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MASTER OF FINE ARTS

Emotion of Motion

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Abstract

The origin of my thesis is the motion with which users interact with seating, how users interact with space progressively. In this thesis I explored and developed seating, a deep interest of mine that has been growing for the last several years.

I worked as an interior designer for 3 years before studying woodworking and furniture design at the Rochester Institute of Technology. The experience undertaken by designing, drafting and engineering of space and furniture taught me a great deal. I realized that the function of furniture in some spaces is not just about simple function such as storage, or decoration. Furniture in the space addresses and defines the role of a space, and it becomes the other in that space.

Furniture has evolved throughout the centuries. Furniture not only provides convenience but also gives a clear definition of the space’s character, where it is placed. In other words, furniture plays the connecting role between a space and a human being. Seating is a kind of furniture closely related to people and is used more widely and in more ways than others. We spend a significant portion of our lives sitting. Consequently, our whole bodies are affected by it, physically and emotionally.

I chose to investigate how a user’s emotion relates to seating based on that physical relationship. The progression of my thesis has started from the motion to let users interact with the seating and space gradually. Most of my works are composed of multiple movable components that can be freely reconfigured by users in different ways. Through repositioning or combining separate components, users can create a variety of furnishings allowing static furniture to be dynamic and playful. The first thing I focused on was the physical characteristics of structure in free form motion. Each from has its own curve or round shapes from bending. Bending techniques helped me convey the “invisible” relationship between user and seating, the physical and psychological concepts behind my work. I was able to express my ideas and feelings in my works. The process of creating the seating, made me open to a new visual and technical point of view.
Thesis Proposal

My thesis will be composed of multiple components that can be freely reconfigured in different ways so that the viewer can interact with the furniture progressively. The work may be used as a different furniture type through repositioning or combining each element. Individual components can create a variety of furnishings, allowing static furniture to be dynamic and playful. My goal of this thesis will be that the viewers will become more aware of and involved with space through my work.
Influence

1) Definition of seating

“every truly original idea – every innovation in design, every new application of materials, every technical invention for furniture – seems to find its most important expression in a chair”. ¹

by George Nelson (1953)

The definitions for seating/chairs given by architects are as numerous as the seating they have made. Moreover, designers also have their own clear definition of it. Over the last few centuries, there have been as many types of seating as there are definitions. This has resulted in a vast range of forms created according to the concerns of their designers and the needs of users.

I believe that seating as a part of its surrounding environment serves another function in the space. It, unlike other furniture, has additional functions, such as emotional recognition. We sit on the seating to do secondary actions, such as eating, working, communicating, etc, rather than just to sit. Seating serves as a small but important space to support the other conduct. Therefore, seating also needs the physical and psychological relationship between it and users.

“The meaning of the chair is therefore always to be found in terms of its overall environment. Certainly the interpretation of the elements which constitute the object, the checking of dimensional relationships, the search to understand symbolic values, the analysis of the chair as an important unit, are always possible, and the chairs lend themselves ideally to such an analysis. However, as part of the value of the chair lies in its relationship with its environment, it must be studied as part of an interior. Only in this way can the interaction of the elements and the emblematic value of the figuration which compos it become meaningful.”²

by Charles Rennie Mackintosh (1993)

Achieving perfection within seating design is harder than for other type of furniture. I have struggled to balance function and aesthetics in practical use objects. This challenge presented a golden opportunity for me to become a better craftsman in approach towards utility and
aesthetics. I debated both functional and aesthetic concerns through changing my work process and developing my work.

2) Movement
The movement in art and design is a meaning to draw users’ interest through the alterability of form or the method of participation to make participants of spectators. For an example, kinetic art is a field of art which carries out ‘Interactivity’ by moving parts or motion for its effect. ³

“The movement is quiet without beginning or end. The spectator feels he can take what he likes from the work and participates in its continuous process of self-creation. This is not a move towards anarchy, but towards greater freedom and communication. This definition of the movement told how to create Interactivity through the movement of the kinetic art.” ³

by Guy Brett(1968)

I attempted to bring movement into my work as a way to intrigue sitters. Movement is a key component since it turns the static furniture into dynamic design. It also helps establish a concrete relationship between sitter and furniture with the pleasure of participative awareness. The movement is a way to open the possibilities of language. Spectators are able to control a whole structure through the movement of each element. Movement conveys a delight to sitters, and they share a smile with others. A little smile might be a key for starting a conversation with someone.

This body of work is a series of benches. A bench is a piece of furniture which mostly offers several persons seating in public areas.³ There will be some occasions when people who do not know each other are forced to interact. They might be faced with an awkward moment with strangers. Therefore the movement gives sitters a chance to choose whether they want to sit in solitude or have the opportunity to converse with strangers in public spaces.

3) Affordance
An “affordance” is the term originally introduced by Psychologist James J. Gibson. He defined affordances as all "action possibilities" latent in the environment, objectively
measurable and independent of the individual's ability to recognize them, but always in relation to the actor and therefore dependent on their capabilities. For instance, a set of steps which rises four feet high does not afford the act of climbing if the actor is a crawling infant. The meaning of it is a quality of an object, or an environment, which allows an individual to perform an action. For example, a knob affords twisting, and perhaps pushing, while a cord affords pulling. The term is used in a variety of fields: perceptual psychology, cognitive psychology, environmental psychology, industrial design, human–computer interaction (HCI), interaction design, instructional design and artificial intelligence.  

Even in the first exposure to things, we usually know how to use them without any problems. All forms and materials provoke certain actions, such as treating glass carefully, beating metal, and touching wood. To me, an “affordance” is about the human nature to react with objects. It supports my thesis that it is not a forced role to let users interact with the seating and space, but a natural one.

Components of my works provide visual information on how people should interact with the work. The curved shape of a rocking chair affords rocking, a track affords moving and a caster affords wheeling. People can sit on it and then discover repositioning or combining separate components. An “affordance” is the link that builds a strong relationship between the seating and the user. In affordance theory, my body of work also lets users recognize seating as a part of space progressively through moving modules.

4) Water

Water is essential for not only all life on Earth but also civilization and culture. It has taken on metaphorical meaning within religious or philosophical points of view. Centering around rivers, four civilizations originated. Water is considered a purifier in most religions. Major faiths that incorporate ritual washing (ablution) include Christianity, Hinduism, Islam and Taoism without distinctions of eastern or western culture.  

Water reminds people of good images, such as peace and purity, in its different, lexical and symbolic meanings. Water is indispensable in our daily life and we settle down with it. While perceiving an object, we subjectify the images of it, like our accumulated knowledge,
experience and emotion. Water appears to us in various images since it is never confined to a particular shape or color and these can vary depending on space, time, and light. On this account, many artists, poets and philosophers might have been inspired by water. I have lived near water in my whole life. It was the place of happiness when I was young, the place of relaxation as an adult, and the place of consolation when I was confronted with a new culture and people in America. Water is one of influences within my body of work, visually and affectively. A little tiny water drop can make a boundless ocean, as it runs through streams, lakes and rivers by the laws of nature. Each of them joins together at the junction as if they were originally one. The water cycle refers to the continuous exchange of water within the hydrosphere, between the atmosphere, soil water, surface water, ground water, and plants. I focused on translating water into the form of my work. My work reflects the water cycle: evaporation, precipitation, and runoff. On the one hand, water may be seen as the weakest thing in the world, but on the other, it can get through a hard rock and shave away a gigantic mountain. It has weakness and toughness at the same time. Water is formless, not being touched by our hand, but it can be any shaped by its receptacle. To me, it seems to embrace all on Earth in a harmony. Water serves as an arbor to soothe my tired body and soul, in the same manner as seating. In my work, I tried to capture and incorporate this view of water. I tried to catch the magnanimity and, mystique of water and express warmth and serenity.
Critical analysis of works

My aim in this thesis was to arouse users’ emotional participation through repositioning or combining separate components within modular furniture. The working process focused on pouring my concepts, ideas, and feelings into my works. I wanted to find the beauty and utility, without loosing the basic structure of furniture, and figure out the strongest and simplest way to connect each unit of my work.

How I communicate with my body of work is a visual dialogue based on water. There are a lot of instructive proverbs about water in all ages and countries. Water is emblematic of life and virtue in Oriental culture because of the character of it. Water flows downward and rain falls, and thus, it runs low where people do not want to go, without restraint, and it infuses all life on earth. As flowing water slowly smoothes an angular stone, and its composition is purified by passing through many stones and sand, people can learn the lesson of endurance from these actions. Running water, meaning pure water, is an important factor within my theme: movement. I attempt to reflect the nature of water, such as tolerance, ripple effect, and erosion, within my work. My work contains harmony with users through tolerance of water, spreads smiles through the ripple effect, and smoothes corners off feeling through erosion. It is my goal that users get together, share smiles, and have a good feeling when they sit on my work.

Seating for one
The beginning of this work was the hardest point in the development of my thesis. I wanted to make a process without any mistakes. That psychological trap pushed me away from the core, and I went for visual aspects. After several committees meetings, the work was rebuilt on large scale for adults. I realized that seating must be functional and appropriate for the sitter. This work was created in attempt to explore feeling and ease of movement for just one sitter. I produced rhythm through repetition of single form (the seat part) and added a curved form. The form allowed me to symbolize the water cycle from water drop to tide. Although the swaying motion of the rocking chair was gentle, it allowed the user have his own space. The rich and illustrious brown color of the walnut and deep green of the milk paint represent tranquil moods. Two curved legs are made by bending maple and walnut alternately to
express a murmuring stream. Depending on the user’s preferences, the space played a different role: comfortable shelter or pleasant playground.

**The rolling stones in the stream Series**

This series is flexible furniture created to establish a concrete relationship with the user. The seat unit can be assembled in various ways. The work is expressed through simple shapes in pursuit of my goal: when getting strangers to sit on same bench in public spaces, the dynamic, movable modules easily arouse a harmonious feeling instead of wariness. The rolling stones in the stream #1 and #2 consist of a gentle bent curve structure and three movable chairs. The angular shapes of #1 verge into the curved shape through repetitive movements as the huge angular rock is eroded through time and the flow of water, becoming a smoothed stone. Each work has a different path of movement between the parts joined by the wooden hook, in work #1, and the metal tracking, in work #2. Light-colored maple creates a happy, friendly atmosphere, whereas dark pinkish-colored cherry has a mood of heaviness. This series still requires cooperation of whole components to be functional.

**Moss**

The work entitled, Moss, features the increase of energy in all directions, and the transformation of material substances. Units of this work are not separate but bonded together by a metal hinge. Nevertheless, the rearrangement gives users plenty of opportunity to see totally different configurations. A variety of furnishing can carry out the function of link between users and this work. It became an integral whole with the space around it and the space for exploring its extension and potential. Moss is a metaphor for laziness and irresponsibility in Eastern culture. The light green color of the work indicates the change that moss undergoes as it disappears in the flow of the tide. Similarly, the movement of this change, within the work, is achieved by casters.

**Sand**

“Movement is used in different ways by these artists for opening the possibilities of language. I’ve tried to approach the use of movement not as an isolated element but as a whole structure, to see the new relationship of the work to nature and to the spectator which comes into being through the use of movement.”

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by Guy Brett (1968)
Sand is a set of modular furniture. Each component can work individually for a specific activity or cohesively to serve to another activity. With repositioning, the function can change further. It must be satisfied with the essentials of module. This work provides a more flexibility for the users in their decisions on how to use the space or adapt it to the environment. It is more of a natural and simple form without an outstanding visual. However, it is close to my theme. This work is both the last step for my thesis and the beginning to lead into my future work.

In this body of work, I enjoy telling the story with natural objects related to water or natural phenomenon caused by the flow of the water. Although my works don’t have specific forms directly reminiscent of water, they share the same motions: water drops, sand, rock, or moss.

To create the motion, I researched different ways to connect each part, settling on hooks, tracking, hinges, and nesting. The use of smooth curves and warm color helps express an image of water. The elements harmonize together under the same theme, and the back-story behind each piece helps users understand my motives. I set up my work openly at my thesis show so that spectators would feel free to rearrange and sit on them as users. The reaction and emotions of spectators was exactly what I expect to them. My body of work offered the important, potential space that can increase their emotion.
Conclusion

The ultimate goal of this thesis is for users to become more aware of their emotional relationship with seating. Beyond being attracted just by beauty, comfort, or function, users become more involved with the seating through its movement.

Seating is multi-functional furniture having the most direct connection with the human body. In our sedentary culture, we each have a choice of over two dozen seats throughout our daily routines. We touch chairs not just with our hands but with our whole bodies. We design them; but they shape us. 8 It is small but significant, as it supports actions other than sitting. We sit on the seating for secondary actions such as resting, eating, working, and communicating. Therefore, seating requires both the functional aspect and visual aspect to give us physical and emotional satisfaction.

I believe that seating is the biggest challenge of expressing the visual and technical vernacular to craftsmen. My works are focused on and created under the motto of motion, and this allows for a joyous, dynamic interaction between people and seating, through the action of assembling and relocating elements. These movable units within my work can be configured into formal or informal seating. People interacting with my work can build their own spaces. I strive to explore diverse free forms with rhythm, repetition, color, and material, in order to respond to aesthetic and function. As a result, my body of work represents my imagination, searching for more and more ways to interact with seating.

I used to believe that beauty was more important than physical comfort in building seating, and it seemed to not be necessary to explore issues of physical comfort, as many examples of great seating already existed in the world. My original conceptions regarding seating, as a young furniture maker, entirely missed the mark. Seating should meet the requisites of not only aesthetics but also physical comfort. It did not take long to discover the errors of my conceptions as I began researching my thesis. I concluded that I had to find the compromise between functionality and beauty. I learned a great deal about seating and explored many possibilities for my future work in this thesis.
“My future work”

As previously stated, I have explored my language, ‘motion and emotion’, while creating and developing the body of work. I learned from this thesis process much more than through any other time in my life. I grew emotionally and intellectually as an artist and a craftsman. Through my committee meetings, I received many questions and feedback on the weaknesses of my work. As time progressed, I learned how to stand back and look objectively at the problem. I had my own questions and self-doubts, and after rethinking designs and techniques. I realized I could not fall into narcissistic thinking, but need to accept others’ different views. At the process of creating my work, I figured out how to convert my ideas into action, how to use suitable hardware for connecting and movement, and how to find appropriate proportions for users. My body of work is the end result of my thesis and the first step of my future work at the same time. It is my biggest success.

The technical mistakes and idea development process for this thesis will provide the specific direction for where my future work goes. I will continue to search for a way of seeing and exhibiting my theme, while I search for creative forms, that are inspired and a reflection of ourselves. This will be an ongoing theme, as I strive to make an effort to get people to interact with my work. I look forward to communicating with people through my work.
Documentation of Body of Work

1) Seating for one
   Materials: walnut, maple and milk painting
   Dimension: 43x24x22 inches

2) Rolling stone in the stream #1
   Materials: cherry, maple, stainless steel and oil finishing
   Dimension: 60x14.25x20 inches

3) Rolling stone in the stream #2
   Materials: maple, cherry, stainless steel and oil finishing
   Dimension: 60x17.5x32.75 inches

4) Moss
   Materials: ash, plywood and lacquer finishing
   Dimension: 60x14.25x20 inches

5) Sand
   Materials: ash, walnut, cork and oil finishing
   Dimension: 63x15.75x17.5 inches
Figure 1. Seating for one

Figure 2. Seating for one
Figure 3. Seating for one (Detail View)
Figure 4. Rolling stone in the stream #1

Figure 5. Rolling stone in the stream #1
Figure 6. Rolling stone in the stream #2

Figure 7. Rolling stone in the stream #2
Figure 8. Rolling stone in the stream #2 (Motion View)

Figure 9. Rolling stone in the stream #2 (Motion View)
Figure 10. Rolling stone in the stream #2 (Detail View)
Figure 11. Moss

Figure 12. Moss (Motion View)
Figure 13. Sand

Figure 14. Sand
Figure 15. Sand
Works Cited


