

Shifting Nature

Lin Yew Cheang

Hyperthesis Visual Lab/Wanganui School of Design
5, Delhi Ave, Wanganui, New Zealand
e-mail: linyew@hyperthesis.com

Guan Hong Yeoh

Hyperthesis Visual Lab/Wanganui School of Design
5, Delhi Ave, Wanganui, New Zealand
e-mail: yeoh@hyperthesis.com

ABSTRACT

Human communication has evolved from ancient times to the modern world. From body gesture to verbal language, from drawing to writing to text messages, humans are always trying to find the best way to express themselves. Communication is always associated with experience, culture, environment and medium (technology).

This paper explains the process, methodology and findings of a visual experimentation entitled "Shifting Nature". The experimentation focuses on the investigation concerning how visual imagery will influence the behaviour of a viewer. Abstraction is used in this experimentation as the author's attempt to find the characteristic of visual communication experience in this modern world. The experimentation also focuses on the responses and feedback from audiences that relate to human senses and environment. It testifies how effective and efficient visual forms can be used as a medium of communication.

Author Keywords

Interactive, nature, art, visual, inspiration, generative arts, experience, communication.

INTRODUCTION

Shifting Nature is an art installation project, which attempts to push the art practice into an art technological creation. It is an interactive installation, which is a study of visual form, and an investigation of the influences of nature and technology advancement on human art development, a deeper understanding about the relationship between man, nature and today's technology.

Following this investigation, questions were asked regarding how the New Media expansion and technological development had influenced and brought about an imbalance between the natural environment, culture and human perception in this modern world.

One of the aims is to create visual representation through technology that generate unique experience for the audience, and also create sense of reaction and

enhancement to our living environment. Subsequently, this project explored the potential of the emergence of art, design and technology, a new art form that reacts and evolves. The outcome testified the important of our wilderness and nature expression. We also have to leave enough space for audience participation and their own personal interpretation to this installation.

This research creates an opportunity to review the human relationship between art and nature. Nature is connected to our creative process and has become one of the sources for our artist inspiration. Hans Hofmann (1880 - 1966) was a legendary teacher, painter and catalyst of the Abstract Expressionist movement that influenced generations of artists across Europe and North America. He wrote the following in his Search for the Real and Other Essays:

"Nature is the source of all inspiration. Whether the artist works directly from nature, from memory, or from fantasy, nature is always the source of his creative impulses..." (B.Chipp., Herschel 1968, p.536)

INSPIRATION – 'NATURE' AS THE PROJECT THEME

Visual experiences occur in everyday life. Humans have drawn pictures of animals, sun, moon and many objects related to the natural environment since ancient times. Later these forms evolved into modern letterforms. Maggie Macnab explained how a palpable visual metaphor was inspired by nature. Visual forms became a medium of communication. Many of these visual forms are connected to natural forms and objects. This is the main reason why this project is highly associated with "nature". Basic visual forms inspired by nature, are used to simulate the visual experience that our accentors experienced.

"We are surrounded by billions of natural forms, all based on a few simple patterns. Branchings, spirals, 120-degree angles, and meanders form some of the complex codes by which clay cracks or bubbles separate, organisms grow pre-programmed by genetic imprint and mutate by circumstance, or rivers unwind in asymmetrical harmony. We observe our surroundings; our hands create what our eyes perceive and our minds envision. Because our experience of life is both one of inquiry and definitive finality, it is fundamental Symbols become our palpable metaphors." - Maggie Macnab (Miller, Brown, Cullen, 2000: p.3)

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RELATION TO THE THEME

The installation consists of 5 visual metaphors inspired by natural forms such as fish, amoeba, water ripple and energy (Figure 1). Each visual is responsive to body gestures and movements of an audience within the exhibition space. Through the audience's interaction, the visual forms will be distorted and/or responsive to the existence of the audience.

This project also aims to create a visual representation through technology that generates unique interactive experiences with various visual interpretations by users (Figure 2). The visual interpretation is varied, based on different interactive experiences. This project provides a platform of studies regarding how humans react to visual forms and how these forms are learned and interpreted.

- The visuals are responsive to participants.
- It creates real-time generative arts.
- It creates unique interactive experience between the visual formation & distortion and participants.

HOW IT WORKS

Shifting Nature uses computer interaction technology that is able to track the movement of physical objects. A camera tracking system is used to track the position of hands or body. With the aid of infrared (IR) array and IR cut-off filter, this system enables the tracking of any moving objects precisely without any light interference from the

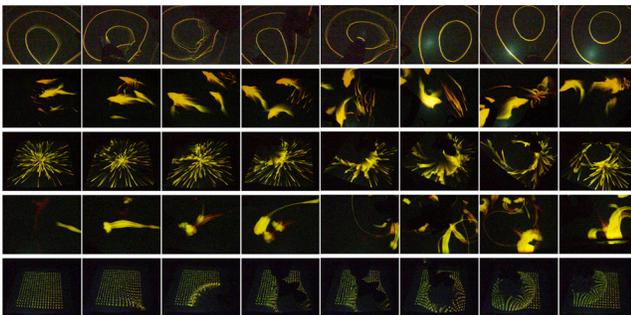


Figure 1. Images above show snapshots of the installation visuals.



Figure 2. Pictures show how the visuals were transformed by viewers' body movements.

environment. The tracking system also provides multiple-point interaction. Consequently, it allows dynamic interaction not only with individuals but with groups.

With the built-in infrared feature, the video camera (such as Sony video camera with 'nightshot' feature) is able to capture images in a very dim environment, which is illuminated by infrared lights. An infrared filter is placed in front of the camera lens to cut off any light interference such as light source from a LCD projector or ambient lights that are less than 840nm. By controlling the luminosity of the infrared lights, will determine the sensitivity of the interaction (the distance between the moving object and the screen).

CONCLUSION

Human senses are greatly connected to feelings, emotions, environments and visuals. The experimentation showed how visual transformations are affected by body gestures and movements. This experiment created a space that allowed audiences to express their emotions; sense the environment; feel freedom. In order to design engaging and attractive visual imagery, designers/artists need to understand both human behaviour well and also how humans react to visual imagery. The designers/artists must observe how the visuals are connected to the environment (virtual or physical) as well as understanding emotional factors. For many people, feelings and experiences are the important part of what matters. People care about what they see and learn. For a designer/artist, there is the special duty of translating visual forms into understandable visual metaphors. Through the integration of technology today, the enjoyment of visuals and their meanings will bring about an effective and 'aesthetic' visual experience that will be fused into modern life. Perhaps these kinds of experiences will break through the boundaries of culture and language.

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