I. Introduction

Throughout history, the acceleration of changes in technology has had an enormous impact on the arts including the appearance of new disciplines where artworks are combined with electronics, audio, video, holography, and the computer. Many artists have thereby sought to achieve “maximum efficiency in producing visually and intellectually impressive works”\(^1\). In fact, the investigations of these artists have however fundamentally challenged traditional notions of art\(^2\).

Since the 1960s, Christian Schiess, Alexander Calder, Nam June Paik and Dan Graham have been leaders in technological art with “hybrid-media”\(^3\) combining sound or light or other media in a single creation. Meanwhile, some artists like Ed Emshwiller, Bill Viola and Dan Graham, have employed the notion of interaction and participation in technological arts, which has in turn stimulated the further development of technological art\(^4\). As a result, technological art has brought about not only developments in expressive materials and methods, but also a closer relationship between art and real life.

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Despite the above mentioned developments, there has emerged a number of problems in employing technology in art. Firstly, artists have had technical difficulties in managing some complex systems of technology. Secondly, both artists and viewers have had a negative impression of the metallic, hard and artificial materials and methods used in technological art. Thirdly, technology sometimes overtakes the concept and aesthetics of artworks so that artists have had difficulty expressing their main preoccupations through their artworks. Moreover, viewers may loose interest in art due to an estrangement from the technology.\(^5\)

In fact, many artists have tried to find a more effective method of employing technology in art in various ways to overcome the above mentioned problems. The works of Nam June Paik, Joseph Beuys, Bill Viola, Mario Merz and Margaret Benyon provide good examples of the investigation of technology in art, for example by the employment of multi-media with traditional methods of art, consideration of viewer participation, the use of natural objects in technological art, and the interaction of high technology and ordinary human perception to create a more intimate relationship between artwork and viewer.\(^6\)

The research will focus on finding a possible solution to overcome the negative aspects of technological artworks in order to optimise the aesthetic use of technology in art. A more intimate atmosphere for technological artworks is fostered, to encourage a closer relationship between technological artworks and their viewers.


The research will examine a range of possibilities to address possible difficulties arising from applying technology in artworks through the investigation of the theory of Yin-Yang O-Hang in technological art. Contrary to the characteristics of technology, which are often seen as metallic and artificial, the theory of Yin-Yang O-Hang is concerned with fundamental aspects of nature. In other words, the theory of Yin-Yang O-Hang is mainly concerned with the interrelationship of all creatures in nature, the relationship of nature and humanity, and further, the relationship of the natural environment and man-made products.

Thus the theory of Yin-Yang O-Hang proposes a way of creating harmonious relations between humans and other factors in any environment whether it be artificial or natural. Therefore, a careful consideration of the theory of Yin-Yang O-Hang can make a huge difference in any environment, even in artworks. Moreover, if the use of materials and methods in artworks is carefully considered within the theory of Yin-Yang O-Hang, the benefits of using technology in art can be maximised so that viewers can find a more rewarding art experience in technological artworks.

In order to understand the theory of Yin-Yang O-Hang, the fundamental aspects of Yin-Yang and O-Hang (5 phases) will be discussed in relation to their traditional applications and current developments in Eastern and Western art. Next, I will examine the relationship between technology and nature in various examples of technological artworks. Finally, I will discuss my practical investigations: my own works which combine the theory of Yin-Yang O-Hang and technological installations. Each of the artworks which has formed part of my investigation will be described and analysed, and the results will be discussed.

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II Yin-Yang O-Hang

"Yin-Yang O-Hang in principle is ... the principle of nature, the controlling force of all things in the universe, the initial force of creation and the fundamental principle of birth and death. Also, as a fundamental basis of the willingness of God, any sickness of human nature and all creatures in nature can be treated with applying the theory of Yin-Yang O-Hang".8

The theory of Yin-Yang O-Hang is fundamentally informed by the Chinese concept of nature. The Chinese believe that everything on earth, including mankind, consists of Yin (darkness) and Yang (lightness), which are associated with the role of O-Hang (5 phases: wood, fire, earth, metal and water).9 These Yin-Yang and O-Hang are related to each other through Ch’i.10 Therefore, in order to understand the theory of Yin-Yang O-Hang, it is essential to look at the basic nature of the Ch’i.

The Ch’i is a sort of energy which is “circulated in every part of nature”11, including mankind. Thus, the Ch’i affects the relation of all things in the universe and also the destiny of mankind. In other words, particular things, places or persons can give and receive different sorts of Ch’i and thereby create different interactions between places, atmosphere, people and between people.

Moreover, the Ch’i affects a person’s health and luck, even the future and in the world beyond. Thus, no part of creation, including people, can live or be created without the Ch’i. Sarah Rossbach describes it as following:

“Ch’i is the vital force that breathes life into animals and vegetation, inflates the earth to form mountains, and carries water through the earth’s ducts. Without Ch’i, trees will not blossom, rivers will not flow, man will not be”12.

In fact, the Chinese have described the Ch’i in several different forms named Yin, Yang, and O-Hang, so the presence of the Ch’i has been studied as the theory of Yin-Yang O-Hang. The Chinese aim through the theory of Yin-Yang O-Hang to establish an harmonious relationship between the cosmos, the physical environment and man-made structures13. It seeks to improve balance, harmony, wealth, health, fame, relationships, and quality of life for individuals.

Therefore, the theory of Yin-Yang O-Hang has developed through various practical ways such as I Ching, Feng-shui, Taoism and Dowsing, and has been broadly adopted in the arts, in fine art, music, performance, science, fashion, medicine, architecture and so on. In the next chapter, the basic aspects of Yin-Yang O-Hang will be discussed before looking at its applications.

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The study of Yin-Yang O-Hang

"All things contain varying degrees of Yin and Yang. Yin and Yang continually interact, creating cyclical change. Some describe this ceaseless change as the swing of a pendulum: Winter gives way to spring, only to return in a matter of months; heat replaces ..... after some hours of darkness. There is a sense of wholeness in the movement of Yin and Yang." 

The basic aspects of Yin-Yang O-Hang are closely related to ancient Chinese cosmology. According to Ju-Liam-Gae, in the beginning of the world, the cosmos or Great Absolute was one without the separation of heaven and earth. In other words, the cosmos was in a nonpolar condition. However, the continuous movement of the cosmos gradually changed its features. During the movement and changes of the Great Absolute, the Ch’i of Yang (lightness; heaven) and Yin (darkness; earth) appeared simultaneously, and then separated.

At this stage, the movement of Yin and Yang continue to change dynamically according to the rules of nature. Meanwhile, Yin and Yang produce O-Hang (5 phases: water, fire, earth, metal and wood). These Yin and Yang forces restrain, and, more importantly, harmonise each other as well as O-Hang. Like “a magnet’s

positive and negative poles”16, Yin-Yang O-Hang unite and depend on each other in a dynamic relationship. Figure 1 is useful for understanding the characteristics of Yin and Yang, illustrating their correlated aspects.

**FIGURE 1**  Examples of Yin and Yang Aspects as Correlates [source from Lee, 1986, p59]

<table>
<thead>
<tr>
<th>Ideas of</th>
<th>Yang</th>
<th>Yin</th>
</tr>
</thead>
<tbody>
<tr>
<td>warmth (hot)</td>
<td>cold</td>
<td>seminal</td>
</tr>
<tr>
<td>bright</td>
<td>dark</td>
<td>essences</td>
</tr>
<tr>
<td>hard</td>
<td>soft</td>
<td></td>
</tr>
<tr>
<td>light</td>
<td>heavy</td>
<td>directions</td>
</tr>
<tr>
<td>dry</td>
<td>moist</td>
<td>above</td>
</tr>
<tr>
<td>expand</td>
<td>contract</td>
<td>left</td>
</tr>
<tr>
<td>pure</td>
<td>turbid</td>
<td>front</td>
</tr>
<tr>
<td>maleness</td>
<td>femaleness</td>
<td>numbers</td>
</tr>
<tr>
<td>senior</td>
<td>junior</td>
<td>animals</td>
</tr>
<tr>
<td>positive</td>
<td>negative</td>
<td>hairy</td>
</tr>
<tr>
<td>active</td>
<td>reactive</td>
<td>architecture</td>
</tr>
<tr>
<td>penetrating</td>
<td>absorbing</td>
<td>feathered</td>
</tr>
<tr>
<td>represented by</td>
<td></td>
<td></td>
</tr>
<tr>
<td>heaven</td>
<td>earth</td>
<td>geometrical form</td>
</tr>
<tr>
<td>unbroken line</td>
<td>broken line</td>
<td>curved form</td>
</tr>
<tr>
<td>dragon</td>
<td>tiger</td>
<td>physical</td>
</tr>
<tr>
<td>topography</td>
<td>mountain</td>
<td>landscape</td>
</tr>
<tr>
<td>valley</td>
<td>(palace)</td>
<td>environment</td>
</tr>
<tr>
<td>in philosophy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confucianistic</td>
<td>Taoistic</td>
<td></td>
</tr>
<tr>
<td>philologically</td>
<td>sunny side of hill</td>
<td>north of river</td>
</tr>
<tr>
<td></td>
<td>shady side of hill</td>
<td>south of river</td>
</tr>
</tbody>
</table>

In conjunction with the role of Yin-Yang, the 5 phases of O-Hang are produced by the process of movement of Yin and Yang. Due to their interdependent relationship, Yin-Yang and O-Hang cannot be discussed separately. To support the above, philosophers emphasise that O-Hang exists in Yin and Yang just as Yin-Yang exists in O-Hang17.

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In contrast to the concept of Yin and Yang, the concept of the O-Hang supplies the structural relationships of the natural world. In the Chinese interpretation, the 5 phases of O-Hang (water, fire, earth, metal and wood) are associated with time, space, matter, senses, colours, and psychological moods, as shown in Figure 2. These specified characteristics also restrain and harmonise each other.

**Figure 2. The Symbolic Correlations of the Five Phases** (Lee, 1986, p60)

<table>
<thead>
<tr>
<th>Five phases</th>
<th>Wood</th>
<th>Fire</th>
<th>Earth</th>
<th>Metal</th>
<th>Water</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Directions</strong></td>
<td>East</td>
<td>South</td>
<td>Centre</td>
<td>West</td>
<td>North</td>
</tr>
<tr>
<td><strong>Seasons</strong></td>
<td>Spring</td>
<td>Summer</td>
<td>Autumn</td>
<td>Winter</td>
<td></td>
</tr>
<tr>
<td><strong>Celestial</strong></td>
<td>Azure</td>
<td>Red</td>
<td>Yellow</td>
<td>White</td>
<td>Black</td>
</tr>
<tr>
<td><strong>Emblems</strong></td>
<td>Dragon</td>
<td>Bird</td>
<td>Dragon</td>
<td>Tiger</td>
<td>Turtle</td>
</tr>
<tr>
<td><strong>Musical Notes</strong></td>
<td>Chueh</td>
<td>Chih</td>
<td>Kung</td>
<td>Shang</td>
<td>Yu</td>
</tr>
<tr>
<td><strong>Tastes</strong></td>
<td>Salt</td>
<td>Bitter</td>
<td>Sweet</td>
<td>Acrid</td>
<td>Sour</td>
</tr>
<tr>
<td><strong>Colours</strong></td>
<td>Green</td>
<td>Red</td>
<td>Yellow</td>
<td>White</td>
<td>Black</td>
</tr>
<tr>
<td><strong>Viscera</strong></td>
<td>Spleen</td>
<td>Lung</td>
<td>Heart</td>
<td>Kidney</td>
<td>Liver</td>
</tr>
<tr>
<td><strong>Sensory organs</strong></td>
<td>Eye</td>
<td>Tongue</td>
<td>Mouth</td>
<td>Nose</td>
<td>Ear</td>
</tr>
<tr>
<td><strong>Sacrifices</strong></td>
<td>Inner</td>
<td>Hearth</td>
<td>Inner</td>
<td>Outer</td>
<td>Well</td>
</tr>
<tr>
<td><strong>Planets</strong></td>
<td>Jupiter</td>
<td>Mars</td>
<td>Saturn</td>
<td>Venus</td>
<td>Mercury</td>
</tr>
<tr>
<td><strong>Weather</strong></td>
<td>Wind</td>
<td>Heat</td>
<td>Thunder</td>
<td>Cold</td>
<td>Rain</td>
</tr>
</tbody>
</table>

According to Kyun 18, the 5 manifestations of O-Hang are characterised with these different aspects due to the different composition of the Chi of heaven and earth. For instance, water, which is produced with the Chi of heaven initially, is characterised as circular, black and sour. The next product is fire, which has a Chi of earth and is completed with the Chi of heaven, characterised as sharp, red and hot. Wood has characteristics of invisible things, oval and green.

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Next, metal has the Ch’i of earth and heaven, therefore metal can shine under light with the characteristics of white and cold. Last, because earth is completed with the Ch’i of heaven and earth equally, it is associated with the centre and is sweet. These characteristics are correlated with many different contexts like musical notes, emblems, viscera, sense-organs and others.19

**FIGURE 3. The mutual production and mutual conquest orders of the 5 phases:**
O-Hang (Lee, 1986, p61)

![Diagram of mutual production and mutual conquest orders of the 5 phases](image)

A. Mutual Production

B. Mutual Conquest

The O-Hang (wood, fire, earth, metal and water) also possess a certain order as “mutual production” and “mutual overcoming cycles” 20 as shown in Figure 3. That is, the 5 phases of O-Hang are related to each other as a cycle of creation and destruction following one another in a certain order. O-Hang may however create significantly different results in the process of both their creative and destructive interaction.

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For instance, a good example of the relationship of the 5 phases of O-Hang can be seen in the life cycle of a tree: a trunk grows from a root, and then produces leaves. Then, in between the leaves, flowers come out and produce fruit. Later, the grown fruit falls on the ground and waits to germinate to start the next generation. That is, water (a trunk) creates wood (a root) in the spring, which creates fire (leaves) in the summer. The fire creates earth (flowers), which creates metal (fruit) in the autumn. Then, the metal creates water in the winter and then this cycle is repeated continuously.

However, when we see the life cycle of a tree in depth, it is obvious that the leaves of the tree are getting weaker when the roots are getting stronger and healthier in the winter. On the other hand, the strength of the root is getting weaker when the flower comes out. This can be observed in the case of bamboo, which keeps in good condition only when there is no flower. Therefore, we can infer from this idea that the metal destroys wood, which destroys earth. Earth destroys water, which destroys fire. Fire destroys metal, and again this rule of destruction is repeated continuously. These orders indicate the movement of the Ch'i of natural creation, not of birth and death.

In summary, as can be seen from the above, everything in nature contains the force of Ch'i, therefore it can be inferred that the theory of Yin-Yang O-Hang can be applied to the environment of humans to create better conditions. For instance, in a house where there are many kinds of machines made of metal, some flowers could be located to reduce the Ch'i from the metallic machinery. In another case of a rainy day, choosing yellow coloured clothing can counter the harmful Ch'i.

from the wet whether. By applying the concept of the Yin-Yang O-Hang, many possible dangers or disadvantages may be minimised.

Through its continuous process of interaction and destruction Yin-Yang O-Hang has been active both creatively and negatively in many aspects of the human environment, natural and manufactured. In the next chapter, I will discuss the applications of the theory of Yin-Yang O-Hang to Western art.
Applications

The theory of Yin-Yang O-Hang has been applied in various ways to day to day life. For instance, there are traditional manuals on Taoism, I Ching, Dowsing and Feng-shui as well as applications in art, music, architecture, meditation, kinesiology and others\textsuperscript{23}. In terms of the arts, the theory of Yin-Yang O-Hang may be applied to interpreting forms or symbols as seen in Figure 4 \textsuperscript{24}. The vocabulary of symbols in Yin-Yang O-Hang can be used to construct simple or multi-layered messages.

\textbf{FIGURE 4.} Symbols interpreted in arts (Kyun, 1996, pp27-89)

<table>
<thead>
<tr>
<th>Architecture</th>
<th>Arts</th>
<th>Music</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earth</td>
<td>Yellow</td>
<td>Kung[Do]</td>
</tr>
<tr>
<td>Wood</td>
<td>Green</td>
<td>Chueh[Mi]</td>
</tr>
<tr>
<td>Fire</td>
<td>Red</td>
<td>Chih[Sol]</td>
</tr>
<tr>
<td>Metal</td>
<td>White</td>
<td>Shang[Re]</td>
</tr>
<tr>
<td>Water</td>
<td>Black</td>
<td>Yu[La]</td>
</tr>
</tbody>
</table>

Most of all, the theory of Yin-Yang O-Hang has had influence on architecture due to the importance of their environment to humans\textsuperscript{25}.

The application in architecture can be seen not only in the relationship between buildings and dwellings and other environmental elements, but also in the colours, designs, objects, shapes of buildings and their sites and locations.

\textsuperscript{23} see Appendix for further details.
\textsuperscript{25} Almost of the references state this point.
We can find some examples of the symbolic interpretations of Yin-Yang O-Hang in Chinese geomancy or Feng-shui theory. The Feng-shui practitioners define the characteristics of any town or village by its shape or its geographical location. For instance, circular shaped towns contain the characteristics of the earth so that the people who live in the town may enjoy wealthier lives and peaceful relationships. Simultaneously, the towns which contain the characteristics of wood are normally shaped rectangularly so that these inhabitants will appear smarter and can better contribute to the nation. On the other hand, hemispherical shaped towns have the characteristic of metal so that there may be fluctuations in wealth and poverty. In addition, some towns with the characteristics of fire are supposed to contain people of strong and extreme character.

Through Chinese geomancy, so called Feng-Shui, the symbolic meanings derived from elements in the environment by feng shui practitioners have even been used to foresee some of the characteristics of people who live in the towns as well as the future directions of the towns.

The importance of careful consideration in design and arrangement of buildings with regard to the Yin-Yang O-Hang theory has also featured strongly in modern western architecture. For instance, Sydney Baggs and Joan Baggs have shown how building shapes can affect the destiny of the house or owners with examples of building shapes (Figure 5).

26. see Appendix for further details.
Moreover, Sydney Baggs and Joan Baggs have applied aspects of Yin-Yang O-Hang theory focused on the flow of the Ch’i through inner and outer living environments, to their modern architectural systems. The Ch’i surrounding architecture has different names such as Sheng Ch’i, Si Ch’i, and Sha Ch’i according to the shape of lines and structures of a house or buildings.

For instance, they described the Si Ch’i as “a curving path of Ch’i which has been disturbed by the presence of a large structure, or even a large tree in the wrong place”, which “eddies instead of flowing, and a stagnant condition results, deleterious to the health of the people in the building”. The Baggs are applying the flow of different Ch’i to the design and structure of buildings and dwellings using building forms influenced by Yin-Yang O-Hang theory of natural and built environmental forms (Figure 6).

Moreover, the rule of O-Hang (five manifestations), can be applied not only to the domestic environment, but also to people themselves. According to Sarah Rossbach, human Ch’i can be also divided into the five elements of wood, earth, metal, water and fire, so that humans can be affected by the rule of the creative and destructive interaction of the five phases. Specifically, according to the Yin-

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29. Baggs, S. & Baggs, J. (1996). *The healthy house: creating a safe, healthy and environmentally friendly home.* Sydney: Harper Collins Publishers. pp63-87. 1. Sheng Ch’i, the dragon’s trail, is a meandering flow of vitality that has the potential to either improve or weaken the energy flow of a site. 2. Si Ch’i is the name given to a curving path of Ch’i which has been disturbed by the presence of a large structure, or even a large tree in the wrong place. Si Ch’i eddies instead of flowing, and a stagnant condition results, deleterious to the health of the people in the building. 3. Sha Ch’i is a carrier of unfavourable currents and if present, it must be deflected away from a site. Sha Ch’i travels in straight lines and is focused by a line of power poles or transmission lines, a road, or a line of buildings angling toward a site. It is also present where geological faulting occurs, hence its link to geomorphogenic zones.


FIGURE 6. The five elements as metaphors for natural and built environment forms (Baggs, S. & Baggs, J., 1996, p73)

<table>
<thead>
<tr>
<th>Element</th>
<th>Direction</th>
<th>Colour</th>
<th>Landscape</th>
<th>Building Form</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earth</td>
<td>Centre</td>
<td>Yellow</td>
<td>Mesa or Flat plain</td>
<td>Flat-roof buildings</td>
<td>Brick, earth-brick, earth, concrete</td>
</tr>
<tr>
<td>Metal</td>
<td>West</td>
<td>White/silver</td>
<td>Rounded hills</td>
<td>Domed or vaulted buildings</td>
<td>Earth and metal combined, ferro-cement, reinforced concrete</td>
</tr>
<tr>
<td>Water</td>
<td>North</td>
<td>Black</td>
<td>River or lake, undulating irregular hills</td>
<td>Irregular curved roofs</td>
<td>Major areas of glass (wood or metal framed); irregular curved roofs</td>
</tr>
<tr>
<td>Wood</td>
<td>East</td>
<td>Green</td>
<td>Columnar mountains</td>
<td>Skyscrapers, vertical monuments or buildings constructed of wood</td>
<td>Timber</td>
</tr>
<tr>
<td>Fire</td>
<td>South</td>
<td>Red</td>
<td>Triangular mountains</td>
<td>Steep pitch-roofed buildings, spires, churches</td>
<td>Metal</td>
</tr>
</tbody>
</table>

Yang O-Hang theory, each person has been born with “four pillars” of time - year, month, day and hour of one’s birth33 - which decide the characteristics and future directions of each person. That is, these four pillars influence one’s character, fortune and destiny in life like one’s emotional character, fortune and character inherited from one’s ancestors. Likewise, promotion in work, one’s partner in marriage, the fortune of descendants and one’s place in the world beyond can be affected.

However, even if one’s fortune was already decided when one was born, there are many possibilities that can alter and change one’s destiny. For instance, becoming

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a well balanced person, the good placement of furniture, a good site for dwellings and graves, a good choice of colours for clothes, and more importantly good thoughts, can help to change one’s destiny because the conditions in the surrounding environment exert a powerful influence on people. That is, if a person has a chi of wood, he or she should be compatible with a person who has a chi of water not the chi of fire. It is then possible for the person to have good luck, and succeed in business or relations with others. Sarah Rossbach emphasises the relationship between the Chi of people and the environment as follows:

“People are also sensitive to the Chi of their environment. Atmospheric Chi shapes human Chi, casting man’s destiny. The Chinese try to direct a smooth, good current of Chi to a person and divert or convert harmful Chi.” 34.

In addition, in the fields of art and music, these symbolic interpretations have been correlated with colours and musical scales. To create an harmonious environment with Yin-Yang O-Hang, Chinese and other Eastern people consider lines and shapes, and especially the harmonious arrangements of colours. Throughout East Asian countries, the colours that predominate in painting are red, blue, green and yellow on the white empty space of the paper. These colours are also used in traditional temple buildings, especially in Korea. Many East Asian people believe that appropriate colours around them may bring good fortune and a good life. Their beliefs can be understood in that well-balanced colours in their living environment can increase the user’s well being and motivation for living, making for harmonious living conditions, not just good fortune.

The relics, paintings and objects of Chinese daily life clearly show the Chinese concept of five main colours, yellow, green and red being the most favorable. In contrast, Koreans prefer the colour white. Each of these colours has the symbolic characteristics related to Yin-Yang O-Hang. Not only is there a concern with colours, but some natural shapes and in particular animals have appeared in traditional Chinese and Eastern drawings. The natural shapes appearing in these traditional drawings are placed to achieve better living conditions, especially if the house is located in an inauspicious geographical site.

Moreover, some specific animals in the drawings are supposed to protect people from bad luck. In particular, the typical drawings of ten animals, landscapes and folklore in Korea and China are good examples of the applications of the Yin-Yang O-Hang theory. In these drawings, good luck and eternal youth are fostered with the inclusion of the sun, moon, trees and water as well as the animals which represent eternal youth and longevity.

The things of daily life have been arranged in relation to all these elements - natural shapes, animal motifs, and colours - to protect from possible danger and misfortune. Indeed, the appearance of animals in paintings could be understood as a practice to add or bring certain energy to the places where the paintings are placed rather than just bringing good luck. In other words, the Ch'i from the animal or landscape in the paintings could assist the owners to overcome other

weaknesses, from for example a poor location or orientation of the building. In another example, the traditional Asian palaces have an omniscient mythical beast in front of their main entrances, which also protects the king and royal family from bad spirits.\footnote{Korean Overseas Information Service (5th ed. 1983). *A handbook of Korea*. Seoul: Korean Overseas Information Service, Ministry of Culture and Information. pp188 - 189.}

In summary, the theory of Yin-Yang O-Hang has been applied to many fields of arts and life as can be seen from the above. Furthermore, the theory of Yin-Yang O-Hang has been symbolised in and through various applications such as colours, shapes, musical scales and the four pillars from human nature. Indeed, the applications of the theory of Yin-Yang O-Hang can be found in many parts of human life even though some people may be unaware of the impact of its applications in their living environment.

It is now necessary to look at the field of art and how artworks have been linked to nature, and what kinds of artworks there are. The next chapter will therefore discuss the relationship between technological art and nature by studying some examples of artworks. And then I will present my practical investigation, seeking a possible way of bridging the perceived gap between technological artwork and viewers using the theory of Yin-Yang O-Hang.
III. Technological Art and Yin-Yang O-Hang

In art history, artists' concerns with nature have encouraged them to explore new art forms including installations and performances using technological methods. Also, some artists have attempted to develop closer relationships with their viewers through their investigations of the relationship between human beings and technology. Therefore, it is necessary to look at the aesthetics of those technological artworks concerned with the interrelationship between nature, humanity and technology in order to discover the vital features of the works which contribute to the relationship artwork-and-the-viewer.

From those features we may find ways of applying the Yin-Yang O-Hang theory to technological arts in order to improve the aesthetics of the artworks and meet the concerns of artists. The discussion in this paper refers to the works of a few installation artists, who are inspired by nature or the technological interpretation of it.

Firstly, there are those creative artists concerned with natural phenomena in union with science and technology. Todd Siler, as an example of the group, created multi-technological artworks with neuro-physiology and nuclear physics in order to explore "the inter-connectedness" of the human brain and the physical


universe in his *The Brain Theatre of Mental Imagery* (1983), which was a mixed-media work on synthetic canvas with retro-relief printing process, aluminum and glass. Siler's works illustrated "the integrated relationship between the mind, life and the universe"\textsuperscript{44} to express nature's unity and as a means of exploring the world.

Through his works, Siler has aimed to break down the "barriers that separate culture, knowledge and experience"\textsuperscript{45}, and has stressed the role of nature and humanity. His works have shown the possibilities of the medium enabling them to be metaphors that can reflect humanity itself through artworks. According to Popper, his expression of nature's unity and a means of exploring the world look towards "a future art united with an enlightened science"\textsuperscript{46} inspired by the arts. Popper described Siler's works as follows:

"His combination of art, neuroscience and cosmology has attempted to illustrate the integrated relationship between the mind, life and the universe, and to break the barriers that separate culture, knowledge and experience in re-examining and stressing the role of nature itself and of our collective mind"\textsuperscript{47}.

Like Siler, many artists have investigated various methods: science, mathematics and technology in art, in relation to nature and its phenomena including human nature. In contrast to the above artist, some multi-technological artworks adapt natural objects directly into technological installations in order to be close to viewers in reflecting real time and humanity.

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One of these artists, Mario Merz, has investigated nature and the real lives of humans today in his works which use natural objects combined with technological methods. He has mainly acknowledged nature through his works as a requisite for producing arts as follows:

"Once atemporality is eliminated from the natural and time is acknowledged as the precedent for all existence, art becomes an integral part of science and, like life itself, a consequence of the asymmetry of nature". 48.

In his Untitled (1972), his concern with nature and time has appeared through his visual and linguistic aspects. He has attempted to bring out his aspects of nature through his works, like "the elements of nature crisscross to each other as a different energy circulates in nature". 49 Merz has said. In fact, his concern with nature can be related to the aspects of nature in the Yin-Yang O-Hang theory. Merz has believed that the different energy from natural objects can affect and interact with the technological methods in his artworks.

Moreover, the use of a number of different objects has suggested his interest in various aspects of nature and time. In particular, the neon lights he uses usually show the numbers 11235813, the Fibonacci natural mathematical system, to show the mathematical basis of nature. 50 Solomon described Merz’s concern for using neon light in his works as follows:

“For Merz, light is a fire, creating combustion, altering the composition of the elements, producing tensions by piercing and ripping. Moreover, according to

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the natural symbolism accompanying it, light / fire renews the alchemy of the parts, to become an instrument of penetrating knowledge (in 1972, the Fibonacci numbers were written in neon) and a motor of periodic regeneration.  

In his *Igloo Series*, Merz's concern with natural objects and historical structures was revealed as "the essential function of delimiting a territory or an environment between inner space and outer space." His concerns about a territory and an environment of space are also associated with his concern with life experience through combining objects, like leaves, trees and fruit with neon lights, stone panels and glass, in order to highlight real time and our relations with the natural and man-made objects that surround us, forming part of our lives. Regarding Merz's expressions of his concern for nature, history and time, Solomon has commented that:

"his encounter of unities of discourse fusing into a whole that becomes a different object is part of the process of dislocation and disorientation triggered by the discourse of historical vanguards, from Dadaism to Surrealism."

By using a range of objects, Merz has expressed two sides of reality contrasting "a participation in the rich, progressive and limitless complexity" of life with "the simplicity of death." His installations illustrate the relationship between human daily life and the universe, linked by the permanence of the universe and time.

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That is, Merz has focused on examining the viewers’ unconscious images and the gaps between reality and the life beyond in order to reflect humanity to the viewer, and also to reflect our mental and emotional reactions. Thus, it can be said that in Merz’s creative approach, the “flowing idea of Life” and “the humanistic ferment” interact so that audiences can rethink reality and new forms of artistic creation.

Like Mario Merz, Bill Viola has mainly investigated life and nature through his video installations. However, to Viola, the medium is just the tool of his investigation, stating “the real investigation is of life and being itself”. Viola’s projects present the viewer’s preconditioned expectations and viewing patterns, exploring the interaction of their highly rational and the deeply intuitive elements.

Viola has attended to his subjects, both natural and man-made, while his primary subject is the physical and mental landscape. In Vegetable Memory (1978-80), he was mainly concerned with the viewer’s subconscious memory and emotions about the afterlife and the world beyond. The interaction of his images and viewer’s feelings of memory thus releases new energy, bestowing a new awareness on the viewer.

Furthermore, in Heaven and Hell (1985), Viola’s experience and its material aspects: the use of evocative natural sounds of insects, birds and human voices, have been combined with the viewers’ memories and unconscious images from their dreams.

Viola said:

"The total sensation of what it is really like to be there fills your body—what it felt like to breathe air then. These are real 'images'. It is always a shock. We may be able artificially to record images, sounds, and words, but we are a long way from recording anything resembling experience". 58

Viola's numinous attitude to nature reflected by the Chinese concept of Yin and Yang has been shown through his many video works from the 1970s to the 1990s, such as The tree of life, The ancient of days, Hatsu Yume, Vegetable Memory, Room for St. John of the Cross, I do not know what it is I am like and others. These works have placed man in the context of "nature's ongoing cycle"59 - light and dark, spiritual and physical, life and death - through his video images. Using the Chinese reverence for nature as his starting point, Viola's cultural images portrayed through video works have concentrated on the "melancholic side in the form"60.

His concern with nature has indeed been pursued through video images and also through the arrangement of his installations, which may be seen as displaying dual aspects like Yin and Yang in shadow and light, black and white, woman and man, day and night and visa versa. Viola's video installations are noted for their symbolic illustrations of the interplay between the outer world and the inner realm61.

From the above artists' works, we can see different approaches to nature in technological artworks. Even though the cultural background of each artist and their investigations of nature differ, we can see similarities between their concerns and aspects of nature in the Yin-Yang O-Hang theory. Also, we can see that viewers can share the real aesthetics of the artworks through the natural atmosphere created by the arrangement of well-balanced materials and elements, suggesting balance in the relationship between nature and man. That is, the use of natural elements and materials enhances the effects of technological artworks compared to those works consisting only of mechanical materials and artificial elements.

Also, the artworks that have considered the relationship between humanity, nature, technology, and even viewers' participation, have been much more closely adapted to viewers rather than simply displaying the techniques of artists. While the latter does not necessarily mean bad art, there are possibilities for increasing the aesthetic effect of artworks through a more human approach. That is, if there is a greater emphasis on the relationship between nature and humanity, like that of the Yin-Yang O-Hang theory, in technological artworks, artists will gain a greater advantage in expressing their concepts in art, and viewers can share in the aesthetics of the artworks more effectively. Therefore, in the next chapter, I would like to present my projects as investigations of the relationship of the Yin-Yang O-Hang theory to technological installations.
IV. Project Description

Throughout this project, I have investigated the effects of technology and the Yin-Yang O-Hang theory in art.

I have tried to

- investigate the relationship between nature and technology;
- examine and explore the possibility of employing Yin-Yang O-Hang in technological art;

Through my installation, I have

- demonstrated the impact of applying Yin-Yang O-Hang in technological art;
- represented the harmony of nature and humanity by introducing Korean attitudes toward nature;
- expressed human nature through using natural resources and natural elements;
- placed humanity in nature and technology.
The main concern

This project is about humanity and nature although my artworks employ technology, thus attempting "a naturalisation of technology". Throughout this project, I aimed to bring about a closer relationship between the technological installation and its viewers through the unique aesthetic experience of the artwork produced with the application of the Yin-Yang O-Hang theory.

Methodology

Over the period of study I created a series of installations that could be divided into 3 stages. The installations were exhibited at the University of Western Sydney (Nepean) from December, 1996 to October, 1997.

The installations were composed of video, sound and light that were combined with natural materials and elements such as sands, soil, grass, trees and other natural mixed-media. Man-made products were added, such as plaster, wire netting, fairy lights and so on. Some of these materials were used more than once in different installations to explore their different effects in different technological installation. The technological techniques varied and included video filming, manipulation of video images, and the projection of images onto walls and mixed media environments. Sound effects were created from natural sounds, waves, birds, wind, rain and others, mixed with the sound of Korean instruments and some Korean therapeutic music.
The nation of the silent morning 96-1, 1.
The nation of the silent morning 96-1, 2.
The nation of the silent morning 96-1, 3.
The nation of the silent morning 96-1, 4.
Description

- The nation of the silent morning 96-1

This installation was the initial stage in my Masters project. Therefore, the work focused on making a natural environment in an exhibition space compatible with the philosophy of Yin-Yang O-Hang. In this installation I also aimed to achieve a way of combining technological media and traditional sculptures using realistic figures made of plaster. Moreover, the installation aimed to encourage some viewer participation so that viewers were not only an audience but also an element of the artwork as well.

The artwork was installed in a rectangular shaped room on the Kingswood campus of the University of Western Sydney (Nepean). The room was located to the north west side of the ground floor which had a long narrow passage from the lobby to the front door of the exhibition room. Thus, the exhibition remained unpredictable until people reached its front door.

As people walked along the darker passage toward the room, the sound grew louder as they approached. The sound was planned to make people calm and relaxed. Then, behind the door, a low light could be seen in the ante-room coming from the installation site with some mixed-sounds of birds, waves, wind, instruments and Korean therapeutic music arranged according to the 5 phases of the theory of Yin-Yang O-Hang.
To harmonise with the shape of the rectangular space (wood), the installation was shaped in a circular form (earth). Also, the interior circular path which mirrored the circular form of the installation was created to encourage viewers' participation. Inside the exhibition space, 7 T.V. monitors were located in the centre surrounded by bamboo and figurative plaster fragments. The T.V. monitors were arranged two main sides: one side faced on front door was downward pointing for the feminine side and another was for the masculine side to form an point upwards. Also those monitors were on the other two sides that is the monitors were on all four sides of this media tower.

Those T.V. monitors were playing the one video image although each of the T.V. monitors was adjusted to produce different colours and levels of brightness. The video image showed a day in nature: sunrise, waves, birds, humans, flowers, winds and sunset, then the cycle was repeated as a representation of day and night and more broadly of life. These images were designed to show our friendly environment, which may be forgotten in modern culture. In order to show this, I added some special effects to the edited video film, but the focus was still on showing original natural scenes.

Through the reflecting lights of the T.V. monitors, the plaster fragments were visible on the floor which was covered with sand and bamboo. These square shaped plaster fragments (50 cm x 50 cm) included realistically modeled relief segments of human body shapes, male and female. The plaster fragments symbolised humanity “blocked” by current society and its alienation. Through the installation, audiences were invited to recognise for themselves what they have missed in modern society, like the beauty of nature.
In order to minimise the harmful Ch’i of metal from T.V. monitors and plaster works, several small bamboo plants surrounded this central part of the installation. The four sides of the room were also surrounded with huge bamboo plants forming an oval so that there was a narrow passage in between the bamboo and the central part of the installation, this encouraged participation by viewers. Underneath the bamboo, sand covered fairy lights and sand covered the floor of the space, these lights guided the viewer’s movement inside the installation. In addition, these fairy lights were located to reduce the Ch’i from the T.V. monitors and bamboo. When viewers walked along the passage, they were encouraged to touch and look closely at the installation, and could hear the sounds of bamboo and sand, which occurred by their footsteps, mixed with the natural sounds of music described earlier.
• The nation of the silent morning 97-1, 1.
The nation of the silent morning 97-1, 2.
- The nation of the silent morning 97-1, 3.
The nation of the silent morning 97-1, 4.
Description

- The nation of the silent morning 97-1

This installation was the second step in my Masters project. This work was in principle concerned with achieving greater participation of viewers and developing more effective techniques for “naturalising” technology in art through applying the theory of Yin-Yang O-Hang. In this installation I used realistic figures and natural materials and forms which were then mediated by technology.

The installation was set up in a rectangular shaped room in a small cottage at the Kingswood campus of the University. Thanks to the location of the cottage, people had to climb a small hill to reach it. While people were climbing, however, they could hear sounds of birds, waves and Korean therapeutic music. When people came inside, the sounds and music were a welcoming introduction to the exhibition. These sounds induced a calm and relaxed mood in the audience.

After their eyes adjusted to the darkness of the room, they could see six realistic human figures made from wire net shining with the reflected light from a video-projector. In order to increase the effects of light and video art, a video projector was used to achieve 2 purposes: producing a realistic image and creating a holographic effect with 7 rainbow colours. Also, the aerial space and some parts of the walls in the dark room acted as screens for the video images projected by a video-projector.
The space had one large room and another small one on the southern side. These rooms were linked by a large doorway like a proscenium arch. It was through this opening that I projected the video image onto the southern wall so that it became the main screen for the whole installation. Likewise, a video projector was located on an opposite side of the space, and produced the video images projected towards two parallel walls. In front of the double walls, the six realistic human figures built with wire netting were situated on the floor facing a video projector. These figures, their mounds, the sand and group formed a triangle, which moved from the small space into the larger one.

Underneath the realistic figures, pampas grass and sand covered the floor together with the fairly lights. These figures and the grass shined with several colours due to the reflection of the video lights. Using the figures of middle aged people, I wanted to show the struggle in life through the truncated human body forms. These symbolised the nature of human life in modern society, constrained and limited by its lack of humanity.

Again, the installation focused on using natural materials combined with technology. The natural materials consisted of pampas grass (wood) and sand (earth) which surrounded the whole installation, restraining the strong characteristics of the realistic figures (wire netting (metal)), according to the philosophy of Yin-Yang O-Hang. Also, the triangular form of the installation (fire) was used to harmonise with the rectangular space (wood) and materials (earth and metal).
* The nation of the silent morning 97-2, 1.
• The nation of the silent morning 97-2, 2.
The nation of the silent morning 97-2, 3.
The nation of the silent morning 97-2, 4.
Description

* The nation of the silent morning 97-2

This installation was the third stage in my Masters project in relation to the employment of the theory of Yin-Yang O-Hang in technological art. It was also concerned with "naturalising" technology in the artwork. The installation also focused on making the environment of an art space more natural, intimate and relaxed for its viewers.

The installation was set up in the same cottage as the second show at the Kingswood campus of the UWS. For this installation, I mainly focused on the sound effects which could suggest my main concepts. Using different levels and tones of bird sounds, I explored various struggles in life (war, death, hunger, Fascism and disease). This is a different side of reality to that explored in the previous installation (peace, love, beauty and sweetness in human life).

When people came inside the exhibition space, the strong sound of birds was a welcoming introduction to the exhibition. After their eyes adjusted to the darkness of the room, they could see several lights on the ceiling and a shining realistic human figure on the floor. It faced towards the wall located at the northern end of the room beside the entrance. This figure was seated at the centre of the room. Around the human figure, several bamboo plants and pampas grass were ranged to reduce the metallic Ch'i of wire netting, and to reflect light from the video projector.
At the opposite side of the room (the southern side), a video projector was producing an image which contained scenes of hunger, war, terror, nuclear bombs and fascism, simultaneously with the scene of birds around water. Underneath the wall which received the projected images, pampas grass was set up not only to harmonise with the bamboo and the grass behind the human figure, but also to restrain the metallic Ch'i of electronics, the video projector and fairy lights.

The video projector also served two purposes: it produced the main concept of the artwork through video images and created a holographic effect on the human figure with seven rainbow colours. Moreover, the space and the whole room were part of the installation. In order to make the whole space of the room active, the floor was completely covered with sand so that people became aware of their walking mixed with the sound of the video.
Review

Through the investigation, I have principally focused on the appropriate use of materials and methods to make the environment of a technological art space harmonious and more natural. Specifically, the Ch'\text{ii} of each material for the artwork was my main consideration. Also, I have tried to use friendly natural resources and the technology which surrounds our environment for the installations so that viewers may feel very intimate and comfortable.

In addition, the combination of realistic sculpture and technology was also one of my challenges to find out a way of combining different kinds of techniques and methods in an artwork, and making an harmonious art environment. The above mentioned challenges were fundamentally resolved through the consideration of the theory of Yin-Yang O-Hang.

As a result, I have found that viewers have responded very positively to my investigation with more interactive attitudes to my technological installations. In naturalising the art environment consistent with the theory of Yin-Yang O-Hang, I have seen that viewers can feel more intimate and friendly to technological artwork, permitting the development of a positive relationship between technological art and its viewers.
Post Script

When I think about the last 3 years in Australia, it is difficult to believe how I have endured such a tough and hard time, so, I just smile alone. Three years ago, I arrived in Australia just 2 days after my marriage ceremony. It was the choice of my husband to come to Australia so that I just had to follow his decision without any idea about Australia. However, I am now really grateful for studying in Australia because I have learnt so many things here.

Before coming to Australia, I used to produce realistic sculptures with traditional methods and materials such as clay, bronze, plaster and fiber glass. At that time, those were my only methods for expression, even though I have been trying to develop better methods to express what I wanted to show, and also to be closer to my viewers through sharing the aesthetics of my artworks. Therefore, my works were strictly limited to traditional expression and thoughts, although I have been awarded several times. I thought that, as an artist, I should not just follow in the footsteps of previous artists.

Since I arrived in Australia, I have seen a lot of artworks which have employed various technological methods. This experience gave me an idea that there are plenty of methods and materials for better expression, ones I had never thought could be used in art.
However, the question occurred to me: why is technological art so unfamiliar to average people even though technology has been around us for a long time? Due to this question, I have been investigating the relationship between technology and humans in art. While I was researching the fundamental reason, I have found that there is a lack of humanistic feeling in technology. Thus, I began focusing on this point, and tried to find out how to overcome the negative aspects of technological art. Finally one day, I turned my sight to the Asian view of nature, that all creatures in nature follow the rule of Yin-Yang O-Hang. Soon, I started to investigate the possibility of applying aspects of Yin-Yang O-Hang to nature and humans in technological art.

Consequently I decided to apply for entry to the MA (Hons) course at the UWS (Nepean) because of the great facilities and staff at the university that could make my investigation possible. It was very difficult to acquire technological skills to be able to manage my investigation in such a short period of time: one year and six months. However, it was great fun and an opportunity I have never had before.

Now, I am standing for the final examination, and looking back over the last three years in Australia. I think I am the luckiest person in the world right now because I have had a great time with good people who have really been concerned with and guided me.
Bibliography


Appendix

Traditional Applications of Yin-Yang O-Hang

Feng-Shui

Feng-Shui, one of the most important applications of the Yin-Yang theory, is a combination of the words “feng: wind, and shui: water”, having its theoretical basis derived from the concept of Ch’i. The major concept in applying Feng Shui is to create a good place or better environment surrounding people and to be able to provide better balanced lives for people in their career, wealth, health, relationships.

The early feng shui concepts were derived from the belief in the afterlife of the ancestors of the Chinese. The Chinese have believed that if their ancestors could be buried in an auspicious place, they themselves could have good lives and fortune during their lives. Because of this concern, the Chinese have developed manuals on the theory of Yin-Yang O-Hang for a careful selection of a site for human dwellings, where the earth is least hurt and with consideration for the surrounding conditions of nature, and where cosmic Ch’i accumulates.

Also, the Chinese believe that there are good places for living as well as for the world beyond. Hence, the Chinese have defined the place for a dead man as the Yin site and the place for living as the Yang site, however, both the Yin and Yang

sites can be changed according to the situation and purpose. Specifically, houses and villages should be surrounded with mountains to the right [White Tiger] and left [Black Turtle] with a river in front of those as well as producing for the rule of the site of the graves. These factors - White Tiger, Black Turtle, Water and Azure Dragon - are supposed to protect them from bad luck and possible dangers. Moreover, these factors are also applied to the interior of the dwelling house, for instance, to the location of furniture and rooms, the site for windows and doors, and even the direction for sleeping.

However, the effects of the adjustment of a site and directions of furniture and rooms can be changed according to the human Ch’i; whether the person has a Ch’i of Yang or Yin, and the external environment of the house; its location, direction and outer environment 64.

As can be seen from figure 8, not only adjusting a site or direction of interior furniture, there is another way of adjusting the Ch’i of a house from the bad Ch’i of the outer environment using plants.

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FIGURE 8. The adjustment the Ch'i of a house in relation to the inner and outer environment using plants. (Birdsall, 1995, p56)

Not only the geographical concerns of a house, but the concepts of Feng-shui can be applied to the inner site of a house indicating a good place for relationships, wealth, health, and negative sites in relation to the location of a front door. However, it is also important to consider any existing remedies and effects from the flow of Ch'i from the outer environment.

FIGURE 9. The key concepts of Feng-Shui and inner space (Birdsall, 1995, pp70-78)

Taoism

The first person who claimed to have developed the theory of human nature and natural laws, Sung Confucianism, was Ju-Liam-Gae in the Sang Dynasty⁶⁶. Taoism, so called naturalism, unites the natural process of the movement of Yin and Yang, the eternal rhythm of the universe with "the way of man"⁶⁷.

The Taoists believe that man was originally influenced by the cosmos, "its topographical permutations", and "its passages of time"⁶⁸. Thus, the Taoists place man in nature as being like a drop of water in a flowing stream. The concerns of the Chinese in the theory of Yin-Yang O-Hang can be easily seen in the Chinese concept of manipulating the relation between man and nature, earth and heaven. Sarah Rossbach makes the point as follows:

"The Chinese saw a marginal link between man and the landscape: Nature reacts to any change and that reaction resounds in man. They saw the world and themselves as part of a sacred metabolic system. Everything pulsed with life. Everything depended on everything else" ⁶⁹.

Similar intuitive feelings about nature occur in other cultures such as the Hawaiian Kahunas, American Indians and Australian Aborigines ⁷⁰. Tao is actually a sense of wholeness in the movement of Yin-Yang O-Hang.

I Ching

The I Ching is a Chinese system of divination or advice, similar to tarot cards, runes, or American Indian cards. It seeks to guide people to their right destination and future. Thus, the I Ching mainly discusses the conduct of humans in real life, and is based on the eight trigrams of the Early Lo Map formulated by Fu Hsi so that the interpretation of I Ching is symbolised with numbers.

The fundamental concern of the I Ching is that each person has the four pillars for the year, month, day and hour of one’s birth, according to the rule of nature since that person’s birth. These four pillars are supposed to have influence not only upon one’s fortune but also upon one’s destiny in life such as one’s emotional character, inherited fortune and character from one’s ancestors, promotion in work, partner for marriage, fortune to descendants and one’s place in the world beyond.

However, even if one’s fortune has been already decided at birth, there are many solutions to change one’s destiny. For instance, becoming a well balanced person, beneficial arrangement of furniture, having a good site for dwellings and graves, a good choice of colours of clothes, and more importantly good thoughts, can help to change one’s destiny. In reality, there are divisions between the I Ching practitioners and the feng shui practitioners, even though the main purposes of both practitioners are the same.

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The I Ching practitioners have been crucial in deciding on right actions, whether it is moving into a house or an office, a good site for a grave and the right time for a funeral, or marriage. The Chinese would not even hold press conferences, break ground for buildings, or travel abroad unless the moment is propitious. Also, to make sure of the correct day and hour for an event, the Chinese throughout Asia either consult with an I Ching man or fortune-teller to pursue getting a good fortune for the future. Those consultants emphasise the need for a correct reading because of the I Ching’s unique and complex system.

Dowsing

The art of dowsing has been used in the world for thousands of years. Dowsing has been used to discover the presence of underground water or minerals.

At first, dowsing practitioners aimed to find minerals or underground water because of the shortages of water in particular areas of the ancient world. However, it is not only for water supplies that dowsing practitioners have been looking for the root of water underneath houses and buildings but also to prevent health risks to people from wrong sites of rooms, houses and buildings.

Nowadays, medical scientists have also investigated the relationship between underwater and human health. In fact, dowsing is focused on the use of the interaction of the human Ch’i and the Ch’i of earth.

References


YIN-YANG O-HANG
AND
TECHNOLOGICAL ART

KYUNG-AH KIM

Master of Arts (Hons)

November, 1997

University of Western Sydney,
Nepean
PLEASE NOTE

The greatest amount of care has been taken while scanning this thesis,

and the best possible result has been obtained.
DECLARATION

I, Kyung-ah Kim, declare that the following thesis Yin-Yang O-Hang and Technological Art has neither in whole nor part been submitted for a higher degree to any other institution.

Signed

[Signature]

Kyung-ah Kim

Dated 30, November, 1999
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Abstract

This research aims to suggest a means of creating a closer relationship between technological artwork and its viewers through applying "naturalising" technology in art using the theory of Yin-Yang O-Hang.

Even if technological artworks have been popular in recent times, they have had limited success in getting closer to audiences in order to share their unique art experiences due to the metallic and artificial characteristics of the technology. Furthermore, sometimes technology overtakes artists' concepts and the aesthetics of the art work: In other words, people just see the technical advances without paying attention to the real aesthetics of artworks.

I have raised the questions:
- what are the vital factors of technological artworks?
- what sorts of methods can make using technology in arts more effective?
- how to overcome the difficulties in getting an intimate relationship between viewers and technological artworks?

In order to optimise the aesthetic use of technology in art, the research is thus focused on "naturalising" technology as a possible solution to overcome the negative aspects of technological artworks through the application of the theory of Yin-Yang O-Hang.
Contrary to the characteristics of technology, metallic and artificial, the theory of Yin-Yang O-Hang is mainly concerned with the interrelationship of all creatures in nature, the relationship of nature and humanity, and further, the relationship of the natural environment and man-made products. Therefore, it is useful to investigate technological art in terms of the theory of Yin-Yang O-Hang.

Through this research I have discussed the fundamental concerns of the theory of Yin-Yang O-Hang and its applications in Western and Eastern art. Furthermore, in investigating a number of artworks, I have explored the trends in technological art which are compatible with nature and humanity and tried to find a way of applying the theory of Yin-Yang O-Hang to make technological art more intimate and accessible to viewers. Finally, my personal investigation using the theory of Yin-Yang O-Hang in a number of technological installations is presented and discussed.
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- Figure 7. Correspondence of the Four emblems in Nature and Architecture

- Figure 8. The adjustment the Ch'i of a house in relation to the inner and outer environment using plants.

- Figure 9. The key concepts of Feng-Shui and inner space

- The nation of the silent morning 96-1 (Photo) 29-32

- The nation of the silent morning 97-1 (Photo) 36-39

- The nation of the silent morning 97-2 (Photo) 42-45