, the vessel she gave him on the teacup, and the willow branch on the tea infuser.

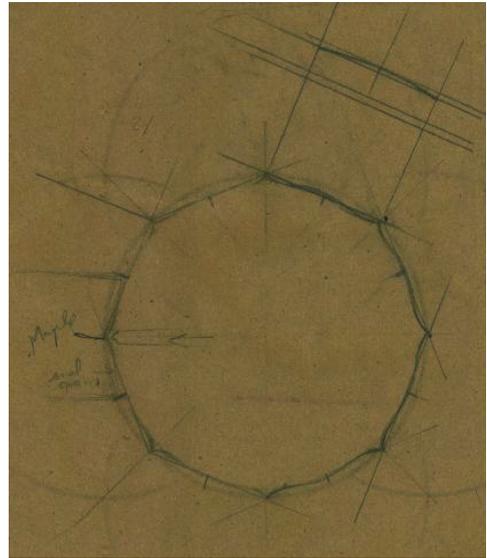


Figure 16: Top View of the Vessel

Final Design Board

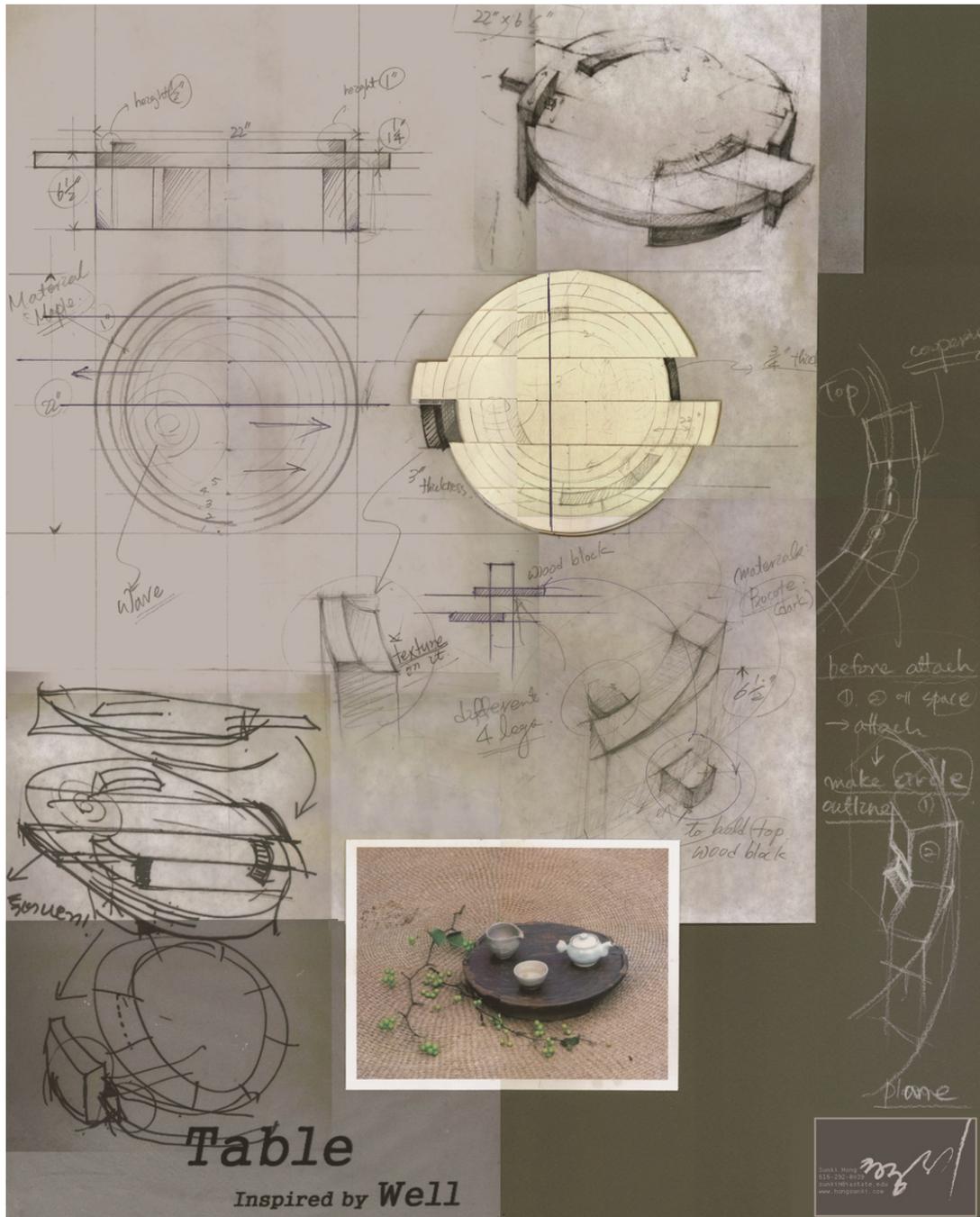


Figure 17: Final Design Board of the Low Tea Table

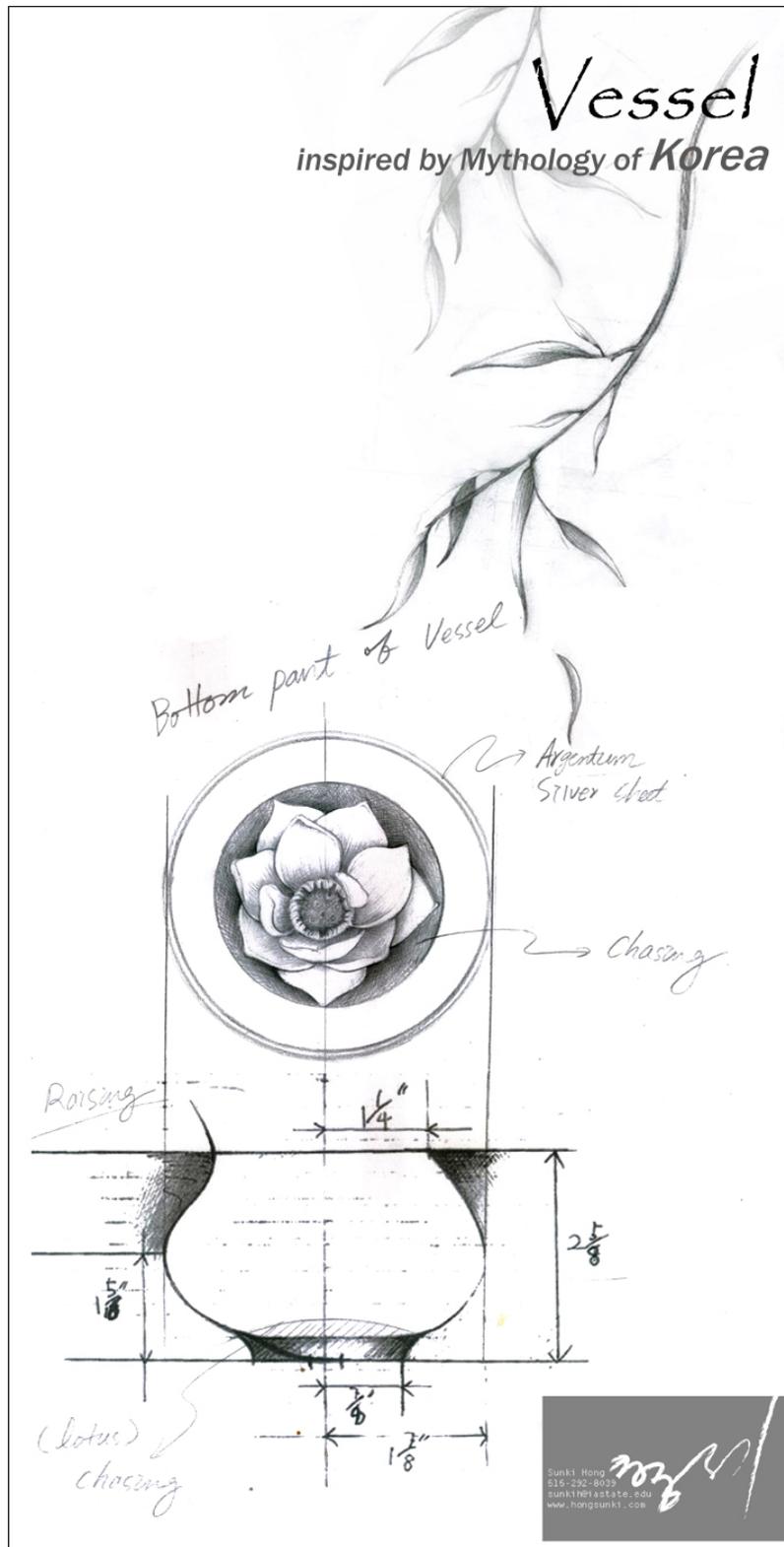


Figure 18: Final Design Board of the Tea Vessel

Pictures of the Tea Ceremony



Figure 19: Vessel, Tea Infuser, and Plate



**Figure 20:
Detail of Vessel, Tea Infuser, and Plate**



**Figure 21:
Side View of Vessel, Tea Infuser, and Plate**



Figure 22: Tea Ceremony for Two



Figure 23: Low Tea Table



Figure 24: Detail of the Low Tea Table



Figure 25: Detail of the Low Tea Table



Figure 26: Cushion



2-2. Magnolia Box

Year: 2008

Size: 2 3/4 X 2 3/4 X 2 inches

Materials: Wenge, Sterling Silver

Korean Song

Magnolia

Composer: Dong Jin Kim
Lyricist: Young Sik Cho

오 내 사랑 목련화야
그대 내 사랑 목련화야
회고 순결한 그대 모습
봄에 온 가인과 같고
추운 겨울 헤치고 온
봄 길잡이 목련화는
새 시대의 선구자요
배달의 열이로다
오 내 사랑 목련화야
그대 내 사랑 목련화야
오 내 사랑 목련화야
그대 내 사랑 목련화야

그대처럼 순결하고
그대처럼 강인하게
오늘도 내일도 영원히
나 아름답게 살아가리
오 내사랑 목련화야
그대 내 사랑 목련화야
오늘도 내일도 영원히
나 아름답게 살아가리라

Oh! My Love, Magnolia!
You are my love, magnolia!
Your white and virtuous feature is
As a beauty coming in the spring
As a guide to the spring
breaking through the water,
This Magnolia is the pioneer of the new age,
And the spirit of the Korean.
Oh! My love, Magnolia!
My love, Magnolia
Oh! My love, Magnolia!
You are my Magnolia!

As you are so virtuous,
As you are so strong,
I will live beautifully today,
tomorrow, and forever,
Oh! My love, Magnolia!
My love, Magnolia
I will live beautifully today,
tomorrow, and forever,³

³ Translated by: Kim Kyung-An and Ko Geek-Han, Korean Art Song 2
Published by: Sungshin Women's University.

Magnolia Box

The song of Korea, ‘Magnolia’ is very famous song which has been sung for many years. The text of the song praised the spirit of Magnolia which is symbolizes purity, elegance, and the image of a pioneer.

A cold winter day in February, I found myself humming this song before I knew it. I found the song, “Magnolia,” and listened to it very carefully. I made this work being an enthusiastic admirer of the song. I hummed the melody in my mind a thousand times. Then, my hands described the magnolia in my work automatically. The reason that the wall of the box is octagonal comes from the oriental philosophy: “The sky symbolized seven, the land symbolized eight (天七地八).”⁴ I tried to describe my hope that spring is coming soon in the land through the magnolia blossom which blooms in the field and the butterfly following the flower in the little box.



Figure 27: Magnolia



Figure 28: Octagonal Pavilion



Figure 29: Butterfly

⁴ 역경 易經, A book on Oriental Philosophy <http://koreandb.nate.com/culture/detail?sn=5>

Final Design Board

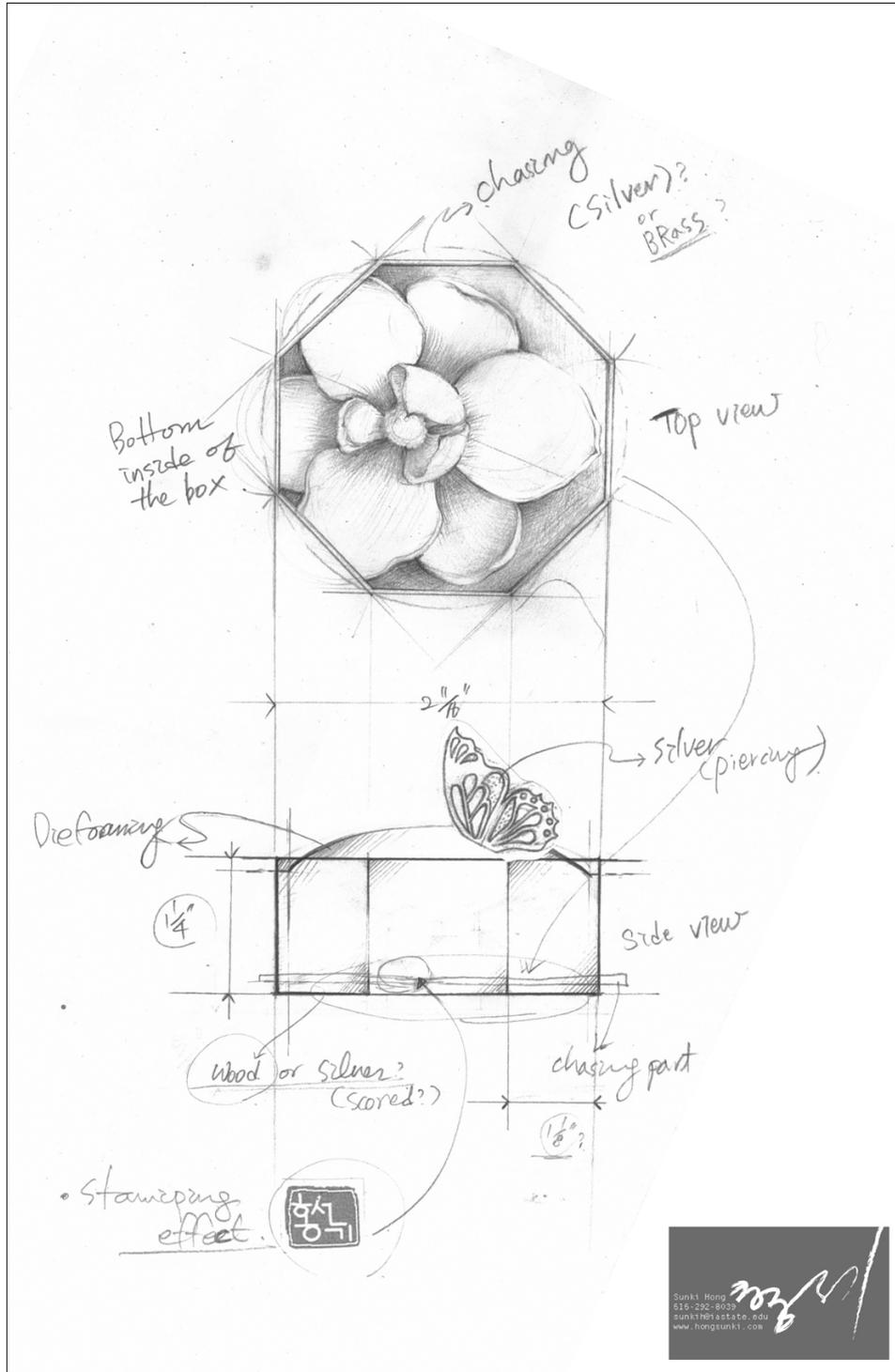


Figure 30: Final Design Board of the Magnolia Box

Pictures of the Magnolia Box



Figure 31: Magnolia Box



Figure 32: Detail of Magnolia Box



2-3. Zige Chair

Year: 2007

Size: 23 1/2 X 27 X 42 inches

Materials: Hard Maple, Soft Maple, Cherry

A Traditional Tool of Korea, Zige

Zige is a traditional Korean A-frame carrier that has been in use for many years. Ziges were amazing to Westerners who saw them in the latter era of the Choson Dynasty. Charles Varat, a French cultural anthropologist, praised Zige's ability to carry heavy loads using the balance and strength of human's shoulders and back. W. Ason Grebst, a Swedish reporter, wrote that Zige is designed ideally to distribute weight to human's hip, back, and shoulders. Therefore, it is not an amazing scene to see a person carrying 189kg using a Zige.⁵

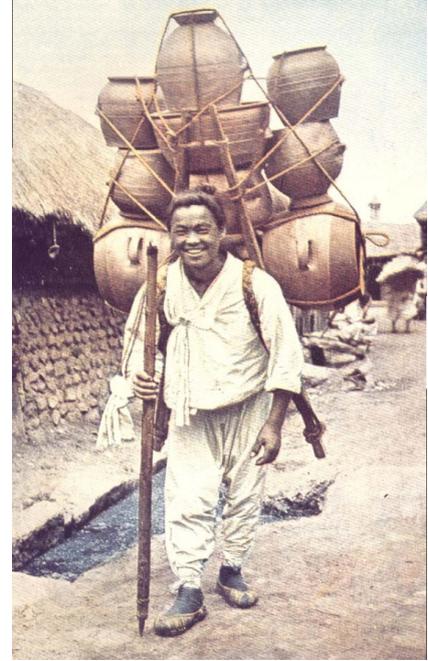


Figure 33: A Pottery Dealer, 1910

The main characteristic of the Zige is its stability in walking with loads and ease of locating the center of gravity on the center of the human back. When the Zige stands on the ground as a triangular structure, a stick holds the weight. However, when someone wears it, the weight is born by that person's back. With heavy loads, the weight is shifted to the person's waist using a different type of Zige with higher arms. Ziges were essential tools before Korean modernization. Now it is a sort of nostalgic cultural tool.



Figure 34: Zige

⁵ Zige, 이계성, 한국일보(www.hankooki.com), 2009.11.11 21:41

Zige Chair

This chair is inspired by Zige, a Korean A- frame carrier. The reason that I chose a Zige is that the structure is able to support over double the weight of the person who uses it. A chair needs to be strong, but it doesn't need to be bulky. Therefore, I decide to apply this particular structure to my work. The chair is composed of three legs, so finding the golden angle of stability and joinery was the most important part for this work. It was also the most complicated part to build.

I used hard maple for the two front legs and the seat, Cherry was used for the rear leg. The front legs are tapered toward the top and the seat and rear leg are shaped and carved. I tried to express nostalgia and whimsy by placing a seated bird on hind leg and its foot prints on the seat. For Koreans, Zige is no longer an efficient tool because of modern equipment. Even though Ziges are seldom used, they are fondly remembered. I hope that people who see this chair will be reminded of traditional Ziges and smile about the life of nature when they see the bird and it's footprints on the chair.



Figure 35: Drawing 1 of Zige Chair



Figure 36: Drawing 2 of Zige Chair

Final Design Board

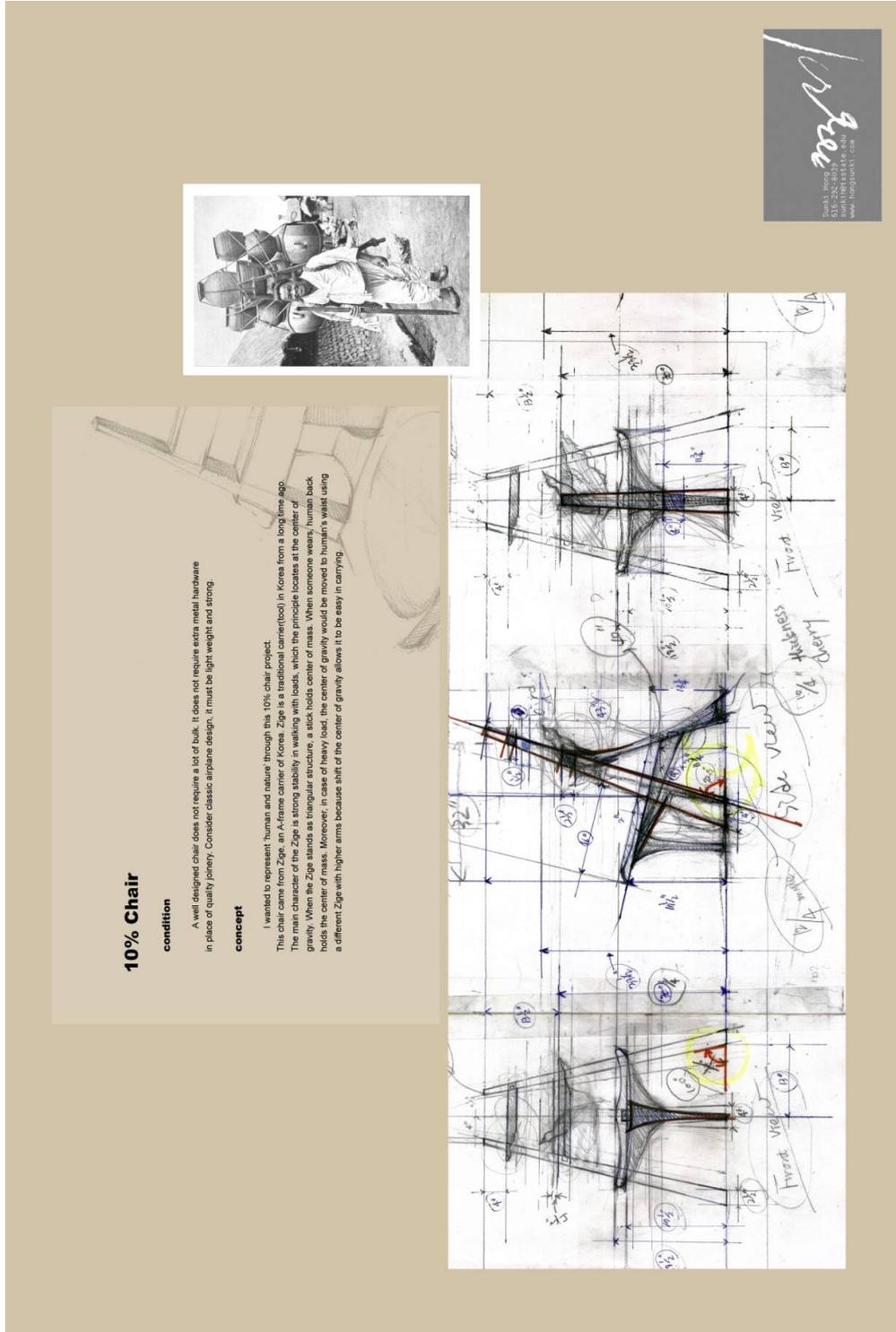


Figure 37: Final Design Board of Zige Chair

Pictures of the Zige Chair



Figure 38: Front View of Zige Chair



Figure 39: Back View of Zige Chair



Figure 40: Top View of Zige Chair



2-4. Chrysanthemum Cabinet

Year: 2008

Size: 28 X 22 X 30 3/4 inches

Materials: Hard Maple, Walnut, Cherry, Brass

Korean Poem:

Beside A Chrysanthemum

Chong-ju Suh

한 송이의 국화꽃을 피우기 위해
봄부터 소쩍새는
그렇게 울었나 보다.

For one chrysanthemum to bloom
a nightingale
has sobbed since spring, perhaps.

한 송이의 국화꽃을 피우기 위해
천둥은 먹구름 속에서
또 그렇게 울었나 보다.

For one chrysanthemum to bloom
thunder
has pealed in dark clouds, perhaps.

그립고 아쉬움에 가슴 조이던
머언 먼 젊음의 뒤편길에서
인제는 돌아와 거울 앞에 선
내 누님같이 생긴 꽃이여.

Flower! Like my sister standing
at her mirror, just back
from far away, far away byways of youth,
where she was racked with longing and lack:

노오란 내 꽃잎이 피려고
간밤엔 무서리가 저리 내리고
내게는 잠도 오지 않았나 보다.

Last night's frost came down
to bid your yellow petals bloom, perhaps,
while I could not get to sleep.⁶

⁶ Translated by Prof. David McCann, Cornell

Chrysanthemum Cabinet

This cabinet was inspired by the poem “Beside a Chrysanthemum” written by the Korean poet Suh Chong-ju⁷. The poem implies the ego and introspection that overcomes severe trials and all anguish through the birth of a chrysanthemum. Also, Suh Chong-ju showed the life of a chrysanthemum through the four seasons and ties with other elements of nature like a nightingale for spring, thunder for summer and frost for early winter.



Figure 41: Chrysanthemum



Figure 42: Drawing of Chrysanthemum

In fall 2008, I was suddenly reminded of this poem when I saw chrysanthemums in front of a flower shop. Reciting this poem repeatedly, I started to draw the image of my cabinet. When I was designing, the chrysanthemum that symbolized life

⁷ Suh Chong-ju, known in Korea by the pen-name Midang, was born in Sonun village in the North Cholla Province of Korea, in 1915. His first poems were published in the late 1930's and his first collection of poems date from 1941. *The Forest Books* volume contains the complete poems of his first four collections, on which his reputation as Korea's leading living poet mainly rests. In all, he has published nine collections of poetry, as well as many poems published separately. He has edited a number of anthologies and published works on literary history and criticism. He was for many years he was a professor at the Buddhist University and Dongguk University in Seoul where he is now Professor Emeritus. He has been awarded many of Korea's most prestigious literary awards. Translations of selected poems by Suh Chong-ju have also been published in France, Spain, and the United States. He has been nominated for the Nobel Prize for Literature several times.

was placed in the center of cabinet on the drawer. I wanted to give the meaning of the heart through the opening and closing of this drawer.

The passage of the seasons was expressed through the cabinet's rotation. Since the four seasons pass seamlessly from one to the next, I wanted the cabinet to rotate very smoothly on its vertical axis.

The wave on the cabinet's back represents the ebb and flow of the tide that describes his sister's uneasy life. As one may know, time also goes like the motion of the tide. Sometimes it might come with fortune and pass away leaving only a wavy form of the person's life. One's life doesn't have to be straight forward. It should be wavy. It should contain brightness of the life as well as the darkness too. The tide holds both images of the life (i.e. the brightness and darkness of the life that cannot be straight forward for someone's objective). The form of Yin and Yang shown in the base could symbolize the dynamic energy in silence. Usually I think that the bottom stands for the root of

life and also an ignition of birth. Though chrysanthemums can bloom silently, the force and the pain of the chrysanthemum should be somewhat amazing. Finally, the cabinet's circular form links all of the elements into a unity.

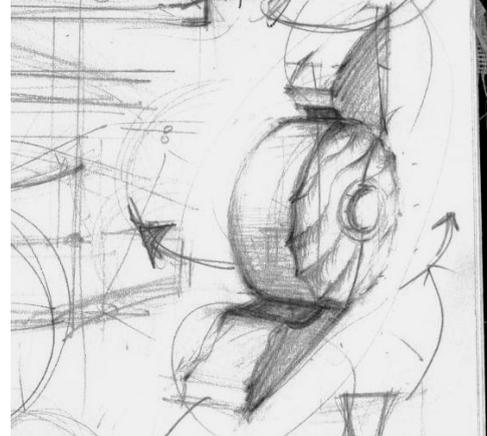


Figure 43: Rough Sketch 1 of the Cabinet

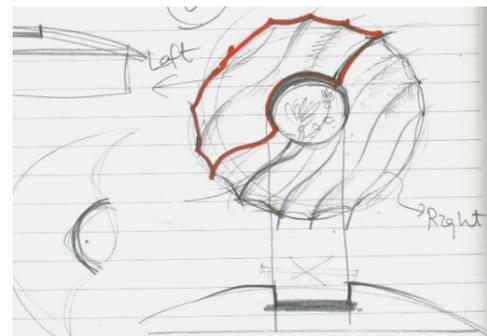


Figure 44: Rough Sketch 2 of the Cabinet

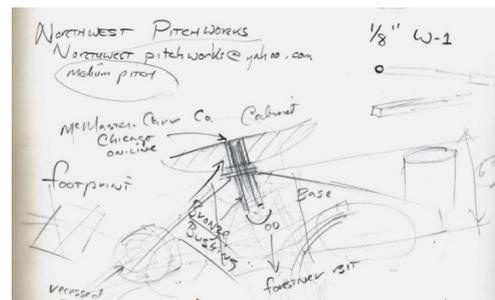


Figure 45: Explanation About the Structure

Final Design Board

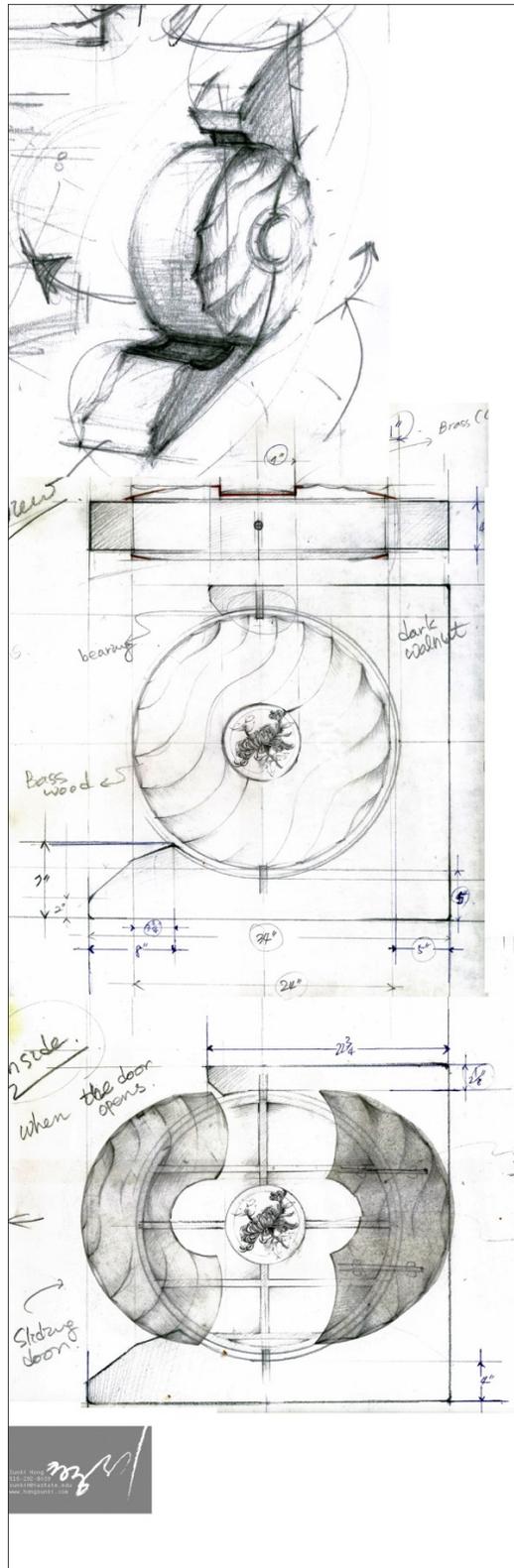


Figure 46: Final Design Board of Chrysanthemum Cabinet



Figure 47: Final Design Board 2 of Chrysanthemum Cabinet

Pictures of the Chrysanthemum Cabinet



Figure 48: Front View of Chrysanthemum Cabinet



Figure 49: Detail 1 of Chrysanthemum Cabinet



Figure 50: Detail 2 of Chrysanthemum Cabinet



Figure 51: Back View of Chrysanthemum Cabinet



2-5. Cardboard Chair for My Son

Year: 2007

Size: 23 X 19 X 21 inches

Materials: Cardboard, Ink

Cardboard Chair for My Son

This cardboard chair is designed for children, originally for my son. It is a RTA (ready to assemble) product and be supposed to be shipped flat. This children's chair is not only stable but also very light and easy to pick up and move. People who assemble this chair do not need to use extra glue or a cutter. They just need to fold and put it together. The price would be relatively low for users. But the low price doesn't reveal all of the chair's functionality. It is also safe for children chemically and mechanically.

Manufacturing environment friendly product is one of the world's hot issues. This cardboard chair considered how we can save resources simply by recycling or reusing any material and give a pleasure to those who might use it. The cardboard chair uses recycled refrigerator boxes, a critical part of the design concept. This product shows the possibility that waste material can be easily reshaped and give us a functional product. It also stimulates people to think about materials before they put them in garbage.

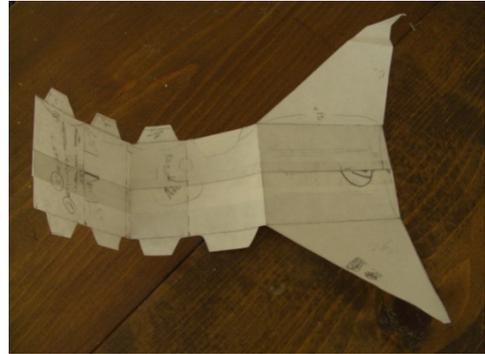


Figure 52: Folding Experiment 1

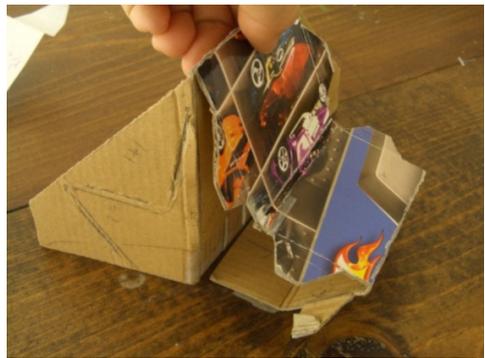


Figure 53: Folding Experiment 2



Figure 54: Folding Experiment 3

I drew my images that my son loves on the surface of the chair. I intended this particular chair exclusively for my son. However, the possibility that anybody can draw on the surface of the chair would be another advantage of this product; even children can draw what they want on the surface.



Figure 55: Folding Experiment 4

Final Design Board

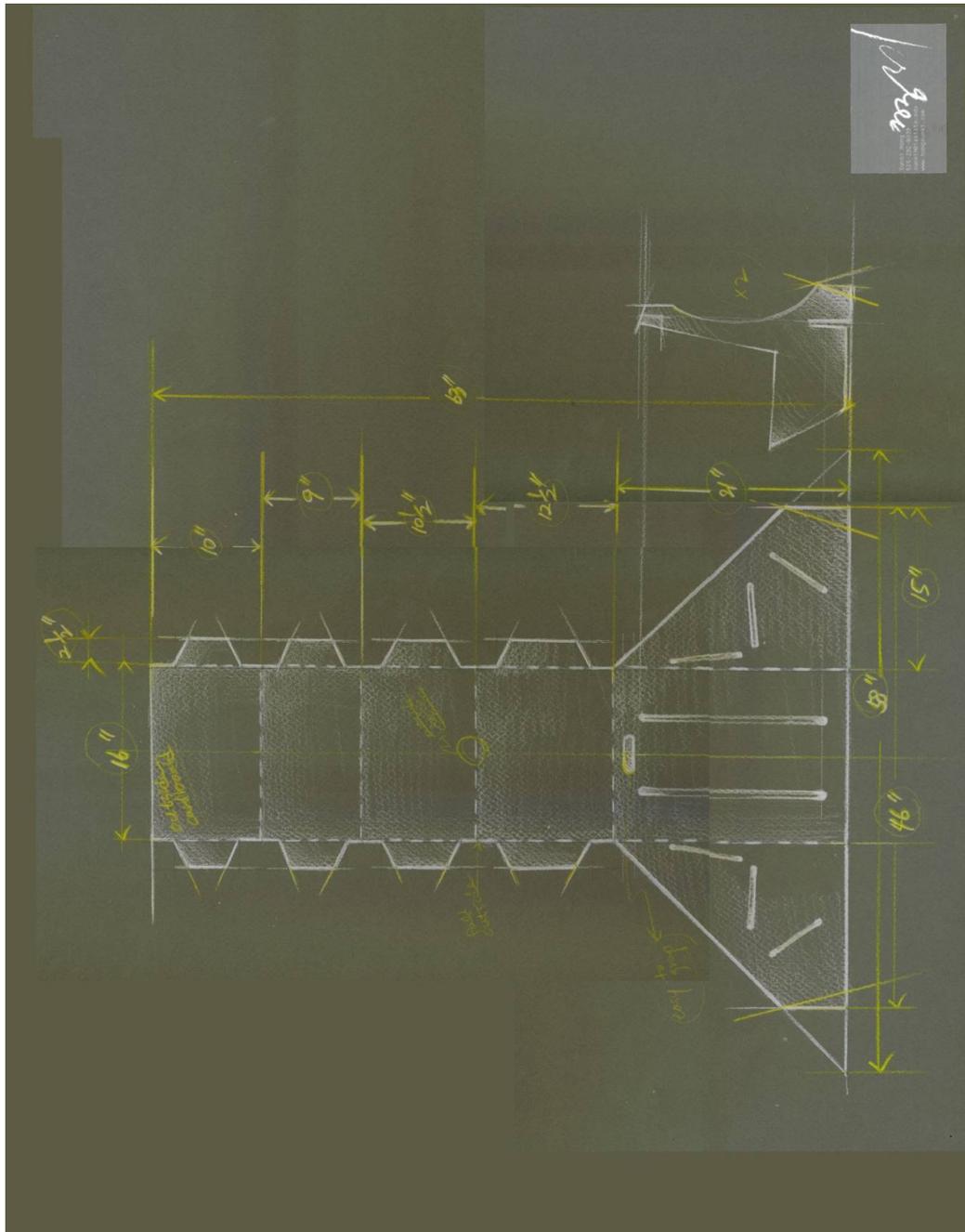


Figure 56: Final Design Board of the Cardboard Chair

Pictures of Cardboard Chair For My Son



Figure 57: Front View of the Cardboard Chair



Figure 58: Back View of the Cardboard Chair

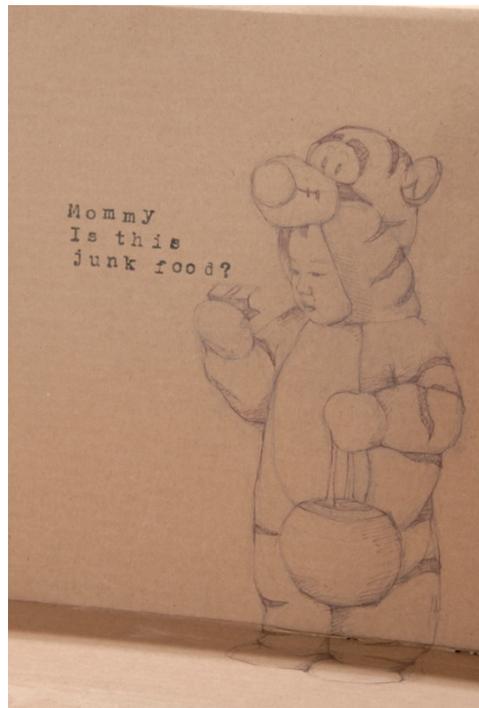


Figure 59: Detail 1 of Chair, Drawing
"Mommy, Is this junk food?"



Figure 60: Detail 2 of Chair, Drawing
"This is for you, mommy."
"This is for you, my baby."



2-6. A Sculpture of Stone & Wood: The Island baby

Year: 2009

Size: 23 X 23 X 7 inches

Materials: White Alabaster, Walnut, Cherry

Korean Lullaby

The Island Baby



섬집 아기

한인현 작사

이흥렬 작곡

엄마가 섬그늘에 굴 따라 가면
아기가 혼자 남아 집을 보다가
바다가 불러주는 자장 노래에
팔 베고 스르르 잠이 듭니다

아기는 잠을 굳히 자고 있지만
갈매기 울음 소리 맘이 설레어
다 못 찬 굴바구니 머리에 이고
엄마는 모랫길을 달려옵니다

The Island Baby

‘The Island Baby’ was inspired by Korean lullaby ‘The Island Baby.’ ‘The Island Baby,’ recorded in 1950, speaks of the love between a mother and her baby living in a lonely house on a remote island.

The lullaby pulls up sequential images of the two, the mother who must work around the seashore for their livelihood and the baby who is supposed to wait at home for his mother. The actual lullaby comes from of the sea waves, the goddess of the sea, who watches over the baby and gradually lulls the child to sleep by singing the lullaby of the waves. The baby sleeps very soon, but the mother who is supposed to be working worries about her baby. A sudden shriek of a seagull makes the mother feel uneasy. Having finished only half of her work, she runs across sand to go back to her baby. This lullaby has been loved by Korean parents for many years despite its mournful tune because it describes accurate the mother’s heartrending situation for her baby.

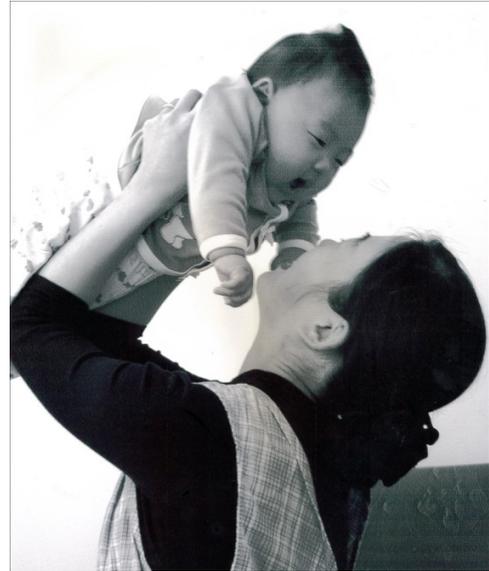


Figure 61: Mother & Baby, 2003



Figure 62: Drawing for Baby Bird



Figure 63: Modeling of Bird

Whenever I try to sing this lullaby, I have not been able to complete it because the strong emotion and tears clog my throat and eyes. So, I decided pour all my heart out to my baby through this work.

The image of the “The Island Baby” comes from the image of the mother bird trying to go forward with the motion saying how busy she and that she needs to fly far to their new nest. Though she is busy, her eyes don’t face forward but go off always to her little baby. For this work, I carved the mother bird out of white alabaster, the baby bird out of cherry and walnut and their nest with natural walnut.

Pictures of Stone Sculpture: The Island Baby



Figure 64: Detail of Stone & Wood Sculpture



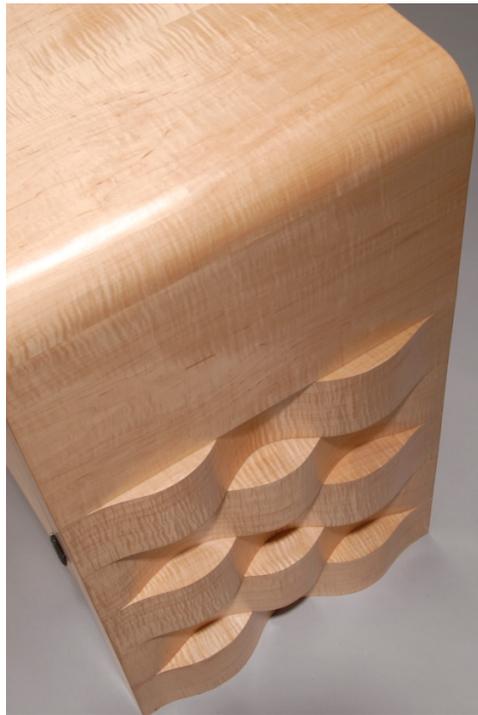
Figure 65: Stone & Wood Sculpture



Figure 66: Top view of Stone & Wood Sculpture



Figure 67: Detail of Stone Sculpture



2-7. Sand Dune Cabinet

Year: 2007

Size: 40 1/4 X 18 X 31 3/8 inches

Materials: Curly Maple Veneer, Plywood

The Little Prince

The reason that I made this cabinet, though Korea has no desert, might come from some kind of yearning for a place that I have never been. This yearning was probably from the book *The Little Prince* written by Saint-Exupéry. When I was young *The Little Prince* that I chose to read for the word, ‘prince,’ was too convoluted for me to understand.



Figure 68: Desert

"It is a little lonely in the desert..." "It is also lonely among men," "And now here is my secret, a very simple secret: It is only with the heart that one can see rightly; what is essential is invisible by eyes." "What makes the desert beautiful is the fact that, in somewhere, it hides a well....." "But the eyes are blind. One must look with the heart..."⁸

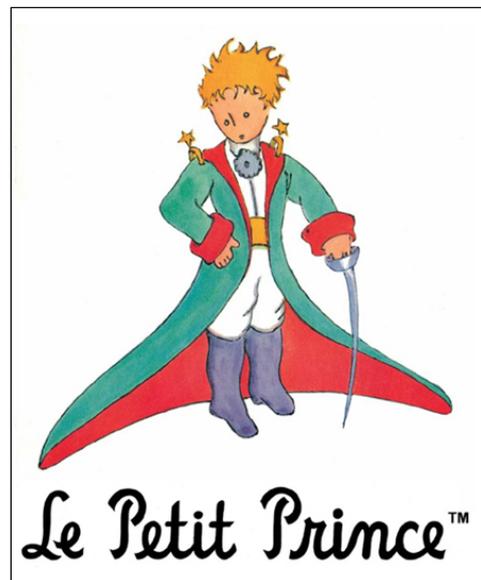


Figure 69: The Little Prince

I picked up the book again during my confused twenties and it made me cry. The name of the Sahara, the background of *The Little Prince* already had the meaning ‘desert.’ There is sand dune, the natural pattern made by wind and sand, so I

⁸ *The Little Prince*, Saint-Exupéry, 1943

made a simplified pattern of the sand dune, and I applied that pattern onto my cabinet to express the desert.

The cabinet was made with curly maple veneer and plywood. I chose curly maple veneer for its delicate bright curl lines that helped me to express the form of the wavy sand dune. The color of the curly maple matched perfectly the image of the desert in my mind.

This cabinet was not easy for me to make because the procedure in veneering was complicated, and the weight of the cabinet was beyond my strength. However, when I complete this work, I feel peace in my mind.

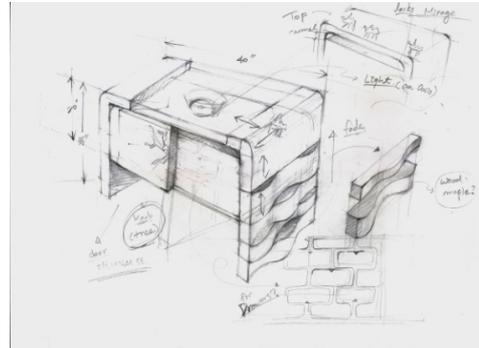


Figure 70: Drawing for Cabinet

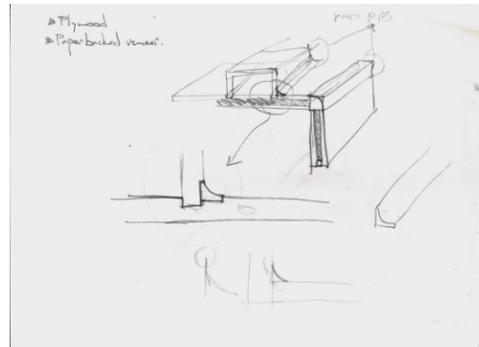


Figure 71: Explanation About the Structure

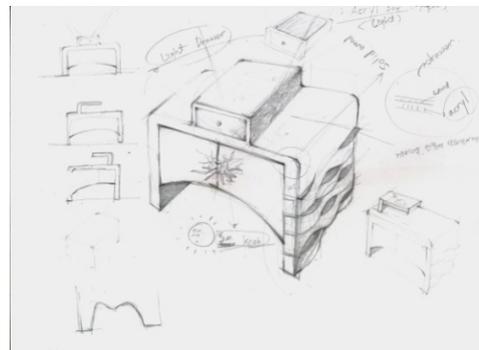


Figure 72: Drawing for Cabinet

Pictures of Sand Dune Cabinet



Figure 73: Sand Dune Cabinet



Figure 74: Detail 1 of Sand Dune Cabinet



Figure 75: Detail2 of Sand Dune Cabinet



2-8. Crane Rocking Chair

Year: 2008

Size: 49 X 23 1/2 X 35 3/4 inches

Materials: Walnut, Fabric

Crane

‘Hak,’ the Korean word for crane, is a spiritual being symbolizing nobility, purity, longevity, and goodness. Images of cranes can be seen in various places such as on uniforms worn by officials, a noble person’s clothing, ceramics, other art forms, and, more recently, on New Year’s greeting cards. There is also a famous dancing style fashioned after the crane. My chair evokes the image of the crane through its graceful lines.

Cranes are characterized as slender because of their long, graceful neck and legs. The slenderness of the crane legs is shown in the tail of chair’s two legs and the side view of the backrest contains the image of the crane’s neck. Cranes can also be described by its elegance because of the curvature of the bird’s wings and the S-shaped line of their neck. I thought that this elegance should be expressed by the curvature of all aspects of the chair. The twisted and balanced symmetric shape of the flapping wings is shown on the both side frames of the backrest. And the requirement of the smooth curvature for the rocking chair and its rocking motion are perfectly matched to present the elegant curvature of the crane. The dark tone of the chair represents the image of the crane spot-lighted from behind so that the basic color of the crane is dark rather than white as seen in the picture below.

A noticeable characteristic of the chair is its unusual height. The low height of the chair is taken from Korean culture where, for many years, people have been accustomed to sitting on the floor. This tradition is more fully describe in the section on the “Low Tea Table.” Today, the traditional sitting culture has gradually changed to the Western practice of sitting higher off the floor on

chairs.

I tried to combine the Korean sitting culture and the Korean aesthetic in the design of this rocking chair. When people watch and experience the rocking motion of the chair, I hope they will feel the harmony of the stillness and the movement shown through the pictures below.

Image Board of Rocking Chair

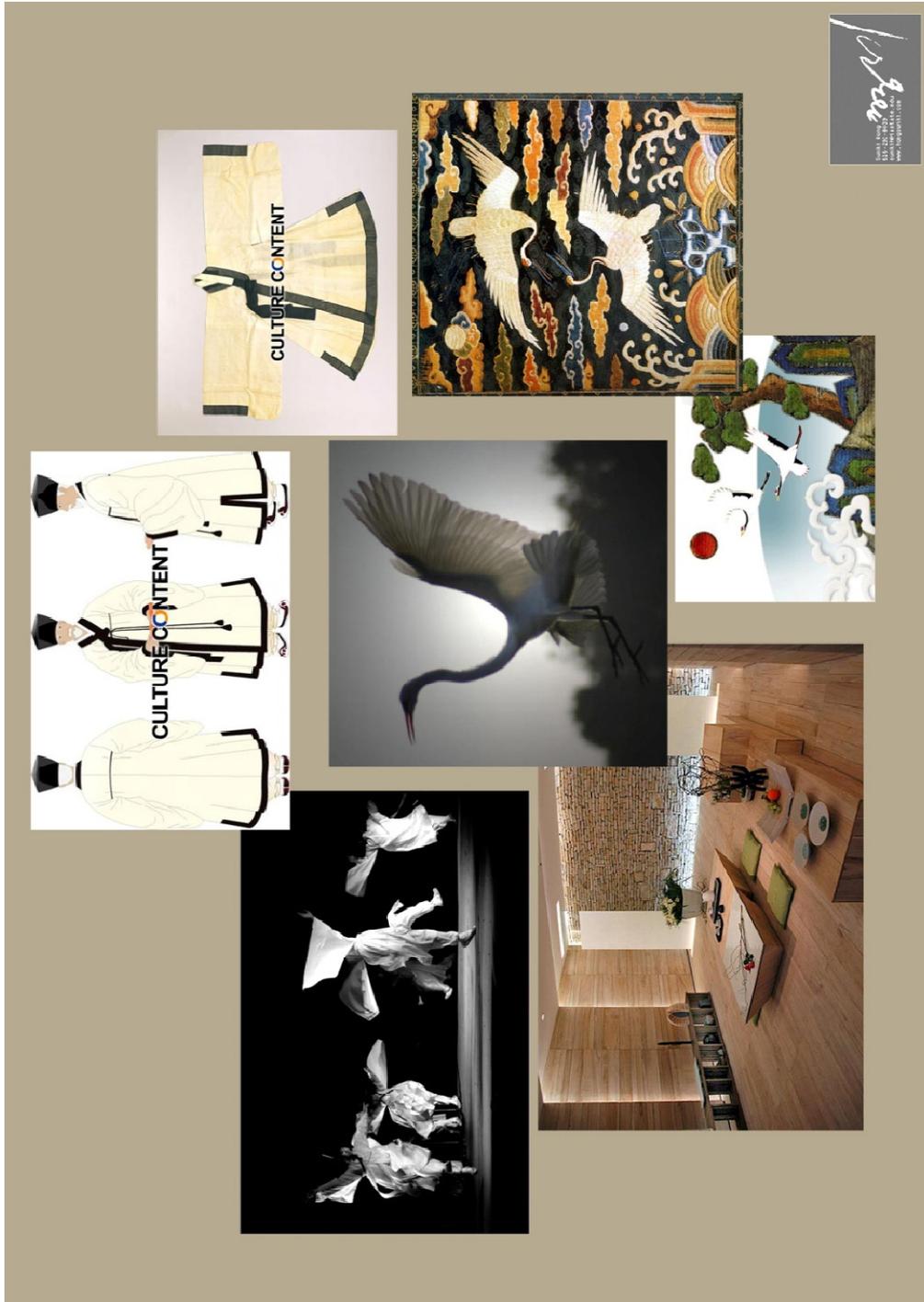


Figure 76: Image Board of the Crane Rocking Chair

Final Design Board

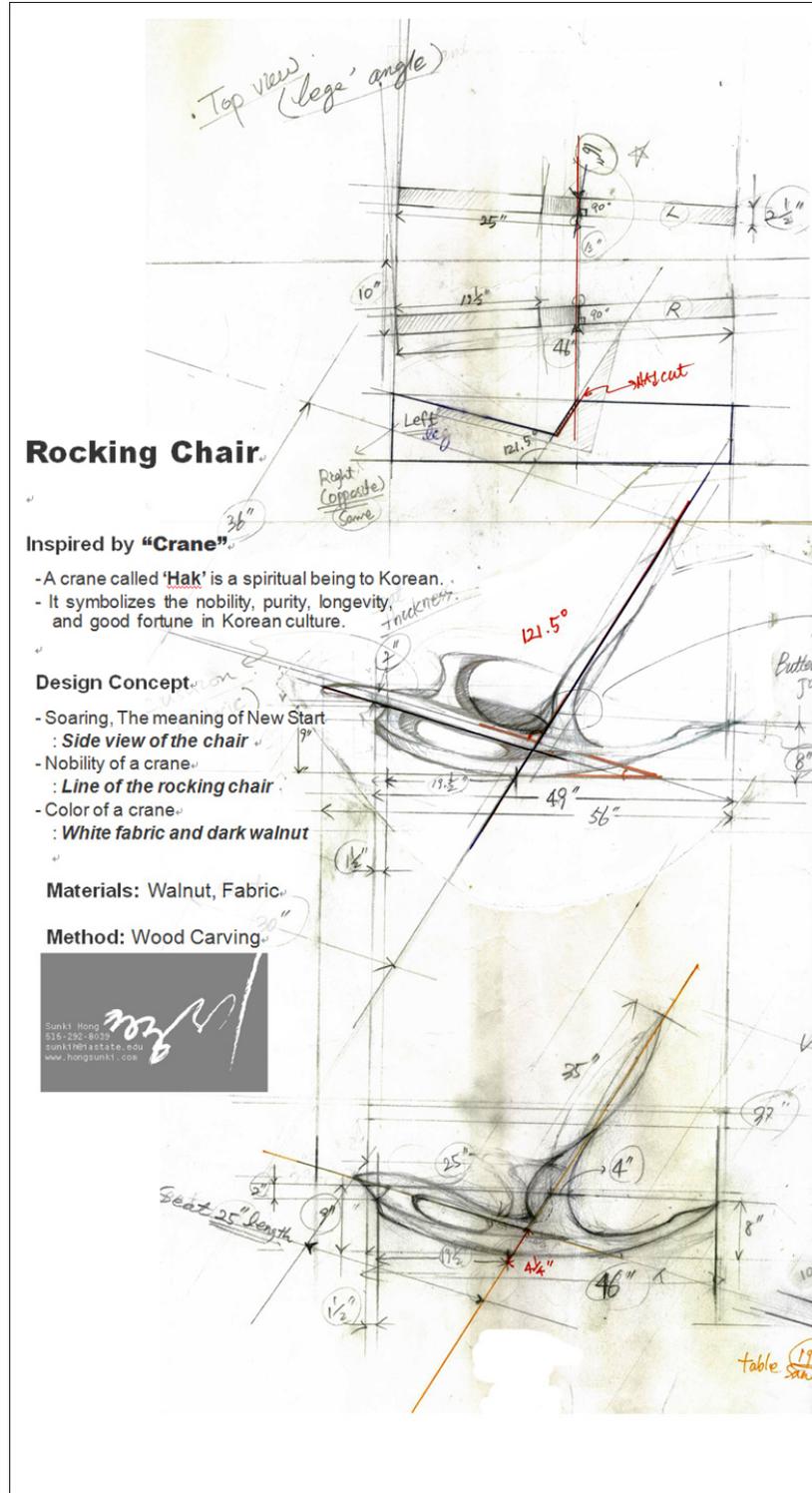


Figure 77: Final Design Board of the Crane Rocking Chair

Pictures of Crane Rocking Chair



Figure 78: Crane Rocking Chair



Figure 79: Side View of the Crane Rocking Chair



2-9. Table With Lighting

Year: 2006

Size: 22 X 22 X 29 3/8 inches

Materials: Curly Maple, Hard Maple

Korean Children Song

The Mountain Spring

Children's Poem: Suk Joong Yoon

Composer: F. Silcher (Germany)

깊은 산속 옹달샘 누가 와서 먹나요
새벽에 토끼가 눈비비고 일어나
세수하러 왔다가
물만 먹고 가지요

How I wonder who may drink
from the spring pool on the mountain

At dawn a rabbit wakes
rubbing his eyes to rise

Though he came to wash his face
All he did was have a drink.⁹

⁹ Translation by Korean Children's Song, Singing with English 3rd Album(우리 동요, 영어로 부르기 3집)

Mountain Spring

The reason that children’s songs still ring in people’s hearts well into adult life could be their serenity and the lightness. Even though the song “The Mountain Spring” has few words, people can imagine the scene which describes the land of the morning calm. I have grown up with this song, and I sing it for my son now.



Figure 80: The Morning Calm of Korea

In Feb 2007, Professor Martin, my first advisor, asked our class to build a table with a given size and features. The other condition for this work was that it should reflect each student’s creativity.



Figure 81: The Lake in the Mountain

I decided to express my feelings for this song into an ordinary side table. The mountain spring at dawn, the faint moon light that doesn’t disappear, the rabbit that comes to the mountain spring leaving its footprints, and the wild flowers that bloom silently deep in the mountain are all elements of the song I wanted to express in the table.



Figure 82: The Mountain Spring

However, I quickly found a problem describing one of those elements. The problem was the

footprint of a rabbit. The footprints that used to be left on snow field in front of my home were not matched with my imagination, so I tried to find an animal whose footprints matched the image in my mind. Instead of a rabbit, I chose a bird and its footprints. But the existence of the bird drinking water could be a little bit dynamic rather than calmness and silence evoked by the song. So I chose an empty mountain spring already with foot prints



Figure 83: Crane

around the drinking place left by a bird that flew away. I used to feel that spring comes without any notice. And I began to notice it is spring suddenly. By symbolizing the sudden approach of the spring with the bird, the mountain spring might be the place where the bird came to drink water and flew away unconsciously. After expressing my feeling of the spring, the existence of the footprints brought me and someone much more fun for enjoying the table.



Figure 84: Orostachys Japonicas

For the knob of the drawer, I choose the wild flower of Korea, *Orostachys japonicas*. I carved the wild flower that blooms and goes away silently somewhere around the mountain spring out of maple scrap wood, and painted it for another detail.

The table has a particular function. A light is turned on when the user opens the drawer. I tried to describe the moon light and the spring on the top with the lighting. I made a circle sunk into the top of the table out of glass to express spring and made a hole to install small light expecting the lighting of the bulb can reflect the image of the moon light, and covered it with opaque glass. It has the effect of the faint light that looks like the moon light reflected in the water.

I sang the special song and told the story of daily mountain life through this work. I hope that the people who look at this table will feel and hear the story about the peaceful and innocent nature by themselves.



Figure 85: Part of Table



Figure 86: Lighting System

Drawing of the Table



Figure 87: Drawing of the Table

Pictures of the Table With Lighting



Figure 88: Detail of the Table



Figure 89: Table With Lighting
When open the drawer, the light turn on.



2-10. Alligator Container

Year: 2007

Size: 2 1/2 X 2 1/2 X 5/8 inches

Materials: Brass, Nu Gold, Sterling Silver, Blue Stone

Alligator with a Cold Heart

The concept for ‘Alligator with a Cold Heart’ was made on impulse. One day, the associate Prof. Joe Muench who is in charge jewelry metals class in ISU talked about an alligator that attacked a woman who was resting in her Florida yard. Suddenly, I imagined an alligator with a cold, blue heart deep in the jungle.



Figure 90: Jungle

I imagined the background to be a deep, dark, damp, swamp with plants that were long and flowing. The lid of the container was intended give the feel of jungle. This was enhanced by using mixed metals like sterling silver, nu gold and brass with flowing curvilinear lines describe the leaves of exotic. The



Figure 91: Alligator

bottom was oxidized a deep dark color to give feel of a damp and shady swamp. I wanted to represent the alligator as having a cold heart. To do this, I set a tiny blue stone in its body to represent it. I textured the silver body with tools to resemble the tough and scaly alligator skin.

Unlike most of my projects, this one was extemporaneously designed, but I perfectly enjoyed the entire process of this work

Final Design Board

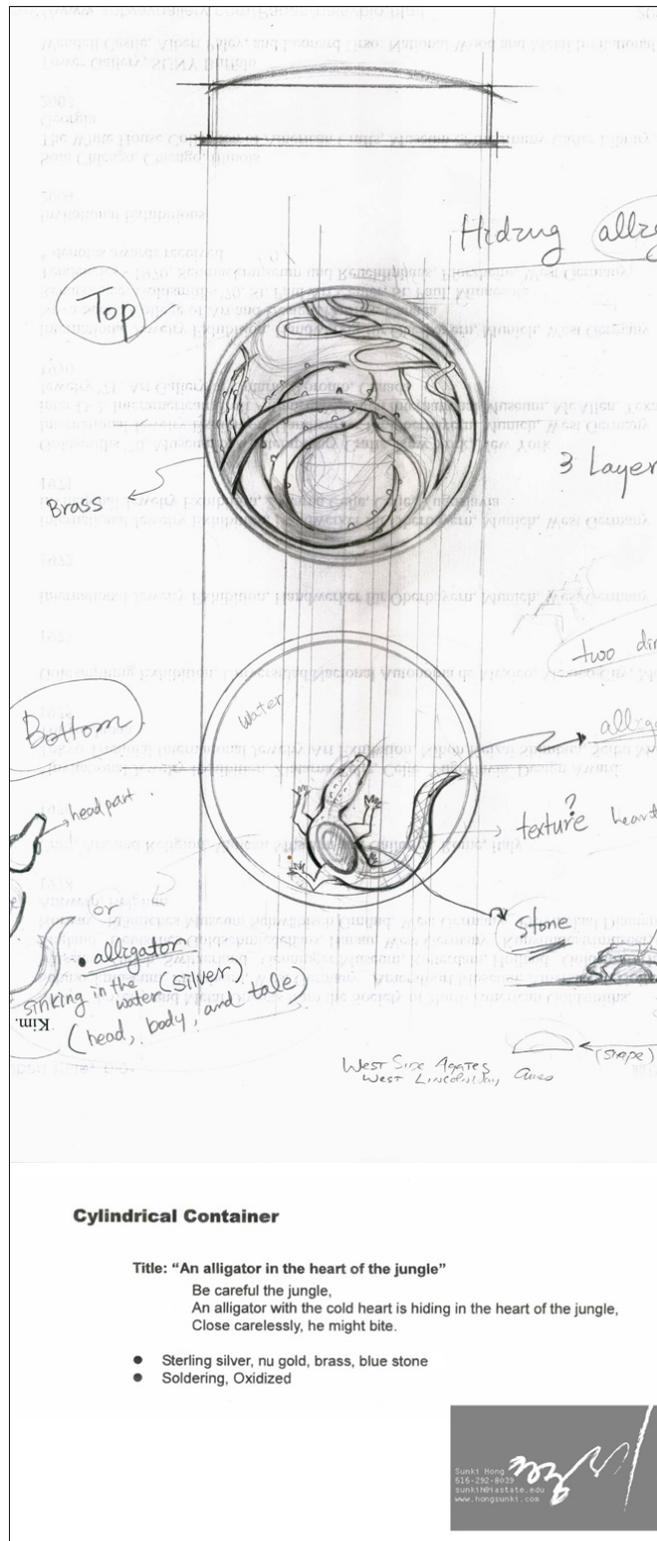


Figure 92: Final Design Board of the Alligator Container

Pictures of a Alligator Container



Figure 93: Alligator Container



Figure 94: Detail of Alligator Container



2-11. Shadow Table

Year: 2006

Size: 27 X 14 5/16 X 31 7/8 inches

Materials: Ash, Walnut Veneer, Walnut

Shadow of Tree

I was just looking outside through the window for awhile. Then, I asked the tree that stood next to the window. “What do you want to be?” Of course, the tree did not answer, but I could imagine the answer as if I were a tree. If I were a tree, I might want to keep the essence of myself as a tree regardless of time and tide that passes for a long while. I might still want to keep the essence of myself though I was transformed to be a piece of furniture. The work, “The Shadow of Tree,” started from this simple question and the desire to keep the essence of tree.

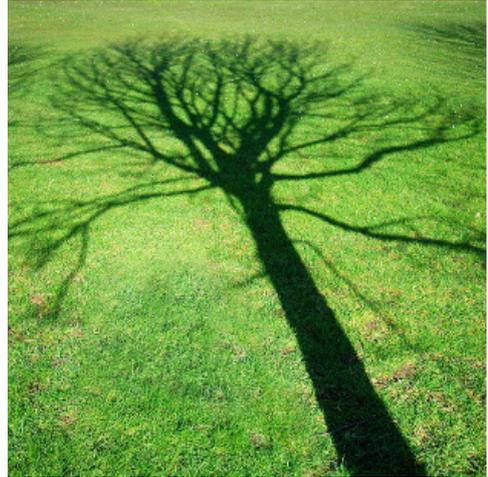


Figure 95: Shadow of Tree

I decided to make one leg of the table tree-shaped. Especially in this case I imagined it to be a wet tree just after a spring shower. Because of this, the natural color of the wood need to be darker and the contrast of the tree tend to be increased. This is the reason I chose rich, brown walnut. I carved the tree leg that stands silently and appears to be vitalized from the rain. This element gives the feeling of stability and the possibility of future growth.

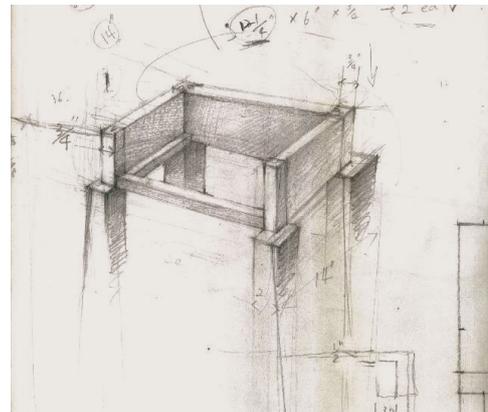


Figure 96: Drawing of the Structure

Upon completing these details, I realized what I forgot: the tree’s shadow. It is also good way to express the vividness of the tree instead of making the whole tree. For the shadow part, I cut the

silhouette of the tree into the top of the table with a small rotary tool, cut walnut veneer the same size as the silhouette using a scroll saw, and set the veneer into the top. It was not easy for a beginner, but I was satisfied by the results of this.

I chose a piece of ash wood with natural imperfection for the drawer face. Because I felt that the cracks or knots were part of the tree and of nature, I didn't want to hide them. Without a hurt, none of any creature could keep its life in nature. The mark of pain on the drawer still catches my eyes. It is a transitory, mysterious element that represents it without the physical form of the trees.

Pictures of Shadow Table



Figure 97: Shadow Table

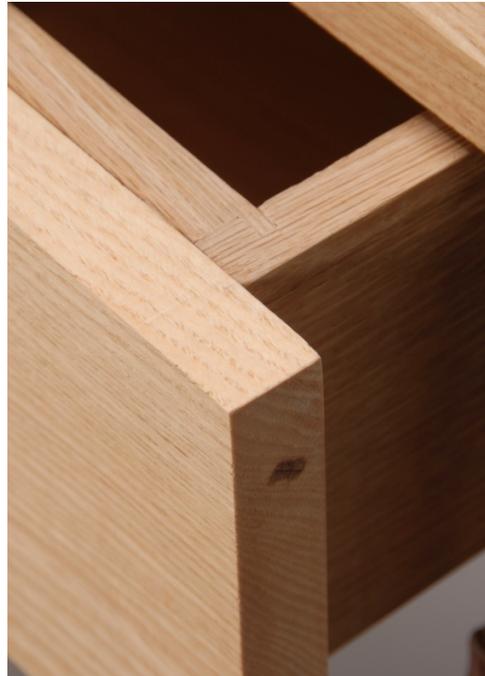


Figure 98: Detail of the Table



Figure 99: Top View of the Table



Figure 100: Detail of the Table

CONCLUSION

The study of the Masters of Fine Arts in ISU was a fantastic adventure in my life. I entered the masters program without previous educational experience in these media. I was fortunate to have professors who encouraged my participation even though they knew that I didn't have any prior experience in their area.

With time and exposure to new skills, new possibilities were offered. I felt freedom with expanding choices, such as special techniques like Chasing and Repousse or through the wide range of materials like wood, metal and stone that were at my command. Finally, I felt that I could truly express what was in my imagination. It was such an amazing experience what only existed in my mind could be made real with my own hands.

I created over ten artworks during my graduate education. Of course, not all of my items were successful pieces. However, I have no doubt that the experience I gained from each failure would be also be a valuable asset for my future. While I am not certain about my future, when I return to Korea, my life will not be boring. I look forward to applying what I have learned. It is an important way that I may express my thoughts and communicate with others.

While moving forward makes me somewhat nervous, I am also excited about the next adventure. What I know today will help guide it.

APPENDIX

Wood Working Techniques

1. Making Veneer
2. Bent Lamination
3. Wood Turning

Metal Working Techniques

4. Chasing and Repousse
5. Making Chasing Tools
6. Raising
7. Die Forming

Stone Working Technique

8. Stone Carving

1. Making Veneer



Figure 101: Picture of setting the band saw

1. Setting a band saw:

To make veneer, the most important thing is adjusting a saw precisely. First, draw a line on the thin squared scrap wood to parallel with one side. Second, cut the 1/3 part of the wood along the line on a band saw table and turn off the saw. Third, place the fence of a band saw and adjust it against the edge of the scrap wood. Then the fence is set at precisely 90 degree. Fourth, place the plywood fence that made with 90 degree accurately against the first fence and clamp it carefully. Don't forget to check the distance between the saw blade and the fence at this time, and check the angle of the fence and the table of a band saw. It should be 90 degrees too.

Figure 103: Picture of the walnut veneer

3. Sanding the surface:

Once the veneers have been cut, sand them to make same final thickness and to get smooth surface. Use a power planer or a wide belt sander for that process. However, if the veneer is very thin or too small, a wide belt sander is better to use at this time.



Figure 102: Picture of working

2. Cutting wooden board:

First, place the perfectly squared wooden board on the table and hold the face of the board against the fence. Second, start cutting slowly and carefully. It is important to keep the position of the body and hands at this time. The position of the hand should push the board to the fence with steady pressure and push to forward at the same time. If the saw blade approaches on the end of the board, using a wooden stick instead of fingers to push the board is good way.



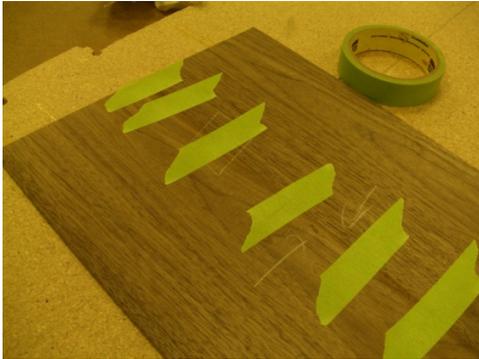


Figure 104: Picture of making wide veneer

4. Attaching two veneers:

This is the way to make bigger veneer sheet. First, prepare the veneers, and glue to the mating faces of each veneers. Second, set with the faces, and attach the masking tape on it, pull and stretch from one veneer board to the other board tightly. Then, wait until the glue dry. It should take around 45minutes.



Figure 105: Picture of wide veneers

5. Complete making veneers:

After removing the tapes, sand veneers using the wide belt sander once more.

2. Bent Lamination



Figure 106: Picture of forms

1. Making a form:

First, prepare the several pieces of the same sized plywood, draw a curved line on one plywood board, and cut along the line carefully by using a band saw. Second, clean the cutting face. This board should be the standard board. Third, rough cut the other plywood boards with same way, but give some extra length from the line. Fourth, stack the standard board and the other board by using double-stick tape, and place on the table router. The standard board should be top place. Fifth, cut it by using the straight router bit with bearing. It should be cut exactly same as the standard board. Repeat this way to cut all plywood boards. Sixth, there are two ways to make form. One is stacking all boards and the other way is making bottom panel to hold the plywood boards. In the first case, gluing each boards and clamping together are the end of this procedure. The other one is that standing in a row the boards into the each slots of the bottom panel, attaching with glue or nail, and covered with thin plywood.



Figure 107: Picture of a vacuum machine

2. Setting vacuum bag:

To vacuum clamp, the clamping board is required. The size of the board should be different with project. First, make several horizontal and vertical shallow slots into the plywood board to maximize vacuum. Second, place the board in the vinyl bag, and connect the hose of the vacuum pump with the hole in the vinyl bag.



Figure 109: Picture of the picture of the leg of the tea table by using bent lamination



Figure 108: Picture of working

3. Compressing air:

First, put glue on the surface of each veneers. If veneer stack is too thick, a better way is to glue up and to compress half stack of veneers in one assembly. Second, put a wax paper on the form, lay the veneer stack on a wax paper, and cover the other wax paper to prevent the spread of squeezed glue. Third, place it in the vinyl bag, and seal the vacuum and turn on the vacuum machine. It should take 2 hours, but it might be different with temperature and materials.



Figure 110: Picture of the leg of the Tea Table

3. Wood Turning



Figure 111: Picture of the lathe

1. Finding center point

Matching the axis of the lathe and the center of the wooden block is very important in this case. First, prepare the scrap plywood to make avoid having screw holes, mark the center point on the plywood, draw a circle with a compass, and make a rounded form by a band saw. Second, attach it onto the wooden block with glue, but don't forget to stick the thin paper between the scrap wood and wooden block. It makes the pieces separate easily after turning. Third, draw a circle with the center point of the scrap plywood as it is center with a compass. Fourth, cut the block round with a band saw or octagonal form at least because square corner is too dangerous to use lathe.



Figure 112: Picture of working process

2. Mounting the pieces:

Attach a steel disc on the scrap wood with screws, and mount the whole pieces on the lathe head part.



Figure 113: Picture of Turning

3. Turning the pieces:

First, turn on switch, and adjust RPM (revolutions per minute) of the lathe slowly. Second, shape the side of a rough rounded wooden block at first to make completed round cylinder form by using gouges and chisels.



Figure 114: Picture of the walnut plate

4. Sanding the pieces:

Make smooth the surface of the plate with the 80 grit sandpaper while the lathe still turns on. Next, move on from 100 grit-220 grit sandpaper gradually. Finally, use a Scotch-Bright pad for the final surface and put wax on the surface of the plate. Separate the scrap plywood block and the plate with chisels carefully, and clean the part.



Figure 115: Picture of the Tea Set

4. Chasing and Repousse

Chasing and Repousse is an ancient metal technique found throughout the world in both Eastern and Western cultures. It has been used to express sculptural effects in sheet metal skins by pushing the metal with hammer driven chasing tools. Typically, a cast iron bowl with “pitch” inside is used to hold and support the metal as it is being worked. If the metal is being hammered from the front, it is called “chasing”. If it is worked from the back, it is “repousse”.

4-1. Ancient Relics of Korea



Figure 116: Dragon Gold Buckle (National Treasure 89th of Korea)

Size: 9.3cm

It was excavated in tomb of the Nak Rang period (1st century) in 1916 in Pyungyang



Figure 11: A Gold-Plated Silver Bracelet

12th century, Goryeo Dynasty

Flower and bird patterns

Size: diameter 9cm

4-2. Preparing



Figure 118 : Chasing Tools

Chasing tools are used to create textured patterns and volume in a surface



Figure 119: Red German pitch

It is perfect for chasing. Chaser melts the solid pitch at low temperature and pour into the pitch bowl to set.



Figure 120: Pitch Bowl

It is composed of the shape of a half sphere and a round rubber pad for bottom. Chaser can be positioned in any convenient angle while chasing.



Figure 121: Chasing Hammer

The large and flat face of the hammer is convenient to strike the back of the chasing tool.

4-3. Process



Figure 122: Picture of the 1st step

1. Outlining on the brass:

First, I prepared a 6 inch diameter annealed 20 gauge brass disc. I then drew my design on the surface with a pencil. The disc was then set onto the smooth surface of the warmed pitch, and pushed gently on top to embed it. The drawn outline was then chased using the "liner" (chasing tool). Once complete, the metal was removed from the pitch by gently heating it. The disc was annealed to an orange glow, with a white ash residue. It is then rinsed, pickled and dried.



Figure 123: Picture of the 2nd step

2. Making volume:

Following the outlines, punch on the back of the brass on an 1/8 inch vinyl pad, or leather to create major areas of depth with a forming hammer. This is a very effective way to create volume. Anneal the brass.



Figure 124: Picture of the 3rd step

3. Working on the front (Chasing):

Re-place the brass onto the warmed pitch, let it cool and start chasing on the front again with soft tipped liner. Next, use a “heel” tool to push metal away from the lines, then sink the lowest parts further with round tipped tools. Take the brass off from the pitch. Anneal it, rinse, dry.

Figure 125: Picture of the 4th step

4. Working from the reverse (Repousse):

The work is shaped from the back with round tipped shaping tools. Remove from pitch. Repeat annealing rinsing procedure..



Figure 126: Picture of the 5th step

5. Adjusting the volume in detail:

Check the appearance. Reset the brass into the pitch bowl. Next, work to adjust the volume on the front of the brass. When satisfied, remove from pitch, anneal rinse, dry.



Figure 127: Picture of the 6th step

**6. Working on the back
(Repeat Repousee):**

Repeat the repousse procedure. The form may be tested with clay that pressed into the back. When reversed, the clay will be shown how the looks. Then proceed, pushing the brass to express the highest parts with the shaping tools. Anneal, rinse, and dry.



Figure 128: Picture of the 7th step

7. Repeating the process:

Repeat these procedures (steps 1-6) front and back until the final volume is achieved.



Figure 129: Picture of the last step

8. Defining the outline of the design:

For the final details, define the outline with the thin liner, and create the surface texture on the background. For this piece, the chasing is placed within an oxidized brass ring. This will become the front of a cabinet drawer for the “Chrysanthemum” cabinet.



Figure 130: Chrysanthemum Cabinet

5. Making Chasing Tools



Figure 131: Picture of the 1st step

1. Heating the steel rod:

First, heat the top 2/5 of a W1 steel rod (1/4" thickness), to a bright orange color. In this case an acetylene torch is being used. If many are produced, a coke, or gas forge is more efficient.



Figure 132: Picture of the 2nd step

2. Squaring and Tapering the rod:

Move the rod to an anvil quickly. Hit it with a forging hammer, turning it 90 degrees to square it. Work the rod to a tapered form. This must be done before the orange color is gone, or the tool will later crack during hardening and tempering. Repeat until desired taper is formed. This is then "hot cut" with a hammer on the "hardy" (a chisel like form held in the anvil or vise). Air cool blank



Figure 133: Picture of the 3rd step

3. Repeat the process:

Forge the tips (end 2/5) until the desired shape is created. This is guided by drawings measured in millimeters. Repeat this procedure until approximate shape is obtained. Cool it to room temperature slowly by burying it in pumice pan, or vermiculite.



Figure 134: Picture of 4th step

4. Flatten the tip with a file. This will give a clean surface to draw tool tip shape onto. The sides may be roughly ground using a grinder.



Figure 135: Picture of the 5th step

5. Shaping the taper/tip:

Shape the tip to the desired shape with a mill bastard file. Then refine the surface with silicon carbide sanding sticks with 220, 320, 400 grits.



Figure 136: Picture of the 6th step

6. Hardening the rod:

First, heat the rod until its color has changed to bright orange and quenches it in oil or water while stirring. Oil cooling is slower and helps prevent cracking. (Be ready to extinguish the flame in the oil can with a lid. Be careful not spill it in the area where the torch is used.) Next, clean the tip surface with 400 grit silicon carbide abrasive.

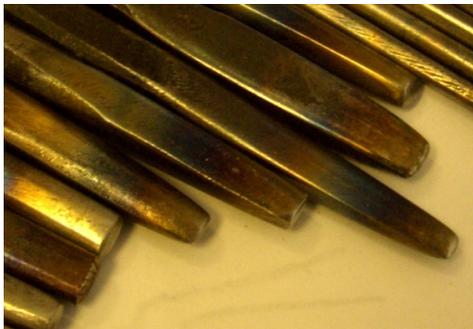


Figure 137: Picture of the last step

7. Tempering the rod:

Heat the thick section (mid point) of the tool with small torch. A “temper” color will appear, moving from straw-brown-blue to purple gradually. Once the tip has a “straw” color, it is immediately quenched, while stirring. This “locks” the temper. The straw color means that it has a durable hard quality at the tip. The purple mid section means that it is springy and able to withstand hammer blows. If the temper color is “over-shot” (if purple color reaches at the tip), it can be re hardened and tempered.

5-1. European style tip styles and Dimensions

Common Chasing Tool Tips and Dimensions				Muench			
Tool	Front			Side			Top
	sm.	med.	lg.	sm.	med.	lg.	Total dim.
Round Outliner (soft and hard edged) (2 blanks each sz)							
	4mm, 6mm, 8mm			1mm, 1.5mm, 2mm			1 mm x 4mm (sm) 1.5mm x 6mm (med) 2mm x 8mm (lg)
Heel (soft and hard edged) (2 blanks each sz)							
	4mm, 6mm, 8mm			2.5mm, 3.5mm, 5mm			2.5mm x 4mm (sm) 3.5mm x 6mm (med) 5mm x 8mm (lg)
Shaper (round) (soft and hard edged) (2 blanks each sz)							
	4mm, 6mm, 8mm			4mm, 6mm, 8mm			4 mm (sm) 6mm (med) 8mm (lg)
Shaper (oval) (soft and hard edged) (2 blanks each)							
	5mm, 7mm, 9mm			3mm, 4.5mm, 6mm			3mm x 5mm (sm) 4.5mm x 7mm (med) 6mm x 9mm (lg)
Shaper (Grain) (soft and hard edged) (2 blanks each)							
	5mm, 7mm, 9mm			2mm, 4mm, 5mm			2mm x 5mm (sm) 4mm x 7mm (med) 5mm x 9mm (lg)

Figure 138: Common Chasing Tool Tips

6. Raising Technique



6-1. Raising

Figure 139: Tea Vessel

Raising is a technique used to make seamless volumetric shapes by compressing a flat disc of metal with hammers. This technique has been used not only in the West, but also in Korea for a very long time. Raising hammers, mallets and stakes are needed for this procedure.

6-2. Preparing



Figure 140: T- Stakes

It has two shapes in both sides, and its surfaces are smooth.



Figure 141: T-Stakes

Stakes for raising may be T-shaped with softened edges. They may also made of wood or plastic.



Figure 142: Raising Hammer & Nylon Mallet:

These tools have rectangular cross peen faces. The edges are rounded to avoid leaving marks.



Figure 143: Face of Raising Hammer



Figure 144: Planishing Hammer:

It has rounded and flat, sometimes slightly concave surface. It is used during the final stages for refinement.



Figure 145: Face of Planishing Hammer

6-3. Process



Figure 146: Picture of the 1st step

1. Sinking 6 Inch Metal Disc:

Prepare 6 inch diameter annealed disc of 20 gauge thickness. Place the disk on a wooden sinking block, and hit it with rounded mallet. or mushroom stake. “Bouge” the metal surface with a mallet to smooth it (bouge means “to move” in French)

Figure 148: Picture of the 3rd step

3. Crimp the Disc:

Crimping gives to disc more height quickly, and anneal it.



Figure 147: Picture of the 2nd step

2. Draw a Concentric Raising Line:

Draw line with a compass, spacing approximately 1/4” apart.





Figure 149: Picture of the 4th step

4. Place the Disc on the Stake:

Place the disc on the raising T-Stake, begin raising from the center and work to the outer edge of the fluted part with the a nylon mallet of a raising hammer. Anneal it. This sequence of raising and annealing will be repeated many times until desired form is achieved.



Figure 151: Tea vessel



Figure 150: Picture of the 5th step

5. Planish the Vessel:

Planish the vessel to make it smooth with the planishing hammer after finishing the raising sequence. This will leave a series of facets that may be retained on the metal surface. They may also be removed by filing, abrading and polishing the metal.

Definitions

Height plus diameter equals the starting disc

Raising: compressing the metal

Sinking: stretching the metal

“Kernel”: center point (left on the outside of the vessel as a point of reference).

Pass: one revolution

Stanza: one hand hold

Course: one complete working

Bouging: smoothing surface to remove irregularities, generally with a mallet

Planishing: final refinement of metal surface with a specialized planishing hammer⁷

Die Forming

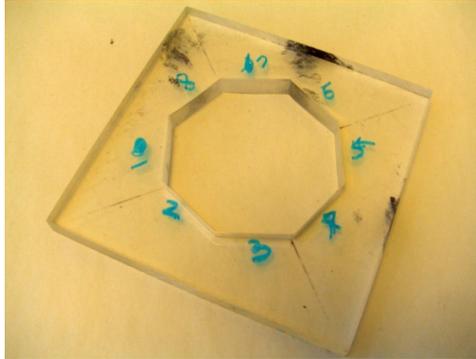


Figure 152: Picture of the 1st step

1. Make 1/4 inch thickness Plexiglas tm. die
Cut the inside of plexiglass to the desired shape with scroll saw. Carefully true the edges with a file.



Figure 153: Picture of the 2nd step

2. Hydraulic pressing:

First, prepare annealed metal sheet. Second, place the die on the press bed, with the metal centered. A 85 durometer urethane pad is placed on top of this assembly. There is a hole in this particular top press platen, so a heavy steel plate is used to cover it.

*Warning: the hydraulic press is very powerful, and dangerous if used incorrectly. Wearing safety glasses, begin pumping the jack, carefully observing the die, listening for "cracking" sounds. When the needle reaches the red warning mark, stop. Release the jack pressure, remove the assembly and check to see if the form is deep enough. If it is not, it can be annealed, and the process repeated.



Figure 154: Picture of the die form

3. Metal after compression into die.

It is now ready to be annealed and receive the chasing.

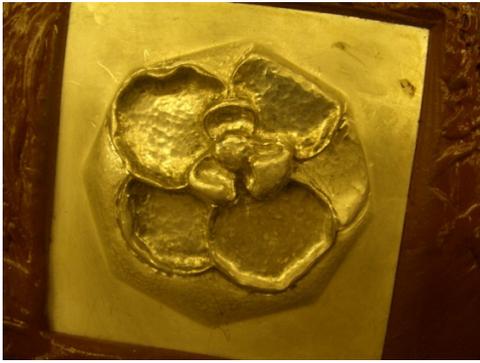


Figure 155: Process of Chasing & Repousse



Figure 156: the Magnolia Box

8. Stone Carving

8-1. Preparing



Figure 157: White Alabaster:

Alabaster is a very soft stone so it easy to carve. It is also extremely beautiful. It has color variations and patterns that include white, green, red, and cream. The carver must be cautious- it is easy to break while carving.

Chisels for Pneumatic Tool:

The chisels pictured above, the "rondel" chisel, the "tooth" chisel, and the "flat" chisel are for a pneumatic tool. The rondel chisel is used to make peaks and valleys and the tooth chisel is used to remove the peaks and valleys left by the rondel chisel. The flat chisel is used to smooth out the surface after using the toothed chisel. It helps to prepare the stone for final finishing.



Figure 159: Picture of the "rondel" chisel



Figure 158: Mallet, Point Chisel and Model:

The point chisel is used to remove materials quickly at the beginning.



Figure 160: Picture of the "tooth" chisel



Figure 161: Picture of the "tooth" chisel



Figure 162: Picture of Air Tool Oil

8-2. Process



Figure 163: Picture of the 1st step

1. Remove excess material quickly with the point chisel and a hammer:

Hold the chisel with your thumb on the outside. It helps to prevent striking your thumb with the hammer.



Figure 164: Picture of the 2nd step

2. Work with pneumatic hammers:

The pneumatic hammer saves time and reduces a lot of hand carving. First, make peaks and valleys (crossed lines) using the rondel chisel on the each side of the stone. The lines guide and establish the desired form.



Figure 165: Picture of the 3rd step



Figure 166: Detail of the 3rd step

3. Refine the stone with a tooth chisel:

Using the tooth chisel, remove the peaks and valleys to bring it to a more refined surface. The tooth chisel brought it close to the contours of the desired form.

Figure 167: Picture of 4th step

4. Repeat the process:

Work towards the desired form using the rondel chisel and tooth chisels alternately.





Figure 168: Picture of the 5th step



Figure 169: Picture of the 5th step after work

5. Remove the texture:

Using the flat chisel, remove the texture left on the surface by the tooth chisel.



Figure 170: Picture of the 6th step



Figure 171: Final shape of “The Island Baby” After filing

6. Finishing:

Refine and shape the surface in detail with files and “riffilers”. (Files with specially shaped tips),



Figure 172: Picture of polishing process

7. Polishing:

Start sanding with 150 grit sand paper under running water. Work from 150 grit through 2000 grit until the desired surface is achieved.



Figure 173: Final shape of “The Island Baby” After filing of the side view



Figure 174: A Sculpture of stone & Wood: “The Island Baby”

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ACKNOWLEDGEMENTS

I would like to express my gratitude to a number of individual who have helped me during my graduate studies at Iowa State University. This paper would never have been completed without their support and encouragement.

Most of all, I would like to thank Professor Mark Chidister, my major professor, for encouraging me to organize this paper, giving me technical assistance and his benevolent smile. Without him, I couldn't have completed this paper and this program. To Professor Joe Muench, a graduate committee member and my metals' teacher, for introducing me to the world of metals, and for his endless patience and enthusiasm. Without him, my artworks would remain in my imagination. To Professor Sunghyun Kang, the third member of my graduate committee, and former teacher in Korea, for encouraging me to apply to this program and for her warm advice. Without her, I would have never tried this program. To Professor Chris Martin, for teaching me all about wood working and enrolling me in his class. Without him, it would be impossible to gain the knowledge in woodworking I have today.

I would also like to thank the numerous friends and colleagues who have given me their support. To Michael Stanley, my special friend and lecturer at Iowa State University, who taught me stone carving, and for his endless help and artistic advice. It has been a pleasure working with him. To Jon Kamrath, my special friend, for the close friendship and support that he gave me.

I would like to give special thanks to my parents, especially, to my mother, who from my childhood gave me endless courage and recognized and nourished the artist within me. Today, I am especially appreciative of her. Finally, my gratitude goes to my attentive husband, Kyongsoo

Kim for his encouragement, his patience and assistance, and to my lovely son, Youngsung Kim, who inspired me.