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Chinese Characters as Sources of Design for Furniture

by

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Chapter I. Introduction

- **basic premises**
- **background**
- **character selection**

Introduction

Basic Premises

This thesis is an exploration of possibilities of the translation of Chinese characters into furniture. It is not just the two dimensional image of the character that I wish to interpret into three dimensions, but I intend that the functions and uses of the furniture are to be the meaning of the word. The final pieces are intended to be recognised as to their meaning by anyone literate in Chinese character forms.

Furniture that has both form and meaning will create new possibilities for furniture's role in the environment by having this extra dimension.

Background

I chose Chinese characters as a source of design for the furniture pieces because Chinese characters had more potential possibilities than Korean or English typefaces. Korean and English typefaces consist of only two elements, shapes and sounds, but Chinese characters have an extra element, meanings. One character may represent one, or more words, and may even represent an entire concept. Meaning is a medium to link the shape and function of the furniture.

Chinese characters are regarded as traditional or old-fashioned to new generations of Koreans, because they have been used in the decoration of furniture for centuries. The Chinese have used particular characters, which have positive connotations such as 'rich', 'health' or 'peace'. But my works are totally different from them because in this project, the Chinese characters were used as a

source for the whole shape and function of furniture, not merely an applied surface treatment.

Chinese characters were created as hieroglyphics. Then, as time went by, their shapes were modified for convenient usage or calligraphic beauty. Because of their hieroglyphic backgrounds, each character has its own meaning which is related to the image of the letter. Moreover, many of characters contain profound conceptual meanings and philosophical thoughts. Therefore, using Chinese characters, I can also express ancient Chinese philosophical thoughts from the backgrounds of characters into furniture.

“Chinese characters are originally pictorial. But, while Egyptian hieroglyphs express in concrete pictures the ideas that provided the basis for conception of each character, Chinese characters rarely do. Even in their earliest form, they have already undergone a fairly complex process of abstraction. They are conceptualized images, not ‘pictures’.”¹

“ According to legend, Chinese characters were invented by a historian under China’s founder about 4500 years ago. Archeological research indicates that the earliest forms of Chinese characters appeared as early as 8000 years ago and formed a complete system of writing by about 3500 years ago. Approximately 2000 years ago the popularization of the ink brush fundamentally altered the shape of characters, changing them from the rounded “seal character” (still carved on official seals) to the more angular characters used for most purposes

today.

Though convenient, the new writing style obscured the original logic of the characters, resulting in miswritings and the creation of illogical new characters. Facing this problem, one scholar responded with an etymological dictionary based on surviving samples of earlier scripts. By explaining the underlying logic of each character, this work succeeded in stabilizing the writing of characters in forms essentially comparable to, though differently shaped, than the seal characters.

Chinese characters are differentiated into six types of characters. The basic units are pictographs portraying objects, e.g. tree ‘木’, and ideographs suggesting abstractions, e.g. one ‘一’.”²

“ The first step in Kanji development is undeniably the pictograph. Those objects which most readily greet the eye and which are at the same time most concretely graspable - the sun ‘日’, moon ‘月’, Horse ‘馬’, bird ‘鳥’, eye ‘目’, ear ‘耳’, mouth ‘口’, - were delineated as simple images. Running water ‘水’ was depicted literally ‘𣶒’ as were such other basic elements as fire ‘火’ or animal fur (hair) ‘毛’.

In many cases, as the functions of Kanji multiplied, the dots and lines that originally formed the characters were connected and elongated, pushed and pulled into figures easier to write and more pleasing to the eye. ‘大’ meaning ‘large’, pictures a man with arms and legs extended to both sides. the character for ‘small’, ‘小’, used to be written with three small dots: ‘ . . . ’.”³

“ These pictographs and ideographs combine to create two additional types of characters, logical aggregates and phonetic complexes. Logical aggregates combine the meanings of different characters to create a new meaning, e.g. a female ‘女’ child ‘子’ is good ‘好’, or the sun ‘日’ and moon ‘月’ are bright ‘明’.”⁴

“ All of these constitute the most simple Kanji and serves as radicals. If you can get them down pat, you will have no trouble using a Kanji dictionary, for more complex characters are filed under their radicals like words under the first letter. To relate more complex expressions, they can be combined. ‘人’, ‘man’, plus ‘言’, ‘words’, gives ‘信’ which, optimistically, means ‘sincerity’ or ‘truth’ ”⁵

“ Phonetic complexes combine the meaning of one character with the sound of another. The final two types of characters represent transformations in the meanings of these first four types. Associative transformations extend the meaning of a character to a related concept. False borrowings give an unrelated meaning to a character, generally that of a spoken word which has the same pronunciation as the borrowed character but lacks its own character.

Chinese Character Genealogy follows the basic etymologies set and elaborated on by Chinese scholars over the centuries. These etymologies are based on the seal characters rather than on earlier forms, such as the characters on early bronzes, which sometimes have different etymologies. Note that the dis-

inction between phonetic complexes and logical aggregates is often blurred by the phonetic components also suggesting a character's meaning. For example, '相' contributes the meaning of inspect (eyes '目' behind a tree '木') to heart '心' to give think '想' ("inspect the heart"). For almost every phonetic complex some meaning contribution of the phonetic component has been suggested by a noted scholar. The most fanciful have been excluded, although many dubious ones are also included. The phonetic component of some characters is not closely related to the character's modern pronunciation. This problem, along with occasional alteration in the shapes of phonetic and semiotic components, reflects the evolution of the written and spoken languages." ⁶

Character Selection

In the process of interpreting two dimensional letters in three dimensional forms, the graphic elements and values of the characters as two dimensional objects should be analyzed. In order to express the characters completely, both esthetic shapes and the essences of characters should be blended. The expression of works may require exaggerating, simplifying and abbreviating the shapes of characters or even adding something more if it is necessary.

There are six different types of Chinese characters: pictographs, ideographs, logical aggregates, phonetic complexes, transformation type1 and transformation type2. The three types - pictographs, ideographs and logical aggregates - have greater values to be used for this thesis because meanings mainly acted in the process of their originations. The other three types also have meanings but the structure of shapes is phonetic. Therefore, to find proper characters which can be core in this thesis, the range of Chinese characters was narrowed down to three types: **pictographs, ideographs, and logical aggregates**. Pictographs portray objects and ideographs suggest abstractions. Pictographs and ideographs combine and create new characters, logical aggregates. especially, in the process of combining for logical aggregates, we can find the philosophies and thoughts of ancient Chinese.

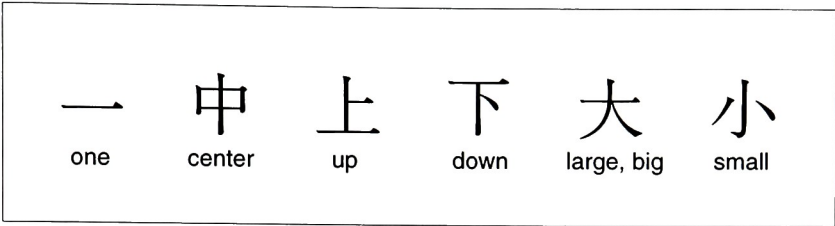


Figure 1. Ideograph Samples

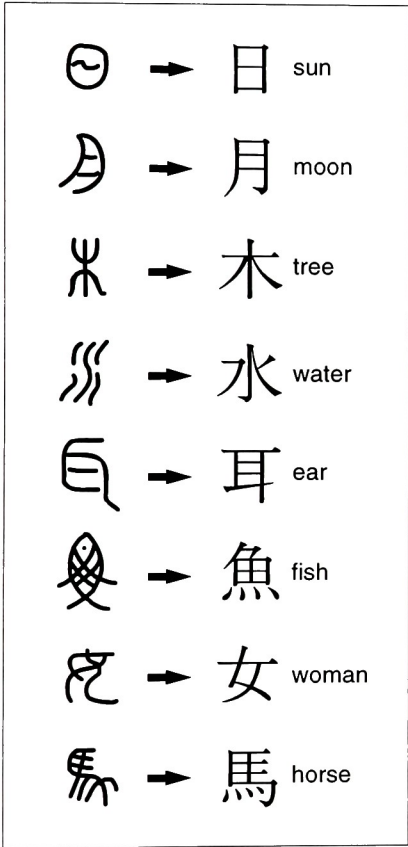


Figure 2. Pictograph Samples



Figure 3. Logical Aggregate Samples

All the characters in the three types are able to be used as sources for furniture. The complexity of shapes, and the specifics of their meanings would determine their relative degree of difficulty. The factors for selecting characters are shape and meaning. To help in the completion of projects, I decided that the shapes of characters shouldn't be too complex and should appropriately consist of straight and curved lines. Negative meanings - e.g. bad, death or hate - were excluded because I wished to evoke only positive human emotions. Three different characters were finally selected from the samples.

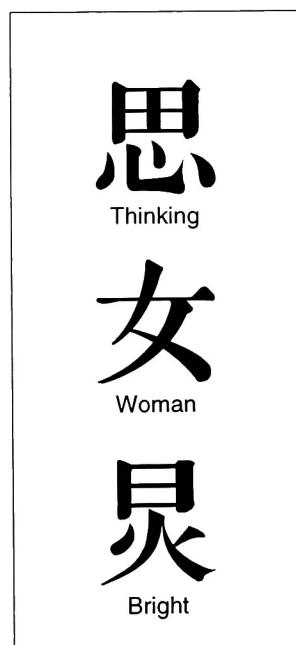


Figure 4. Selected Characters

Chapter II. Body of Works

1 first project: Thinking

2 second project: A Woman

3 third project: Bright

1 First Project: Thinking

1.1 About The Character 'Thinking'



The character '思' was used for the first project in my thesis. The character '思' is an abstract meaning letter and consists of two individual characters - '田' (farm) and '心' (mind or heart): a logical aggregate. Its meaning is 'to think'.

The word 'thinking' consists of two different meanings. One part, which means 'to imagine', 'to fancy' and 'to retrospect', is more like the sense of meaning, 'imagination' or 'reminiscence'. The other part, which means 'to consider', 'to contemplate' and 'to deliberate', is close to the meaning of 'cognition' or 'knowledge'

In order to express the character properly, the work has to contain both of the meanings. Accordingly, I decided to make furniture which serves both as a cabinet and book holder. If things like souvenirs or pictures are displayed in the cabinet, sometimes, they may remind us of our old memories and if there are some books on the book holder, we can obtain useful knowledge from reading the books.

1.2 The Character Analysis

1.2.1 Analyzing the special features of the shape of character 'thinking'

1. The character consists of straight and curved lines (geometrical and organic forms)
2. The character contains the elements of shapes, lines and dots.
3. The character is heavier at the top than the bottom.

1.2.2 Analyzing the meaning of the character

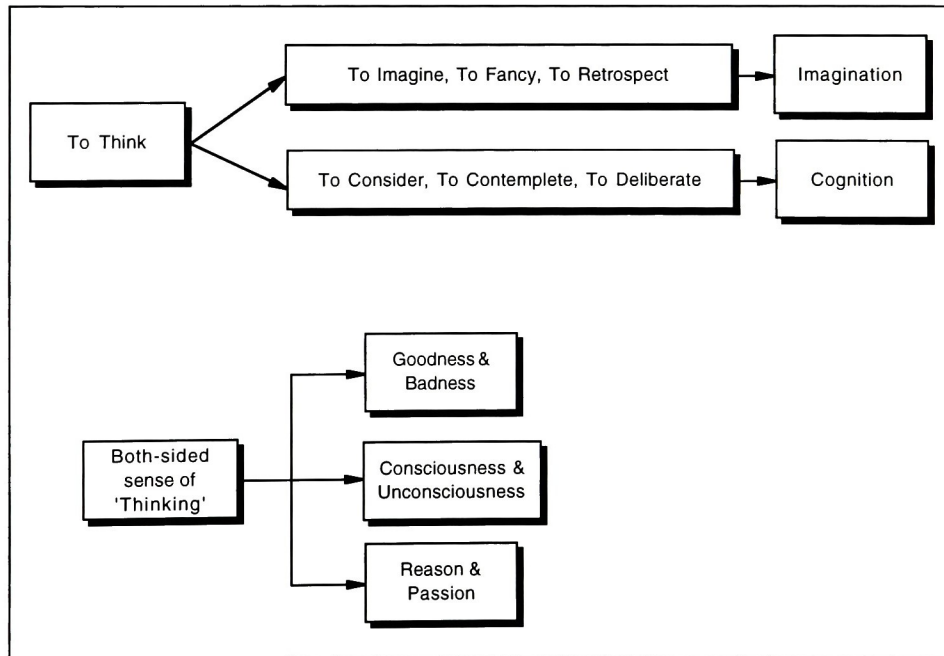


Figure 5. Analyzing The Meaning of 'Thinking'

1.2.3 Functions and Uses

1. Souvenir and picture display or storage
2. Book holding

1.2.4 Human Factors

1. Ergonomics
2. Aesthetic

1.3 Idea Development

In the process of sketching ideas, I needed to consider several different factors simultaneously. From the beginning, considering only one problem, there was limited flexibility in the results. Thus, without having preconceptions, I drew the sketches freely and spanned as broad a range of ideas as possible. How to translate the meaning and shape from the letter form to furniture was the primary focus.

The translating started by modifying the physical structure of the letter. In other words, within the boundary that created the sense of the character's image, some elements were emphasized or deleted by necessity. The thickness and proportion of the strokes were also considered.

Finally, one modified form was chosen among the several cases because it possessed the feeling for its original image; it also had the elements of geomet-

ric and curved lines which were harmonious. This shape also shows both-sided sense which is one of the most important special features in the meaning of the word 'thinking'.

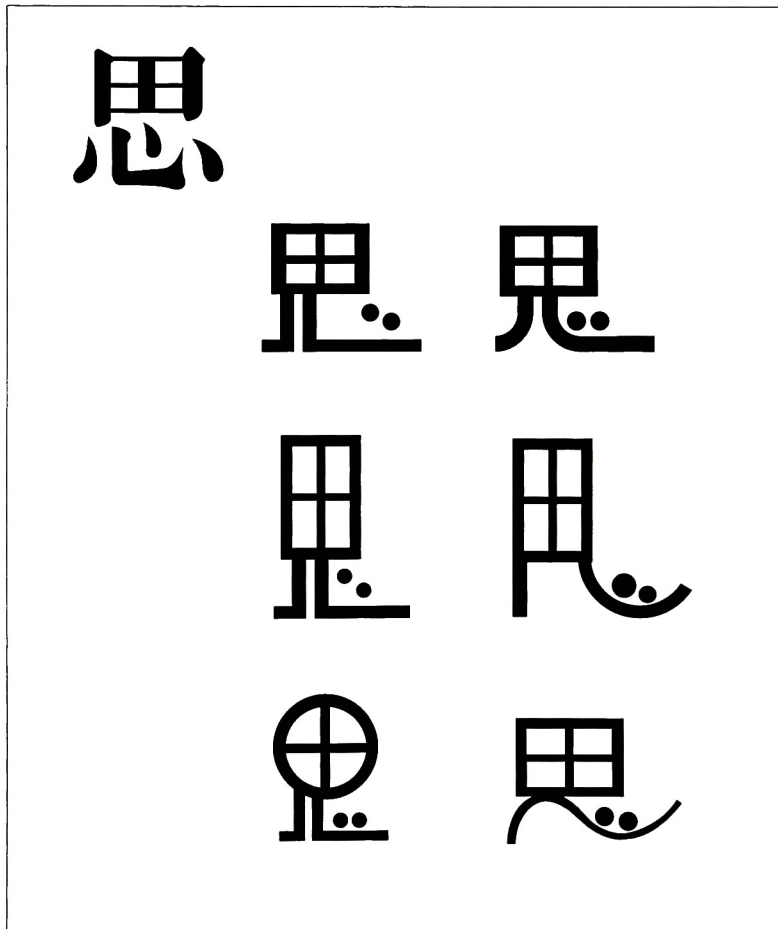


Figure 6. Shape Modification Samples 1

1.4 Work Process

The following figure explains how the process works.

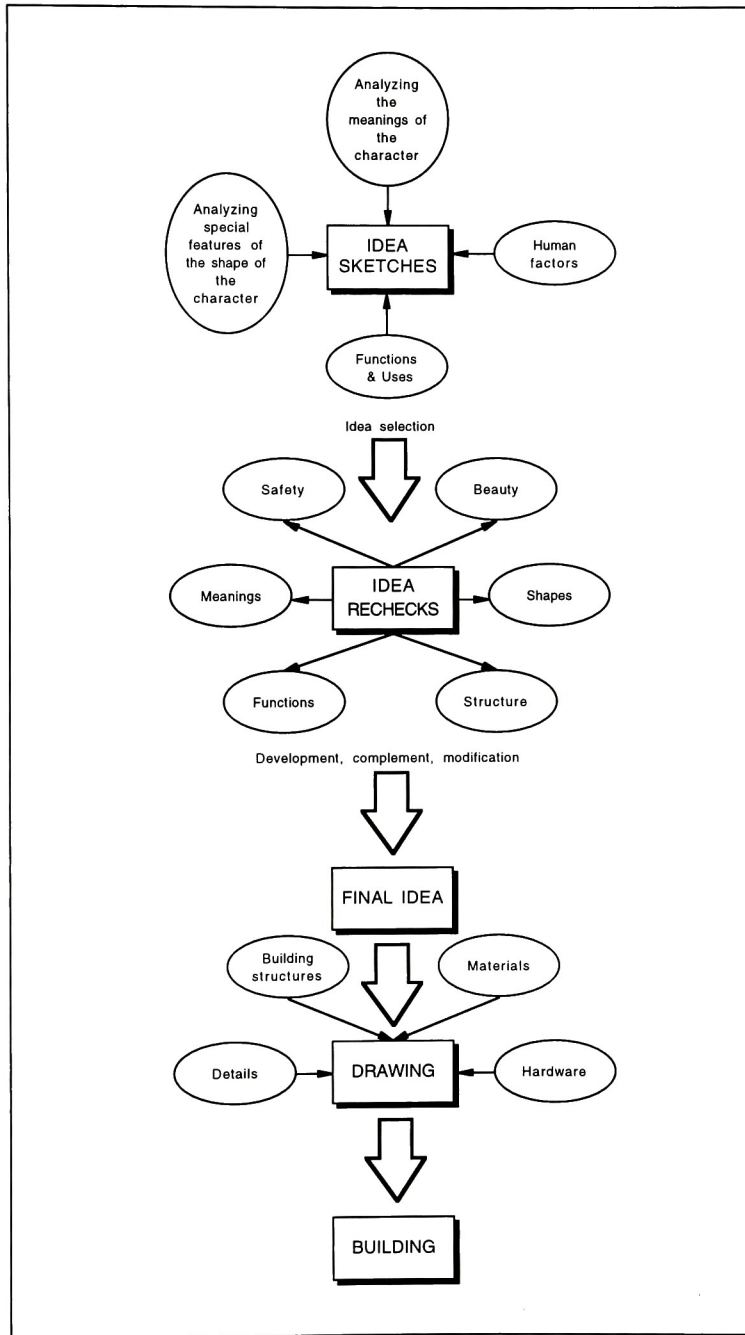


Figure 7. The Process of Development

1.5 Work Description

In order to create a contemporary mood in this piece, I changed the traditional-looking typeface to a more simplified form. To create an inventive shape, the thickness and proportion of strokes were modified for balance.

The boxes, an upper part divided into four pieces, serve as a cabinet. They provide four individual spaces for display and storage. Two of them have their own doors and the doors are located alternately. The other two boxes do not have doors and backs but just sides, tops and bottoms. Functionally, the two boxes which have doors are space for storage, and the other two boxes which do not have doors are space for display. The alternate location of the doors and the contrast between 'having doors' and 'not having doors' suggest 'both faces', which is one of the distinctions of the word 'thinking'.

A curved leg, a lower part, works as a book holder as well as a base to support the whole weight of the piece in balance. The key for the function as a book holder is the two spheres. The two spheres are just freely placed on the round surface of the leg with proper weights to support books. If more books are put between the spheres, they tend to move upward and outward. The higher they move, the greater the force they exert. The differing size of the balls is an allusion to 'both faces'. One of the pair is smaller than the other. In other words, in human thoughts, the size of goodness and badness can not be equal. Therefore the balls are not equal in size.

The thickness of the curved base gradually gets thinner on the right side which goes up. It brings a sense of visual stability. when people sit on a couch,

their eye level is equal with the level of the souvenirs displayed in the cabinet.

Measuring 52" long, 34 1/2" high and 16" deep, it was made of mahogany, maple, aluminum and stainless steel. Solvent based lacquer was applied for the final finish.

I chose two different species of wood, mahogany and maple to magnify a contrast effect which creates the significance of 'both faces'. Mahogany was used for the leg and the two doorless boxes. Maple was used for the other boxes and their doors. Their appropriate differences, colors, and similar warm feelings create harmony. This also is an allusion to 'both faces'.

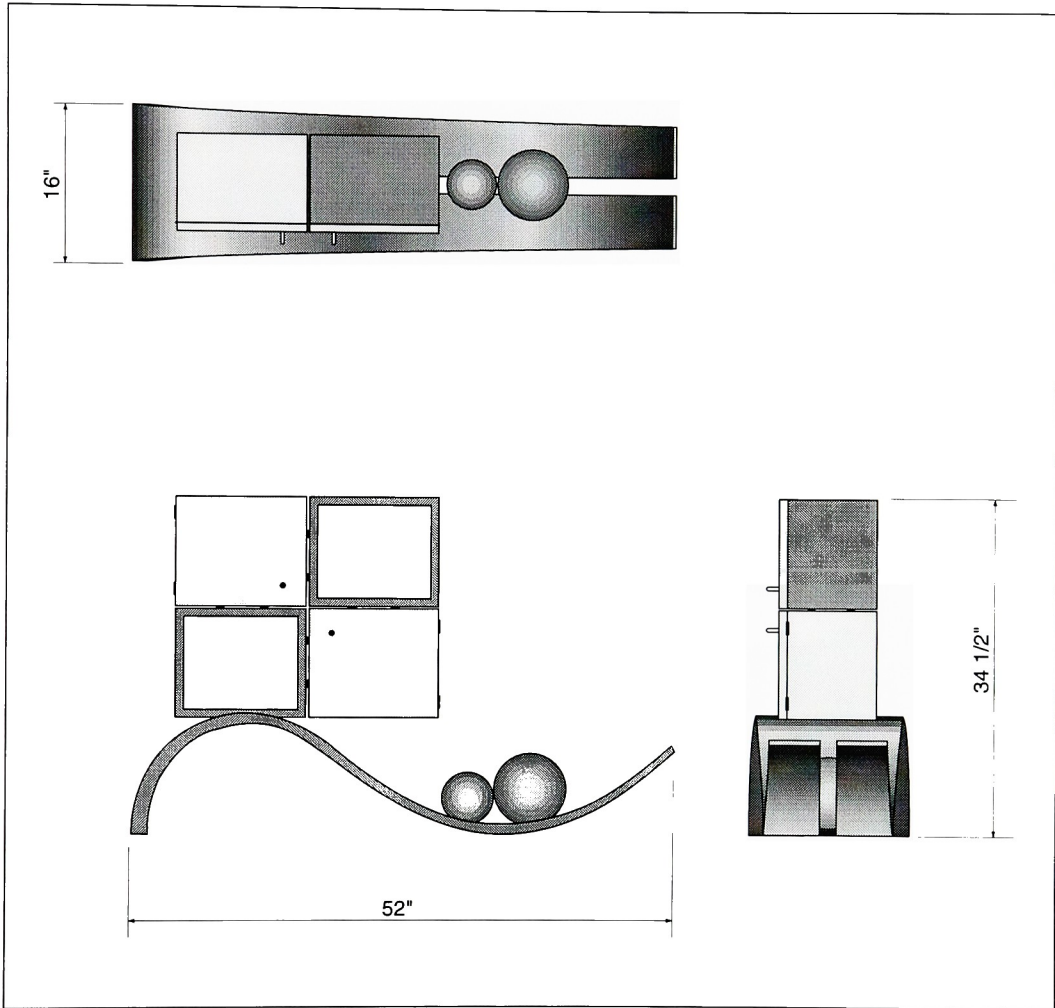


Figure 8. The Dimension of Work "Thinking"

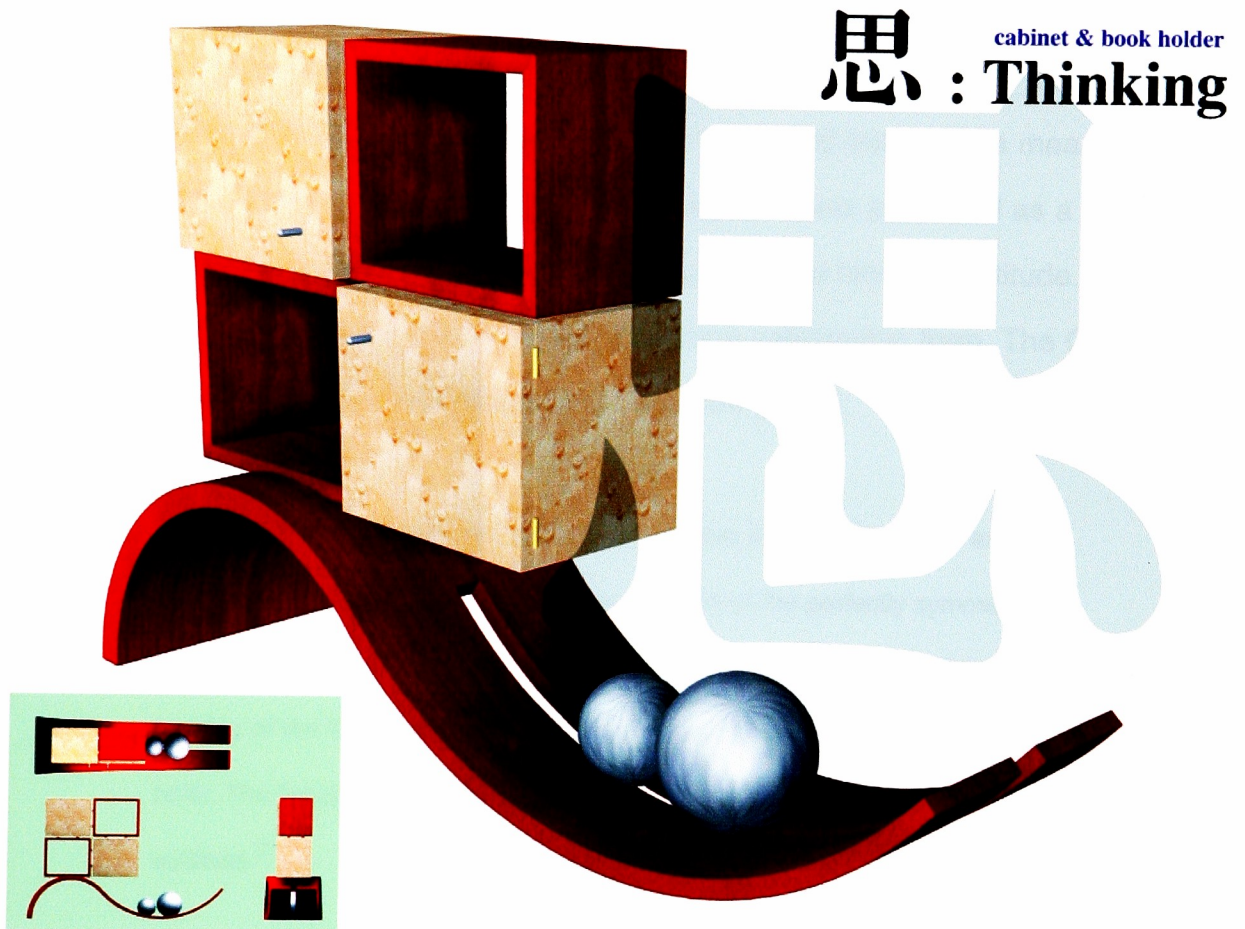


Figure 9. The Rendering of Work "Thinking"

2 Second Project: A Woman

2.1 About The Character 'A Woman'



'女' has been the source for the second project of this thesis. It is a typical hieroglyphic character whose shape was from the real image of its meaning: a pictograph. It means 'a woman' and historically she was portrayed as a shape, leaning forward with arms folded in a most gentle and feminine attitude. But, as time passed, the shape was changed to a more calligraphic form. The Chinese pronunciation for '女' actually means 'feminine grace'.

The character '**hsiao-chuan**' is already a cursive modification of the ancient character, that was not easy to write on account of the perfectly symmetrical lines. The right part was altered. The ancient character represented the ritual bearing of the Chinese women, the arms hanging down and crossed over the body. The head was not represented. The shoulders, arms, chest and legs were outlined.⁷

Besides being a biological classification, women have been represented as having various attributes because it has been impossible to define what women are in one word. Even Women say; "Even though we are women, sometimes we don't know other women's true characters." Maybe we will never be able to define them.

Even though it was very hard to describe what a woman is, I could find several words which were associated with 'woman'. These worked as a key to link the word 'woman' and my work.

- Beautiful
- Affectionate
- Soft
- Grace
- Gentle
- Delicate
- Weak (But sometimes strong)
- Unintelligible
- Decorative
- Multiform

To decide what I should make with the character, 'a woman', with grasping the specifics of the shape and meaning of the character, I had to consider some things that represented both shape and meaning. After looking at the different points of view, I decided to make a dressing table for a woman.



Figure 10. Shape Modification Samples

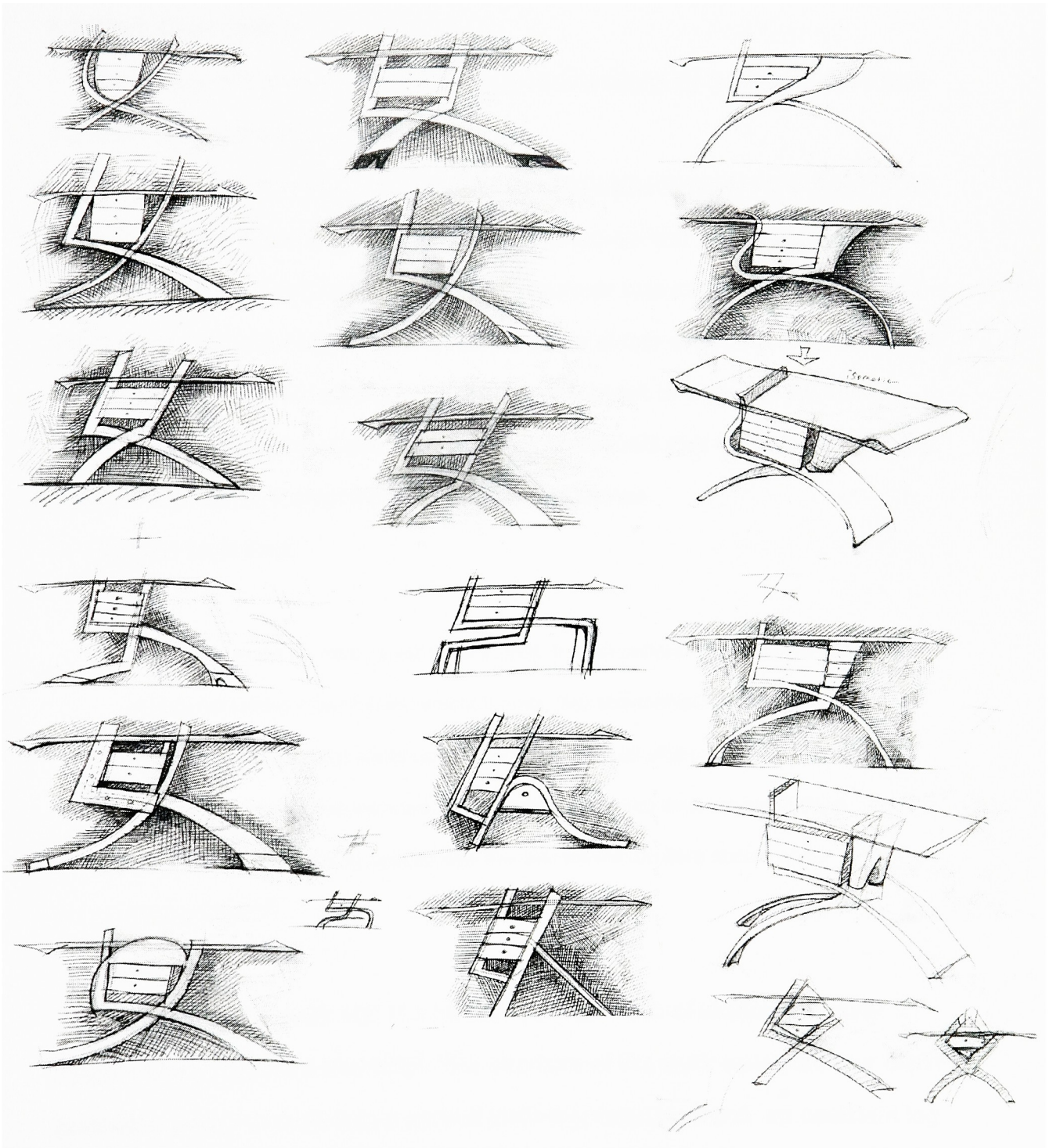


Figure 11. Idea Sketch Samples

2.2 Work Description

The shape of the character fits the shape of a dressing table, and the dressing table itself symbolizes women.

The structural elements, modified by two dimensional analysis and sketches, were composed into a three dimensional structure so that the shape could be shown as a well-organized structure. The structure was not built with only right angle joints, and the shape was not achieved by simply extruding two dimensional form. Every joint had a compound angle. The result is a radically different appearance from every angle; this means it represents one of the special characters of women, a transformable female appearance.

Wegner says thus:

“A piece of furniture must never have a back. It must cohere: One shouldn't be able to tell where it begins and where it ends. You experience furniture from every angle and it must stand up to being seen from all sides.

When I was young and we were going to show the world what we could do, a thing that would make us special was this that we felt furniture should never have a back.”⁸

This work, 58" L x 36 1/2" H x 28 1/2" D, was made of mahogany, curly maple veneer, plywood and MDF. The structure of the work consisted four distinguishable parts - a table top, a curved main leg, a support and an assistant leg. The support was located between the table top and curved leg; and the assis-

tant leg supported the main leg. Both the table top and the main leg were covered by curly maple veneers, and the support and the assistant leg were made of solid mahogany.

The most important point among several factors which should be emphasized was organizing three dimensional structure and dealing with aesthetic issues. At the start, I was going to add a couple of drawers under the top for the convenience; but, that plan was eliminated because the drawers made it difficult to read the graphic form as the original character.

The most important part which expressed the details of the character well was the table top. It has, at its both ends, soft bulges which taper back, these bulges represent the concrete distinction of calligraphical strokes in the character. As a result, the detail description helps to emphasize the image of the Chinese character and the feel of a woman's softness when we see or touch it. Both curved and straight lines were utilized in shaping the top of the dressing table. This suggested the contrast of softness and sharpness that women possess. In a broad visual sense, the whole structure can be classified into two parts. One is a facial body part and the other part consists of linear bodies. Curly maple veneers were used on all of the facial body parts to represent the sense of grace, softness and delicacy which we can associate with women. The facial parts represented a woman's internal states: sensibility, intellect and character. In contrast the linear parts describe a woman's external features: the support symbolizes a woman's breast, and the assistant leg intimates the curve of a woman's leg.

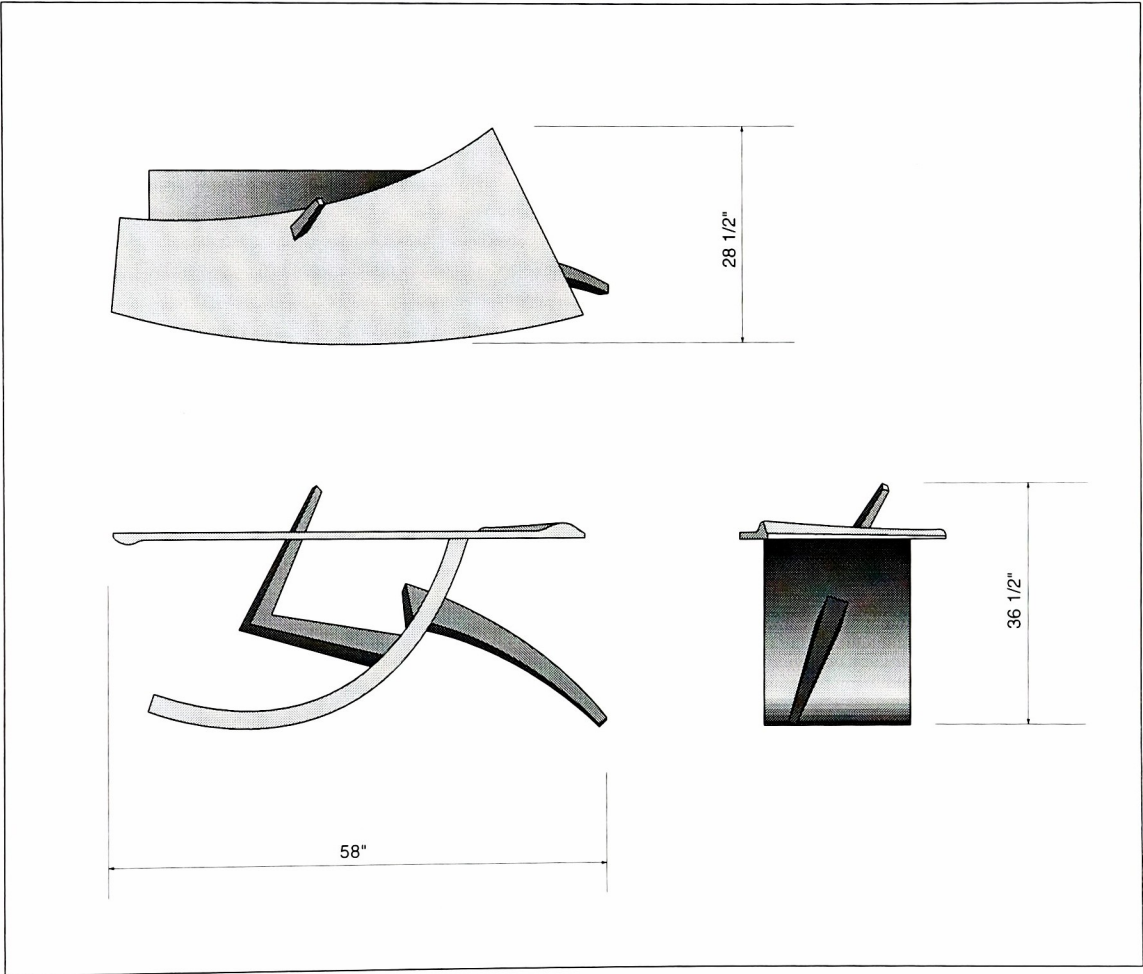


Figure 12. The Dimension of Work "A Woman"

女 : dressing table Woman

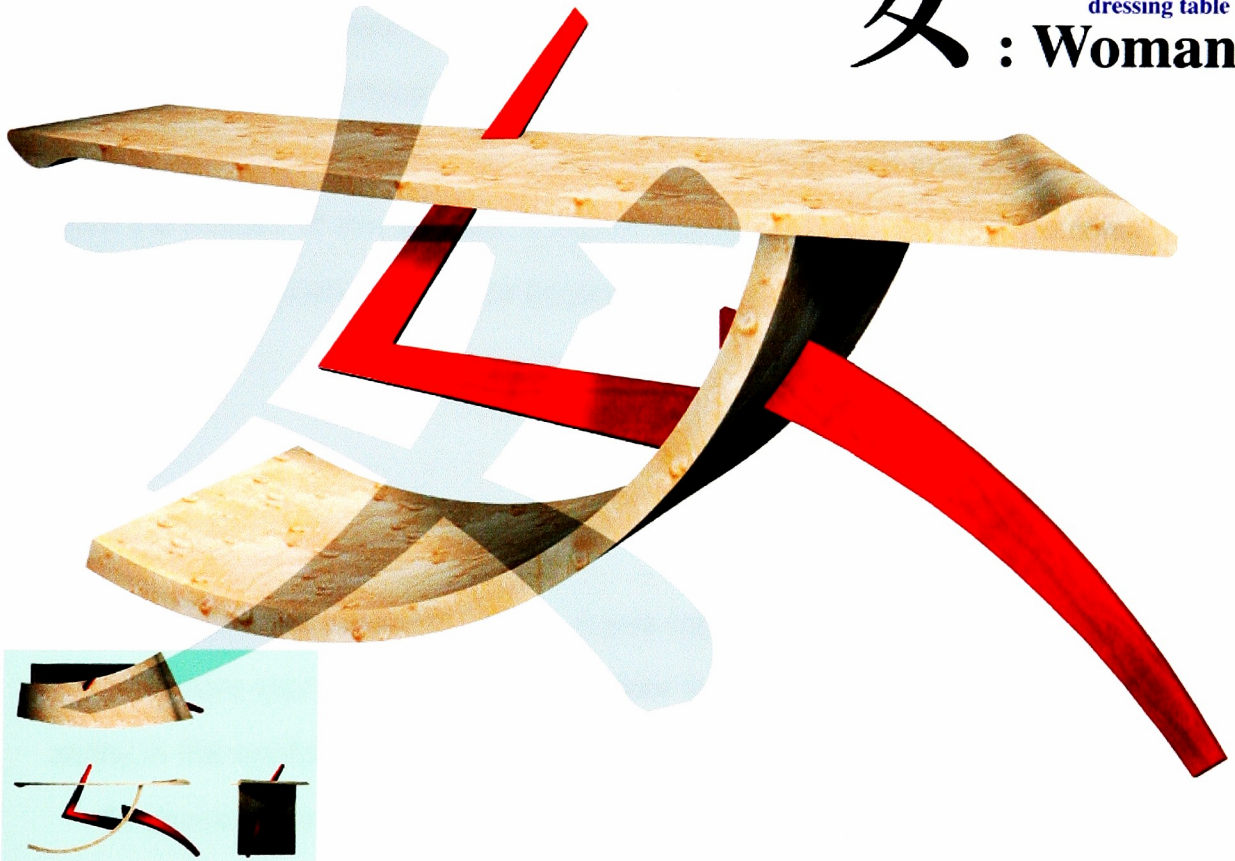


Figure 13. The Rendering of Work "A Woman"

3 Third Project: Bright

3.1 About The Character 'Bright'



The last letter I used for this thesis was '晃'. According to its constitution, this character, which means 'bright', is hieroglyphic as well as conceptual. It consists of two different letters, '日' (sun) and '火' (fire), and their shapes are from the images of sun and fire: a logical aggregate. If sun and fire are combined together, nothing could be brighter.

3.2 Work Description

To express the meaning, 'bright', it was concluded that the adequate item for the final work was a lamp, especially a floor lamp, because this had more adaptability in the application of the character.

To develop this project, like the two previous works, I modified the form and proportion of the character and sketched various ideas. CAD programs were sometimes used for checking the three-dimensional structures.

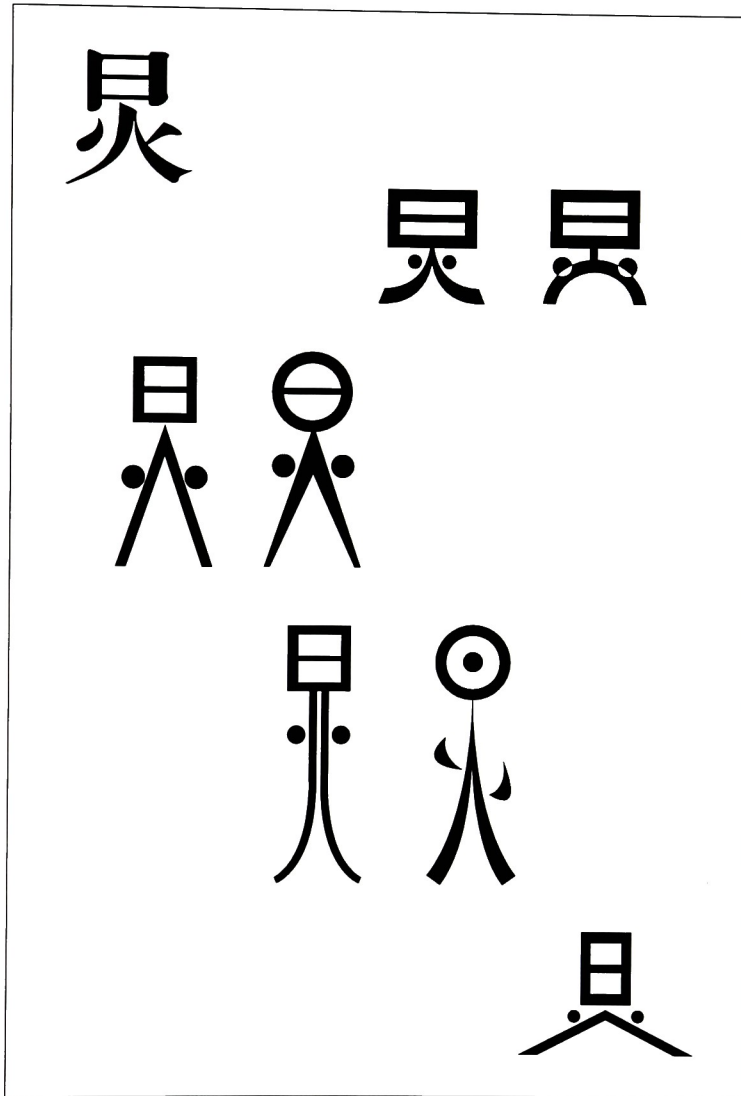


Figure 14. Shape Modification Samples 3

Unlike other works, this piece, 21" W x 68 1/2" H x 12" D, emphasizes the beauty of symmetrical and vertical balance. A symmetrical structure gives a sense of security, calm and solemnity. I thought these attributes were suitable for the floor lamp and the lamp could create good ambience in certain environments.

Structurally the lamp had two parts, a top section which had lighting hardware, and legs, which supported the whole body. The top section was divided into two parts, a framework and windows. The windows revealed the light from inside to outside. The frame work was made of solid ash which was dyed purple. Since the surface of the framework was slightly sanded, the grain is very conspicuous. The intense purple grain looks like a glowing ember. The framework has four windows on its four faces, and rice paper, a very traditional material in oriental countries, was used for the windows. This material was quite effective to make soft and warm lighting. In order to give elasticity and strength to the rice paper, a special glue made from rice was applied on the surface of the paper. The glue also tended to change the paper's color to a softer white.

A bulb and hardware were placed at the top of the legs, and the top section covered them. Electrical wire was run through a grooved path inside one of the legs, so that it would be undetected. The light bulb is easily replaceable because the top opens easily, much like a cake box lid. The rice paper can also be replaced in case of damage, contamination, or personal taste.

The legs begin to curve gently outward in the middle of the base. One-sixteenth inch ash veneers were used to cover the four exposed leg surfaces of the

legs because the clean and neat grain was a very important element which determined the impression of the lamp. Arranging the direction of the wood grain also affected the lamp's design. A relatively straight grain direction was selected for the upper positions of the legs. A curved wood graining was placed on the lower positions of the base to attain the senses of security and a vertical line. In this project the wood grain was one of the most important design factors.

The two balls attached on the surfaces of both legs represent a part of the character image and highly emphasized symmetrical balance in the body. These balls were made from casting resin and were covered by a metallic spray which contained real stainless steel powders. The mediums used were passionate and neat grained wood, soft and warm rice papers and glittering metal textures. All emphasized the concept 'bright'.

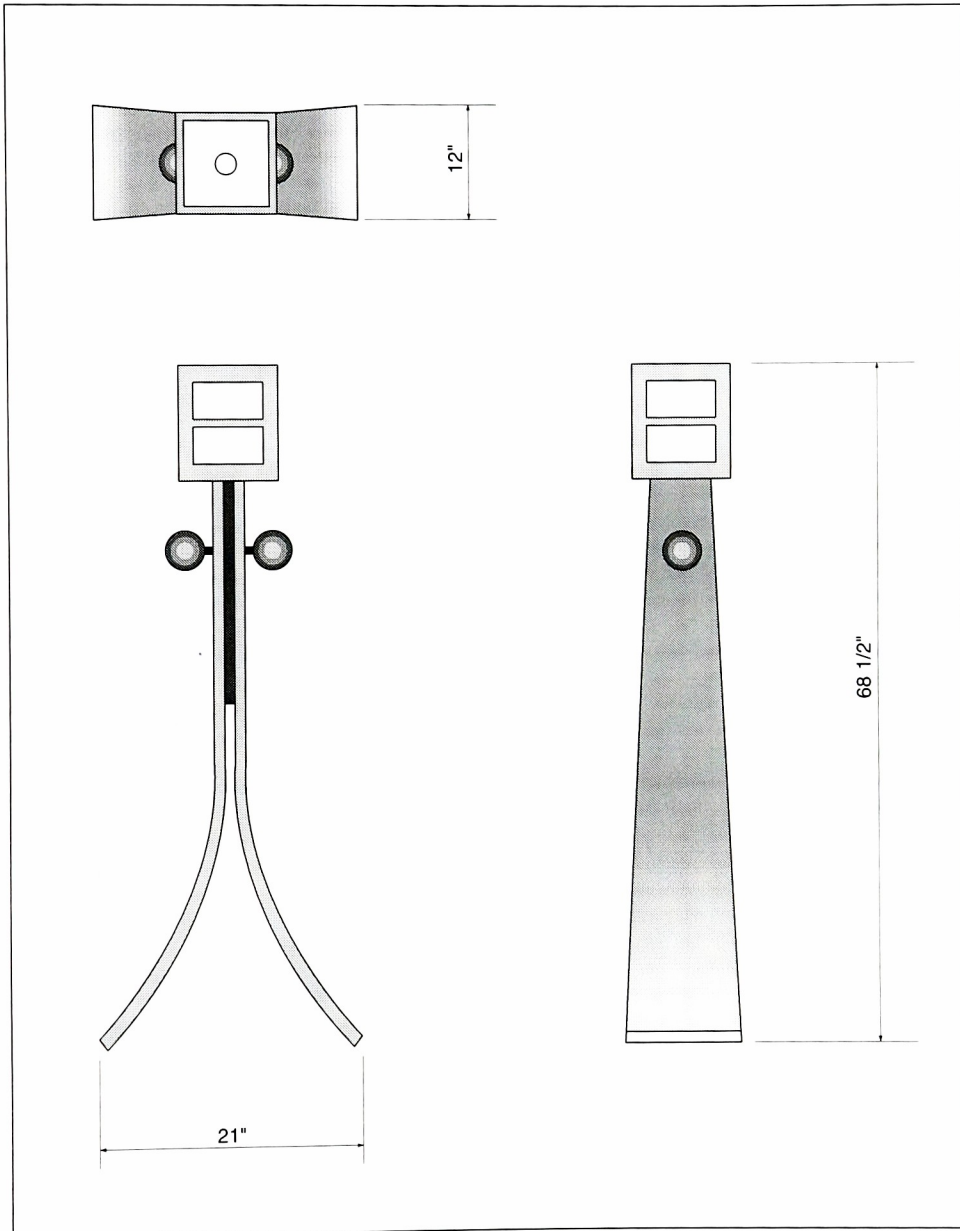


Figure 15. The Dimension of Work "Bright"

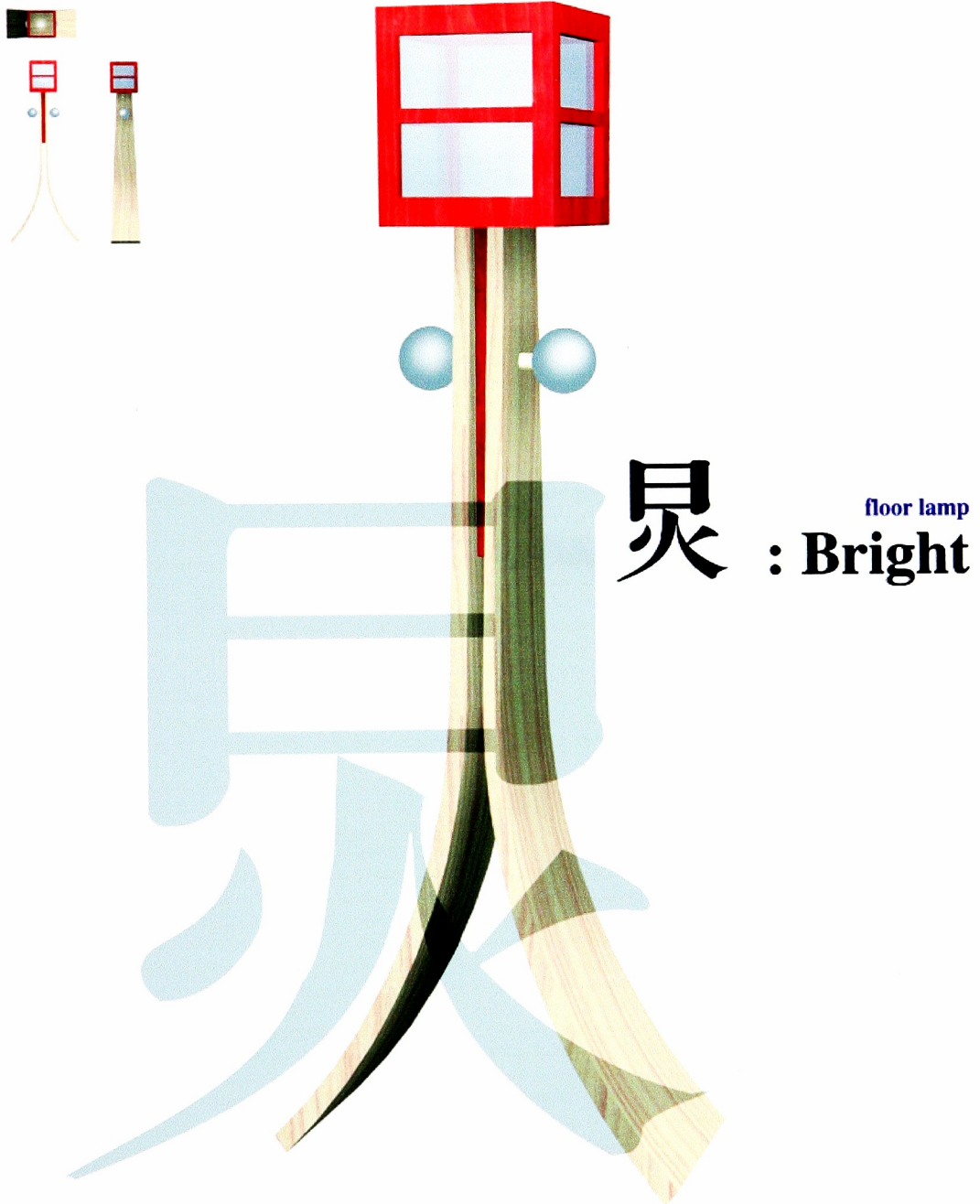


Figure 16. The Rendering of Work "Bright"

Chapter III. Conclusion

Conclusion

The first work, “thinking”, focused on the expression of the philosophical meanings in the character, (farm) and (mind or heart). The contrasting elements in this piece, the upper cabinet with open and enclosed compartments, and the spheres on the base symbolize the duality in human’s mental state, one of the characters of thinking. Two different functions, souvenir storage and book holder, suggest materialism and idealism. The function for souvenir storage symbolizes the upper part of character ‘thinking’: 田 (farm: materialism) and the other function, book holder, symbolizes the lower part: 心 (mind: idealism). Each function means thinking. The cabinet holds books, and it holds memories. It is a source for dreams, and a source for knowledge. It is a thinking man’s piece of furniture. The graphic image is readable, and the many thinking aspects of the function of this work, combine to successfully represent the character ‘思’.

By emphasizing its three-dimensional structure, the second work “a woman” is shown as formative art in the form of a sculpture as well as functioning as a dressing table. The most important function of this work is not its use but the pleasure it affords. It is a part of the environment and establishes a better ambience within the environment where it resides. These are all allusions to the nature of the ideal woman, beauty and harmony. This is the most complex of the three pieces in its many compound forms, from every view point there is a different image, this is woman. This piece has been taken much further from the original character into three dimensional abstraction, yet it is also still readable as the Chinese character woman. I feel this is the most successful of the three pieces, because the complexity of the form has not diminished the beauty of the

woman.

The last work “bright” represents the Chinese character ‘ 炆 ’ . The meaning and background of the character influenced the details, materials and the function. The three-dimensional shape, which was partly emphasized or simplified by necessity, was not only shown as unique furniture, but was also recognized as a three dimensional letter. Because of its three-dimensional shape and the function of the lamp, this piece is a more readily understandable icon than a normal two dimensional letter form. There are two means by which it may be identified, its use, or function, and its meaning.

All of the works completed represent the Chinese character images and meanings. Separately from the images and meanings of characters, they also have their own aesthetic. In order to certify whether they are successful or not, without explaining the background of the thesis, I asked Asians who knew Chinese characters, and other people who did not understand them to respond to my works. Most of the Asians, especially Koreans and Chinese, were able to recognize the right characters which had been used for the pieces of furniture. People unfamiliar with the Chinese characters found aesthetic beauty in the furniture. Therefore, I feel that this thesis has been successful in achieving its primary objectives.

The main reason that the Chinese characters were used for this thesis was to go beyond the normal preconceptions of furniture what furniture may be. Many people, including myself, have common thoughts about what furniture is and what furniture should do. Furniture has evolved with human history, and

people have been accustomed to using furniture solely as a functional object for a long time. Nevertheless, furniture is not only a tool, but also a medium which can link humans to space. A bed tells us that this is where a person sleeps, and a dining table indicates where people eat. Furniture can provide real meaning and function for space, and it can be a part of the environment even when it is not being used as a tool. Being a part of the environment means that furniture should be harmonious and should create a particular ambience or mood. In most cases, the time when furniture is not being used is greater than the time when it is being put into use. In this case, the aesthetic values would be a primary consideration for both the designer and the owner of the furniture.

Traditionally, Asian people who use Chinese characters tend to keep some good words as precepts which usually consist of one to four letters. They choose the words by their sense of values. If we can find the beautiful words and their profound meanings in our living spaces, it would be nice.

Should letters, icons, or calligraphic forms be found only in two dimensional form on papers or boards? Should furniture exist only for use?

To create something new and raise the values and possibilities, we must sometimes determinedly abandon our preconceptions.

Furniture & Chinese Characters

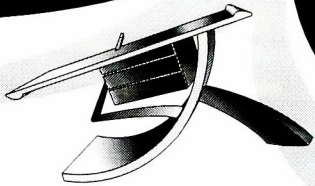


Occasionally, I ask myself what the most perfect artistic form is in the world. Then I think that it is letter. Letters have been evolved for at least thousands of years by everyone. Even though the shapes of letters are relatively simple, they have very elaborate details so that, by a little change of the thickness or space of letters, people can create hundreds of typefaces.

Besides various typefaces, characters possess great applicability. For instance, graphic designers can make a lot of visual images of types such as logotype or symbols from handling the characters. Personally, I am familiar with three different letters. The most comfortable letter is Korean, the next English alphabet and the third Chinese character. I chose the Chinese

character as a motif for the furniture image because it has evolved as hieroglyph which means the shape of a character tells its own meaning and possess a great number of letters. So, I think that Chinese characters offer various way to create a certain shape which has some conceptual meanings as well as beautiful visual affects that I have never imagined before. To

translate the character's image into the shape of furniture, abbreviating, simplifying and exaggerating special features of the characters is essential. Besides the visual images, several matters such as the function and human factors may be considered in all their aspects.



According to legend, Chinese characters were invented by the historian under China's founder about 4500 years ago. Archaeological research indicates that the earliest forms of Chinese characters appeared as early as 8000 years ago and formed a complete system of writing by about 3500 years ago. Approximately 2000 years ago the

Figure 17. The Image of A Poster for Thesis Show

Appendix:

- **Plates**
- **list of illustrations**
- **endnotes**
- **works cited**

Plates

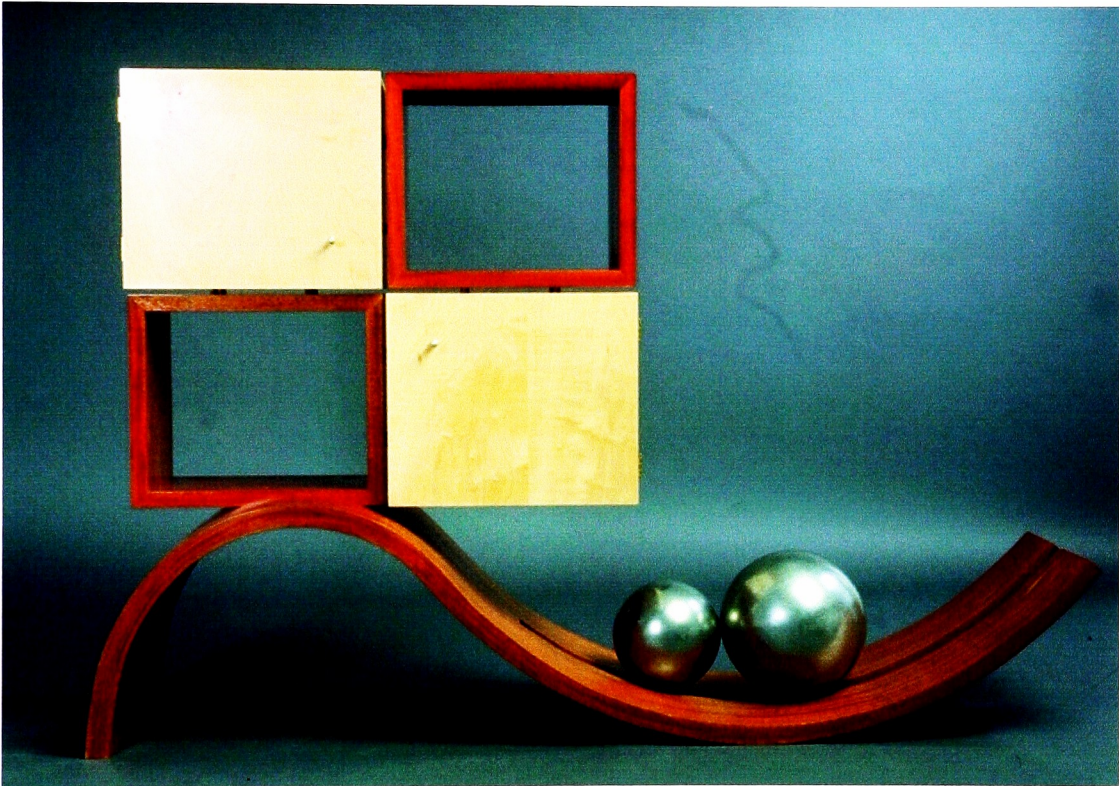


Plate 1. A Cabinet & Book Holder "Thinking" (Front View)



Plate 2. A Cabinet & Book Holder "Thinking" (Detail)

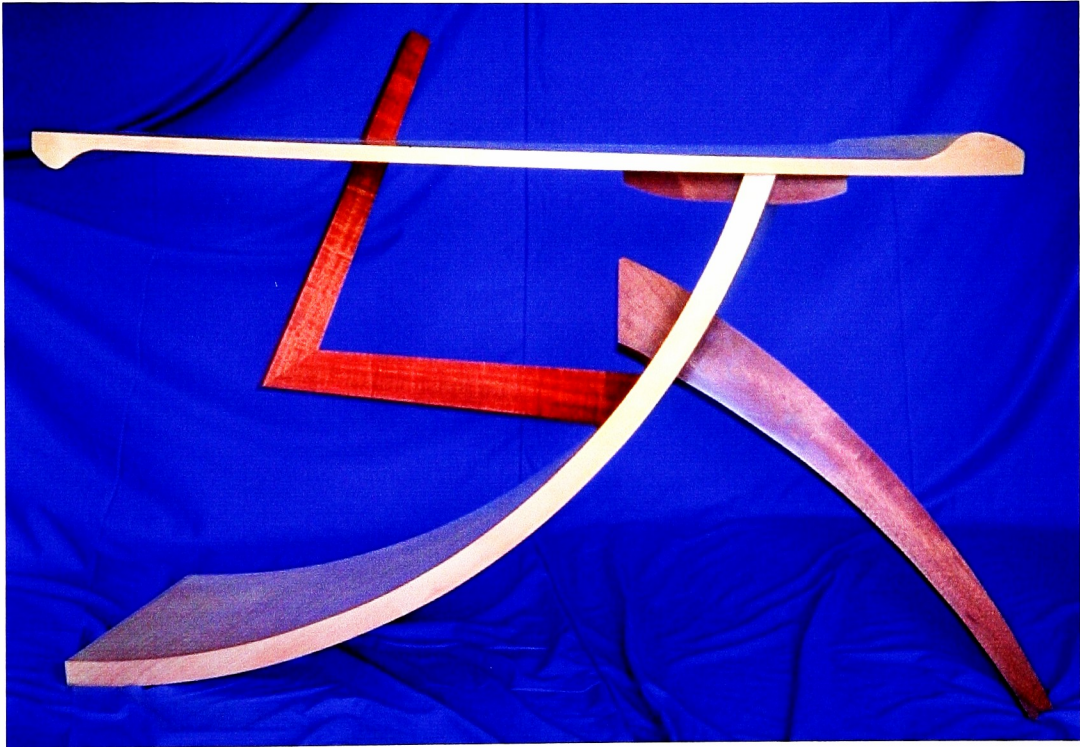


Plate 3. A Dressing Table "A Woman" (Front View)



Plate 4. A Dressing Table "A Woman" (Angle View 1)

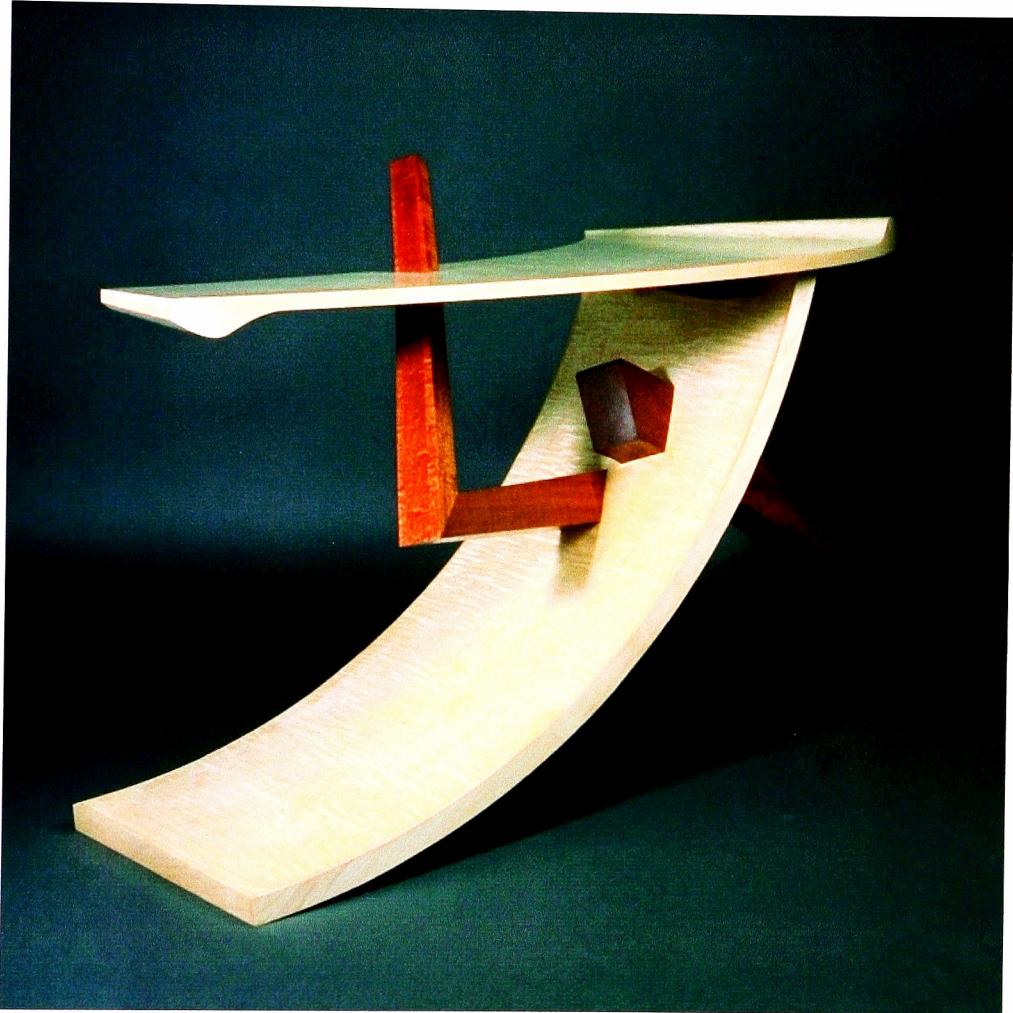


Plate 5. A Dressing Table "A Woman" (Angle View 2)

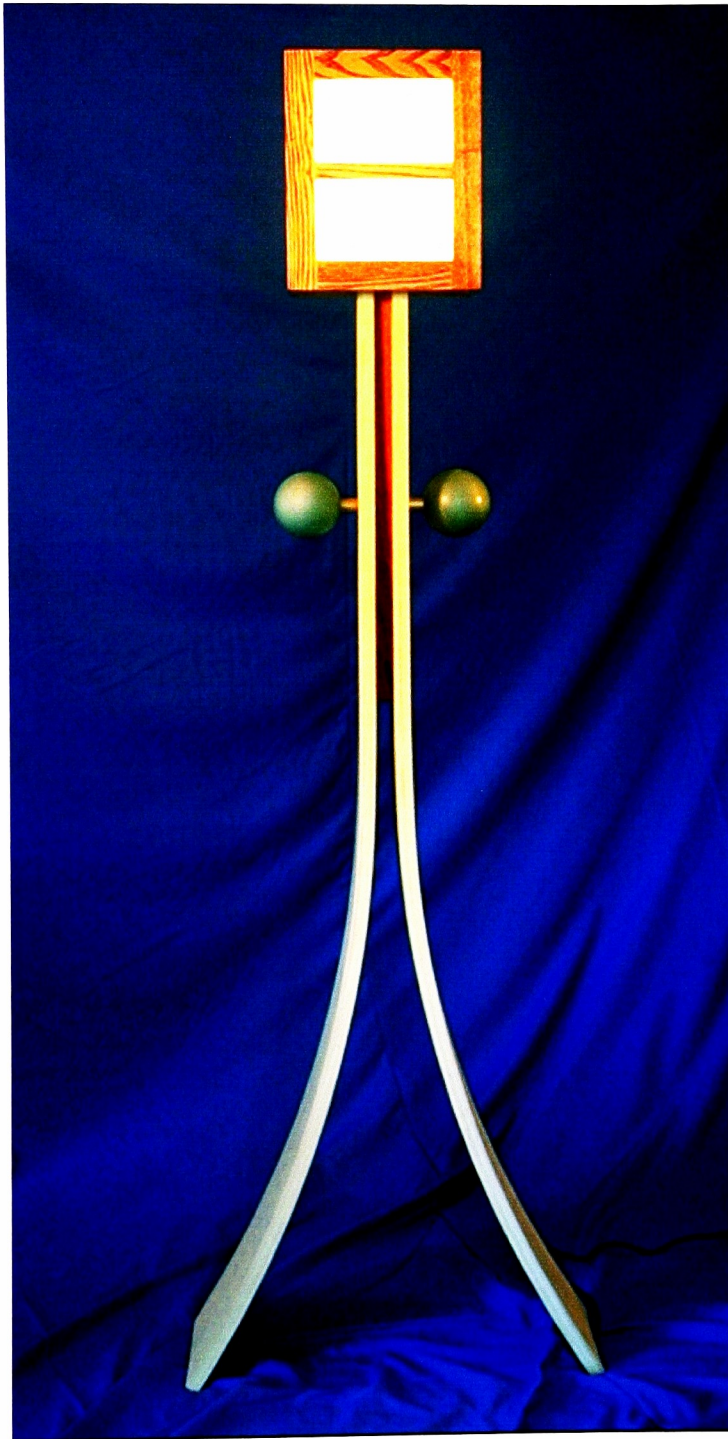


Plate 6. A Floor Lamp "Bright" (Front View)



Plate 7. A Floor Lamp "Bright" (Angle View)

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1. The editorial staffs of The East Magazine, *Kanji Kanji* (Tokyo: The East Publication, 1972), 13.
2. Rick Harbaugh, "Background", *Chinese Characters explained - Zhongwen Zipu* (Web site, accessed 12 July 1998); available from <http://www3.pitt.edu/~harbaugh/z/zipu.htm>
3. The editorial staffs of The East Magazine, *Kanji Kanji* (Tokyo: The East Publication, 1972), 17.
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