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Rhythm

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Rochester Institute of Technology

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MASTER OF FINE ARTS

RHYTHM

By
Yi-Chia Huang
November 2001
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OVERVIEW

I believe that there is an integral ingredient found among all nature’s creations, which exists in the universe. I call this ingredient “rhythm”. I believe that it gives the creations of nature life by inducing the reactions between life forms enabling them to keep growing and living. In this thesis, elements will also mean all creations of nature. I can also say that an element without rhythm can not have reactions with others, nor can it live. Each of a living form is dependent on the next one; all elements are interrelated.

According to Oxford Reference English Dictionary, “rhythm” is defined as
- A measured flow of words and phrases in verse or prose determined by various relations of long and short or accented and unaccented syllables.
- Physical movement with a regular succession of strong and weak elements.
- A pattern of regularly recurring events or actions.
- Art, a harmonious correlation of parts.

For me as an artist, rhythm can be felt or seen, not explained by words. Rhythm can be found in movement, such as jellyfish swimming, wind blowing, leaves floating, or in static/motionless patterns with different arrangements of combinations of size, color, shape and texture..., such as honeycomb, the skeleton of coral. No matter in what form rhythm appears in nature, the occurrence of rhythm always relates to time. From the growing process of nature’s creations, which can take a long time, to the ripples on the surface of water, which require a short time, rhythm is a continually recurring sequence of events. Rhythm strengthens the relationship among natural elements, as well as the relationship between nature’s rhythm and me. The rhythm I select for my work also preselects me. The vitality of rhythm enlightens my creativity and draws me to translate that rhythm into art works.

In this thesis, I made artwork that investigates the different rhythms of nature as well as the inherent, similar rhythms in nature. I took metal, which is hard, cold, firm, and lifeless, and infused it with soft, irregular, warm, and organic qualities, as well as the replicating moving rhythms found in nature.
DESIGN AND INFLUENCE

In the spring of 2000, I began a project to observe natural forms and to make several natural shaped models in copper. At that time, I learned how to use a hammer as a drawing tool to make beautiful, organic natural elements and how to design and fabricate artwork by arranging those shapes together. I felt very excited about the possibility of hammer forming, because I knew that I could use this technique to explore recurrent ideas, which I have always wanted to achieve. This method compelled me to begin investigating my deep interests in nature.

In the course of this thesis, two things influenced my thought—Daoism of my Chinese cultured background and Art Nouveau Jewelry. The former inspired me on a spiritual level, and the latter influenced me in idea development and design concept. Although these two are derived from different cultures, both center their thought process in nature.

Daoism has been one of the central thoughts in Chinese culture for more than one thousand years. It is a kind of nature mysticism that brings together many ancient Chinese ideas regarding humankind and the universe. Daoism is an intuitive philosophy that emphasizes individualism, non-conformity, and a return to nature. It is concerned with bringing the individual life into harmony with the Dao, or Way, of the universe.
According to Daodejing—the way and its power

A dao is a way or a path. The Dao is the Ultimate Way, the way of the universe. The way cannot be named or described, but it can be hinted at. It is like water. Nothing is more flexible and yielding, yet water can wear down the hardest stone. Water flows downward, seeking the lowest ground. ...To recover the Way, we must unlearn, and we must return to a state of nature.

Daosim sparked my imagination and helped me achieve a deeper spiritual connection with our universe. This inspiration stimulated the body of created art works and information contained in this thesis.

Another influence for me is Art Nouveau Jewelry (Fig. 1, 2) from the late 19th century. Nature is its principal source of inspiration. Of all Art Nouveau jewelers, René Lalique, a master of French art jewelry, inspired me the most. He introduced materials that had never been used before in Western jewelry, such as ivory, glass, horn, tortoiseshell, and ingeniously incorporated them in his spectacular artworks (Fig. 3, 4). Also he was an expert at using the color value of his chosen natural materials and creating stunning new combinations in his original jewelry. A lifelong love of nature enabled him to turn natural shapes into decorative matchless ornamental forms without losing their inherent aesthetic qualities.

The jeweler and historian Henri Vever recounted how Lalique loved nature: “He would spend long hours contemplating the plants, flowers, and trees, admiring their elegant forms, their varied color and exquisite harmony...... captivated and deeply moved by the constantly changing spectacle of nature.” Lalique’s vivid imagination inspired me to observe and analyze natural forms, and convert them into ideal forms.

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1 A slim volume was written by a Daosim philosopher-Laozi.
2 Vever (1908), pp.690-91. These quotations in English are taken from the forthcoming translation of Vever by Katherine Purcell and Geoffrey Munn (London, Thames & Hudson, 2000).
THE RHYTHMS

"Rhythmic form cannot be simply mechanical beat; it must result from a timing of change controlled by the unitary qualities of the creative act."

Ernest Mundt

Art, Form, and Civilization

As mentioned in the last chapter, rhythm gives life to the elements of nature, and exists in all elements in the universe. It can be found in movements or in the growing process. I chose different rhythms in or of nature randomly and created the body of my thesis artworks.

Rhythm of Venus

The Venus flytrap (Fig. 5, 6) is a rare insectivorous plant, which attracts flies and other insects to its inner leaf lobes and then closes and imprisons them. The plant digests its prey and then re-opens again to set its trap.

In order to research the Venus' flytrap, I bought one from the local hardware store for daily observation. It is quite small, and it is really a delicate creature. It consists of two reddish, kidney-shaped leaf lobes, and the edge of each lobe is fringed with a numbers of spikes. It grows in a mixture of peat and sphagnum moss very well, and gets extra nutrition from its prey. It was amazing to observe how a Venus flytrap grows and how it snaps its two lobes together to catch the insect. This spectacular scene that takes just a third of a second really impressed me. I was

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3 Mundt [1952], p.143
touched by the rhythm inherent in its unique shapes and movements, and
began to design and annotate my work—*Rhythm of Venus* (Fig. 7, 8, 9).

The work is a set of jewelry with one necklace and one pair of earrings. The pieces were made by forming flat silver sheets. Two formed silver parts hinged together with black pearls on them compose the necklace. The surface of the silver is matte, because a highly polished metal surface would compete with the dynamic shape and form.

In order to express the movement, I overstated and exaggerated the shape. The purpose of using black pearls is not only to enhance the visual effect but also to indicate the ability to trap prey of Venus’ flytrap. The various positions of the spikes represent the movement, which may occur when the “insects” (pearls) land in them. The piece freeze-stops that split second of catching the insect and shows the danger which exists in this rhythmic form.

Making the hinge and clasp for the necklace was a challenge for me. However, it focused my attention on the functional aspect of the jewelry piece. After successfully completing the Venus’ flytrap jewelry series, I realize that to be a good designer requires sound engineering skills. This knowledge proved useful in designing my next piece.
Rhythm of Stars

"Rhythm relates to movement, as movement relates to change — and change is the essence of a time of transition such as the present."

Ernest Mundt

Art, Form, and Civilization

Speaking of stars, the first image that comes to people’s minds will normally be the stars in the sky. Stars are beautiful, shiny, and their radiance inspires many people to imagine their shapes as pentagons. Although this impression is not reality, there are real “star shapes” under the sea, called starfish. Pentagonal shapes are unusual in nature, and the starfish is one creature that has this feature. These pentagonal forms sparked my curiosity about this special creature.

There are hundreds of starfish in the world, and most of them are pentagonal in shape with five arms. They are divided into the following orders: feather stars, sea stars, brittle stars and basket stars. Most of them are brightly-colored and have incredibly beautiful surfaces and fine structure. The most common of all starfish, sea stars (Fig. 10), have five-points and are star shaped. Brittle stars (Fig. 11) and basket stars are graceful, agile relatives of the sluggish sea star. The disk and arms of brittle stars are well demarcated, and the brittle stars owe their name to a self-protecting reflex for voluntarily breaking their arms when a predator attacks them. The brittle stars have a flattened, circular or pentagonal body, called the disk, with five very slender flexible jointed arms which taper gradually toward the tip. They use their arms skillfully to move rapidly, just like a graceful dancer under the sea. The unique shape,

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4 Mundt [1952], p.116
surface, and movement of the starfish reveal perfect rhythms and give this creature life. Transforming this complex rhythm into a single metalform was a challenge. The characteristics of starfish, such as their color, texture, and dance-like movement, are all essential elements in the vitality of their rhythm.

My starfish inspired work is entitled *Rhythm of Stars* (Fig. 12). It is a necklace consisting of varying sizes of formed pentagonal shapes with different textures, which are hinged to each other. A silver woven chain connects these forms from one side to another with a pair of pearl hinges.

The pentagonal body of the sea star is a flawless form and its contour imparts a sense of rhythm in the spacing and movement of the arms. I repeated and arranged these pentagonal shapes to represent the continuous movement made by starfish. The flexible, tapered woven chain was inspired by the brittle stars’ slim arms. The chain creates a rhythm that flows through the entire piece and completes the work as an integrated concept. Different textures on each pentagon were made by roll printing and chasing. The textures expressed the body construction of the individual starfish. The use of copper and silver adds more color to this piece and strengthens the visual rhythm in the work. I used a number of hinges in this piece to allow this necklace to move, so the rhythm becomes time-based as well as visual.

As Ernest Mundt notes, “Rhythm relates to movement, as movement relates to change”(116). *Rhythm of Stars* is based upon the unique shapes and the elegant movement of starfish. The pentagonal forms and the woven chain that they connect work together to produce a feeling of the ocean, as well as the feeling of actual starfish. The red color of the copper and the brightness of the silver interact, creating the illusion of dripping wet treasure just brought up from the ocean.
Rhythm of Corals

Another jewelry series of sea forms was based on the reef coral. The corals are beautiful and spectacular animals of the tropical seas. For me, as a girl growing up on a tropical island, they undoubtedly have been my favorite ocean life since childhood.

The beautiful white corals that are sold for ornaments in curio shops bear little resemblance to the living green, gold and orange corals; they are merely the bleached skeletons of their former selves. The creature, which forms the skeletons, is an animal very low in the scale of evolution and is very similar in general structure to a sea anemone. In its purest form, the coral is the skeleton of a simple anemone-like creature known as a polyp.

A coral reef is not one individual creature, but a colony of hundreds of tiny polyps built up on the skeletons of previous generations. An actual coral polyp is almost too small to see. Its beauty lies in the cumulative effect of texture built up by the skeletons of many individuals.

Many small units forms the structure of corals; it appears to be an arrangement of similar shapes. I divided these shapes into several sections, and investigated forms that represent sectional parts of a reef coral. By repeating and arranging numbers of these shapes, I was able to replicate the rhythm of and rhythm within the corals.

Brain coral (Fig. 13, 14) inspired me to create Rhythm of Corals 1 (Fig. 15, 16, 17). Structural patterns of the brain coral resemble the meandering pathways of the human brain. Unlike a real brain, the coral's only living

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5 Smith [1971], p.31
parts are on the surface. The colony grows by budding and dividing until huge boulders are formed.

*Rhythm of Corals 1* is a jewelry set, which includes a necklace, 2 pairs of earrings, and a brooch. For the necklace, sterling silver and 18 K BI-metal were utilized to make the shapes and they were then connected with hinges and a clasp. The jewelry began as irregular wavy-edged strips, which were formed by hammering forms, and then their surfaces were chased. These hammered forms graduated from the largest in the center to the smallest at either end of the necklace. The hinges allow functional movement; I want the necklace to comfortably sit on the wearer’s body just as the coral polyps grow smoothly on their own skeletons.

*Rhythm of Corals 2* (Fig. 21, 22, 23) is another piece inspired by the corals. There are many different kinds of corals, but the two that influenced me to create this work are star coral and flower coral (Fig. 18, 19, 20). Different than brain coral, their structural pattern is composed of millions of rhythmically arranged circular units. The polyps of this distinctive coral form build up star-like patterns covering the surface.

For *Rhythm of Corals 2*, I developed concave oval beads with continuous open slits around the rim. Similar to *Rhythm of Corals 1*, I arranged these forms to create a series of jewelry. The *Rhythm of Corals 2*-necklace consists of different sized bead forms. A tapered silver wire is threaded through the beads and ends with two smaller beads at each end of the wire.

I explored different ways to represent these bead forms, and I found that the same shapes might create different visual effects in different positions. In the *Rhythm of Corals 2*-necklace (Fig. 21), I mounted the bead units vertically with narrow slits facing outward. All of the beads are shiny silver, except for one that is slightly off-center and is 18K BI-metal.
Because the slits are placed in opposing and alternating directions, they give the visual sensation of undulating waves. The earrings and the brooch (Fig.22,23) emphasize the concave surface of the beads, which resting horizontally on the ears and the chest. These concave surfaces of the beads are a soft, matte, textured silver finish. This work captures the lush, soothing, rocking rhythm of the sea. It is the arrangement of elements and shapes, which creates different rhythms through out this same collection.

In the Rhythm of Corals series, I developed another style of expressing rhythm in my work. Rhythm always relates to repetition; therefore, I created single units, and tried to combine and repeat them in various combinations, sizes or colors. This effect strongly represents rhythmic forms and rhythm in nature. As I made this work, I realized that I worked in a measured and time-based way. Perhaps the rhythm of my own creative process and work-pace is really what I hoped to discover.
Rhythm of Leaves

Leaves are among the most common natural elements that surround us. In addition to coloring our world, they also play an invaluable role in our living environment by producing oxygen through the process of photosynthesis. Since ancient times, leaves have inspired countless Western and Asian artists to create realistic or abstract works.

Leaves are among the simplest yet complex plant-life found in nature. They are multi-shaped. “Some are slender, smooth, and elegant; others are stubby and thick. Some have edges like ragged teeth; others are like the paw print of a large animal. They may be pointed or rounded, and to add to the profusion they are arranged in a variety of ways on the plant. They may occur in pairs, or twisted like a spiral staircase around the stem.”

Each species of leaf has a unique shape, arrangement and veining. For me, the most interesting part about leaves is their arrangement, which is one of the characteristics used for the identification of the plant. Arrangement means how the leaves are connected to the branch. According to Phyllotary, some leaves branch alternately out of the stem and are never opposite each other; some leaves always grow opposite each other on the stem; some leaves are arranged in a whorl or in spirals. The rationale behind this is because of light and space; one leaf will not shade the leaf below it for growing purposes.

As Day notes, “Leaves occur on their stalks at ordered intervals, but their distance apart is not mathematically measured; they grow, and with a

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6 Prance [1984], p.5
7 The study of leaf arrangement on the plant
8 ibid., p.6
variety and go, which looks as if they had something like a will of their own".9 The vitality of leaves drives them to grow in a certain way --- one next to the other or one cradling the other. This arrangement provides a potent sense of rhythm.

In order to present the beautiful rhythm of leaves, I made several assorted leaf forms, and combined them in different arrangements and orientations to create a necklace with an attached pendant and a brooch (Fig. 24, 25). The pendant consists of six leaf shapes made of silver, BI-metal, and copper which overlap and are held together at their stem. Two bigger, curved pieces of sterling silver which form the necklace are exaggerated leaf shapes and are connected together. One side of the necklace curves at the end like a tendril and acts as a hook to clasp the pendant. The pendant represents the rhythmic growing process, the arrangement, and the vitality of leaves. In this pendant like nature, each leaf grows so it will not shade the others. The rhythm revealed by the leaf shapes and shape placement of this jewelry piece create a harmonious relationship similar to what is actually found in nature.

9 Day [1910], p.92
CONCLUSION

This thesis is a personal exploration of different rhythms that appear in nature as well as inherent, similar rhythms inspired from nature. In the course of the thesis, I have been challenged by the relationship between rhythms and my works. I have to stress that I have not completely resolved the rhythms that affect my creations, and I am not certain that I will ever be able to do this. However, it may be a part of my continuing creative work.

This thesis helped me to realize many things, which I took for granted, and led me to investigate those ideas which reoccur in my mind. At the final stage of developing this thesis, I created my work Rhythm of Pitchers (Fig. 27), which was inspired by the trumpet pitcher (Fig. 26). Rhythm of Pitchers is a sculptural and installation work. This piece can be presented in different ways and in different positions. In my thesis proposal, I didn't limit myself to only creating jewelry pieces. As a sculptor and designer, I would like to try to develop the same ideas into non-functional art works and functional art pieces. Although I didn't include Rhythm of Pitchers in my thesis show, I believe it is an important piece for the development of my work. I can picture it as a springboard for one of my future creations.

After creating and achieving all my goals, I found that graduate school provided me with the time to explore, to grow, and to express myself in art. It is an unusual experience and a great feeling to accomplish these goals. The completing of my thesis does not mean it is an ending for my investigation. Natural rhythms continue to surround me. These opulent rhythms of nature compel me to continue translating them into my works of art.
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